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## *WIRS Through The Ages*

**Alex Bryson**

**Policy Studies Institute and Centre for Economic Performance**

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### **Abstract**

There was a time before WIRS when what we knew of industrial relations was based primarily upon small scale surveys and case studies. WIRS marked a radical departure in the study of industrial relations for two reasons. First, following in the footsteps of a small number of survey forerunners, it sought to ‘map’ industrial relations in Britain with nationally-representative large-scale surveys of workplace managers, thus permitting investigation of the incidence of practices and changes over time. Second, it focused on industrial relations institutions and outcomes, linking them to the processes of industrial relations that had been the chief focus of studies up until that point. This paper reflects on some of what we have learned in the five surveys over the quarter century since 1980, focusing selectively on the demise of collective IR and the coming of human resource management (HRM), pay determination and the union wage effects, variable pay, the climate of employment relations and union effects on employment growth.

### *Acknowledgements*

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## 1. In the beginning....

The first attempt to identify the contours of industrial relations (IR) with large-scale nationally-representative surveys of workplaces in Britain was made by the Royal Commission on Trade Unions and Employers' Associations – the Donovan Commission – in 1966 (Government Social Survey, 1968). Others followed, notably follow ups to the Donovan Commission's surveys in 1972 and 1973 (Parker, 1974; Parker, 1975), Daniel's (1976) PEP survey of workplace wage determination and the Warwick Workplace Survey of 1977-8 (Brown, 1981). But large-scale surveys of IR were uncommon in Britain in the 1960s and 1970s. The empirical basis for the discipline consisted largely of case studies and small scale surveys.

This changed with the Workplace Industrial Relations Survey 1980 (WIRS80). In the foreword to the WIRS84 sourcebook Peter Brannen, one of the originators of the WIRS series, explained how WIRS was first conceived:

“The first systematic survey of employment relations issues was undertaken for the Donovan Commission. Two other national surveys followed shortly afterwards. But these surveys never became part of a systematic series. The idea of establishing a series of Workplace Industrial Relations Surveys was developed in the late 1970s in the Department of Employment to remedy this lack of systematic data and to make possible the analysis of change and continuity over time” (Millward and Stevens, 1986: x).

All national, employer-based surveys have some aims in common. As Millward, Marginson and Callus (1998: 137) point out, they provide a ‘snapshot of the structures, practices and outcomes of industrial relations’; identify diversity and heterogeneity within employer populations; offer opportunities for hypothesis testing and theory building; provide data for policy evaluation; and, if repeated over time, can map change and identify reasons for it. Their methodological strength is in offering generalizability and transparency (op. cit.; Marginson, 1998). WIRS80 was no different in these respects. What did make it different was its co-sponsorship by government (Department of Employment), the academic community (the Social Science Research Council, the forerunner to the Economic and Social Research Council) and the Policy Studies Institute (PSI).<sup>1</sup> The Department's interest was ‘to ensure that there was established a solid base for analysis of industrial relations practice and procedures as a background for policy making’ (Daniel and Millward, 1983: 2). SSRC's aim was ‘to ensure that a rich, new data base about industrial relations was made available to the whole community of researchers and scholars in a form that was most useful to them’ (op. cit.). PSI was concerned ‘that the information be used for medium term policy analysis and evaluation’ (op. cit.). These differences were accommodated in a spirit of collaboration and cooperation which “at least in the judgment of those most closely involved...represents a new and valuable arrangement for carrying out research relevant to public policy and scholarly enquiry” (op.cit.).

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<sup>1</sup> From 1984 the Advisory, Conciliation and Arbitration Service (ACAS) has been the fourth co-sponsor of WERS.

For Marginson (1998: 362) the commonalities in purpose – ‘to provide a detailed account of workplace industrial relations that was nationally representative’ – and design ‘mark out the workplace survey undertaken for the Royal Commission as the forerunner of the WIRS series’. But it was Daniel (1976) that was the immediate forerunner to WIRS80 and is perhaps the survey that most heavily influenced WIRS in its design and execution. Describing with enthusiasm the PEP 1976 survey, Daniel says:

“This is the first time that the sample survey method, based on personal interviews with management and union representatives, has been used...to contribute towards an understanding and explanation of the process of labour relations, rather than simply describing its institutions” (Daniel, 1976: 1).

The PEP survey was indeed path-breaking in using nationally-representative data to look at ‘ways in which pay and pay increases are determined at work’ (op.cit.). At the time it was perfectly reasonable to focus on the manufacturing sector because this was ‘the largest sector in the British economy’ (p. 2). It was also natural for the survey to concentrate on pay determination through collective bargaining, since this was the dominant form of pay setting in manufacturing. The chief concern at the time was the desire to map both ‘formal’ workplace-level bargaining plus ‘the more informal shop floor bargaining over rates for the job under payments for results and other types of special or premium payment, at a lower level, and the company and industry bargaining at a higher level’ (p.2). In other words, Daniel was keen to reflect the complexity of collective bargaining over pay, a system that had been carefully depicted by the Donovan Commission in the late 1960s. This focus on manufacturing and on collective bargaining led inexorably to a focus on plant-level analysis because ‘this is generally the most important level of formal bargaining for manufacturing’ (p.2). Thus this survey was an important influence on the development of WIRS in terms of the primary unit of analysis (the workplace) and, at least in the early years, the concentration on collective bargaining. The survey’s limitations also influenced thinking on WIRS, especially Daniel’s remarks that the small sample size was ‘frustrating’ and ‘exasperating’, amply illustrated with examples he presents on the first page of the report.

Now that the WIRS survey has been carried out five times with reasonable success it is easy to understate the ambition and potential risks associated with the first survey in 1980. As Cully (1998) reminds us, OPCS senior statisticians had advised against WIRS80 saying that ‘a survey which takes establishments as its unit of analysis will not succeed in its research aims....[due] to the unreliability of information obtained from individuals acting as proxy informants’<sup>2</sup> Furthermore, it was a far more ambitious enterprise than any workplace survey undertaken hitherto. The three earlier surveys had been confined to manufacturing workplaces and had focused on large establishments the size thresholds being 50, 150 and 200 employees in the case of the Warwick, Donovan survey and PEP Surveys respectively. WIRS80, in contrast, covered the whole economy

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<sup>2</sup> Letter from Head of Social Survey Division, OPCS, July 1979, Department of Trade and Industry files.

(manufacturing, private services and the public sector) and lowered the employment threshold to workplaces with 25 or more employees.<sup>3</sup>

The resultant WIRS80 survey was also challenging from an analysts' perspective. The computer technology we take for granted today when crunching surveys was only just emerging at the time, with analysts relying on slow mainframes to process data held on magnetic tapes. The other challenge was one of interpretation and understanding, especially in relation to private services and the public sector where there was little or no large-scale data with which to compare the results.

IR was very different a quarter of a century ago, as we all know, but perhaps we forget just how different. As Daniel and Millward (1983: 1) note in their opening paragraph, IR had 'been at the forefront of public and political debate in Britain' for the previous two decades and 'reform of the industrial relations system had been part of every political party's manifesto'. This is because IR was viewed as a serious problem, its turbulence contributing to macro-economic problems and difficulties for firms, workers and their families. This impact is amply illustrated by Daniel's reflections on the effect that turbulent IR had on PEP's ability to conduct its workplace manufacturing survey in 1976. "We had wanted in our study to look at plant negotiations under the *normal process of collective bargaining*" says Daniel plaintively, recalling just how difficult this had been due to Conservative incomes policy, the three day week, 'then a period of sorting out the aftermath of both of these', followed by the new £6.00 pay limit policy (Daniel, 1976: 2-3). If anything, things deteriorated in the period prior to WIRS80, culminating in the Winter of Discontent in 1979, the year in which union density and union membership peaked in Britain. No wonder, then, that 14% (42 pages) of Daniel and Millward (1983) was devoted to 'Trade Union Recognition and Associated Issues', 7% (21) to 'The Closed Shop', 7% (22 pages) to 'Trade Union Organisation', 12% (36 pages) to 'Pay Determination', and 13% (39 pages) to 'Industrial Action'.

If we fast forward some 25 years, there are two obvious points to make about WIRS today. First, there is a general acceptance of the value of large-scale survey data collection in furthering our understanding of IR. It is not without its critics, of course (McCarthy, 1994; Blackburn, 2005). Although there is general consensus that large-scale surveys are complements to case-study and other methodologies in investigating IR, there may be some justification for the view that large-scale data collection and analysis are 'crowding out' case-study investigation of IR to the detriment of the discipline (Marginson, 1998). It is evident, however, that even in area of large-scale surveys WIRS is no longer the only game in town. The Warwick Company Level Industrial Relations Surveys (CLIRS) have provided what Marginson (1998: 364) refers to as 'a complementary comprehensive portrait of industrial relations structures, practices and policy formation beyond the workplace among large enterprises across the trading sector of the economy'; and there has been an explosion in government evaluation surveys, many of which are workplace-based.

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<sup>3</sup> This coverage was made possible by a better sampling frame, the Census of Employment (Daniel and Millward, 1983: 5-6).

Second, there has been a seismic shift in the discipline reflecting changes in IR structures and practice, embodied in the change in the survey's name from WIRS to WERS. In essence these changes are two-fold. The first is the movement away from joint regulation to the restoration of managerial prerogative and the re-emergence of the 'managerialist' HRM agenda. The second shift has been towards much greater interest in employees' experience of work in its own right. WIRS has reflected these trends with a very substantial shift in the nature of the survey instruments and survey design (Cully and Marginson, 1995; Cully, 1998; Marginson, 1998; Marginson and Wood, 2000; Kersley et al., 2006). The ever-changing nature of WIRS reflects an abiding concern with continuity and change. Identifying the degree of continuity in IR means retaining a core set of questions which permit the construction of time-series data. Identifying the nature and reasons for change entails innovation in survey questioning and design. This was apparent to the inventors of WIRS at the outset. Introducing the WIRS84 book, Peter Brannen says that it "provides a comprehensive overview and descriptive analysis of the survey data and sets out in a lucid and objective manner a wealth of material on employment and industrial relations in British workplaces...*More importantly*, however, the authors have been able to identify, in a rigorous manner, changes and developments over the previous years. This is the first time that such systematic monitoring has been possible' (Millward and Stevens, 1986: xi, my italics). Brannen explains that, in order to achieve this, 'a substantial core of common questions was retained but a new topic area, concerned with technical change, was introduced...In addition an experimental panel element was built into the design.' And so the state of permanent revolution which is the WIRS series got underway. Recently this 'revolution' has included a new employee survey linked to workplaces introduced in 1998 and extended in 2004, the refinement and extension of the panel survey, the linkage of the survey data to financial information in the Annual Business Inquiry (Kersley et al., 2006), the interviewing of non-union worker representatives in 2004, and a reduction in the employment size threshold for inclusion in the survey from 25 employees to 10 in 1998 and 5 in 2004 (Forth et al., 2006).

In the remainder of this paper i focus on WIRS' treatment of the following substantive themes in IR:

- the demise of collective IR
- the coming of HRM
- pay determination and union wage effects
- variable pay
- the climate of employment relations
- and union effects on employment growth.

In doing so, I draw on the primary sourcebooks and some of the seminal secondary analyses that appeared in academic journals. My intention is to reflect on how WIRS marked such an important departure in the study of IR.

## 2. The Demise of Collective Industrial Relations

Reflecting on changes in industrial relations traced with the first four WIRS surveys (1980, 1984, 1990 and 1998) Millward et al. (2000: 234) proclaimed the end of collective industrial relations in Britain:

“The Conservative government that came to power in 1979 confronted a system of collective employment relations that was dominant, though not universal... That system of collective relations, based on the shared values of the legitimacy of representation by independent trade unions and of joint regulation, crumbled in the intervening eighteen years to such an extent that it no longer represents a dominant model”.

They maintained that this change was so profound that it ‘can reasonably be regarded as a transformation’ (op. cit.). Union membership and density had peaked in 1979 (Charlwood and Metcalf, 2005). Comparisons of WIRS80 with earlier IR surveys had indicated a ‘growth in the formality of workplace industrial relations’ (Daniel and Millward, 1983: 296) as advocated by the Donovan Commission. Despite Thatcher’s first term in office, WIRS measures of collective IR were fairly stable between 1980 and 1984 (Millward and Stevens, 1986: 302-305) with workplace union recognition actually rising in the economy as a whole (Millward and Stevens: 1986: 62-63). Yet even in 1984 there were signs of change with decline in the closed shop and in union presence (any members on-site) and a fall in union recognition in manufacturing (Millward and Stevens, 1986). This took commentators at the time by surprise.<sup>4</sup> But it was only when comparing WIRS84 with WIRS90 that analysts became aware of just how much had changed over a very short period. The authors argued ‘so great were the changes that it is not unreasonable to conclude that the traditional, distinctive “system” of British industrial relations no longer characterized the economy as a whole’ (Millward et al., 1992: 350). Purcell (1993) called it ‘the end of institutional industrial relations’.

For many years it had been possible to track changes in union membership with data lodged with the Certification Officer by trade unions. One-off surveys of individuals such as the National Training Survey 1975 also contained union membership, but it was only later that repeat cross-section surveys of individuals permitted analyses of changes in union membership. British Social Attitudes (BSA) was among the first, collecting

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<sup>4</sup> For example, Willie Brown, writing just before the release of Millward and Stevens (1986) had said: “Although, for the British economy as a whole, the level of unionisation has fallen substantially during the recession, from 55 per cent in 1979 to around 45 per cent now (the level at which it remained throughout the 1950s and 1960s), it is hard to see it fall much further, so well entrenched is the practice of collective bargaining and, with it, closed shop and check-off arrangements” (Brown, 1986: 167).

union membership data from 1983.<sup>5</sup> WIRS' unique contribution was two-fold. First it tracked change in workplace-level institutions, notably union recognition, the pre- and post-entry closed shop, bargaining structures (multiple versus single-unionism and, where multiple unions existed, the use of joint versus separate bargaining arrangements), the presence of on- and off-site worker representatives, workplace union density and collective bargaining coverage and the scope of collective bargaining. Most of these items were present from the outset. They have been added to subsequently with measures such as occupation-level collective bargaining coverage within workplaces, occupation-level union membership presence, employer perceptions of unions' roles and, with the advent of linked data from employees, individual worker union membership. The second unique contribution was its ability to identify union effects on outcomes such as wages, productivity, climate, employment growth and financial performance. (I discuss union effects on wages and employment growth later).

Collective IR in Britain rested on employers' voluntary recognition of unions for pay bargaining.<sup>6</sup> Since this decision was usually made at workplace or organization-level it made sense to talk of union recognition as a workplace attribute. Yet this concept of workplace-level union recognition only really entered the IR lexicon with WIRS. The difficulty with reliance on coverage by a collective bargaining agreement was that since most were, at the time, multi-employer agreements, it was unclear how they related to workplace-level industrial relations. Studies had indicated nominal coverage in many cases and managerial difficulties in accurately identifying whether their workplace was covered or not.

Certainly in those early days of WIRS union recognition was a good indicator of union activity on the ground at the workplace, but it was by no means the only important measure. The IR literature had shown how differently unions operated in the presence of an on-site lay official, and according to whether or not that representative was full-time or part-time (McCarthy, 1967). Labour economists were keen to exploit information indicating the degree of strength unions had when restricting the supply of labour to employers. This bargaining strength was often proxied by WIRS indicators of union density, multi-unionism and the presence of pre- and post-entry closed shops.

In recent years union recognition for pay bargaining has become a less reliable indicator of union activity at workplace-level due to the 'hollowing out' of unionization even where a union is present. This first became apparent with WERS98 when sourcebook analysts uncovered a high percentage of workplaces with union recognition where there appeared to be no collective bargaining coverage (Millward et al., 2000: 159-167). This 'hollow shell' phenomenon, also uncovered in case study work by Brown et al. (1998), was apparent once again in WERS04, extending to all aspects of joint regulation, not just pay determination (Kersley et al., 2006: 193-6). It is also apparent in the precipitous

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<sup>5</sup> Other early studies containing union membership information include the General Household Survey, the National Child Development Survey and the British General Election Survey. The Labour Force Survey collected membership data from 1989. BHPS has collected it since it began in 1992.

<sup>6</sup> This remains the case in spite of the statutory recognition procedure introduced by the Employment Relations Act 1999.

decline of union membership within unionized workplaces. The rate of union density decline within recognized workplaces rose three-fold in the 1990s compared to the second half of the 1980s (Millward et al., 2000: 139-145) resulting in substantial growth in free-riding (Bryson and Freeman, 2006a).

IR analysts and commentators became so used to union decline in the 1980s and 1990s that they had come to expect it. This decline took two forms: a reduction in the incidence of unionization in the workplace population and, where it continued to exist, a diminution in its reach and strength. From the mid-1980s there was a precipitous decline in union recognition, the closed shop, and workplace multi-unionism (Millward et al., 2000). The decline in union recognition continued into the 1990s, albeit at a slower rate, but this decline has ceased since 1998, at least among the traditional population of workplaces with 25 or more employees (Table 1).<sup>7</sup> The decline in a couple of percentage points is not statistically significant. This may reflect the importance of the political and policy climate under New Labour (Kersley et al., 2006; Bryson, 2006a).<sup>8</sup> There is also a surprise in Table 1, namely the rise in union recognition rates in the shrinking private manufacturing sector.

[INSERT TABLE 1 ABOUT HERE]

This slow down in the rate of decline in collective IR, confirmed in other research pointing to an increase in the rate of new union recognitions (Gall, 2004; Blanden et al., 2006), is also apparent in the slower rate at which collective bargaining coverage has fallen since 1998, but again there are large sectoral differences with the rate of decline greatest in private manufacturing (Kersley et al., 2006: 187-188).

One could nevertheless argue that, by the turn of the Century, the strongest forms of unionization had all but disappeared in Britain, at least in the private sector. One-in-five private manufacturing workplaces recognizing unions for bargaining scored a maximum of three points on Millward et al.'s (2000: 179-183) index of union strength by 1998, as did one-in-seven private service workplaces recognizing unions.<sup>9</sup> The closed shop had effectively been outlawed in Britain by 1990 so it was not surprising to see that it had virtually disappeared by 1998 (Millward et al., 2000: 147). Only 3 per cent of workplaces with 5 or more employees had 100 per cent union membership in WERS04. Among workplaces with union members who recognized unions and had 25 or more employees, the percentage with 100 per cent union membership fell from 19 per cent in 1984 to 13 per cent in 1990 to 4 per cent in 1998 (Millward et al., 2000: 140). By 2004 the figure stood at 6 per cent.

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<sup>7</sup> An employer may recognize a union for pay bargaining such that the union bargains over wages, even when there are no union members present on the site. This phenomenon was only tracked in WERS for the first time in 2005, indicating that 3 per cent of all workplaces – or one-tenth of those recognizing unions – ‘would not have been identified as recognizing unions in earlier surveys in the series’ (Kersley et al., 2006: 120).

<sup>8</sup> Union recognition did decline between 1998 and 2004 in workplaces with 10-24 employees (Kersley et al., 2006: 120).

<sup>9</sup> Workplaces scored a point for each of the following: union density of 75% or more, an on-site lay union representative, and collective bargaining coverage of 80% or more.

It is one thing to ‘map’ the demise of collective industrial relations, quite another to seek to explain it. Surveys of individual employees were able to take analysts so far. For example, they were useful in identifying the role played by compositional change in the workforce. Studies such as Bryson and Gomez (2002) showed that compositional change in the workforce accounted for only a minority of the decline in union membership. They also showed that the stock of members had declined due to a rise in the percentage of employees who had never joined a union, as opposed to an increase in the rate of exit from membership (Bryson and Gomez, 2005). By 2005 never-membership accounted for just over half of employees in employment (Bryson, 2006a). However, WIRS allowed for unique in-sights for two reasons. First, it was able to track change in collective IR alongside managerial attitudes to unionization. Second, it combined cross-sectional and panel workplace data allowing analysts to identify the extent to which union decline was due to changes in the composition of workplaces, on the one hand, and behavioural change among surviving workplaces on the other.

The decline in the incidence of collective IR across the economy was due, in large part, to a cohort effect, rather than behavioural change among surviving workplaces. Newer workplaces had a lower propensity to unionize than older ones, with evidence pointing to a ‘golden age for union recognition....during the Second World War and the years immediately following it’ (Millward et al., 2000: 103).<sup>10</sup> Instead, newer workplaces have adopted non-union forms of voice, usually direct two-way forms of communication (Willman et al., 2006a). Union workplaces, on the other hand, have largely eschewed full union de-recognition but have increasingly supplemented union voice with non-union voice (op. cit.). Across the economy as a whole, the percentage of ‘no voice’ workplaces has remained constant since the mid-1980s at around one-sixth (Bryson et al., 2004; Willman et al., 2006b), casting doubt on concerns about the growth in ‘bleak house’ IR. Between 1998 and 2004 patterns of change shifted. The union recognition rate among panel workplaces with 10 or more employees who were in existence throughout the period was stable. Recognition was also more or less stable among workplaces with 25 or more employees in the 1998 and 2004 cross-sectional data. However, union recognition fell quite dramatically among the smallest workplaces with 10-24 employees. Nevertheless new workplaces remained steadfastly non-union - their union recognition rates were far lower than older workplaces and those that had closed over the period (Kersley et al., 2006: 120-121).

WIRS also cast light on what happened within the union sector. By assessing the decline in union density across workplaces with different levels of managerial support, Millward et al. (2000: 150-2) were able to show that “the decline in the closed shop and strong management endorsement of membership were the main reasons for the fall in mean union density in unionized workplaces between 1984 and 1990.” However, the picture was “quite different” for the period 1990 to 1998 when “employees appeared to have lost their appetite for unionism.” In essence, in the 1980s unions lost the support of government and managers, whereas in the 1990s “they also lost the support of many employees.” Managers’ attitudes towards unions remained unchanged over the period

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<sup>10</sup> Machin (2000) reports similar findings also using WERS data.

1998-2004 (Kersley et al., 2006: 114-115) but there are signs that the rapid growth in free-riding in the 1980s has ceased (Bryson, 2006a).

### **3. From Unions To HRM?**

Whereas collective IR remained strong in the public sector, analyses of WIRS 1984-1998 indicated that changes in the types of workplace entering and leaving the population played only a minor role in the demise of collective IR in the private sector (Bryson et al., 2004). Rather, the decline was widespread, a cohort effect affecting most types of workplace, with newer workplaces entering the population increasingly likely to be non-union relative to their older counterparts, regardless of their other characteristics (Millward et al., 2000; Millward, 1994). This raised the question: what would take its place? Or, as Millward et al. (2000: 234) had put it, there had been ‘a transformation – but to what?’ Responding to the findings in WIRS90, commentators envisaged one of two scenarios: a growth in HRM – something which had been discussed for some time in the USA – or the return of managerial prerogative in which employees were talked at rather than listened to, something Sisson (1993) described as ‘bleak house’ IR (Sisson, 1993) and Guest called ‘black hole’ IR (Guest, 1995: 125-127).

WIRS analysts had little to go on in mapping this change because the survey’s core questions contained relatively little by way of HRM indicators. This was partly because, up until that point, WIRS had primarily focused on those collective IR institutions which had been central to policy debate since Donovan, and partly because it is inherently difficult to foresee trends in and construct survey measures to capture them in advance. As Marginson (1998: 376) put it:

‘In mapping change and continuity of industrial relations practice, WIRS has been more adept at charting the decline of the Donovan model than at teasing out the essential characteristics of (different forms of) industrial relations in the absence of trade unionism and collective bargaining....Almost inevitably, surveys are better equipped to indicate the direction(s) in which industrial relations practice is heading from than where it is heading to.’

Nevertheless, accepting this limitation, it appeared from the primary analysis of WIRS90 that ‘union free’ IR was characterized by a procedural informality in which employees had little opportunity to contribute or influence workplace developments or air grievances, and in which ‘managers generally felt unconstrained in the way they organized work’ (Millward et al., 1992: 364). What surprised commentators at the time was that the ‘fragments of HRM’ that were discernible appeared to co-exist with trade unionism, rather than substituting for them (Sisson, 1993: 206). For Sisson (op.cit.) this was one of ‘the most striking findings of WIRS3’.<sup>11</sup> Yet it is a finding that has persisted

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<sup>11</sup> According to Marginson and Wood (2000: 493) Sisson’s (1993) paper was the first WIRS article to use the term ‘human resource management’. The term appears three times in the WIRS90 sourcebook index but runs throughout Millward’s (1994) secondary analysis of WIRS90 and is one of the focal points of the book.

over the WIRS series (Machin and Wood, 2005). One reason for this initially surprising finding is that the positive effects of HRM on labour productivity appear to be confined to the unionized sector, at least according to secondary analyses of WERS98 (Bryson et al., 2005a).

Conceptions of HRM appearing in these early empirical investigations of the phenomenon were necessarily limited by the items collected in the WIRS surveys. For Millward (1994) they included financial participation schemes, harmonization of terms and conditions, 'high trust' practices such as the absence of close monitoring of work start and finish times, and a plethora of managerial methods for communicating with employees. Machin and Wood (2005) were constrained by the data available for the whole WIRS series from 1980 to 1998 with their HRM practices including variable pay systems, joint consultative committees, problem-solving groups, team briefings, regular meetings between employees and senior management, use of the management chain, suggestion schemes and the presence of personnel specialists. Recognizing the limitations of these data, the survey instruments were radically overhauled in 1998 (Cully, 1998). As Marginson and Wood (2000: 491) note, these new questions 'aimed at capturing emergent aspects of employment relations practice including task flexibility and team-working; performance appraisal systems; individualization of the employment contract; equal opportunities practice; family-friendly working arrangements; performance monitoring; and total quality management'. These effectively 'opened up a number of avenues including fuller analysis of practices associated with human resource management, high-commitment management and partnership arrangements' (op. cit., 492).

Subsequent analyses of HRM incidence suggested a pattern of systematic take-up of HRM among some workplaces but far from ubiquitous adoption across workplaces in Britain (Godard, 2001, 2004) leading one commentator to suggest that HRM may be difficult and costly both to establish and sustain, and may not actually deliver the widespread economic benefits that are often proposed (Godard, 2001: 28). Using WERS98 Bryson et al. (2005b) were able to show that the uneven diffusion of HRM can be explained, to a large degree, by factors that are often associated with the uneven diffusion of technological innovations across firms.

When WERS04 was published, analysts, commentators and policy-makers discovered they might have to wait even longer for the arrival of HRM. The analysis in the primary sourcebook 'pointed to a degree of stability in the incidence of practices that are often cited as indicators of sophisticated human resource management' (Kersley et al., 2006: 107). The absence of a marked increase in team-working, multi-skilling and problem-solving groups was cited as evidence 'that the diffusion of so-called "high involvement management" practices has been rather muted in recent years' (op. cit.). Although there was a four-fold increase in the percentage of WERS respondents designating themselves 'HR' managers over the period 1998-2004, the amount of time employment relations specialists spent on employment relations matters had fallen over the period and there was little change in the mix of tasks they performed (Kersley et al., 2006: 37-54). Furthermore, in spite of the centrality of 'strategy' in HRM thinking, there was no sign

that personnel management had become more strategic since 1998 (Kersley et al., 2006: 61-70).

#### **4. Pay determination and the union wage premium**

I have already alluded to the fact that the decline in collective IR substantially diminished the role of collective bargaining in setting pay for employees in Britain due to the declining reach of trade unions and even where unions were present. Among the traditional WIRS population of workplaces with 25 or more employees, the incidence of collective bargaining remained roughly constant between 1998 and 2004 in the economy as a whole, with around four-in-ten workplaces using collective bargaining (Kersley et al., 2006: 186). The rate of decline in aggregate collective bargaining coverage in the economy as a whole has slowed since 1998 compared to the 1980s and 1990s but this hides big differences in sectoral trends. The percentage of employees in private manufacturing covered by collective bargaining fell at twice the rate in 1998-2004 compared to 1990-98 and was identical to the rate of decline for the 1984-90 period. In private services, on the other hand, the rate of decline has slowed, albeit from a lower base. Collective bargaining coverage in the public sector has actually risen since 1998 (Kersley et al., 2006: 187-188).

The traditional WIRS population of workplaces with 25 or more employees overstates the prevalence of collective bargaining in the economy. Only one-in-eight private sector workplaces with 5 or more employees had any collective bargaining in 2004. These workplaces were predominantly the larger workplaces so that one-quarter of employees were located in these workplaces (Forth et al., 2006: 57-59). Nearly three-quarters (73 percent) of employees in private sector workplaces with 5 or more employees had their pay set unilaterally by management – usually at workplace level (op. cit.). Only a handful (5 percent) negotiated their pay individually with management.

This diminution in collective bargaining coverage has had a profound effect on pay outcomes. A priori it is unclear what the net effect of unions might be on the pay distribution.<sup>12</sup> In fact, declining unionisation has contributed substantially to rising wage inequality among men but not among women (Card, Lemieux and Riddell, 2003). WIRS contributes to this debate by estimating union effects at workplace-level. Where collective bargaining occurred in 2004 it continued to have a substantial impact in compressing pay at workplace level (Kersley et al., 2004:198) and in reducing the incidence of low pay (Kersley et al., 2004:199-200).<sup>13</sup> Collective bargaining was also able to deliver a fringe benefits premium (op.cit.), as was the case in WERS98 (Forth and Millward, 2002a). In addition to these studies estimating the direct effects of collective

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<sup>12</sup> Their pursuit of ‘standard’ rates for jobs is a force for pay equalization, as is the threat of unionization which forces non-union employers to raise pay or benefits to keep unions out. On the other hand, they bargain for higher rates for their members relative to non-members. Thus their impact on the wage distribution will depend, in large part, on how many workers they organize, which workers they organize, and variation in the wage premium across workers.

<sup>13</sup> This ‘sword of justice’ effect of union pay bargaining has been verified using other data sources such as the Labour Force Survey and has been estimated to have a much bigger impact on the gender pay gap than the introduction of the national minimum wage (Metcalf, 2005).

bargaining, Belfield and Heywood (2001) used WERS98 to estimate indirect effects of unions on dispersion in the non-union sector due to unionization ‘threat effects’. They found the estimated probability of unionization had a negative but statistically non-significant effect on workplace-level wage dispersion in the non-union sector.

One of WIRS’s biggest contributions to our understanding of IR has been in the estimation of the union wage premium. Early WIRS studies marked a big advance on previous studies. First, *ceteris paribus* estimates of the union wage premium could be made more accurately through comparisons of union and non-union workplaces, rather than the aggregate-level analyses that had preceded it. In particular, earlier inter-industry studies had overestimated the size of the union wage premium due to difficulties controlling for inter-industry differences in workplace characteristics (Blanchflower, 1984; Stewart, 1987). Second, WIRS offered a range of unionisation measures which meant that analysts could test the sensitivity of their results to different institutional facets of workplace arrangements. This was particularly valuable since some WIRS variables – notably the closed shop and union density – were thought to be good proxies for the degree to which unions could monopolise the supply of labour to employers, this monopolisation being the source of their bargaining power.

Blanchflower’s (1984) paper analyzing the union wage premium among manual workers with WIRS80 was seminal. It was the first to use workplace-level data in Britain<sup>14</sup> and, in covering semi-skilled and skilled manual workers in manufacturing, non-manufacturing and the whole economy, it was far more comprehensive than any previous analysis for Britain. He cites thirteen previous studies for the Britain, four of which use union membership as a measure of unionization, with the remainder using coverage by collective bargaining agreement. Blanchflower argues that estimates based on WIRS80 are less likely to be biased than previous estimates for two reasons. First, he uses workplace-level union recognition which, he maintains, is less prone to measurement error in a survey of personnel managers (Blanchflower, 1984: 322).<sup>15</sup> Second, he uses micro-data as opposed to the aggregate data used in all but one of the previous studies permitting the inclusion of a richer array of control variables and the avoidance of aggregation bias emanating from variation in union differentials across industries.<sup>16</sup> His estimates of the union wage premium are lower than those using aggregate data and are larger for semi-skilled manual workers than for skilled manual workers. The paper also

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<sup>14</sup> Blanchflower (1984: 328) cites some earlier studies using establishment micro-data in the USA.

<sup>15</sup> The reason why so much of the existing literature uses union membership, rather than bargaining coverage, to estimate union effects, is that coverage measures are usually absent or assumed to be measured with error. Surveys of individual employees such as BSA do obtain measures of union recognition but these are likely to be more error-prone than individuals’ reports of their own membership and of managers’ reports of union recognition. This is indicated by the percentage of employees responding ‘don’t know’ to the recognition question in BSA and the percentage who equivocate when asked whether they are sure of their answer. Conversely, however, personnel managers’ estimates of the union membership status of their employees is likely to be less accurate than employees’ own accounts. Evidence indicates that WERS managers tend to underestimate union density (Kersley et al., 2006: 111).

<sup>16</sup> The upward biases in union wage premium estimates associated with aggregate data relative to micro-data were well-known from H. Gregg Lewis’s (1983) studies for the USA and were also apparent from the much lower estimate Stewart (1983) achieved with his analysis of the 1975 National Training Survey when compared with other UK studies which had used aggregate data.

identifies a higher premium in the non-manufacturing sector which had not been studied up to that point. The operation of union variables was also found to differ across sectors, with workplace-level union recognition and multi-unionism associated with higher wages in non-manufacturing whereas in manufacturing it was industry-level unionization that mattered.

WIRS studies have consistently demonstrated that the size of the union premium is correlated with the ability of unions to monopolise the supply of labour and that, where unions are weaker there is often no premium at all. For instance, Stewart (1987) found the workplace-level union recognition premium for skilled manual workers in WIRS80 was confined to those working in establishments with a closed shop. In a subsequent paper, Stewart (1995) attributes part of the decline in the union wage premium in Britain to the demise of the closed shop over the period.<sup>17</sup>

Multi-unionism was a big deal back in WIRS80 since 44 percent of workplaces recognising unions had more than one. Theoretically, it isn't clear a priori whether multiple unionism per se is a proxy for union bargaining strength. As Blanchflower noted (1984: 320): 'On the one hand a pluralism of unions may strengthen the power of management who are able to play one union off against another. On the other hand, however, a plurality of unions may reinforce their overall bargaining power'. The latter appears particularly likely where multiple unions bargain jointly. Using WIRS84 Machin et al. (1993) found a union wage mark up associated with separate bargaining rather than multiple unionism per se, a finding consistent with Horn and Wolinsky's (1998) proposition that when a union represents only a section of the workforce it tends to ignore its bargaining externalities on other employees such as possible job loss associated with higher wages, and this is accentuated if unions bargain separately rather than jointly. Since then multi-unionism has declined (Millward et al., 2000) and those pockets that do exist may be workplaces where unionisation was particularly strong. Perhaps not surprisingly, then, analyses using WERS98 (Forth and Millward, 2002b; Booth and Bryan, 2004) found a wage premium associated with multiple unionism, though in Booth and Bryan's case it was confined to manual workers.

A recent preoccupation of analysts has been whether or not there is a union wage premium at all in Britain. This seems implausible, not least because one would expect workers to obtain some tangible benefit from membership to induce them to join. However, there is some evidence of a decline in the premium. Using WERS98 Forth and Millward (2002b) found that the union premium was confined to employees in workplaces with high bargaining coverage or multiple unions. The absence of a general union premium is confirmed in analyses using other data sets such as British Social Attitudes: Bryson (2006a) finds a premium of 5-7 percent in 1998 disappears by 2005 when running analyses that are identical in specification. Nevertheless, it is unclear from these studies whether this is a cyclical or secular phenomenon (Blanchflower and Bryson,

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<sup>17</sup> The other reason Stewart cites for the decline in the union wage premium was unions' inability to establish differentials in new workplaces.

2003).<sup>18</sup> What's more it is easy to overstate the degree of consistency in estimates of the wage premium using the early WIRS data. Indeed, it is striking just how much variance there was in the union wage premium estimated using WIRS80 and WIRS84 (Blanchflower, 1986: 200; 1990). One pattern that emerged was that skilled workers were able to secure a wage mark-up irrespective of union status but less skilled workers were reliant on unions to secure it.

Since 1998 WERS has incorporated linked employee data, as noted earlier, which includes banded weekly earnings and continuous hours data permitting analyses of both workplace-level and individual-level union wage premia. These linked data also allow analysts to distinguish more clearly between the effects of union membership, bargaining coverage, and background individual and workplace characteristics. This is important since the premium is essentially a product of bargaining rather than membership. Membership provides the bedrock to give unions just cause to bargain, and it provides a source of power. But in Britain there is no necessary reason to expect that a wage premium will be attached to membership, other than the fact that recognition and membership are positively correlated. This point is often overlooked by those relying on household and individual surveys that often rely on membership as the indicator of unionisation simply because they lack true measures of bargaining activity. The dangers in doing so are illustrated by Blanchflower and Bryson (2004) whose analyses of WERS98 showed that estimates of the union membership wage premium based on employee-only data were upwardly biased because some of the positive wage effect attributed to membership was actually due to members being employed at better-paying workplaces.

One of the puzzles in the existing union wage premium literature is the apparent union membership wage premium even among workers covered by collective bargaining (eg. Hildreth, 2000). The linked employer-employee data in WERS98 provided an opportunity to test whether this apparent premium was, in fact, due to unobserved differences between the workplaces employing members and non-members. Using linked employer-employee data from WERS98 Blanchflower and Bryson (2004) and Bryson (2006b) show that the union membership premium falls dramatically among covered workers having controlled for observable workplace heterogeneity. Using a slightly different subset of the WERS98 data and controlling for unobservable workplace-level influences on wages by exploiting the within-workplace variation in wages Booth and Bryan (2004) find no significant union membership wage premium among covered workers, suggesting that the 'puzzle' has been solved, together with the seeming paradox of free-riders refusing to avail themselves of this benefit.

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<sup>18</sup> Another reason for exercising caution when drawing inferences about trends in the union wage premium is that estimation techniques used in earlier papers tend to generate higher estimates than the techniques currently in vogue. So, for instance, Forth and Millward (2002c) show Stewart's unweighted estimates are lowered once one accounts for survey characteristics. In the case of Booth and Bryan (2004) and Bryson (2006b) the non-significant membership premium result is due to the use of IV and PSM estimation, respectively. OLS estimates presented in those papers are significant and much higher. The latest estimates from the Labour Force Survey for 2004 and 2005 indicate a union membership wage premium of 12 percent (controls are age, its square, male, 6 schooling dummies, 4 race dummies, 22 region of work dummies and 11 industry dummies. I thank Danny Blanchflower for these LFS estimates.

Multiple observations of employees within the same workplace also permit analyses of spillover effects of collective bargaining and union membership on uncovered workers and non-members. These effects prove to be fairly important. Using WERS98 Forth and Millward (2002b) found no general mark-up for employees covered by collective bargaining. However, there was evidence of a spillover effect from covered to uncovered workers in unionised establishments which suggests the presence of a small workplace-level wage premium of around 4% associated with the presence of recognised unions. Larger premiums of around 10%, however, were confined to workers in workplaces with high bargaining coverage or multiple unions. Using WERS98 Belfield and Heywood (2001) also found the threat of unionisation was associated with higher wages for employees in the non-union sector.<sup>19</sup>

In another WERS98 paper Bryson, Forth and Kirby (2005a) find a union wage premium which is confined to what they define as 'high involvement management' (HIM) workplaces. Although these HIM practices are associated with higher labour productivity as well they do not affect the financial performance of union workplaces. These findings are consistent with concession wage bargaining (as opposed to 'mutual gains') or simply the hiking of wages in recognition of employees' increased labour productivity in the presence of HIM work practices. A further possibility suggested by Forth and Millward's (2004) WERS98 analysis identifying a wage premium associated with HIM workplaces is that unionization and HIM may be jointly determined, perhaps indicating that HIM workplaces tend to be high-wage workplaces where employers will value worker voice such as that offered by unions.

Finally in this section on unions and wages, it is worth recalling that, as well as furthering our understanding of pay levels, there is a strong WIRS tradition identifying factors associated with the size of pay settlements. WIRS is a useful source of information on this issue given its representative nature and the general lack of information on pay settlements in the economy more generally. However, its impact in policy discussions is limited given the gap between data collection and data analysis, such that policy analysts often resort to other data.<sup>20</sup>

The actual list of influences on pay settlements contained in WIRS would have been anathema to most economists at the time since manager's responses indicated that, quite unlike in the neoclassical economist's world, employers can be price-makers when it comes to setting wages, not just the 'takers' of prices for labour set by laws of supply and demand to which they are passive respondents. This is a standard observation for IR academics, but was far more controversial for labour economists grappling with early

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<sup>19</sup> This effect did not reduce wage dispersion within non-union workplaces however, since the effect was no more pronounced for lower-paid than higher-paid employees.

<sup>20</sup> The best known source is perhaps the CBI's Pay Databank. For examples of analyses using these data see, for example, Brown et al. (2004). However, these data are confined to CBI members and have traditionally focused on manufacturing settlements. The Databank was suspended in 2003 and is unlikely to resume. Other valuable sources include databases maintained by Incomes Data Services, Industrial Relations Services and the Labour Research Department. For more details see <http://www.cipd.co.uk/subjects/pay/general/paysettle.htm>.

WIRS data, a point nicely illustrated by Blanchflower and Oswald (1988a) in their seminal paper on the role of firm-specific factors in pay determination.

Using WIRS84 Millward and Stevens (1986: 246-7) found that ‘in general terms, the influences upon the pay settlements that were jointly regulated were not very different from those that were unilaterally determined by managers...the considerations taken into account in determining the pay of unionised workers applied also to unorganised workers. The difference lay not in the considerations, but in who considered them and how the decision was taken as to what weight should be attached to each’. There was one exception: merit and performance pay tended to be cited more often in non-union settings.<sup>21</sup>

Blanchflower and Oswald’s papers (1998a, 1990) developed the sourcebook analyses and supplemented them with multivariate analyses. They came to the same conclusion regarding influences over pay settlements in the union and non-union sectors, namely that ‘with the interesting exception of merit payments for individual performance, union and non-union pressures upon wage settlements are apparently similar’ (Blanchflower and Oswald, 1988a: 367-268). Perhaps more importantly, however, Blanchflower and Oswald’s (1988a; 1990) papers and Blanchflower et al.’s (1990) paper raised severe doubts about the general applicability of the competitive model of pay determination by showing the importance of factors internal to the workplace in determining wage settlements and wage levels. Concluding their 1990 paper which identified the importance of factors such as workplace financial performance in determining the weekly earnings of ‘typical’ workers in WIRS84, the authors say (Blanchflower and Oswald, 1990: 159:

“the broad conclusion from this paper is that the classical competitive model of the labour market does not provide an adequate explanation of wage determination in the United Kingdom. Instead, pay levels are shaped by an intricate blend of internal and external forces. For all but the unskilled non-union sector, a model based on the distinction between insiders and outsiders, where unions and bargaining play a central role, may offer the most appropriate framework. Even parts of the non-unionized sector of the economy exhibit signs of insider influence.”<sup>22</sup>

Similar open-ended questions about influences on pay settlements were asked in WIRS90. WIRS84 had been conducted ‘when the rate of inflation had fallen to a low level (Daniel and Millward, 1983: 246) whereas WIRS90 ‘was increasing – from around 7 percent to nearly 10 percent after several years at around 5 percent’ (Millward et al., 1992: 239). Yet in both surveys the cost of living was the most frequently cited consideration in pay settlements.

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<sup>21</sup> In WIRS80 very different questions about pay increases were asked of unionized and non-unionized workplaces precluding such comparisons (Daniel and Millward, 1983: 195-197).

<sup>22</sup> Blanchflower and Oswald (1994) went on to develop these ideas in their identification of the wage curve indicating a negative correlation between local wages and local unemployment, a relationship they first observed in WIRS80.

The WERS98 sourcebook devoted three and a half pages to pay determination (Cully et al., 1999: 106-109). Little wonder, then, that it did not report on the new set of pay settlements questions contained in the revamped questionnaire. The questions differed from those appearing in earlier surveys in two major respects. First, in previous surveys data had been collected for manual and non-manual workers separately. In WERS98, on the other hand, questions focused on the pay settlement for the core group of non-managerial employees at the workplace (what WERS terms the ‘largest occupational group’). However, because two-thirds of workplaces use identical arrangements for all occupational groups, analyses of pay settlements for core employees tend to be representative of workplaces as a whole (Millward et al., 2001). Second, the term ‘pay settlements’ was beginning to feel outmoded. As Forth and Millward (2002d: 3) note, ‘pay settlements’ was the ‘pervasive but out-moded terminology of collective bargaining’ for the process of periodic adjustment to pay levels. Thus the questionnaire referred to ‘pay settlement or review’ and ‘pay settlement or award’. Millward et al.’s (2001) and Forth and Millward’s (2002d) analyses of private sector pay setting using these richer data in WERS98 revealed a number of interesting features of the pay process. Inflation continued to play a key role in pay adjustments:

“despite inflation being at historically low levels, employers still review and adjust pay levels overwhelmingly on an annual basis. Settlements are clustered around the prevailing rate of inflation.... Employers very commonly cite the inflation rate as a major influence upon the size of settlements, but they also commonly say that settlements are the same for their employees as for others in the same industry. It is difficult to disentangle these two influences. However, we produce some empirical evidence that both are at work: private sector settlements were probably higher when background inflation was higher; and there is some evidence of employers following a ‘going rate’ (of increase) in their industry.” (Forth and Millward, 2002d: 25).

Turning to the role of trade unions, as noted earlier, unions frequently had little or no involvement in pay settlements even when, ostensibly, they were subject to collective bargaining. Pay was reviewed more frequently where unions were present than in cases where management were free to choose the frequency of settlements. However, collectively bargained pay settlements were similar in size to settlements achieved in the absence of unions. This finding, in conjunction with the absence of an overall union wage premium in WERS98 (Forth and Millward, 2002b), suggests weakness in union bargaining power.

The analysis of pay settlements in the WERS04 sourcebooks was confined to an analysis by size of firm (Forth et al., 2006: 60). Our analyses identify a number of features of pay settlements that differ from the understanding obtained from earlier WIRS analyses. First, although pay settlements in the private sector are more likely to be reviewed on an annual basis where unions are involved compared to situations in which recognised unions are absent (96 percent against 87 percent), those in the non-union sector were also likely to occur more frequently than once a year (9 percent did so compared to 2 percent in the union sector). Second, when asked how the most recent pay settlement for core employees compared to average increases for the industry for such employees, managers

of non-union workplaces were much more likely to say ‘Don’t know’ (18 percent against 5 percent in the union sector). Managers in non-union workplaces were also more likely to think the settlement was higher than the industry average (23 percent against 15 percent) whereas managers of unionised workplaces were more likely to think the settlement was the same as the industry average (73 percent against 54 percent). Perhaps the most interesting insights arise from an analysis of the factors influencing private sector pay settlements in the union and non-union sectors (Table 2). Inflation was the dominant factor influencing the size of pay settlements in the union sector. Whilst it was also mentioned by around half of managers in the non-union sector, the most common factor mentioned by non-union managers was the financial performance of the workplace or organization. This ‘affordability’ factor was just as likely to be mentioned by managers in the union sector. This is quite a departure from earlier WIRS analyses.<sup>23</sup>

[INSERT TABLE 2 ABOUT HERE]

The table also shows that results differ somewhat if one extends the analysis to workplaces with 5 or more employees (the figures in parentheses in the table). Using this wider base, the financial performance of the organization or workplace is the single most commonly cited factor influencing settlements in both the union and non-union sectors. Inflation continues to be more frequently cited in the union than the non-union sector, as are productivity levels. The ability to recruit and retain staff features to a similar extent in both sectors. Industrial action – either threatened or taken – was rarely a consideration.

## 5. Variable pay

Variable pay has been a central issue in WIRS since the outset. This is not surprising. IR academics had been studying the role of piece-rates and payments-by-results in manufacturing for many years and their links with industrial unrest were a cause for concern to the Donovan Commission. Today, variable pay is often viewed as the antithesis of the ‘standard’ or ‘common’ rate-for-the-job pay determination principle underpinning union wage setting (Marsden, 2004). The idea, attractive to some, is that pay should match worker performance, not only because this might more fairly reflect employees’ just deserts, but also because the incentive effects of the link can bring their own benefits in terms of greater worker motivation and loyalty, higher effort and thus productivity and thus, ultimately, improved financial performance.

As sourcebook analysts readily admit:

“Systems of payment and reward are among the most complex phenomena that managers and researchers have to deal with. The WIRS series has never attempted to capture their

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<sup>23</sup> Although changes in question wording and format, and the splitting of analyses for manual and non-manual employees makes comparisons with early WIRS difficult, it is clear from Blanchflower and Oswald (1988a: 366) and Millward and Stevens (1986: 246-247) that cost of living followed by productivity/profitability were the most commonly cited influences on pay settlements in the union and non-union sectors in 1984.

complexity and instead has settled for small groups of questions about specific payment practices” (Millward et al., 2000: 211-212).

For this reason, WIRS’ primary contribution to understanding variable payment systems has been in mapping their incidence over time, their correlates and, as noted above, their links to performance outcomes. The focus of the series has been on three types of system: payments by results (PBR), profit-related pay (PRP) and employee share ownership (ESOS). Table 3 shows the incidence of PRP and ESOS. In interpreting trends one must bear in mind changes in question wording and question formatting which mean that figures are not always wholly comparable (see the footnotes to the table for details). However, some patterns are striking. First, PRP schemes grew dramatically in the 1980s. Speculation in the sourcebooks and early academic papers (eg. Blanchflower and Oswald, 1987) about the role of government tax incentives as a contributory factor was confirmed by panel analyses for the 1990s indicating tax incentives were an important reason for PRP adoption between 1990 and 1998 (Millward et al., 2000: 216). However, the percentage of trading sector workplaces with PRP schemes has been roughly static since then. This is, however, only half the story. Panel analyses for 1990-98 and 1998-2004 have indicated substantial switching in and out of PRP (Millward et al., 2000: 215-216; Bryson and Freeman, 2006b). ESOS also grew in the 1980s, continuing a trend that had begun in the 1970s (Millward et al., 2000: 216). Again, tax treatment of the schemes may have played a role (Daniel and Millward, 1983: 210; Millward and Stevens, 1986: 259). As in the case of PRP, ESOS incidence has remained fairly static since 1990 though, again, the panel data show a considerable amount of switching in and out of share-ownership schemes (Millward et al., 2000: 216; Bryson and Freeman, 2006b). If one follows the WIRS sourcebooks in treating PRP and ESOS as schemes engendering financial participation by workers, then 57 percent of trading sector workplaces had such a scheme in 2004, a figure roughly comparable to that in 1990 (last row of Table 3). Yet some analysts continue to hold their breath in anticipation of an explosion in financial participation since this would seem to fit with trends towards greater reliance on employee initiative and the devolution of decision-making to teams and individuals.

[INSERT TABLE 3 ABOUT HERE]

PBR has always been treated rather differently from PRP and ESOS in the WIRS sourcebooks. PBR first appeared in Daniel and Millward (1983: 200) under the heading ‘Systems of payment and control’. It was reported on alongside methods for controlling time keeping and payments while sick and was treated as one of the ‘methods of bureaucratic control’ (op.cit.) targeted at manual workers, thus reflecting ‘strong class divisions’ (op.cit.) in British workplaces. In the Donovan tradition, PBR was treated as part of the problem of shop floor bargaining and a cause of industrial strife (Daniel and Millward, 1983: 292). As Blanchflower and Cubbin (1986: 26) note, PBR has traditionally been included in analyses of strike propensities since, though the need for regular adjustments to pay, it increases opportunities for disagreement.

Daniel and Millward (1983: 205) went on to argue:

“Traditionally the purpose of PBR systems of pay has been to encourage workers to increase effort and output....In practice....there has been a tendency for PBR to become more an instrument of management control designed to ensure consistency of output.”

By WERS98, however, PBR was more common among non-manual than manual workers (Millward et al., 2000: 213) and was categorised as a form of incentive payment rather than as a method of control, an approach also adopted in the WERS04 sourcebook (Kersley et al., 2006: 190-191).

It is harder to track the changing incidence of PBR than it is PRP and ESOS due to alterations in wording and format.<sup>24</sup> However, PBR was clearly increasing in the 1970s pre-WIRS due to incomes policies (Daniel and Millward, 1983: 207-208). Workplace-level incidence of PBR is not available for 1980 and 1984.<sup>25</sup> WIRS90 enquired about PBR – calculated on an individual, group or establishment or organization basis – and merit pay, the latter being related to the subjective assessment of performance by a supervisor or manager. Millward et al. (1992: 260) report 52 percent of workplaces having at least one such scheme covering some employees. A revamping of the questions in 1998 makes tracking changes in the incidence of PRP over the 1990s difficult but Millward et al.’s (2000: 213) comparisons of cross-sectional and panel data suggested little change, or a possible small reduction in incidence.<sup>26</sup> WERS04 reverts to question wording similar to that used in WIRS90. Using this measure, 53 percent of workplaces with 25 or more employees in the trading sector had either PBR or merit pay in 2004, compared to 52 percent in 1990.<sup>27</sup> However, using identical PBR measures in the 1998-2004 panel, it is apparent that PBR rose among private sector workplaces with adopters vastly outnumbering those dropping their PBR schemes (Bryson and Freeman, 2006b). Thus it appears that there has been a substantial increase in the use of PBR since 1998 though, on measures that are only roughly comparable, there has been little change in PBR and merit pay incidence since 1990.

Individual incentive payments, profit-related pay and share schemes have continued to interest IR academics and labour economists because they can affect productivity and performance, pay levels, pay settlements and wage variation within and across workplaces. In fact, most analyses have focused on the links between variable pay and performance. Numerous WIRS studies testify to the complex links between such payments and performance (Blanchflower and Oswald, 1988b using WIRS84 is one of the earliest studies; for an analysis using WERS04 and a review of this largely WIRS-based literature see Bryson and Freeman, 2006b). On balance, one might conclude that there are positive though modest productivity returns to variable pay systems, that any

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<sup>24</sup> For details of these changes see Millward et al., 2000: 212-213 and footnotes 20, 21 and 22 and Kersley et al., 2006: 190-191 and footnotes 10 and 11.

<sup>25</sup> The only mention of PBR (and indeed PRP) in the WIRS84 sourcebook is a reference to their presence in the data set in footnote 16 of the concluding chapter .

<sup>26</sup> The 1990 incentive pay figures cited in Millward et al. (2000: 212-213) are very different from those cited by Millward et al. (1992: 260) for 1990, a matter that requires further investigation.

<sup>27</sup> The measures are not directly comparable since WIRS90 asked 8 occupational groups whether they had such payments where the establishment had 5 or more employees in that occupational group WERS04 first asks if any employees at the establishment get PBR or merit pay.

benefits differ markedly by type of variable pay scheme, and that – as IR academics have pointed out on a number of occasions – the way in which schemes are implemented and the criteria used to measure and reward performance are critical, sometimes creating adverse effects that would have been avoided in the absence of the scheme.

Far less attention has been devoted to the links between these variable pay methods and pay outcomes. Though it is not the focus of their paper, in their analysis of WERS98 Belfield and Heywood (2001) find incentive pay increases wage dispersion (coefficient of variation) at workplace level whereas PRP and ESOS are not significant. There is no recent WIRS research assessing the effect of variable payments on pay levels though early WIRS studies found PBR was associated with higher pay for manual workers.<sup>28</sup>

## **6. Climate of employment relations**

As Marginson (1998: 378) notes ‘respondents are not only informants, they are also actors within the workplace...relating events and practices of which they are a part’. Given the ‘contested’ nature of IR reliance on a single role-holder, such as workplace HR managers, may lead to a partial or biased picture of the nature of IR in the workplace. With multiple respondents often asked similar or identical questions about their perceptions of IR, WIRS has been able to establish the degree of ‘dissonance’ between respondents within the same workplace and has helped to explain reasons for the differences. This is nowhere more apparent than in the case of perceptions of the climate of employment relations in the workplace.

In the late 1970s and early 1980s, the IR climate was assessed in terms of the number and duration of strikes. Relating how the PEP 1975/76 workplace survey was conducted Daniel (1976) cites the 3 day week as a reason for disruption to survey schedule. The survey found that over half (57 percent) of manufacturing plants rating IR as “good” cited ‘lack of strikes/disputes’ as a reason for their rating (1976: 9), by far the most heavily cited reason, confirming the centrality of industrial disputes in managers’ day-to-day thinking about IR. As Daniel notes (1976: 8): ‘managers tend to define good industrial relations as being the absence of any disruption to working and the lack of any challenge to their authority’. This was the case in spite of the fact that, at the time of the survey strikes were at their lowest since 1968 (1976: 8-9).

WIRS80 made a number of contributions to discussions about industrial conflict in Britain. First, it gave a more accurate picture of the incidence of industrial action than other sources. Just as the Warwick Workplace Survey had identified strikes of short duration and those in smaller workplaces were under-recorded (Brown, 1981:97-101) so WIRS80 provided information on the incidence of industrial action short of a strike where official statistics were either absent or patchy (Daniel and Millward, 1983: 291-3). Furthermore, as IR scholars might have anticipated, Daniel and Millward (1983) found managers and worker representatives in WIRS80 disagreed about the occurrence of industrial action, a finding replicated in subsequent surveys.

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<sup>28</sup> Bryson and Freeman are currently investigating the effects of variable pay on wage levels in their study for the DTI.

Second, it supplemented information on the incidence of strike action with other information about conflict at work such as claims to industrial (employment) tribunals and perceptions of the 'climate' of IR at the workplace. Management perceptions of 'climate' indicate an improvement in IR since 1990 but, perhaps surprisingly, relations remain poorer than they were in the early 1980s (Table 4). The table also shows that, whereas managerial perceptions of climate were poorer in union workplaces than in non-union workplaces in 1980-1990, the gap had disappeared by 1998.

[INSERT TABLE 4 ABOUT HERE]

In addition to the single-item climate indicator available in WIRS since the outset, WIRS includes items such as sanctions against employees (formal written warnings, suspensions of employees, deductions from pay, internal transfers for disciplinary reasons), and days lost through sickness and absence. These have proven particularly valuable in obtaining a comprehensive picture of employment relations and workplace conflict following the virtual disappearance of industrial action by 2004 (Kersley et al., 2006: chapter 8). The single-item climate variable is correlated with these alternative measures in the way one would imagine (Kersley et al., 2006: 278-279). Other measures of climate are available in the Survey of Employees and have been used by some analysts to construct multi-item composite indexes of climate in the absence of validated scales in WERS (Guest et al., 1999; Ramsay et al., 2000).

Third, WIRS showed different actors had very different perceptions of the climate of IR at the workplace. Data for worker representatives matched to that of managers showed that reps have a poorer perception of the industrial relations climate than their managerial counterparts (Daniel and Millward, 1983: 254-256). This finding has been replicated over the course of WIRS. The advent of linked employer-employee data in 1998 meant that analysts were able to assess managers' perceptions of IR climate alongside those of employees in the same workplace. Comparisons revealed that managers tended to view climate more positively than their employees in the population with 25 employees or more (Cully et al., 1999: 283) and the population with 10 or more employees (Bryson, 2005). Similar findings have been reported for 2004 (Kersley et al., 2006: 278). What's more, over the period 1998-2004, there has been an improvement in managers' perceptions of climate that is not apparent among employees (Kersley et al., 2006: 277-278).

Fourth, WIRS permitted analysts to investigate workplace-level correlates of IR climate and industrial conflict. Blanchflower and Cubbin's (1986) paper using WIRS80 was the first to use micro data to assess propensities for various types of industrial action. Their coverage of the non-manufacturing sector was also novel. Their findings from multivariate analyses broadly confirmed results from the cross-tabular analyses undertaken by Daniel and Millward (1983). Using WERS98 Knight and Latreille (2000) looked at the correlates of individual conflict as measured by workplace variability in disciplinary action, dismissals and tribunal applications. They showed that both workplace and workforce characteristics explained much of the variance. Analyses of WERS98 and WERS04 have also shown that correlates of positive perceptions of climate

differed markedly across managerial respondents and employees within the same workplace (Bryson, 2005; Kersley et al., 2006: 279-286).

## 7. Unions and employment growth

Finally I turn to the literature on the effect of unions on workplace-level employment in Britain to illustrate two things. First, although changes in workplace employment have featured in the WIRS sourcebooks – notably when Millward and Stevens (1986: 11-13) reported a ‘preponderance of establishments with declining employment numbers’ over the recession period 1980-84<sup>29</sup> – the analyses of this issue have largely occurred in academic papers.<sup>30</sup> This literature is dominated by numbers from WIRS. Second, it illustrates the way in which WIRS can help us understand IR not simply through the ‘mapping’ of the terrain but by trying to understand the relationship between key variables in the data. What is striking about this particular illustration is that this relationship between unionization and establishment employment change has remained roughly constant over the years.

The WIRS literature on unions’ employment effects has focused on changes in workplace employment levels. Early studies used retrospective data from managers on employment levels in earlier years to estimate union effects on employment change. More recent studies have begun to use the WIRS panel data, thus obtaining more accurate information. Studies tend to find that the average effect of union recognition is to lower employment growth by 2.5-4 per cent per annum relative to non-union workplaces, *ceteris paribus* (Blanchflower, Millward and Oswald, 1991; Machin and Wadhvani, 1991; Booth and McCulloch, 1999; Bryson, 2004; Addison and Belfield, 2004). Similar findings emerge from other countries (see Bryson, 2004 for a review). This has led some analysts to refer to the employment effect of unions as the ‘one constant’ in studies of unions’ economic effects (Addison and Belfield, 2004).

However, the evidence is not all one-way. The effect is not apparent always and everywhere. There is conflicting evidence on the union effect on employment growth in the late 1970s: Machin and Wadhvani (1991) identify a positive effect whereas Blanchflower et al. (1991) find a negative effect. Also, in the first WIRS study on this issue Blanchflower and Millward (1988) found no significant union effects using WIRS80 and WIRS84. Furthermore, some studies find union effects differ according to the nature of unionisation and the conditions facing the firm. For instance, negative employment growth effects in the 1990s were more pronounced where bargaining coverage is high (Bryson, 2004) whereas the effect is ameliorated when unions bargain over employment and wages (2004: 494-495). Most of these studies focus on the private sector. However, Addison and Belfield (2004) find negative employment growth effects of union recognition in the public sector similar to those for the private sector. In addition, they find evidence for the public sector that changes in workplace-level union recognition affect employment growth, with new recognitions reducing employment

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<sup>29</sup> Also see Millward et al., 2000:26-27.

<sup>30</sup> WIRS sourcebooks have focused more on the ways in which workplaces make workforce reductions. For example, Millward et al., 1992: 320-326; Cully et al., 1999: 79-80

growth and union de-recognition increasing employment growth (Addison and Belfield, 2004). These union switches do not affect employment growth in the private sector.

Interpreting these union effects is quite a different matter. Some question whether the link is causal (Metcalf, 2005: 100). It is only recently that WIRS analysts have shown that this union effect is not solely attributable to a slower rate of employment growth, but is also attributable, at least in part, to a greater propensity for unionized workplaces to undertake within-workplace job cuts (Bryson and White, 2006).

It remains to be seen whether analyses of the WERS98-04 panel will reveal the same 3 percent reduction in employment growth associated with unionization.

## **8. Concluding Remarks**

This paper has sought to illustrate how WIRS marked a big departure in our understanding of IR in Britain. In particular, the first two surveys, WIRS80 and WIRS84, when taken together, fostered a new understanding of IR in Britain and how it was changing. It was ‘new’ in the sense that the IR community had little else to go on that was nationally representative of all broad sectors of the economy. It was also clear that the choice of the workplace as the visor through which we came to know IR was the appropriate level of analysis for many of the institutions and practices that were of greatest interest. Simply establishing this way of conceiving IR was a considerable achievement.

It is unsurprising, therefore, that these early surveys began to change the way we thought about IR in Britain. Some seasoned observers go further. Danny Blanchflower, an economist and IR specialist whose PhD was based on WIRS80 and who was among the first to crunch WIRS80 and WIRS84 mercilessly, argues that a large number of the first order questions about the nature of collective IR in Britain were answered in those surveys. He also points out that, contrary to popular perception, these early studies painted a reasonably clear picture of the non-union sector in Britain. Further, although he accepts that innovations such as the linked employer-employee data have been informative, he argues that diminishing returns set in after the first two surveys.<sup>31</sup> Others may take a rather different view. But perhaps one of the issues facing WIRS in subsequent years, identified by Millward (2001), is the difficulty surveys have in mapping the non-union sector which, by its nature, is less rule-bound than the union sector. It has proven difficult to construct proxies for ‘slippery’ concepts that are key in non-union settings – and, indeed, to the HRM practices that are so common in the union sector. Many of the survey items used to do so appear less than tractable in some analyses, which might partly explain the difficulties in replicating results across WIRS surveys.

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<sup>31</sup> These points have been made in personal communications with the author.

Five surveys, 9 sourcebooks<sup>32</sup> and many, many journal articles down the line<sup>33</sup>, we are used to seeing British IR through the lens of the workplace. This is a remarkable achievement in many ways, as the foregoing discussion has illustrated, not least because an authoritative picture of IR and IR change is not available in most other countries around the world – including the USA. The United States may have produced the most heavily cited IR book ever (Freeman and Medoff, 1984) but it did so without representative workplace-level data. Indeed, in reviewing Kersley et al. (2006) Freeman described WIRS as ‘the gold standard survey of personnel and labour relations’ going on to say:

“If only the US was smart enough to imitate this masterful survey and study!”

The danger, of course, is that we come to rely too heavily on WIRS to answer our every IR question. The dangers in over-reliance on WIRS are three-fold. First, as noted earlier, surveys can not do everything, no matter how good they are. If surveys like WIRS crowd out case studies and other qualitative investigations of IR this will limit what we can come to know about IR. Second, WIRS may collapse under its own weight if too much is placed upon its shoulders. It is perhaps unreasonable to expect a single survey to tell us all we would like to know about workplace IR. Third, it is perhaps because we are so accustomed to this workplace-level view of IR that we sometimes forget to ask whether the associations or relationships that we are exploring are best examined at the workplace-level or at some other level of aggregation. This important question was posed by one of the WIRS founders not so long ago in relation to the evidence on the link between ‘high-involvement management’ and performance (Millward, 2001). Millward suggested that, a priori, it was not clear whether such a relationship might obtain at global or multinational level, national enterprises, subsidiary companies, workplaces, product-lines or at some other level of aggregation. He pointed out that much depended upon the degree of variation in practices one observed within and across these organizational units. In a thinly veiled attack on empirical research to date on this issue he said:

“I have seen no argued discussion for the choice of unit used in empirical studies of the HIM-performance relationship. But I have seen prominent discussions of the subject mixing and confusing units at different levels as though it did not matter at what level the relationship was examined...Unless the theory driving the research is clear about the level at which the expected relationships are to be found, then the choice of statistical unit should be guided by some empirical information about the variation of the independent variable within the different levels of organizational units....Researchers who do secondary analysis are, of course, not faced with any choices to make about the unit of data collection. It has been done for them. But they should at least be aware that the survey data they have chosen to analyse may not have been gathered at the level that is universally appropriate for the phenomenon they are examining” (op. cit.: 4-5).

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<sup>32</sup> Daniel and Millward (1983); Millward and Stevens (1986); Daniel (1987); Millward et al. (1992); Millward (1994); Cully et al. (1999); Millward et al. (2000); Kersley et al. (2006); Forth et al. (2006)

<sup>33</sup> In a personal communication John Forth estimated there are around 400-450 WIRS publications. Roughly 165 of these are articles in refereed journals and 15 are books.

Of course, there are exceptions, such as the company level analysis of union recognition by Blanden et al. (2006), but they are rare. It is clear that, if we are to deepen our knowledge of IR in Britain and the way it is changing we shall have to think more broadly than WIRS.

Table 1: *Percentage of workplaces with 25+ employees recognizing unions, 1980 - 2004*

|                  | 1980 | 1984 | 1990 | 1998 | 2004 |
|------------------|------|------|------|------|------|
| Manufacturing    | 65   | 56   | 44   | 28   | 37   |
| Private Services | 41   | 44   | 36   | 23   | 20   |
| Public Sector    | 94   | 99   | 87   | 87   | 88   |
| All              | 64   | 66   | 53   | 42   | 39   |

Sources: Millward et al., 2000; Willman and Bryson (2006) based on WERS. Note that 1998 figures based on new weights explaining difference in 1998 private manufacturing figure compared with Millward et al. 2000.

Table 2: *Factors influencing size of most recent pay settlement for core employees in private sector, 2004*

| Factors affecting most recent pay settlement for core employees: | No union recognized | Union recognized |
|--|---------------------|------------------|
| Changes in cost of living  | 55 (52)             | 75 (67)          |
| Ability to recruit/retain employees                              | 49 (45)             | 37 (45)          |
| Financial performance of organization or workplace               | 68 (65)             | 66 (73)          |
| Productivity levels within organization or workplace             | 46 (45)             | 42 (52)          |
| Industrial action threatened or taken                            | <1 (<1)             | 4 (4)            |
| None of these  | 10 (11)             | 5 (5)            |
| Unweighted base  | 918 (1106)          | 489 (511)        |

Notes:

(1) Figures are column percentages. Since codes are multiple response figures do not add to 100. Figures are based on private sector workplaces with 10+ employees. Those in parentheses are based on private sector workplaces with 5+ employees.

(2) The definition of union recognition is confined to workplaces with union members on site to maintain comparability with the reported findings for WERS98.

Table 3: *Incidence of profit-related pay and share-ownership schemes among trading sector workplaces with 25+ employees, 1980 - 2004*

|  | 1980 | 1984 | 1990 | 1998 | 2004 |
|--|------|------|------|------|------|
| Profit-related pay                               | NA   | 19   | 44   | 46   | 44   |
| Share-ownership schemes                          | 13   | 22   | 30   | 24   | 30   |
| Any profit-related pay or share-ownership scheme | NA   | 30   | 54   | 50   | 57   |

Notes:

(1) Figures through to 1998 from Millward et al. 2000: 214-217. Own calculations for 2004.

(2) Trading sector includes the small number of publicly owned commercial companies, but their exclusion makes little difference to the figures.

(3) Wording changes mean PRP and ESOS schemes may have been under-recorded in 1998. See Millward et al. 2000: 214-216 and footnote 24 and Kersley et al., 2006: 191-193

Table 4: *Managerial perceptions of the IR climate among workplaces with 25+ employees, 1980 - 2004*

|                                   | 1980 | 1984 | 1990 | 1998 | 2004 |
|-----------------------------------|------|------|------|------|------|
| Panel A: Whole economy            |      |      |      |      |      |
| Very good                         | 49   | 38   | 32   | 39   | 39   |
| Good                              | 49   | 57   | 61   | 51   | 53   |
| Panel B: Unionized workplaces     |      |      |      |      |      |
| Very good                         | 45   | 34   | 28   | 40   | 37   |
| Good                              | 53   | 62   | 63   | 50   | 55   |
| Panel C: Non-unionized workplaces |      |      |      |      |      |
| Very good                         | 56   | 48   | 37   | 39   | 41   |
| Good                              | 41   | 48   | 59   | 52   | 53   |

Note: the categories 'neither good nor poor', 'poor' and 'very poor' account for the remainder

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