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# Employee Voice and Private Sector Workplace Outcomes in Britain, 1980-2004

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**Abstract**
Non-union direct voice has replaced union representative voice as the primary avenue for employee voice in the British private sector. This paper provides a framework for examining the relationship between employee voice and workplace outcomes that explains this development. As exit-voice theory predicts, voice is associated with lower voluntary turnover, especially in the case of union voice. Union voice is also associated with greater workplace conflict and poorer productivity. Non-union voice is associated with better workplace financial performance than other voice regimes.

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## 1. Introduction

In the last quarter century, there has been a dramatic shift in the forms of employee voice used in British private sector workplaces, with non-union voice growing at the expense of union voice. During this period there was virtually no statute constraining employers' choice of voice. For instance, there was no national statutory works council system in place[1] and, unlike the USA[2], British employers were free to combine union voice with various forms of non-union voice, in what has been termed 'dual channel voice' (Millward et al., 2000). In this paper, we look at the choices made by private sector employers, rather than those in the public sector where public policy considerations may have been influential, and examine the effects on workplaces.

The point of departure is the identification of the full set of voice options that exist within workplaces, not just union voice. Particular attention is paid to *direct voice* and *representative voice* and their association with workplace outcomes. Theory predicts that representative voice, particularly union voice, will be associated with lower quits and potentially with greater industrial action. However, non-union voice, particularly direct voice, may elicit greater labor productivity and better financial performance. The paper identifies independent associations between workplace voice regimes and workplace outcomes controlling for other covariates, thus testing whether the descriptive relations obtained for voice can be identified in a multivariate context.

The structure of the paper is as follows. Section 2 documents change in voice regimes in private sector workplaces over the period 1980-2004. It also identifies their association with workplace performance outcomes that, either directly or indirectly, enter into the cost-

[1] In April 2005 the Information and Consultation of Employees Regulations 2004 came into effect, introducing into UK law the right for employees to require their employers to negotiate about information and consultation arrangements. Employees can now require their employer to set up arrangements in which employers must consult on an ongoing basis. From April 2007, undertakings with at least 100 employees in the UK could be asked to put in place information and consultation arrangements.

benefit decision of the firm. Our data are the British Workplace Employment Relations Surveys (WERS) for 1980, 1984, 1990, 1998 and 2004[3]. Section 3 presents the theory linking forms of voice and workplace outcomes. Section 4 describes our empirical specifications and how they relate to our hypotheses. Section 5 presents our results and Section 6 concludes.

## 2. Patterns of Voice Provision

We define voice as any formal mechanism for two-way communication between management and workers. We distinguish voice *regimes* and voice *types.* A voice *regime* refers to the mix between union and non-union voice; regimes can take on union and non-union forms and combinations thereof. Voice can also be decomposed into representative and direct voice *types*. Union voice is always a representative type. Non-union voice can take on both representative (such as independent works councils or joint consultative committees) and direct forms (such as team briefings with no intermediary management). Regimes and types may mix at establishment level; for example, dual channel voice mixes union and non-union forms and may mix direct and representative types. We also identify no voice workplaces in which two-way communication mechanisms are absent. We turn to a description of the coverage of these categories.

### *2.1 Voice*

The first two rows of Table 1 display the evolution of voice and no-voice workplaces in Britain for the private sector. While the proportion of workplaces with voice increased from about 76 percent in 1984 to 82 percent in 2004, there was little change in the interim period.

[2] Le Roy(2006) documents how the Wagner Act has been interpreted as not allowing any other form of representation at the workplace other than union forms.
[3] Data for 1980 are confined to representative voice so they only appear in Table 2. The remainder of the paper uses data for 1984-2004.

The no-voice rate between 1984 and 1998 remained constant at about 25 percent; it fell to 18 percent in 2004.

*2.2 Voice Regimes*

Figure 1 and the last four rows (rows 3 to 6) of Table 1 demonstrate the growing share of non-union only voice over the period 1984 to 2004. The most common form of voice at the start of period was dual channel at 30 percent. By the end of the period, non-union only voice constituted 56 percent of all private sector workplace voice regimes in Britain. This stands in sharp contrast with the declines in union only voice (18 percent to 4 percent between 1984 and 2004) and dual channel voice (30 percent to 19 percent over the same period).

While the *scale* of the decline in private sector union voice is by now well-documented (in the form of falling union density and representation figures), the *scope* of the decline is often overlooked. By scope we mean the multiple dimensions in which union decline has been manifest beyond just membership decreases. In Figure 2 we see that whereas almost 60 percent of private sector workplaces had at least some union members at the start of the period, union presence dropped dramatically in the mid- to late-1980s. It has continued to fall reaching 37 percent in 2004. On-site union lay representation declined continuously, falling from 38 percent in 1980 to 13 percent in 2004 (Table 2 last row), suggesting a loss of unions' ability to represent workers effectively even where unions continue to be recognised by the employer (Willman and Bryson, 2009). Finally, we see a fall in union recognition from 50 to 22 percent in 24 years.

*2.3 Voice Types*

The incidence of voice types has also changed. While many authors have estimated the decline in the unionisation rate (Machin and Wood, 2005), few have considered the changing nature of non-union voice, in particular the growth of direct forms of voice.

From Figure 3 and Table 2, we see that the decline in representative voice was more general, extending to its non-union forms. For instance, the percentage of workplaces with a functioning joint consultative committee (JCC) meeting once a month fell from 26 percent to 15 percent by the end of the period. Though there was a small increase in non-union representatives at the workplace, the decline in JCC's suggests that representative voice -- in both its union and non-union forms -- suffered a substantial decline in the private sector from 1984 to 2004.

By contrast, direct voice types have been either constant or increasing in coverage since 1984. The incidence of team briefings has more than doubled (31 percent at the start of the period rising to 70 by the end of the period). Regular meetings with senior management became more prevalent over the period 1984-1990 and have stabilised since.[4] On the whole, however, the decline in JCC's has been gradual in the private sector whereas the incidence of direct voice rose dramatically.

*2.4 Summary*

In summary, voice coverage is as extensive in 2004 as 1984, but both voice regimes and voice types have changed substantially over the same period. These changes and their relations to workplace outcomes are the focus of this paper.

Theories of union decline in Britain have often focused on employer opposition, macro-economic environment (high-unemployment in the 1980s to early 1990s period and

low inflation) and politics (an unfavourable legislative and social climate over the period prior to New Labour's election in 1997). These theories are better at explaining decline in this period than the subsequent failure of revitalisation (Kelly, 1998; Metcalf, 2005).

However, we argue above that unionisation changes may be part of a broader pattern of change in voice mechanisms. Section Two suggests that direct voice may be replacing representative voice in the private sector, whether that representative voice is union or not. Examining why direct forms of voice have replaced representative forms could hold the key to understanding union decline.

## 3. Employee Voice and Workplace Outcomes: A Conceptual Framework

By 2004, the primary suppliers of workplace voice in Britain were employers. In a voluntarist environment such as Britain, this shift suggests first, that voice provides benefits to employers and, second, that the returns to different voice regimes and types for employers were changing. If some voice regimes and types are associated with "better" outcomes such as higher labor productivity, then workplaces may, over time, substitute "successful" voice for "unsuccessful" voice. We adopt a simple cost-benefit approach in which the adoption of any voice regime or type is based on positive net benefits, and the choice of a particular voice regime or type is based on comparative performance[5]. Benefits can relate to outcomes at the workplace, such as employee turnover or labor productivity that might be linked to the presence (or absence) of voice.

[4] The time-series on problem-solving groups is problematic because questions are not consistent over the years. Efforts to construct a more consistent series for the period 1998-2004 suggest modest growth in their use over the period (Kersley et al., 2006: 93-94).

[5] A similar model was formally presented in Willman et al (2007). In other work, the possibility of evolutionary and path dependent processes, in which net-benefits are not necessarily the only determinant of voice adoption—are also considered (Bryson et al., 2007).

The precedent for this approach is Freeman and Medoff (1984) who empirically tested theoretical propositions about the relations between union voice and five workplace outcomes:

- Profitability;
- Labor productivity;
- Labor turnover;
- Industrial action
- The climate of industrial relations.

They demonstrated that, during the 1970s and early 1980s in the USA, workplaces with unions tended to have lower quit rates, higher productivity, and more labor unrest than non-unionised firms. A recent review of union effects reaffirmed their findings (Bennett and Kaufman, 2007), although the links between unions and labor productivity remain contested (Black and Lynch, 2004).

Interpreting union effects is complicated because, as Freeman and Medoff stress, unions have two faces: their 'voice' and 'monopoly' faces. Whilst these two faces are not easy to disentangle conceptually or practically, we are primarily concerned in this paper with the effects of any voice relative to no voice, and with union voice relative to other voice regimes. There is very little empirical or theoretical research on the impacts of different voice regimes (i.e., union vs. non-union) on workplace-level outcomes, even less on voice types (i.e., direct vs. representative). The empirical work that has been undertaken tends to focus on outcomes for workers, and indicates that there are substantial benefits accruing to workers from non-union voice (Bryson, 2004).

Since we view voice as an investment in workers by firms, we should be able to see returns to that investment relative to no voice, at least among 'like' workplaces that are observationally equivalent. Second, following Hirschman (1970), we anticipate that union

voice is associated with lower quits than other voice types because, as a collective organization which is independent of management and encourages investment in public goods, it has a higher capacity to resolve worker grievances than employer-generated voice.[6] Third, by the same token, we anticipate that union voice is associated with more industrial action than other forms of voice, partly because reducing voluntary quits increases the stock of dissatisfied workers, and partly because unions use dissatisfaction in the bargaining process in what Freeman and Medoff (1984: 142) term "voice-induced complaining".

## 4. Interpretations of Voice and Workplace Outcomes

In this section, we specify the expected direction of the voice and outcome variable relations and describe the form of the exit-voice model suitable for empirical testing.

### *4.1 Worker Exit and Voice Regimes*

The exit-voice hypothesis is based on the idea that displeasure in the quality of a transaction or market relationship can be resolved by either the market mechanism (i.e., exiting, switching to an alternative supplier) or the political avenue of communicating (i.e., voicing) one's displeasure over diminished quality. The exercise of voice is likely to lead to less switching just as a system of voice is more likely to emerge when switching (exiting) is costly. The presence of voice in both instances lowers the likelihood of exit.

The extent of voluntary labor turnover (i.e., quits) in a given workplace is therefore determined, in part, by the presence of a voice regime at the workplace and a set of controls that may also influence levels of workforce turnover independently of voice. With a standard equation (in which turnover functions as our workplace outcome variable) the voluntary turnover rate ($LT$) is:

[6] According to Freeman and Medoff (1984: 8–9): "Without a collective organization, the incentive for the individual to take into account the effects of his or her actions on others, or to express his or her preferences, or invest time and money in changing conditions, is likely to be too small to spur action."

[1] $$LT_{it} = a_{it} + b_1 V_{it} + b_2 X_{it} + e.$$

Here $a$ is the baseline turnover rate for workplace $i$ at time $t$, $V$ is the voice variable that in all specifications is categorical and has as the omitted reference category 'no-voice' and can be run in two specifications in which the voice categories are either the three voice regimes (union, non-union and dual) or voice types (direct, representative, direct and representative), $X$ is the vector of control variables that includes observable workplace characteristics such as industry, region, foreign ownership, age of establishment, single establishment status, workforce composition (percentage of females, non-manuals and part-timers), and workplace size.

Focusing on $V$ as our voice variable we can deduce some expected signs of the co-efficient(s) with respect to quit rates. All voice categories are expected to have negative coefficients, $b_1<0$ with respect to our excluded reference category (no voice) as a workplace with voice is expected to display lower exit than a workplace without. Across $V$ categories, however, we would expect the strength of this association to vary systematically by the 'strength' of voice.

Voice that contains a recognised union is more difficult for a firm to jettison (short of workplace closure). In addition, the collective and independent nature of union voice is required in the provision of public goods to union members. As such, union forms of voice (both union only and dual forms) will likely display the lowest turnover rates whereas the forms of voice with no union presence are less likely to be as embedded and provide as many public goods, and hence less likely to reduce turnover (at least relative to union voice).[7] The exit-voice hypothesis therefore implies that i) the presence of voice is likely to lead to less

exit and that ii) stronger forms of voice (i.e. those more embedded within a workplace) will be associated with relatively lower voluntary exit. As dual voice contains both union and non-union voice side-by-side, it seems the least likely form of voice to be jettisoned by a firm and hence the most likely to encourage problem solving within the workplace rather than through exit. Our expected ranking of voice coefficients is therefore:

[2] $$LT_{it} = b_1 [(Dual\ Voice < Union\ Voice < Non\text{-}Union\ Voice)_{it} < (No\ Voice)_{it}].$$

We also expect this relation to be fairly robust over time unless laws governing employment separation are somehow made more or/less restrictive. This may not be the case with respect to other workplace outcomes discussed below.

*4.2 Other Workplace Outcome Hypotheses*

**Industrial Climate and Industrial Action**. Just as the exit-voice hypothesis predicts a positive association between lower labor turnover and more embedded forms of voice, so it implies a positive association with industrial action and poor perceptions of workplace climate. As Freeman and Medoff noted, it is precisely because unions solve problems inside the workplace -- grievances are mitigated inside the workplace rather than through 'natural turnover' -- that they are associated with more conflict ridden workplaces.

This is to be expected since the lack of voice encourages exit, and the exit option reduces observed conflict inside the workplace. Unlike exit-voice, our climate and conflict measures will be more directly affected by legislation (e.g., laws preventing work stoppage in certain industries would lower measures of conflict such as strikes despite voice presence) and other external changes to the labor market (e.g., rising prices that could fuel demands for

[7] These observations are not surprising given the nature of union membership and its continued association with a wage premium (Blanchflower and Bryson, 2007), structured promotional opportunities, greater on the job training and seniority rules that encourage longer tenure.

higher wages). Hence we would not expect these outcomes to be as stable as labor turnover in their coefficient estimates year-to-year. To allow for this we estimate both climate (*CL*) and industrial action (*IA*) separately as in equation (1):

[3] $$CL_{it} = a_{it} + b_1 V_{it} + b_2 X_{it} + e$$

and,

[4] $$IA_{it} = a_{it} + b_1 V_{it} + b_2 X_{it} + e.$$

This formulation in eq. [4] for industrial action would have the opposite sign expectation(s) to our exit measure.

The effects of voice versus no voice workplaces in terms of climate (CL) may not be so clear. On the one hand *no voice* may well engender worse feelings than any voice, but at the same time it could increase exit even more so as to offset any declines in workplace climate. Thus we expect our voice regime coefficients with respect to industrial action to be:

[5] $$IA_{it} = b_1 [(Union\ Voice > Dual\ Voice > Non\text{-}Union\ Voice_{it} >=) > (No\ Voice)_{it}],$$

For climate we see the patterns as similar but are not as ready to ascribe such a strong prediction. Equation [5] provides a complementary test of the exit-voice model.

**Labor productivity**. Voice mitigates exit and increases the incentive to invest in a workforce since its tenure is more easily prolonged. Traditional models of on-the-job training (OJT) assume that underinvestment in training comes from moral hazard problems for both

employer and employee. On the employer side, the fear is that after a period of training, the worker's value relative to the external market rises and results in (voluntary) exit from the firm. From the worker's perspective, the investment in OJT is usually accompanied by an initial period of underpayment with respect to productivity (as the employer and employee share the cost of training in the form of lower wages) and hence the danger is that the worker never gets to recoup his or her investment in OJT since the employer reneges on the worker by sacking her once productivity falls below the wage-premium needed to recoup underpayments in the earlier period.

Employee voice may prevent this dual moral hazard problem and reduce separation (either by the worker or the firm). It should therefore raise productivity for the firm's workforce. We therefore have a clear prediction that voice should foster greater labor productivity than no voice. However, across voice regimes, differences may arise. Since the stronger or more embedded forms of voice, such as union representative voice, often impose restrictions on what management can or cannot do, there is likely some benefit to a firm that can establish its own brand of voice (typically direct) with or without union influence.

The possible value of direct voice over union voice when it comes to productivity is summarised by theorists of 'high involvement' and 'high performance' HRM, who have traditionally argued that direct forms of employee communication are superior to traditional collective bargaining, so by extension it is more likely to boost productivity (Lawler, 1986; Peters, 1988; Pfeffer, 1994; Storey, 1992). Their reasoning is that voice through representatives can be inefficient because representatives act as a barrier between management and workforce. Further, the workforce is likely to have diverse wishes, needs and ideas which may not be fully represented through collective channels, where the concerns of the median worker are most likely to be represented. Direct voice allows management to

respond better to these diverse concerns, thereby eliciting more cooperation and commitment from employees.

To understand this interpretation we can refer once again to our simple version of equation (1) above where labor productivity (*LP*) replaces turnover and:

[6] $$LP_{it} = a_{it} + b_1 V_{it} + b_2 X_{it} + e$$

is expected to yield a positive co-efficient $b_1 > 0$ for all voice types relative to no-voice.

When we look at all the categories of voice, however, the order of voice coefficients would be expected to follow:

[7] $$LP_{it} = b_1 [(\text{Non-Union Voice} > \text{Dual Voice} > \text{Union Voice} >)_{it} > (\text{No Voice})_{it}],$$

where the forms of voice that reduce exit but also allow for more managerial experimentation and discretion may raise labor productivity the most.

**Financial performance**. This is perhaps the most ambiguous of workplace outcomes in relation to voice for two reasons. First, voice entails an upfront investment and on-going governance cost, which only firms with financial ability will be able to pay, implying that the relation between financial performance and voice could be two-way (i.e. financially secure firms invest in voice, or vice versa) (Metcalf, 2003). Second, regardless of the specific causal linkages, in equilibrium, we would expect that workplaces should have optimally sorted themselves such that the returns to whatever particular voice regime chosen would yield the same net benefits. This means that in equilibrium, we should observe very little variation in financial performance across workplaces with respect to the presence or absence of voice.

This is because workplaces where voice is not likely to emerge exist either because the nature of work is routinized or a host of other observed (and unobserved) factors do not warrant its formation. If these workplaces therefore *choose* the no-voice outcome, they are in an 'no-voice equilibrium' where the lack of investment in a voice regime balances out the lower productivity and higher turnover of labor. Similarly, if there are firms that require voice because the size of establishment is such that it generates a need for more complicated governance structures, then we would observe the investments in voice provision (bargaining costs, the managerial and employee time involved in hearing from workers and forming committees etc.) to be compensated for by lower turnover and greater effort from workers.

On the other hand, to the extent that voice may not be an 'unconstrained choice' and is instead a technique (akin to a technical innovation) that requires skill and administration to master or is imposed (in the case of a unionisation drive opposed by management) on a firm or a workforce, we will see that the 'true benefits' (or the true costs) of voice emerge in the form of better (worse) financial performance. To understand this interpretation we run a final estimation of financial performance (*FP*) as (1) above:

[8] $$FP_{it} = a_{it} + b_1 V_{it} + b_2 X_{it} + e,$$

where we expect our test of voice equilibrium to be either zero with the equality of all voice coefficients, including no-voice (i.e., if the system of employee voice-choice in Britain over the period 1984-2004 was in equilibrium)

[9.1] $$FP_{it} = b_1 [(Union\ Voice = Dual\ Voice = Non\text{-}Union\ Voice)_{it} = (No\ Voice)_{it}],$$

or, if in disequilibrium, a positive or negative direction of effects in particular periods will emerge across different voice regimes. The only clue we have as to which form(s) of voice may provide the greatest net-returns has been the spectacular rise in non-union direct forms of voice over the past 20 years in Britain. So we expect the positive relations to follow the following rank order:

[9.2] $$FP_{it} = b_1 [(Non\text{-}Union\ Voice > Dual\ Voice > Union\ Voice >)_{it} > (No\ Voice)_{it}].$$

Just as exit-voice is a hypothesis that provides for an unambiguous (negative) time invariant interpretation for the effect of voice on exit, so the test of equilibrium or disequilibrium in voice provision should provide an interpretation of the effect of voice and voice regimes on financial performance.

**5. Estimated Voice and Workplace Outcome Equations**

We present empirical evidence on associations between voice and the five workplace outcomes described above. We then, in turn, comment on whether the results are consistent with what we know about features of the exit-voice hypothesis. The results are based on pooled and separate year regressions that control for single-digit industry, region, foreign ownership, age of establishment, single establishment, workforce composition (percentage of females, non-manuals and part-timers), and workplace size. Throughout, our voice regime and voice type categories are those of Table 1 and Table 2.

The empirical analysis identifies independent associations between voice regimes and workplace outcomes. Multivariate analyses imply that we are comparing those associations across observationally equivalent workplaces. The outcome measures for workplaces are: quits, industrial action, industrial climate, financial performance, and labor productivity. We

test for the statistical significance of differences across our four voice regimes (no voice; union only voice; dual voice; and union only voice) in relation to outcome measures, as well as the joint significance of the voice coefficients. Our aim is to see what associations, if any, emerge between voice regimes and these outcomes.

*5.1 Data and Measures*

The models for each of the five outcomes take the same form as equation [1]. Our data are the Workplace Employment Relations Surveys (WERS) which, with sample weighting, are nationally representative surveys of British workplaces conducted in 1980, 1984, 1990, 1998 and 2004.[8] Data are collected from managers responsible for employment relations at the workplace. There is a lower size threshold of 25 employees. We drop observations with missing data and confine all analyses to workplaces in the private sector. All observations are weighted by the inverse of the workplace's probability of selection for the survey. Details about the data measures and collection can be found in Appendix 1.

Table 3 presents descriptive information on the relationship between voice regimes and the five workplace outcomes. We comment on these results alongside the multivariate analyses presented below in Tables 4 and 5.

*5.2 Estimated Exit-Voice Relations*

WERS records quit rates since 1990, measured as the percent of employees who resigned or left in the previous year. Panel A of Table 3 shows that quit rates were lowest in workplaces with some union voice, a result that persists throughout the period. [9] In 1990 the regime with the lowest quit rates was union-only voice. However, quit rates rose in these workplaces

[8] For further information on WERS see Millward, et al. (2000); Kersley, et al. (2006) and http://www.wers2004.info/

[9] We have removed outliers with quit rates greater than 110% but their inclusion does not change the results appreciably.

through to 2004, whereas they fell in dual channel workplaces such that, at the end of the period, quit rates were lowest in dual channel workplaces. Contrary to expectations, quit rates were higher in non-union only voice workplaces than they were in no voice workplaces, although their quit rates had converged by 2004.

To establish whether voice regimes had an independent association with quit rates we ran regression analyses controlling for workplace characteristics. The results are in Panel A of Table 4.

They confirm the descriptive results. In the pooled years regressions both union regimes had significantly lower quit rates than non-union only and no voice regimes. In the single year regressions only dual channel voice is significantly associated with lower quits than the no voice regime. Relative to non-union voice only, both union only and dual channel voice regimes were associated with lower quit rates in the pooled years' regression analysis and for separate year regressions in 1990 and 1998, though in 2004 it is only true for dual channel versus non-union only voice. The general pattern, despite some year-to-year variation, is that union voice variables are negatively related to quit rates in the British private sector.

In Panel A of Table 5, a similar pattern emerges with respect to representative versus direct forms of voice. Although no type consistently outperforms no voice, representative voice has consistently lower quit rates compared to direct voice; these differences are usually statistically significant in both the pooled and specific year regressions. It appears that more embedded voice is associated with fewer quits.

*5.3 Estimated Industrial Climate and Industrial Action*

In WERS, managers are asked "how would you rate the relationship between management and employees generally at this workplace?" Subjective ratings range from "very poor" to

"very good". Descriptive analysis in Panel B of Table 3 reveals that the percentage of workplaces reporting 'very good' climate tends to be higher with non-union voice and is poorest in union-only workplaces (as expected under our corollary of the exit-voice hypothesis). Also, consistent with expectations, non-union only voice is associated with the best perceptions of climate although, as the last column of Table 3 indicates, climate in these workplaces has been deteriorating at a faster rate than in other workplaces.

Table 4 Panel B presents coefficients from ordered probit regressions for climate where climate is collapsed into a three-way variable in which 1=poor/average 2=good and 3=very good. In the pooled regression results, the presence of non-union only voice is associated with better climate than no voice and union-only voice. However, reflecting the descriptive results, the gap has closed over time; whereas non-union only voice was associated with significantly better climate than both union-only voice and dual channel voice in 1984, this was no longer the case by 2004. Indeed, the voice measures were no longer jointly significant by 2004.

In Panel B of Table 5 we find that direct voice is associated with the best climate responses amongst managers. In pooled years, direct only voice is associated with better climate than representative-only voice and no voice, but there are no significant differences between direct voice only and regimes that combine representative and direct voice. Thus perceived climate is best when the voice regime includes direct voice. These relations do change over time however, as direct only voice is not the 'best' type from 1990 onwards. Indeed in 1998 the combination of representative and direct voice is associated with better climate than other voice. By 2004 there are no significant differences across any types.[10]

Managers were asked whether there has been any form of industrial action at the workplace in the last 12 months (excluding lock-outs) with types of action presented on a

show-card. Our descriptive results in Table 3 Panel C show that there has been an overall reduction in industrial action across all workplaces. Not surprisingly, union-based regimes are associated with a higher probability of industrial action than non-union voice only and no voice. This is confirmed statistically in Panel C of Table 4 regression analyses for the pooled years and in separate regressions for 1984-1990.[11] If one re-runs the regression analyses separately identifying constituents of the voice typology (in results not reported here), workplaces with unions recognised for pay bargaining continue to have a higher probability of industrial action than otherwise 'like' non-unionised workplaces in 2004. This reinforces the corollary to the exit-voice hypothesis, that by establishing voice, conflict is internalised through action rather than being externalised through higher turnover.

*5.4 Estimated Labor Productivity*

Since 1990, WERS has asked managers to rate labor productivity relative to the industry average. They respond on a scale running from "a lot below average" to "a lot above average." For the regression analysis this is collapsed into a three-way variable identifying workplaces identifying themselves as "below average", "average" and "above average". Descriptive analyses in Table 3 Panel D indicate that labor productivity is highest in non-union only voice workplaces and lowest in union-only regimes. The gap is most pronounced in 2004.

In the pooled regressions for voice regimes in Table 4 Panel D none of the regimes outperform *no voice* workplaces. However, union only voice is associated with lower productivity than non-union only voice (-0.27, t=2.29). Dual Channel voice is also associated with lower labor productivity than *non-union only* voice, though the differential effect is only

[10] In results not reported here, when we split the voice regimes into their components and run the same regressions the only statistically significant effect is the positive effect of having regular meetings between senior managers and all sections of the workforce.
[11] It was not possible to run an analysis for 1998 due to the very low incidence of industrial action in that year.

on the margins of statistical significance (-0.18, t=1.93). Separate year models are less clear cut as no statistically significant differences across voice regimes exist and no obvious time trends emerge.

The findings on type of voice are inconclusive, all coefficients being weak and non – significant.

*5.5 Estimated Financial Performance*

Managers are asked to assess their workplace's financial performance relative to the industry average in the same way as labor productivity. Panel E in Table 3 indicates a clear association between a workplace's financial performance on this measure relative to the industry average and its voice regime. We see that non-union voice is associated with better financial performance than union-only voice in all years, often by a wide margin. The performance of dual channel regime workplaces improved markedly over the period. In the pooled regression estimates in Panel E of Table 4 we see that non-union only voice performs better than all other regimes. However, the coefficients for the other three regimes are virtually identical, suggesting some kind of separated equilibrium. The effects are very clear in the early 1980s, disappear in 1990s, but return once again in 2004. Interestingly, as one would predict if equilibrium processes were at work, over the entire period, differences between the other 3 voice regimes are not statistically significant.

In Table 5, Panel E, distinguishing between direct and representative voice types, we find that those with direct voice only appear to perform better than others and that representative only voice performs particularly poorly. In pooled regressions for all years we find that direct only voice is positively associated with financial performance as compared to no-voice and union-only voice, but it is not significantly different from the combination of direct and representative voice. In the 1984 regression direct only voice 'outperforms' all

other regimes including the combination of direct and representative voice but, by 2004, the only significant difference is the significantly better performance of direct-only voice over 'no voice'.

## 6. Discussion and Conclusions

One of Freeman and Medoff's key contributions was to examine empirically the relationship between voice and outcomes. However, they focused on union voice using US data. This meant that comparative analysis of the effects of different types and regimes of voice on outcomes could not be examined. The British case for the period under consideration allowed employers to choose voice types and regimes, and indeed to mix them. We are thus able to provide a more finely grained analysis of voice-outcome relationships.

This is important, since over this period of time union voice collapsed but the overall provision of voice did not. Approximately 8 out of 10 private sector workplaces had voice throughout the period, but far more of this was direct and non-union at the end of the period. Direct non-union voice is 'constructed' by employers rather than the outcome of collective action by employees, so it is a significant question to ask why, when union voice declined, employers chose to take on the expense of voice construction rather than to dispense with voice altogether.

Our data indicate that over the last quarter century non-union voice, particularly direct voice, is associated with better financial performance and labor productivity than union voice (though not necessarily than dual channel voice). As exit voice theory predicts, lower quits and higher industrial action are characteristics of union voice regimes. We do not assess causality in this paper, though this does offer a way forward for future research in this area, but it may be that the shift away from union voice can be explained in terms of the returns to

different voice types and regimes. The maintenance of voice in most workplaces may reflect the perceived superiority of voice over no-voice.

These results also have several broader implications. First, the decline in unionisation and the positive relationship between non-union voice regimes and workplace outcomes provides a *prima facie* explanation for the growth in the latter. As union coverage collapses, employers have invested in beneficial voice, to the extent that voice coverage expands overall and employee voice is primarily an employer funded phenomenon. Second, and conversely, union presence is most robust where it is mixed with non-union voice in dual channel regimes. Employers add non-union to union voice, avoiding the need for union de-recognition and preserving the existing benefits of union voice.

These concluding observations presume employers are free to choose voice mechanisms. In the private sector in the UK in the period 1980-2004, this was almost certainly the case. That this may be an unusual situation limits the applicability of our findings. That this might provide an important setting in which to structure future labour policies and analyse the operation of employer choice enhances their interest.

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Figure 1:
Share (%) of *Voice Regimes* in Britain, Private Sector, 1984-2004

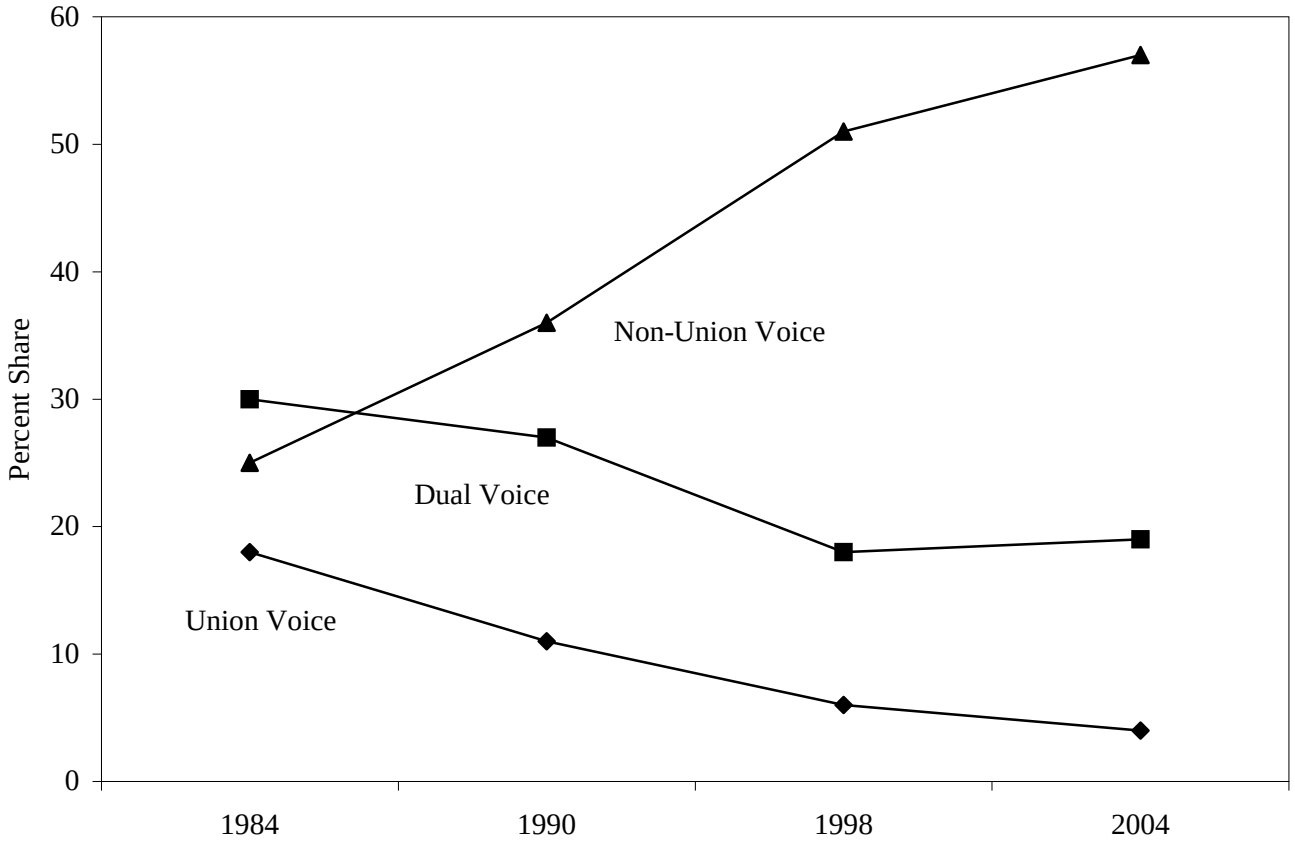
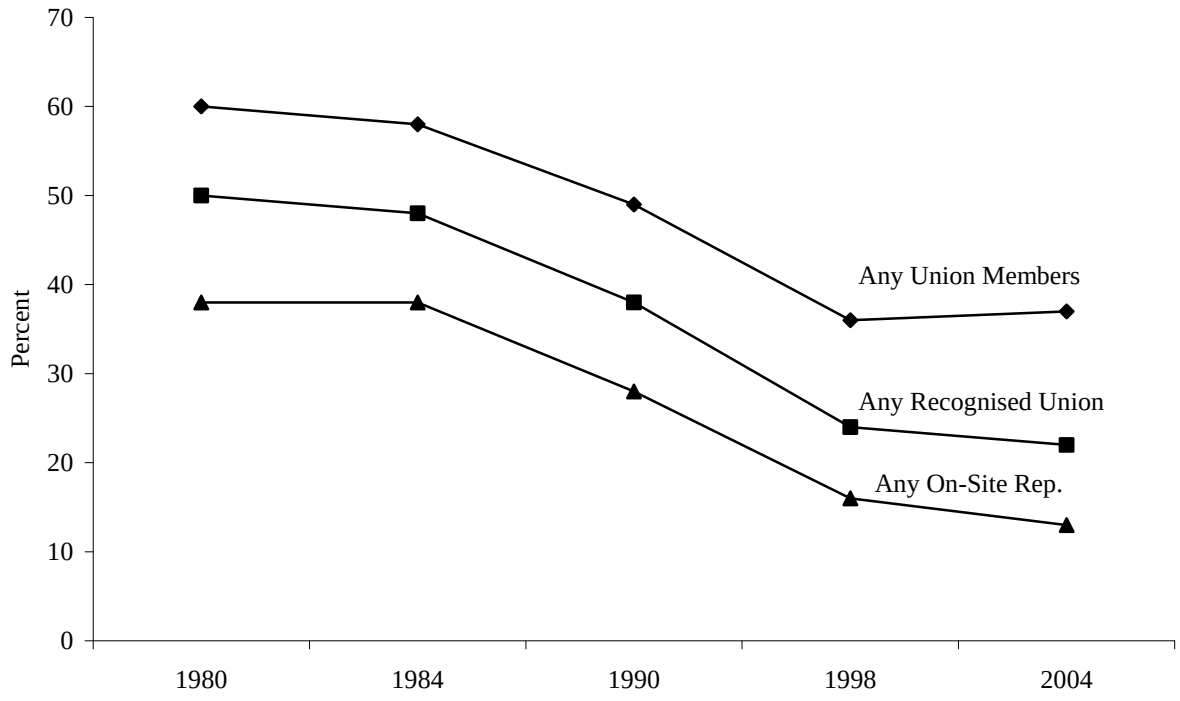
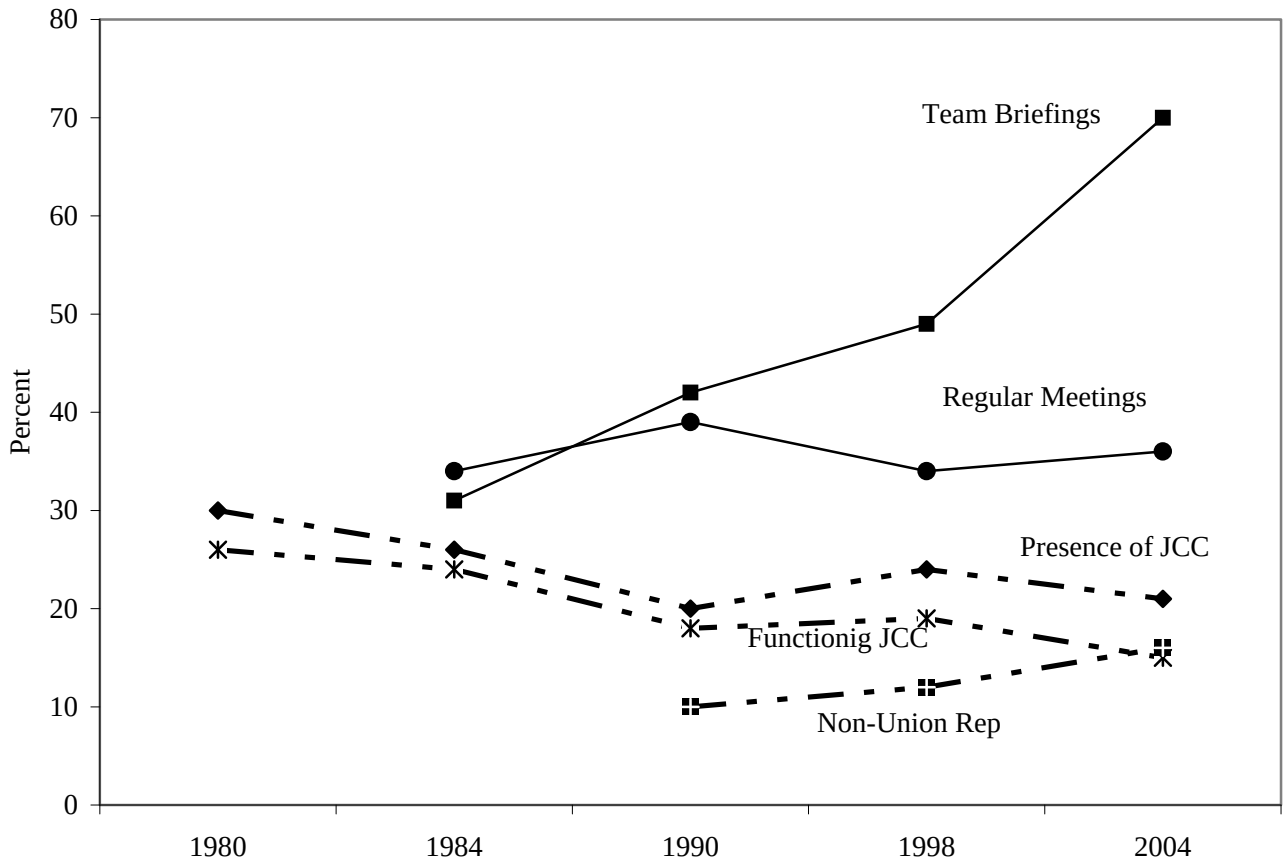


Figure 2:
Share (%) of Differing Measures of Union Provided Voice in Britain, 1980-2004




Note: Lines (from top to bottom) refer to the presence of *any* union members at the workplace *any* recognized union at the workplace, and any on-site lay representative.

Figure 3:
Share (%) of Employer Provided *Voice Types* in Britain, 1980-2004




Note: Dark lines refer to non-union direct voice. Dotted lines represent non-union representative voice. JCC refers to Joint Consultative Committee.

Table 1:
Incidence (%) of Voice Regimes in Britain, Private Sector Workplaces, 1984-2004

| | **Year** | | | | |
|---|---|---|---|---|---|
| **Panel A: All Workplaces** | **1984 [1]** | **1990 [2]** | **1998 [3]** | **2004 [4]** | **Diff [4]-[1]** |
| 1 No voice | 24 | 25 | 24 | 18 | -6 |
| 2. Voice (all types) | 76 | 75 | 76 | 82 | +6 |
| **Panel B: Voice Workplaces Only** | **1984 [1]** | **1990 [2]** | **1998 [3]** | **2004 [4]** | **Diff [4]-[1]** |
| 3. Union only | 18 | 11 | 6 | 4 | -14 |
| 4. Union and non-union | 30 | 27 | 18 | 19 | -11 |
| 5. Non-union only | 25 | 36 | 51 | 57 | +32 |
| 6. Voice, but nature not reported | 3 | <1 | <1 | 2 | -1 |
| **All Observations (Unweighted N)** | **1189** | **1429** | **1317** | **1148** | **N/A** |

Notes: This voice typology is constructed using the voice items in Table 2 which are present in the data throughout the period 1984-2004. All values are column percentages. Panel B columns may not add up to total voice percentages in Row 2 due to rounding.
Source: WERS survey various waves.

Table 2:
Incidence (%) of Voice Types in Britain, Private Workplaces, 1980-2004

| **All Workplaces** | **Year** | | | | | |
|---|---|---|---|---|---|---|
| | **1980** | **1984** | **1990** | **1998** | **2004** | **Diff*** |
| | **[1]** | **[2]** | **[3]** | **[4]** | **[5]** | **[5]-[1]** |
| **Panel A: Employer Provided Voice** | | | | | | |
| ***Representative Voice*** | | | | | | |
| 1. Any on-site Joint Consultative Committee (JCC) | 30 | 26 | 20 | 24 | 21 | -9 |
| 2. On-site JCC that meets at least once a month ("Functioning" JCC) | 26 | 24 | 18 | 19 | 15 | -11 |
| 3. Non-union on-site employee representatives† | NA | NA | 10 | 12 | 16 | +6 |
| ***Direct Voice*** | | | | | | |
| 4. Regular meetings between senior managers and all sections of workforce | NA | 34 | 39 | 34 | 36 | +2 |
| 5. Team briefings | NA | 31 | 42 | 49 | 70 | +39 |
| 6. Problem solving groups | NA | NA | 70 | 61 | 72 | +2 |
| **Panel B: Union Provided Voice** | | | | | | |
| 7.Any union members | 60 | 58 | 49 | 36 | 37 | -23 |
| 8.Any recognised union | 50 | 48 | 38 | 24 | 22 | -28 |
| 9.Any on-site union lay representative | 38 | 38 | 26 | 16 | 13 | -25 |

Notes: See Date Appendix 1 for a description of Table 2 row measures. †Excluding health and safety. *For values with no 1980 data latest time period is chosen for difference.
Source: WERS survey various waves.

Table 3:
Outcomes by Voice Regimes in British Private Sector Workplaces, 1984-2004

| | **Year** | | | | | |
|---|---|---|---|---|---|---|
| | **1984** | **1990** | **1998** | **2004** | **Difference** | **Change** |
| | **[1]** | **[2]** | **[3]** | **[4]** | **No Voice*** | **[4]-[1]** |
| **Panel A** | **Outcome: Turnover (Percentage of Employee Quits)** | | | | | |
| 1. By No Voice | NA | 13.9 | 17.6 | 18.64 | -- | 4.7 |
| 2. By Union Only Voice | NA | 8.2 | 13.2 | 12.1 | -6.5 | 3.9 |
| 3. By Dual Voice | NA | 12.9 | 12.7 | 10.6 | -8.0 | -2.3 |
| 4. By Non-Union Only Voice | NA | 17.1 | 20.3 | 18.3 | -0.3 | 1.2 |
| **Panel B** | **Outcome: Industrial Climate (Percentage Reporting "Very Good" Climate)** | | | | | |
| 1. By No Voice | 44.8 | 32.9 | 35.3 | 38.8 | -- | -6.0 |
| 2. By Union Only Voice | 30.8 | 35.6 | 31.4 | 33.5 | -5.4 | 2.7 |
| 3. By Dual Voice | 36.7 | 24.8 | 41.0 | 33.0 | -5.8 | -3.7 |
| 4. By Non-Union Only Voice | 54.8 | 39.1 | 40.0 | 40.2 | 1.4 | -14.6 |
| **Panel C** | **Outcome: Industrial Action (Percentage of Workplaces Reporting Any Industrial Action in Last 12 months)** | | | | | |
| 1. By No Voice | 0.50 | 0.4 | 0.0 | 0.80 | -- | 0.3 |
| 2. By Union Only Voice | 20.6 | 6.4 | 2.8 | 7.1 | 6.3 | -13.5 |
| 3. By Dual Voice | 19.6 | 12.8 | 3.9 | 4.1 | 3.3 | -15.5 |
| 4. By Non-Union Only Voice | 0.20 | 1.4 | 0.0 | 2.0 | 1.2 | 1.8 |
| **Panel D** | **Outcome: Labor Productivity (Percentage of Workplaces Reporting Above Average Labor Productivity)** | | | | | |
| 1. By No Voice | NA | 48.5 | 44.1 | 51.5 | -- | 3.0 |
| 2. By Union Only Voice | NA | 38.2 | 43.7 | 43.1 | -8.4 | 4.9 |
| 3. By Dual Voice | NA | 46.5 | 51.2 | 43.3 | -8.2 | -3.2 |
| 4. By Non-Union Only Voice | NA | 50.8 | 51.0 | 59.3 | 7.8 | 8.5 |
| **Panel E** | **Outcome: Financial Performance (Percentage of Workplaces Reporting Above Average Financial Performance)** | | | | | |
| 1. By No Voice | 41.0 | 55.8 | 56.3 | 45.8 | -- | 4.8 |
| 2. By Union Only Voice | 42.6 | 53.1 | 56.4 | 41.3 | -4.5 | -1.3 |
| 3. By Dual Voice | 40.7 | 62.6 | 57.9 | 53.2 | 7.4 | 12.5 |
| 4. By Non-Union Only Voice | 60.8 | 54.2 | 63.7 | 63.6 | 17.8 | 2.8 |

*Differences in voice categories with respect to No Voice are calculated with most recent end of period (2004) values.

Table 4:
Estimates of Voice Regimes on Outcomes in British Private Sector Workplaces

| | Year | | | | | |
|---|---|---|---|---|---|---|
| | Expected Sign | Pooled | 1984 | 1990 | 1998 | 2004 |
| | | 1 | 2 | 3 | 4 | 5 |
| **Panel A** | **Dependent Variable: Turnover†** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Union Only Voice | <0 | -4.29** | NA | -3.76 | -6.07 | -5.29 |
| 3. Dual Voice | <0 | -4.67** | NA | -0.94 | -8.15** | -7.27** |
| 4. Non-Union Only Voice | <0 | 0.58 | NA | 2.18 | -1.61 | 0.30 |
| **Panel B** | **Dependent Variable: Industrial Climate††** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Union Only Voice | <0 | -0.09 | -0.31 | -0.05 | -0.01 | -0.08 |
| 3. Dual Voice | <0 | 0.07 | -0.10 | -0.10 | 0.37* | 0.15 |
| 4. Non-Union Only Voice | >0 | 0.19* | 0.24 | 0.22 | 0.23 | 0.15 |
| **Panel C** | **Dependent Variable: Industrial Action†††** | | | | | |
| 1.[No Voice] | | | | | | |
| 2. Union Only Voice | >0 | 1.21** | 1.61** | 1.07** | NA | 0.65 |
| 3. Dual Voice | >0 | 1.28** | 1.62** | 1.52** | NA | 0.44 |
| 4. Non-Union Only Voice | =0 | 0.45 | -0.58 | 0.58 | NA | 0.25 |
| **Panel D** | **Dependent Variable: Labor Productivity††††** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Union Only Voice | <0 | -0.15 | NA | -0.28 | -0.08 | -0.07 |
| 3. Dual Voice | >=0 | -0.05 | NA | -0.06 | 0.05 | -0.06 |
| 4. Non-Union Only Voice | >0 | 0.12 | NA | 0.04 | 0.05 | 0.24 |
| **Panel E** | **Dependent Variable: Financial Performance†††††** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Union Only Voice | <0 | 0.00 | 0.08 | 0.05 | -0.01 | -0.14 |
| 3. Dual Voice | >0 | -0.00 | -0.14 | 0.09 | 0.14 | -0.01 |
| 4. Non-Union Only Voice | >0 | 0.17* | 0.50** | -0.13 | 0.15 | 0.32* |

Notes: Cells in columns 1-5 are coefficients and variables in [ ] are omitted reference category. All specifications (panels A to E), control for single-digit industry, region, foreign ownership, age of establishment, single establishment, workforce composition (percentage of females, non-manuals and part-timers), and workplace size. All regressions are survey-weighted. Full results are available from the authors on request. * indicates 5% and ** 1% significance.†Turnover (measured as quits) was estimated using Tobit regressions to account for the left-censoring of the data at zero. †† Industrial climate was estimated using ordered probit where 1=poor/average 2=good 3=very good. Although 1998 data are included in pooled estimates, the single year estimates for 1998 are omitted due to the very low incidence of industrial action that year.††† Industrial action was estimated using probit for any industrial action in the previous 12 months. †††† Labor productivity was estimated using ordered probits for labor productivity relative to the industry average where 1=below average 2=average 3=above average. These data were not collected in 1984.††††† Financial performance was estimated using ordered probit for financial performance relative to the industry average where 1=below average 2=average 3=above average

Table 5
Estimates of Voice Types on Outcomes in British Private Sector Workplaces

| | Year | | | | | |
|---|---|---|---|---|---|---|
| | Expected Sign | Pooled | 1984 | 1990 | 1998 | 2004 |
| | | 1 | 2 | 3 | 4 | 5 |
| **Panel A** | **Dependent Variable: Turnover** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Direct Only Voice | <0 | 0.29 | NA | 1.98 | -2.14 | 0.30 |
| 3. Direct & Representative Voice | <0 | -2.74 | NA | -0.16 | -4.64 | -5.62* |
| 4. Representative Only Voice | <0 | -2.93 | NA | -2.21 | -5.33* | -2.60 |
| **Panel B** | **Dependent Variable: Industrial Climate** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Direct Only Voice | >0 | 0.18* | 0.34 | 0.21 | 0.18 | 0.14 |
| 3. Direct & Representative Voice | >0 | 0.16 | -0.03 | -0.02 | 0.45** | 0.23 |
| 4. Representative Only Voice | <0 | -0.05 | -0.32* | 0.04 | 0.06 | -0.02 |
| **Panel C** | **Dependent Variable: Industrial action** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Direct Only Voice | =0 | 0.53 | -0.51 | 0.72 | NA | 0.20 |
| 3. Direct & Representative Voice | >0 | 1.15** | 1.50** | 1.32** | NA | 0.50 |
| 4. Representative Only Voice | >0 | 1.07** | 1.49** | 0.94* | NA | 0.51 |
| **Panel D** | **Dependent Variable: Labor Productivity** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Direct Only Voice | >0 | 0.12 | NA | -0.03 | 0.09 | 0.23 |
| 3. Direct & Representative Voice | >0 | 0.03 | NA | 0.06 | 0.08 | 0.00 |
| 4. Representative Only Voice | =0 | -0.10 | NA | -0.22 | -0.19 | 0.14 |
| **Panel E** | **Dependent Variable: Financial Performance** | | | | | |
| 1. [No Voice] | | | | | | |
| 2. Direct Only Voice | >0 | 0.19* | 0.58** | -0.13 | 0.18 | 0.31* |
| 3. Direct & Representative Voice | >0 | 0.07 | -0.06 | 0.07 | 0.25 | 0.12 |
| 4. Representative Only Voice | =0 | -0.03 | 0.06 | -0.02 | -0.19 | -0.06 |

Notes: Cells in columns 1-5 are coefficients and variables in [ ] are omitted reference category. Full results are available from the authors on request. See footnote to Table 4 for details of controls, dependent variables and notation.

## Appendix 1

### Data Used for Voice Measures

We focus on a voice typology that relies on the data items available for 1984-2004, that is from Table 2, items 1, 2, 4, 5, 7, 8 and 9, but we supplement this with a measure incorporating items 3 and 6 for the shorter period of 1990-2004. Our typologies distinguish workplaces with union-voice only (items 7-9 plus item 2 if the JCC's have union representation) from those with non-union voice only (item 2 if there are no unions involved, items 1 and 2 and, for the period since 1990, items 3 and 6). Our typology also identifies workplaces with a combination of union and non-union voice, which we term "dual channel" voice. The fourth category in our typology is "no-voice" workplaces which are defined by the absence of two-way forms of representative or direct communication between workers and management.

### Data for Tables and Figures

Data in Figures 1–4 and Tables 1-2 are for all workplaces with 25 or more employees. "NA" means "not available". Table 2 Rows 1-3 characterize the representative voice mechanisms provided by employers. Table 2 Rows 4-6 characterize the direct voice mechanisms provided by employers. Some items are not wholly comparable over time. *Regular workforce meetings*: the measure of regular meetings changed in 2004. For the first time the question asked how often meetings occurred, rather than whether they occurred 'regularly'. Throughout the chapter we say regular meetings occurred in 2004 if they took place at least once a month. If we used 'at least once a fortnight' the incidence drops to 21% in 2004 whereas if we use 'at least once every three months' it rises to 64%. In 2004 the question is: "Do you have meetings between senior managers and the whole workforce (either altogether or group by group)?" whereas the 1998 question refers to "regular meetings with the entire workforce present". Millward et al.(2000: 118-120) note concerns about comparability of the measure in earlier years too. They argue that the 1998 question is not comparable to 1984 and 1990 question. They therefore present a figure for 1998 based on a combination of cross-section and panel data producing an estimate of 48% in 1998 instead of the 37% presented above. *Team briefings*: In 2004 managers are asked: "Do you have meetings between line managers or supervisors and all the workers for whom they are responsible? INTERVIEWER: If asked, these are sometimes known as 'briefing groups' or 'team briefings'?" The 1998 question is: "Do you have a system of briefings for any section or sections of the workforce here?" Millward et al. (2000: 118-120) argue that the 1998 question is not comparable to 1984 and 1990. They therefore present a figure based on a combination of cross-section and panel data of 65% in 1998 as opposed to 52% presented above. Whichever measure one adopts, briefings rose substantially over the period but whether the 'spurt' occurred between 1990 and 1998 or between 1998 and 2004 is a moot point. *Problem solving groups*: this time-series is very problematic. Kersley et al. (2006: 94) say the 1998 and 2004 measures are not comparable because a change in question wording in the 2004 Cross-Section Survey restricted it to groups of solely non-managerial employees. They therefore present estimates combining the cross-section and panel data (the panel question didn't change). Footnote 11 of Kersley et al. (2006) Chapter 4 gives details of the method. Using the 2004 'restricted' definition the incidence

of problem-solving groups was 16% in 1998 and 21% in 2004 for the 10+ employee population. Using the less restrictive definition the figures are 28% and 36% respectively. The time-series presented above does not use panel data and thus clearly understates the incidence of problem-solving groups. The reliance on time-series data gives the impression that these groups have become less common between 1998 and 2004 whereas better data (combining cross-section and panel) suggests that they have grown a little. *Non-union representatives:* the question wording is ambiguous in 1998 so that respondents may have included representatives of non-recognised trade unions.

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