

# RESEARCH PAPERS IN MANAGEMENT STUDIES



## EMPLOYEE COMMITMENT AS AN OUTCOME OF FAMILY-FRIENDLY POLICIES? ANALYSIS OF THE WORKPLACE EMPLOYEE RELATIONS SURVEY

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WP 20/2001

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**Employee commitment as an outcome of  
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An analysis of the Workplace Employee Relations Survey.**

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**November 2001**

**Acknowledgments**

The research contained in this paper was funded by the Joseph Rowntree Foundation Work and Family Life Programme. Joseph Rowntree Foundation will be publishing an overview Report covering the results of this and several other papers on aspects of our analyses. This paper is one of a number, therefore, intended to provide technical details to the overview Report. We wish to thank the Data Archive at the University of Essex for supplying the Workplace Employee Relations Survey data and the funders of the data, for giving us permission to use the data for the analyses contained in this Report; namely the Department of Trade and Industry, the Economic and Social Research Council, the (former) Employment Department and the Advisory, Conciliation and Arbitration Service. We also thank participants of the Family Policy Studies Centre seminar in November 2000 for useful suggestions. In addition Peter Nolan, Mark Beatson, Frank Wilkinson, Ceridwen Roberts and John Evans provided helpful comments on an earlier version of this material. We are, of course, responsible for these analyses and any interpretations attached to them.

## **ABSTRACT**

### **Effects of family-friendly policies on employee commitment An analysis of the Workplace Employee Relations Survey**

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This paper uses data from the 1998 Workplace Employee Relations Survey (WERS) to model the determinants of the extent of employees' normative or affective commitment to their employer. Using OLS regression of the log commitment scale, a range of covariates were entered from the rich WERS data with the main aim being to assess whether employees access to family-friendly policies in the workplace affected their commitment. Data about the family-friendly policies, and their number were available from both the manager's questionnaire and the employees themselves. Comparisons were made of the effects on commitment of policies from these two alternative sources. There was evidence that access to some family-friendly policies improved commitment in the case of employees working in the private sector but not in the public sector. The two alternative sources pointed to some differences in the effects.

## 1. Introduction

There has been considerable policy interest in examining whether family-friendly policies or flexible working arrangements have business benefits, the so-called business case. If there are demonstrable benefits, then policy makers have a persuasive instrument with which to approach employers. The potential benefits considered in policy debates include measures of employer or business performance, the *hard end* of benefits, such as productivity increases, financial performance, employee turnover, absenteeism reductions or recruitment and retention benefits. At the *soft end* of benefits come employee morale, employee attitudes and employee commitment. The soft-end benefits are thought to produce, in due course, hard-end benefits. In this paper we are interested in whether family-friendly practices affect employee commitment as an intermediate outcome. However, whether employee commitment does feed through into the hoped-for performance benefits is not proven and poses serious methodological challenges to address (Guest et al, 2000). Clearly, employee commitment is a complex concept. Researchers have debated the nature of this concept and empirical studies have examined the links between both commitment and other outcomes, and commitment and the antecedents of management and supervision styles. While commentators have suggested favourable links between work-life balance policies and employees' commitment to the organization (and ultimately to business performance), there has been relatively little evidence about these relationships. This paper sets out to examine the narrow issue of whether family-friendly working arrangements affect employees' commitment with a newly available British data source. The analysis is carried out within the constraints set by a cross-sectional data source.

We were able to use employees' data in the 1998 Workplace Employee Relations Survey (WERS) to explore this topic. The WERS data enabled us to devise a measure of employee commitment and examine some of its determinants. In particular, we were able to examine whether the presence of family-friendly working practices as revealed in managers' interviews as well as employee questionnaires have any independent effect on employees' commitments to their organization, after controlling for the other influences on employee commitment.

In the rest of this paper we first review the literature on employee commitment and its determinants (Section 2). In Section 3 we describe the model and outline our hypotheses about the determinants of commitment. The WERS data are described in Section 4 followed by our results (Section 6) and our conclusions (Section 7).

## 2. Literature on employee commitment.

Gallie and White (1993) measured employee commitment to paid work from a 1990 survey and found that it was relatively high in the workforce as a whole and appeared to have increased compared with 15 years earlier. There was little difference between men and women. Only one third of employees exhibited high involvement in their current job, usually called *task commitment*. A recent consultancy Report by AON (2000) claimed, from a survey of 1570 workers, that 39 per cent of UK workers were committed to continuing in their jobs, usually called *continuance commitment*.

Other studies have fiercely debated the gender differences in employee commitment. Hakim's 1993 division of British women into the full time committed workers and the part time uncommitted workers have been debated extensively, although a further third adaptive group have been added (Hakim, 2000). While there are clearly attitudinal and some behavioural differences between women who work full or part time, there are many determinants of women's orientations to work, over and above their hours. Age, life cycle, occupations, education, work history and other attitudes distinguish between women's attitudes towards work (Healy, 1999; Dex, 1988). AON (2000) found that UK women exhibited more commitment than men did to continue in their jobs. Commitment was also higher in the following groups; among married people; the middle age groups; and those living outside London; in higher-grade occupations, especially in teaching and health professions; with longer job tenure; in the private sector; and in organizations with 1000 to 5000 employees.

### **The determinants of employee commitment**

Gallie and White (1993) found that employee commitment was related to personal characteristics that they called external factors (beliefs, sense of success) and internal organizational factors including the structure and policies of the organization. Internal factors that were found to improve commitment included:

- the opportunities for personal development;
- the higher the extent to which employees felt their skills were utilized;
- the greater the access to training;
- the greater the extent the organization was seen as a caring employer; and
- the existence of teamwork as a form of supervision.

Cohen (1995) and others have also found that so-called non-work domains, the amounts of outside ties, the organization's support for non-work, as well as personal coping strategies, had significant effects on a sample of nurses' organizational commitment. There are elements of these studies, therefore, that suggest indirectly that work-life balance policies may be related to employee commitment.

There has been a growing consideration, through econometrics studies, of the assumptions underlying the high commitment management theories. In these theories, the more people centered focus of high commitment management strategies (HCM), viewing employees as an asset, has been argued to lead to an increase in employee commitment. As noted earlier, employee commitment has been viewed as an intermediate outcome, on the way to improvements in business performance (Huselid, 1995). As Guest et al (2000) note, however, few studies have examined both of these relationships together and shown the intermediary effects on commitment. Criticisms have also been made by other researchers that the 'commitment' element was left as an unexplored 'black box' (Becker et al, 1995; Purcell et al, 1999). Scholaris et al (1999) recently analyzed the WERS 98 data and did not find evidence of a direct effect of HCM practices on commitment. Coincidentally with our own analysis Guest et al (2000) carried out multivariate estimations of the determinants of employee commitment and job satisfaction using the same WERS data as we use for our analysis. We refer to their results along side our own below.<sup>1</sup>

## **Work-life balance policies and employee commitment**

The 1996 PSI survey of employers reported that equal numbers of British employers saw advantages and disadvantages in providing family friendly working arrangements (Forth et al, 1997; Callendar et al, 1996). Employers were most likely to perceive benefits for improved staff morale and loyalty together with improved staff relations. Other collations of case study material have found evidence of business benefits from introducing flexible working arrangements (Dex and Scheibl, 1999; Bevan et al, 1999) that have included workers' morale. In some cases precise measures have been carried out; in other cases, managers' perceptions are the basis for the claimed improvements.

As well as indirect evidence of a link between commitment and work-life balance policies, more direct links have been noted based on workplace experiments. Early reviews of the studies measuring the effects on flexi time and compressed working week arrangements on employee attitudes found the introduction of these arrangements had uniformly positive effects (Golembiewski and Proehl, 1978;1980; Neuman et al, 1989). However, in general there are criticisms of the lack of rigour in the design and in the measures used to evaluate interventions (Gottlieb et al, 1998). The effects on job satisfaction have been found to vary between positive or no effects (Gottlieb et al, 1998). Canadian studies cited in Gottlieb et al (1998) found that telecommuters reported higher commitment to the organization than other workers, and both telecommuters and part-time workers had lower levels of intentions to seek a new job. Unlike some of the other outcomes measures (stress, work-life balance, productivity) investigated by Gottlieb et al, whose results varied according to whether employees had a choice about their working arrangements, they found that attitude or morale effects were not influenced by the choice element.

Interviews with the managers in 83 organizations that had some family-friendly arrangements by IRS (2000) found that 68 per cent of these managers thought commitment and or motivation increased as a result of having family-friendly policies. Similar percentages also thought employee relations and job satisfaction improved for the same reasons. AON (2000) suggested that the lack of work-life balance in companies' agendas, along with stress, dissatisfaction with rewards and poor management of change were the drivers of low commitment in organizations.

### **3. Determinants of commitment**

Our model of employee commitment hypothesized that commitment would be related to a set of personal and job related employee characteristics and possibly variables related to the working environment as follows.

$$C_i = f ( X_i, W_i, O_{ij} ) \quad (1)$$

Where

$C_i$  is the level of commitment of employee  $i$

$X_i$  is a set of personal characteristics of employee  $i$

$W_i$  is a set of job related characteristics of employee  $i$

$O_{ij}$  is a set of characteristics of the workplace establishment  $j$  where individual  $i$  is employed.

Our hypotheses about the specific elements of these vectors of individual and workplace characteristics are described below. The discussion is limited to potential determinants from the literature and theorising that are possible to measure from the available WERS data source.

On personal characteristics, some earlier research has suggested that women and especially those who work part time and married women with children will have lower levels of commitment to their work than men. However, this relationship is disputed. Commitment has been found to vary over the life cycle and we might expect variations by the presence of children, of varying ages, as well as variations by age. Variations by age are difficult to anticipate. Workers who are older may be more committed than those at the start of their career who are still trying out various jobs. On the other hand, older workers can feel less committed, especially as they face the run down to retirement, or thwarted promotion. Similar reasoning applies to workers with shorter job tenure who may feel less committed to their employer than those with longer tenure. As time goes on, those who are seriously disaffected are likely to leave their jobs leaving the stock of longer tenure workers likely to be those who are more committed or who have nowhere to move to.

Ethnic minority status might be associated with higher commitment as a response to wanting to be successful in a discriminatory environment. Alternatively, disaffection can be a response to facing discrimination. Research also shows that there are important variations between ethnic groups as far as success in the labour market is concerned, but we are unable to explore such potential differences with the data available. Poor health could also mean that workers were less committed to their employer, or possibly more grateful to have a job at all. This response will be mediated, therefore, by the employer's response to ill health. Those with higher educational qualifications might be expected to be less committed to their employer if they think they have more buoyant labour market prospects than other workers although this is likely to be mediated by whether they employer rewards them satisfactorily. However, this group of workers are potentially more valuable to employers and likely to be recipients of better people management policies and rewards.

The High Commitment Management (HCM) practices are about employers using practices that encourage commitment in their employees. This theory holds out the possibility of being tested in one of two ways. If employers were practicing HCM one would expect employees to show greater levels of commitment. But there is also the employee's perspective. Where employees think they are involved and consulted this theory would also expect them to exhibit a higher level of commitment. This type of management theory would lead us to expect that jobs with more responsibility and discretion in the higher status occupations would be expected to be associated with higher levels of commitment. Satisfaction with rewards from work, satisfaction with the job itself, and feeling secure are all likely to be associated with higher levels of commitment, as are higher pay levels.

The employer characteristics that may affect employee commitment range over human resources practices but also structural features of the organization. Not all of these potential influences are charted in the literature. Guest et al (2000) also investigated whether it was more likely to be bundles of practices rather than particular practices in isolation that would affect employees and performance outcomes more generally. They could not find evidence that bundles of practices were important. In this study we are interested, partly because of policy implications, in a particular set of practices, those relating to flexible working arrangements as potential explanatory variables of employee commitment. What we have to make sure is that we do not identify spurious relationships because we have missed out other intervening and correlated variables. We are interested in whether family-friendly practices are associated with higher levels of employee commitment, having to leave to further study using longitudinal data, the question of whether higher commitment is produced from more flexible working arrangements being offered to employees.

Factors related to individuals' jobs are also likely to influence them. The potential influence of shorter hours of work were considered above. Longer hours of work through regular overtime might be expected to produce either more commitment through the employee appreciating the income-increasing opportunities, or lower commitment if it is associated with unwanted pressure to work longer hours. We would expect workers on fixed term or temporary contracts to feel less committed than those with permanent contracts.

On the structural elements of organizations, it is possible that the size of the establishment or the organization affects employee commitment. Small size has been traditionally thought to be associated with better and warmer relationships since the Bolton Report (1971), although contested. Large organizations can offer employees a better career structure through more highly developed internal labour markets. Guest et al (2000) found a negative relationship between organization and establishment size and employee commitment in the private sector using the WERS data. The nature of the ownership of the organization could also affect employee commitment through whether they feel (foreign) owners understand and have cultural affinity for employees and their concerns. Trade Union recognition and involvement and the way employees are represented might also affect employee commitment. Guest et al (2000) found negative effects of trade union density on employee commitment. Lastly the financial performance of the organization may affect employees' views of the organization, with above average performance gaining an increased level of commitment as employees see the organization as having a better future to offer them. It is possible that other structural features would also affect employees' views of the organization and be proxy measures of working conditions in ways that are uncharted in the literature. For example industry sectors have different working conditions that in part reflect different technologies, operational constraints, market conditions, workforce profiles and the nature of customers. We are able to explore a few of these other alternative explanatory variables with the data available.

#### **4. The WERS 98 data and the measure of employee commitment.**

The Workplace Employee Relations Survey (WERS 98) data were collected as a nationally representative survey of British establishments from October 1997 to June 1998. The survey



involved interviews with managers and workers in over 2191 workplaces and questionnaires from 28,323 employees from these same workplaces.<sup>2</sup> The response rate obtained was 80 per cent. The 1998 survey had a new sampling base, as compared with earlier (WIRS) precursors of this survey. In the 1998 WERS, establishments with a minimum of 10 employees were sampled whereas earlier surveys had taken a minimum of 25 employees. This means that the survey as a whole represents 15.8 million employees or approximately three-quarters of all employees in employment in Britain in 1998. Incorporating employees into the survey was also a new innovation. The technical details of the survey are described in Airy et al (1999) and an overview of the survey findings is provided in Cully et al, (1999).

There were also new additions to the content of the 1998 survey. As well as its past coverage of the nature of collective representation and bargaining, it included new questions on equal opportunities policies, family-friendly policies, performance indicators, payment systems and performance appraisal, recruitment and training, quality improvement schemes and the individualisation of employment contracts. This set of new questions, in combination with others in the WERS survey, provided a valuable opportunity to examine employees' commitment.

### **Measure of employee commitment**

The many research studies that have focussed on work commitment have served to uncover the complexity of this concept to the extent that authors have characterised it as having no stable meaning (Becker, 1964), elusive (Guest, 1992) and pluralist (Coopey and Hartley, 1991; Morrow, 1983). Morrow identified 25 forms of commitment although they were able to be reduced to 5 main foci; a value, career, job, organisation or union focus. The focus of our interest is in organisational commitment. Even under this heading there are alternative angles on employee commitment; for example, task commitment (to see the job through), continuance commitment (to stay in the organisation), normative or affective commitment (feelings of loyalty or shared values with the organisation), financial commitment (to the material rewards), or temporal commitment (to a certain amount or work).

There was a limited choice in the WERS data for devising a measure of employee commitment. The measure we use focuses on the employee's view rather than the employer's view bearing in mind these two may differ. It is closest to the notion of *affective or normative commitment* described in the literature and to be distinguished from *continuance commitment*.

In each case employees were asked to score the following statements, each scaled 1, strongly disagree, to 5, strongly agree :

- 'I share many of the values of my organization'
- 'I feel loyal to my organization'
- 'I am proud to tell people who I work for'.

From the scores a scale from 3 to 15 was constructed. The usual item response correlation tests were carried out and the alpha statistic calculated to confirm reliability of the new composite scale.

On this composite scale employees (N=26,115) could be classified as follows:

- 16 per cent had low commitment (scores 3 to 8);
- 42 per cent had medium commitment (scores 9 to 11); and
- 42 per cent had high commitment (scores 12 to 15).

This scale was used as the dependent variable in a regression model, although various forms of the scale were tried. A logged value of employee commitment was used to fulfill the assumptions of Ordinary Least Squares (OLS) regression analysis and ordered probit estimation was used as an alternative on the raw scale.

### **Family-friendly working arrangements in WERS**

The manager questionnaire asked about the working arrangements that the establishment offered as entitlements to non-managerial employees. The list of provisions included covered:

- Parental leave (non-statutory, since survey before the Statutory provision);
- Job sharing;
- Term time only;
- Working at or from home during normal working hours;
- Ability to change from full to part time hours;
- Workplace or other nursery;
- Help with the costs of child care;
- Flexi time.

The wording of the WERS questions is not specifically about organization policies. In this sense we might expect that answers covered both formal policies and practices of the establishments in the survey albeit only for non-managerial employees. However, the fact that the question wording used ‘entitlement’ implies that informal arrangements, especially if subject to a manager’s discretion, would be less likely to be counted.

In addition, another two provisions were asked about but not in a way that was restricted to non-managerial employees;

- Paternity leave
- Scheme for time off for emergencies.

Although this is a list of 10 arrangements, there is a risk of double counting in the case of parental leave and paternity leave. These two arrangements were collapsed into one (either/or) arrangement.

At the time of this survey parental leave was not well defined since there were no statutory arrangements in Britain and it is easily confused with maternity or paternity leave, perhaps more so for employees than employers. This should be born in mind in examining these data.

There is also a measure of the ethos of the organization from managers’ responses that can be used as a potential explanatory variable. Employers were asked to score on a 5-point scale from 1 strongly agree to 5 strongly disagree the following statement.

*It is up to individuals to balance their work and family responsibilities.*

Several recoded versions of this and other variables were tried before settling , in this case, on a dummy variable where the value one indicated disagreement with this statement.

### **Employees' family-friendly questions in WERS**

In addition, employees were asked whether their employer made family-friendly provision available to them; a subset of 6 the same provisions used in questions to employers were presented, namely:

- Parental leave (non-statutory since survey before the Statutory provision);
- Job sharing;
- Working at or from home during normal working hours;
- Workplace or other nursery or help with child care;
- Scheme for time off for emergencies; and
- Flexi time.

It is useful to compare the effects of employees' knowledge of their employers' policies with that of their employers' claims since there is likely to be a certain amount of inconsistency between the two sources of information. Inconsistencies can arise because of incomplete communication within organizations, misunderstanding and possibly false claims. Since we are interested in employees' sense of their commitment, it is arguable that it is employees' knowledge of their employers' policies that we need to access. However, we have investigated the effects of both of these sources of information.

Employees were also asked whether they felt stressed in their jobs. This can be examined for its potential effects on employee commitment. Employee stress is an indication that work and life are not in balance.

### **Other explanatory variables**

The WERS data provided a very wide range of explanatory variables from its two components. The employee questionnaire provided other characteristics about the employee, both personal and job-related characteristics. In addition, it was possible to merge into the employee data, details about their workplace from the manager's questionnaire; structural characteristics of the establishment, workforce profile, and human resources practices. A full list of the variables used and their definitions, means and standard deviations is provided in Appendix Table A1. At the outset of our analysis, widespread bivariate correlations were calculated in order to see where potential covariates were highly correlated. Some important variables were recoded to avoid problems of multi-collinearity. Others were dropped as a result of this exercise.

We sought to have a measure of high commitment management as an explanatory variable. There are many ways in which such a measure could be constructed and differing views about what it should contain (see for example Huselid, 1995). The WERS survey instrument was developed to make sure the full range of possible meanings could be explored. Developing such a measure could not be the main focus of our research. Nonetheless, we needed to include such a

variable as one of our controls, given its potential importance. We took, therefore, a relatively pragmatic approach of including a broad range of the relevant variables and running them through a factor analysis. This procedure identified one factor with an eigenvalue greater than one. We used the factor score from this variable as our explanatory measure (details are in Appendix Table A1)..

## **5. Results**

A series of models were estimated, based on the model (1) outlined above. The variations in the log form of the dependent variable and associated estimation methods did not lead to any substantial differences in the results from one where the raw scale scores were used. Below we report the OLS results based on the logged version of the commitment scale as a dependent variable.

The models were run on the total sample of employees first and then on split samples; first private and secondly public sector organizations. The results reported indicated that there were differences for these two sectors. Separate estimations on public and private sectors were carried out in response to interesting and somewhat unexpected results we obtained. Where managers' questionnaire data are merged with employee responses, as is necessary in order to address this paper's questions, the sample of employees had to be restricted to those who could be classified as non-managerial, because the questions to managers about their family friendly policies were asked only about this group. We also estimated a reduced variable model on the whole employee sample in order to check whether any of the other results on control variables were specific to the non-managerial subsample of employees.

A full set of results is displayed in Table A2. We first consider the results on the family-friendly variables whose coefficient results are displayed in isolation from the other variables in Table 1. Employer and employee information about family-friendly policies were entered in separate estimations, one for each type of arrangement across the two sources.

### **Family-friendly policy effects – employer's information**

From the information about policies given by employers we find that, after controlling for other determinants on our measure of employee commitment, term time employment, the ability to change from full to part-time hours, emergency leave and the total number of family-friendly policies had significant effects on employee commitment. However, these were not all positive effects. Out of this list the offer, by employers, of emergency leave was the only policy that improved employee commitment. In the case of the others, term-time work, the ability to change from full-to part-time and a higher overall number of policies were all associated with a reduction in employee commitment. The sizes of all these effects were extremely small, in most cases well below a one per cent effect on the log commitment scale, from having the policy.<sup>3</sup> These are very small by comparison with other significant effects among some of the control variables.

Further investigation across the private/public sector divide revealed some differences. There were more positive effects from family-friendly policies where they were offered in the private

sector, and more negative effects where they were offered in the public sector. In the private sector, having a workplace nursery, offering help with child care or allowing employees to work at home were associated with higher employee commitment. The number of policies was insignificant in the results reported, although we did estimate some models on the private sector sample where the number of policies had a significant and positive effect on commitment. The sizes of all the effects also increased when public and private sector establishment samples were examined separately, to a range of between 1-4 per cent on the log scale.

In the public sector, significant negative effects on employee commitment were associated with employers offering job share, the ability to change from full to part time, flexitime, having a workplace nursery, emergency leave, home work and with a higher number of policies overall.

We were able to give some examination to whether other correlated variables were capturing some of the effects on family-friendly policies and thus weakening their coefficient sizes and significance. The idea that organizations adopt policy bundles, as Guest (1997) considered, is also a factor to consider. One set of estimations were carried out only with measures of employee personal and job-related characteristics being included. To this reduced set as a base, the separate indicators of family-friendly policies, one per estimation run, were added. The coefficients on the family-friendly set of variables are displayed in Table 1 columns 2, 4, and 6. These results can be compared with another set of estimations (Table 1 columns 1, 3 and 5 respectively) where employer human resource measures were also added. If other employer human resource practices were picking up some of the effects of family-friendly practices, we would expect to see the coefficients' sizes and significance to decline in the estimations including human resource policies compared with estimations excluding them. This was not found to be generally the case and especially for the estimations relying on information provided by the employer.

### **Family-friendly policy effects – employee's information**

Making use of the information provided by employees led to some differences in the results. In the total employee sample the signs on the coefficients, where policies overlapped, were similar to those from employers' information, but the significance varied. Employees who thought their employers offered parental leave (non-statutory), job share, flexitime or a higher number of policies all tended to have lower levels of employee commitment than employees who did not believe they were offered such arrangements. In the private sector sample job share retained its significant negative effect on commitment but being able to work at home had a significant positive effect on commitment. The predominance of negative effects from family-friendly policies was again evident in the public sector estimations using employees' information. In all cases other than emergency leave, which did not have significant results, the effects of employees perceiving their employer to offer family-friendly policies was negative.

### **Ethos effects**

Where the employer thought there was a family-friendly ethos in the establishment there tended to be insignificant effects on employee commitment, either in the whole sample or in the private sector. The variable for the public sector had insufficient variation to be incorporated. However,

the employee's perception of the ethos of the organization was systematically important across private and public sectors. Being thought by employees to be a more family-friendly organization was associated with higher employee commitment in both the private and the public sector, an effect of around 4 per cent on the log commitment scale.

### **Private and public sector differences**

These public sector results are certainly something that surprised us. Attempts to explore and explain these differences by incorporating interaction terms did not uncover any obvious statistical reasons for these effects. It is clear that it is not the lack of knowledge by employees of their employers' policies that is the explanation since the same effects are visible in estimation using employers' and employees' information. We cannot eliminate the possibility that reverse causality explains this effect and that organizations with lower employee commitment have introduced family-friendly policies as a way of trying to address their problems. These effects remain, therefore, largely unexplained, although we found we were not alone in finding adverse results for the public sector from the WERS data (see Guest et al, 2000). We can only speculate about why this might be the case. There may be a failure to implement these provisions even though family-friendly provisions are clearly more extensive in the public sector. If this type of window dressing has been occurring, it may have made employees cynical. A workplace culture that militates against take up might also have this effect. It might be the case that family-friendly provisions cause increased disruption and bad feeling in a hard pressed public services environment if there is no cover for absence. Further research is needed to clarify this relationship.

### **Other controlling variable effects**

Significant effects were found from control variables capturing individuals' personal characteristics, their job related characteristics, organizations' human resources policies and structural characteristics (Table A2). The employee job-related characteristics were by far the strongest determinants of employee commitment, in particular their job satisfaction, their view of the management, and being in a professional or managerial job although only in the private sector, had the largest influences on commitment.

Increasing age was associated with higher levels of commitment. However, longer tenure in the job was mostly not significant, except among private sector employees as a whole, who had higher commitment associated with working more than 5 years for their employer.

Being female was associated with a higher level of commitment and being partnered was associated with a further increase in commitment for employees in the private sector, male as well as female. The age of the child variables were mostly insignificant except having an older child (12-18), in a few cases, was associated with higher commitment. Part-time work was mostly insignificant except among private sector non-managerial workers where it was associated with lower commitment. These results are consistent with the AON consultancy study. They also suggest that Hakim's earlier categorisation of the commitment of the female workforce is oversimplified.

Poor health was associated with higher commitment for those working in the public, but not in the private sector. The public sector may do more to help those with poor health to retain their jobs and stay in work. Ethnic minority employees tended to have higher levels of commitment than white workers across all sectors. This suggests ethnic minority workers are trying hard to show their employers their personal qualities. There may be cultural differences at work also. Certainly this finding is important in the policy campaign against discrimination against such workers.

Compared with relatively unskilled jobs, other types of jobs tended to have higher levels of commitment, although with a few exceptions. Craft workers in the public sector did not have significantly higher commitment than the reference group. However, there may not be many employees with craft skills in the public sector. Also, clerical or secretarial work in the public sector was associated with lower levels of commitment. Generally speaking, those with higher levels of skill tended to have higher levels of commitment. However, in contrast to this, employees holding a degree had lower levels of commitment than those without a degree, after controlling for type of job. The interaction between holding a degree and having a professional or managerial job did not eliminate this effect or its significance. The same was true of the three interaction terms tested between the employees' discretion and having a degree, discretion and a professional/managerial job or a professional/managerial job and discretion. In all cases the interaction terms were not significant and the original coefficients remained largely unchanged in size and significance. We conclude that a degree or having more discretion in one's job may be reflecting the attitudes of workers who have better labour market opportunities, and who have less commitment, therefore, to any one organization.

Employees who had job satisfaction had a large influence on employee commitment as did those with higher levels of pay, feeling secure in one's job, thinking the job was hard work and thinking the management were good. Feeling dissatisfied with one's pay was associated with lower commitment. These results are mostly intuitively reasonable. The inclusion of interaction terms between pay and satisfaction with pay did not change our conclusions.<sup>4</sup> It perhaps requires a comment that thinking one's job was hard work is also associated with higher commitment. This is not really surprising and fits well with the high commitment management approach which would expect hard work in return for employee benefits, greater involvement, control over one's work and taking greater responsibility. Interestingly also, higher stress was associated with greater commitment in the public, but not in the private sector, possibly for the same reasons or possible because an ethos of care is associated with many public sector jobs which enhances commitment.

A range of human resource practices were found to be significant. The High Commitment Management practices and employee involvement measures were all associated with higher commitment but only in the private sector. These results are contrary to those found by Scholaris et al (1999) using a different measure of HCM but they are consistent with those found by Guest et al (2000). In addition, employees who received training exhibited higher commitment as the HCM management approach would lead us to expect. Performance-related-pay increased commitment in the private sector but was associated with a fall in commitment in the public sector. However, consulting workers about equal opportunities was not associated with higher

commitment. This may be because employees did not see any benefits from the consultation process.

Equal opportunities policies (EO) might be thought to be linked to family-friendly policies and be part of a single package of HR policies. It is interesting therefore, to see the way the effects of EO policies mirrored the results for family-friendly policies. Irrespective of the level of EO implementation (medium or high), the policies were associated with lower commitment in the public sector. However, if implemented at the higher level with monitoring and data collection, they were associated with significant positive effects on commitment in the private sector.

Recent bad industrial relations was associated with lower commitment across all sectors. Recruitment difficulties has a significant negative effect on commitment in the private sector but a positive effect in the public sector. Presumably this increases the workload of the current stock of employees. A high proportion of temporary staff also had a negative effect on commitment in the private sector, but the effect in the public sector was not significant. There are other case study findings that support this result (Dex et al, 2000).

Some support for the hypothesised effects were visible in the results on the structural variables. Commitment was lowered by successive increases in size of the establishment and the organisation, compared with the base groups (of fewer than 25 employees in the establishment and less than 500 in the organisation respectively). This is further evidence of the benefits for employees of working in small businesses. Guest et al (2000) found, using the same data, a similar negative relationship of employee commitment with increasing organisation and establishment size, but only in the private sector.

Of the industry groups, manufacturing, construction, transport and financial services tended to have lower commitment than the reference group. Guest et al (2000) noted the same effect for construction. The progressive decline of Britain's manufacturing industry and the on-going large-scale restructuring of the financial services may be responsible for these findings. Also, employees in construction and transport industries may be becoming an endangered species, and be relatively atypical therefore, as both of these industries have gone over to self-employment as their main form of employment contract. Of the largely public sector industry categories, education and health had higher commitment whereas public authorities' workers had lower commitment.

Having a recognised union was associated with lower levels of commitment in the private sector but was not significant in the public sector model.<sup>5</sup> Our finding overlaps with the high commitment management results that would stress higher employee commitment as deriving from employers paying attention to workers' views without unions being needed to represent their interests. Lastly, above average financial performance, as judged by the employer, was associated with higher levels of employee commitment in the private sector, as we expected.

Our multivariate analyses has confirmed many but not all of the findings of earlier studies of the determinants of employee commitment for example by Gallie and White's 1990 survey. However, we take issue with other results on the effects of being female, or married with young children, working part time, having shorter job tenure, or employing HCM practices. On the



whole our hypotheses were supported where they were unequivocal and illuminating where we were able to argue for alternative effects.

## 6. Conclusions

This study used the 1998 WERS data to analyse one possible measure of employee commitment from the WERS data. The effects of family-friendly policies have been found to be relatively small compared with other predictors of employee commitment. Nonetheless, after a whole array of controlling variables about employees and their employers, the provision of family-friendly policies relating to child care and working at home were found to be associated with improvements in employee commitment in private sector establishments. On the other hand, a whole array of family-friendly policies and other associated human resource policies like equal opportunities policies were found to be associated with lower levels of employee commitment. An explanation for the poorer record of commitment for the public sector is not possible within the context of this study, although statistical anomalies have been ruled out as an explanation for these sectoral differences. Where employees, but not the employer, thought the organisation had a caring ethos was found to be an important determinant of increased employee commitment.

While the separate effects of family-friendly policies on commitment, with the exception of the ethos, are not large or extensive, once other influences have been controlled, it might be argued that some of their effect is being picked up by other variables, shown to be correlated with family-friendly policies. For example, high commitment management practices were shown, in an earlier paper, to be correlated with organizations having family-friendly policies. Where high commitment management practices are successful, it may mean that flexible working arrangements are more likely to be customised to fit employees' needs in order to help increase their commitment, as captured through these other more general employer practices. The inclusion of HCM practices as a control variable did not reduce the strength of the effects of family-friendly policies, nor did its exclusion extend the range of significant effects from family-friendly policies to any major extent. Our analysis was able to identify that family-friendly policies acting apart from HCM practices, did not have any stronger effect on employee commitment. The case for there being a larger hidden effect of family-friendly policies on employee commitment from the one found here is not supported in our findings. Nonetheless, the fact that other control variables play a bigger part in explaining employee commitment does not detract from the importance of our findings for family-friendly policies.

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**Table 1 Results on selected family-friendly policy coefficients entered into employee commitment models**

Variable entered	(1)		(2)		(3)		(4)		(5)		(6)	
	All sample, All vars		All sample, employee vars only		Private sector All vars		Private sector Employee vars only		Public sector All vars		Public sector Employee vars only	
	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
<b>Manager says has:</b>												
Parental/paternity leave	0.000	(0.92)	0.001	(0.78)	-0.006	(0.26)	-0.000	(0.98)	0.006	(0.61)	-0.002	(0.87)
Job share	-0.005	(0.27)	-0.003	(0.40)	-0.005	(0.39)	-0.002	(0.76)	-0.013	(0.06) *	-0.016	(0.02)**
Term time	-0.008	(0.10) *	-0.000	(0.92)	-0.001	(0.93)	-0.000	(0.91)	-0.007	(0.33)	0.000	(0.98)
Ability to change FT-PT hours	-0.017	(0.00)**	-0.011	(0.00)**	-0.014	(0.00)**	-0.006	(0.20)	-0.027	(0.00)**	-0.028	(0.00)**
Flexi time	-0.003	(0.56)	-0.005	(0.21)	0.003	(0.68)	0.001	(0.78)	-0.006	(0.36)	-0.014	(0.02)**
Nursery	-0.022	(0.00)**	-0.008	(0.23)	0.027	(0.03)**	0.039	(0.00)**	-0.031	(0.00)**	-0.026	(0.00)**
Help with child care	-0.005	(0.53)	0.004	(0.55)	0.008	(0.43)	0.020	(0.03)**	-0.016	(0.11)	-0.016	(0.12)
Emergency leave	0.006	(0.04)**	0.006	(0.09) *	0.003	(0.47)	0.000	(0.93)	0.009	(0.06)**	0.016	(0.03)**
Home work	-0.007	(0.15)	-0.000	(0.96)	0.004	(0.58)	0.012	(0.06) *	-0.013	(0.08) *	-0.016	(0.03)**
Number of policies	-0.002	(0.04)**	-0.001	(0.48)	-0.002	(0.48)	0.001	(0.42)	-0.004	(0.04)**	-0.004	(0.02)**
Family-friendly ethos	-0.001	(0.79)			-0.001	(0.88)						

Variable entered	All sample, All vars		All sample, employee vars only		Private sector All vars		Private sector Employee vars only		Public sector All vars		Public sector Employee vars only	
	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
<b>Employee says has:</b>												
Parental leave	-0.006	(0.06) *	-0.008	(0.06) *	-0.000	(0.93)	0.000	(0.88)	-0.014	(0.00)**	-0.019	(0.00)**
Job share	-0.025	(0.00) **	-0.031	(0.00)**	-0.005	(0.37)	-0.017	(0.01)**	-0.032	(0.00) **	-0.042	(0.00)**
Flexi time	-0.014	(0.00) **	-0.017	(0.00)**	0.000	(0.99)	-0.002	(0.67)	-0.030	(0.00) **	-0.039	(0.00)**
Homework	0.003	(0.53)	-0.002	(0.79)	0.017	(0.01) **	0.016	(0.10)	-0.014	(0.07) *	-0.025	(0.04)**
Emergency leave	-0.000	(0.88)	0.001	(0.73)	-0.001	(0.75)	0.003	(0.47)	0.001	(0.85)	-0.003	(0.67)
Nursery or child care	-0.020	(0.00) **	-0.008	(0.36)	0.007	(0.51)	0.006	(0.69)	-0.029	(0.00) **	-0.013	(0.28)
Family-friendly ethos	0.043	(0.00)**			-0.043	(0.00)**			0.043	(0.00)**		

**Samples:**

Employer says has policy. Non-managerial employees only except for flexi time and leave for emergencies where sample is all employees.

Employee says has policy. All employees with information

\*\*\* significant at 90/95 % confidence levels respectively

**Appendix Table A1. WERS Variable Definitions**

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Definition and WERS source variable</b>
			<b><i>Employers' Family-friendly practice variables:</i></b>
Parental leave	0.434	0.496	Entitlement to non-managerial employees of parental leave 0/1 (ifamily1-80)
homework	0.182	0.386	Entitlement to non-managerial employees of working at or from home in normal working hours 0/1 (ifamily1-8)
Term time	0.205	0.404	Entitlement to non-managerial employees of term-time only contracts 0/1 (ifamily1-8)
FT-PT	0.586	0.493	Entitlement to non-managerial employees switching from full-time to part-time employment 0/1 (ifamily1-8)
jobshare	0.389	0.488	Entitlement to non-managerial employees of job sharing schemes 0/1 (ifamily1-8)
nursery	0.079	0.27	Entitlement to non-managerial employees of workplace nursery or nursery linked with workplace 0/1 (ifamily1-8)
childcare	0.068	0.251	Entitlement to non-managerial employees of financial help/subsidy to parents for child care 0/1 (ifamily1-8)
flexitime	0.272	0.445	Employer has flexitime for some non-managerial employees 0/1 (jtimear1-8)
Emergency	0.402	0.49	If employee has need to take time off at short notice, there is special leave or leave without pay to cover this 0/1, (ifmoff)
Paternity leave	0.648	0.478	Employer has written policy giving male employees entitlement to specific period of leave when their children are born, or has another arrangement: 0/1, (imaleoff)
Paternity/parental	0.687	0.464	Either has parental leave or paternity leave variables 0/1
Number of policies	2.857	1.972	Number of family-friendly policies, up to 9.
			<b><i>Structural and performance variables</i></b>
Estab 0-24	0.12	0.325	Reference group. Establishment size 0-24 employees, (Zallemps)
Estab 25-49	0.181	0.385	Establishment size 23-49 employees, 0/1 (Zallemps)
Estab 50-99	0.179	0.384	Establishment size 50-99 employees 0/1 (Zallemps)
Estab 100-199	0.177	0.381	Establishment size ≥100 employees and less than 199, 0/1 (Zallemps)
Estab 200-499	0.208	0.406	Establishment size ≥200 employees and less than 499, 0/1 (Zallemps)
Estab 500plus	0.136	0.342	Establishment size ≥500 employees 0/1 (Zallemps)
Org 10-499	0.351	0.477	Reference group. size of organisation 10-499 employees, (Auktot)
Org 500-1999	0.144	0.351	size of organisation 500-1999 employees, 0/1 (Auktot)
Org 2k-9999	0.211	0.408	size of organisation 2000-9999 employees, 0/1 (Auktot)
Org 10k-49999	0.15	0.357	size of organisation 10000-49999 employees, 0/1 (Auktot)
Org 50k+	0.144	0.351	size of organisation 50000 + employees, 0/1 (Auktot)
Industry categories:			
Community	0.051	0.219	Reference group. Other community services (asic)
Manufacture	0.136	0.343	0/1 (asic)
Energy/Utilities	0.037	0.188	0/1 (asic)
Construction	0.051	0.22	0/1 (asic)
Wholesale/retail	0.147	0.354	0/1 (asic)

Hotel & catering	0.058	0.234	0/1 (asic)
Transport	0.062	0.241	0/1 (asic)
Financial servs	0.046	0.21	0/1 (asic)
Business servs	0.104	0.305	0/1 (asic)
Public authorities	0.084	0.277	0/1 (asic)
Education	0.111	0.315	0/1 (asic)
Health	0.114	0.317	0/1 (asic)
public	0.309	0.462	Public sector organisation 0/1 (astatus)
foreign	0.103	0.304	foreign controlled: If private sector – foreign owned/controlled <u>or</u> predominantly foreign owned (51% or more) 0/1 (astatus and acontrol)
owner	0.129	0.335	owner controlled: If private sector but not PLC, and single individual or family have controlling interest over the company (i.e. at least 50 percent ownership) 0/1 (astatus and acontrol)
multinational	0.22	0.415	multinational: organisation owns or controls subsidiary companies or establishments outside the UK 0/1 (asubsid)
Recognised union	0.559	0.497	union recognised by management for negotiating pay and conditions for any section of the workforce in the establishment, (erecog01-10) and has employees as members (Eanyemp), 0/1
Marketlocal	0.428	0.495	market for main product or service is primarily local or regional 0/1 (kmarket)
Market national	0.183	0.387	Reference group market for main product or service is primarily national 0/1 (kmarket)
Market international	0.126	0.332	market for main product or service is primarily international 0/1 (kmarket)
No competitors	0.082	0.275	Main competitors for main product (or service) are none 0/1 (Kcompet)
Few competitors	0.246	0.431	Main competitors for main product (or service) are few 0/1 (Kcompet)
Many competitors	0.403	0.491	Reference group. Main competitors for main product (or service) are many. (Kcompet)
Competitors missing	0.269	0.444	Main competitors for main product (or service) are missing. 0/1 (Kcompet)
Labour costs 50-75%	0.232	0.422	proportion of establishment sales revenue / operating costs accounted for by wages, salaries and other labour costs like pensions and national insurance is 50-75%, 0/1, (kprosal)
Labour costs 75%+	0.217	0.412	proportion of establishment sales revenue / operating costs accounted for by wages, salaries and other labour costs like pensions and national insurance is 75% or more, 0/1, (kprosal)
Labour costs missing	0.092	0.289	proportion of establishment sales revenue / operating costs accounted for by wages, salaries and other labour costs like pensions and national insurance missing, 0/1 (kprosal)
Labour costs 1-50%	0.458	0.498	Reference group. Proportion of establishment sales revenue / operating costs accounted for by wages, salaries and other labour costs like pensions and national insurance 1-50%, (kprosal)



Workplace changes	3.813	2.209	number of workplace changes introduced by management in the past 5 years (0 to 7) (Lmanchal –8) out of: - changes in payment systems - introduction of new technology - changes in working time arrangements - changes in the organisation of work - changes in work techniques or procedures - introduction of initiatives to involve employees - introduction of new product or service
Above average financial performance	0.493	0.5	Manager assesses workplace's financial performance as a lot better or , better than average, 0/1 (kestper1)

			<b><i>HR practice and workforce variables</i></b>
Ethos	0.186	0.389	Manager thinks it is up to individual employees to balance work/family responsibilities: strongly agrees or agrees = 1/0 (aphras04)
liP award	0.335	0.472	workplace/organisation accredited as an Investor in People 0/1 (baward)
Performance related pay	0.166	0.372	performance related pay – 0/1 Has performance related pay and proportion of non-managerial employees at workplace who received performance-related pay in the past 12 months was at least 20 percent (ffacto01-12 and fpernon)
Other fringe benefits	0.29	0.454	other fringe benefits – 0/1 Employees in largest occupational group entitled to any of the following non-pay terms and conditions: company car or allowances or private health insurance (fohtit1 to fohtit6)
HR specialist at establish	0.377	0.485	HR specialist at establishment, 0/1. (brelate)
HR specialist at HO	0.535	0.499	HR specialist at Head office (if multi-site) 0/1 (bsepar)
Consults on FF and EO	0.425	0.495	Whether workplace consultation committee discusses welfare services and facilities (eg. child care) or equal opportunities, 0/1 (dwhich01 to dwhich12)
Time to learn job 0-1 month	0.269	0.444	Reference group. Time to learn job for new employee in largest occupational group to job as well as more experienced employee already working here, up to one month, (cstuckin)
Time to learn job 1-6 months	0.5	0.5	Time to learn job for new employee in largest occupational group to job as well as more experienced employee already working here, 1-6 months, 0/1 (cstuckin)
Time to learn job 6+months	0.231	0.421	Time to learn job for new employee in largest occupational group to job as well as more experienced employee already working here, more than 6 months, 0/1 (cstuckin)
Difficult recruitment any	0.55	0.498	any recruitment difficulties across all occupational groups 0/1 (cavacdif1-9)
Difficult recruitment high occs	0.326	0.469	difficulty recruiting in the following occupational groups: 0/1 managers and senior administrative; professional; technical and scientific (cavacdif1-3)

Non manager /professional share	0.769	0.237	non-managerial level staff as proportion of all employees: managerial level staff includes the occupational groups, 'Managers and senior administrative' and 'Professional' (zcle_tot + zcrt_tot + zptc_tot + zsal_tot + zope_tot + zrou_tot / zallemps)
Female returner	0.162	0.368	encourage applications from women returning to work when filling vacancies 0/1 (cspecial-6)
Employee involvement	12.89	2.361	Scale from aggregation of 4 manager attitude questions scored on 5 point scale strongly agree to strongly disagree. Those at the top are best placed to make decisions (aphras05) We do not introduce any changes here without first discussing the implications with employees (aphras08) Most decisions at this workplace are made without consulting employees (aphras10) We frequently ask employees at our workplace to help us in ways not specified in their job (aphras01)
Recent bad Industrial Relations	0.201	0.401	Recent industrial action or disputes: 0/1 Either Industrial action threatened or taken had a very/fairly important upward effect on size of pay settlement or review (gacti001-011) <u>or</u> There has been a collective dispute with any group of workers over pay or conditions in the last 12 months (gdispute) <u>or</u> Any unions in workplace threatened to take the following action in the last 12 months: strike, overtime ban or restriction, work to rule, go slow, blacking of work, work in / sit in, other industrial action (gpstyr1-7) <u>or</u> Unions in workplace have balloted their members to establish level of support for industrial action in the last 12 months (gballot)
No Equal Opps	0.142	0.35	Reference group No equal opportunity policy – (ipolicy, iwhynt1-7) Workplace (or organisation of which it is a part of) does <u>not</u> have a formal written policy on equal opportunities or managing diversity excluding those establishments which have a policy but have not written it down <u>or</u> who aim at being an equal opportunities employer.
Equal Opps medium	0.340	0.474	Workplace has a formal written policy on equal opportunities or managing diversity <u>or</u> workplace has a policy but not written it down No further action taken. 0/1 (ipolicy, iwhynt1-7, ipracti1-7)
Equal Opps high	0.514	0.5	Workplace has a formal written policy on equal opportunities or managing diversity <u>or</u> workplace has a policy but not written it down <u>and</u> one of following done by workplace or applies to workplace: Collect statistics on posts held by men and women Monitor promotions by gender, ethnicity etc. Review selection and other procedures to identify indirect discrimination Review the relative pay rates of different groups 0/1, (ipolicy, iwhynt1-7, ipracti1-7)
% female employees	0.498	0.284	Proportion of female to total employees in establishment (zfemfull+zfemprt/zallemps)
High female part time	0.376	0.485	Percent of part time in female workforce > %. (Zfemprt/zfemfull+zfemprt)
Discretion high	0.215	0.411	To what extent do employees in largest occupational group have discretion over how they do their work. Answer = a lot 0/1 (cdiscret)
% on regular overtime	0.42	0.336	Proportion of employees (in the largest occupational group) at this establishment regularly working overtime or hours in excess of the normal working week, whether paid or unpaid – (use mid point of banded categories jovertim)
Temp workers 25% +	0.187	0.39	Proportion of all employees at this workplace working on fixed term contracts is more than 25%. 0/1 (jfterm)

<b><i>HR Practices - Factor Analysis variables</i></b>			
		High Commitment Management Practices – first factor eigenvalue>1. Factor score. Variables included, dummy variables 0/1	
teams	0.743	0.437	≥ 40% of employees (in largest occupational group) working in formally designated teams
briefing	0.894	0.308	System of briefing for any section or sections of the workforce
committee	0.328	0.469	At least one committee of managers and employers at workplace primarily concerned with consultation rather than negotiation <u>and</u> committee is very/fairly influential on management’s decisions affecting the workforce
qualcirc	0.477	0.5	Groups at workplace that solve specific problems or discuss aspects of performance or quality
survey	0.482	0.5	Management conducted a formal survey of employees’ views or opinions during the past five years
			Other ways in which management communicates or consults with employees at establishment:
othcons1	0.388	0.487	Regular meetings with entire workforce present
othcons2	0.686	0.464	Systematic use of management chain/cascading of information
othcons3	0.286	0.452	Suggestion schemes
othcons4	0.636	0.481	Regular newsletters distributed to all employees
manviews	0.234	0.661	Management’s general attitude towards trade union membership among employees at establishment – scaled variable, -1 not in favour of it, 0 neutral, 1 in favour of it
<b>N</b>	<b>2191</b>		

	<b><i>Mean</i></b>	<b><i>SD</i></b>	<b><i>Employee questionnaire variables</i></b>
Employee Commitment	10.72	2.442	‘employee commitment’ summated scale variable (scaled 3 to 15) created from 3 items (each scaled 1, strongly disagree, to 5, strongly agree) : <ul style="list-style-type: none"> <li>- ‘I share many of the values of my organisation’</li> <li>- ‘I feel loyal to my organisation’</li> <li>- ‘I am proud to tell people who I work for’</li> </ul>
Lncommit	2.34	0.273	natural log of ‘employee commitment’
Stress in job	0.444	0.497	Strongly agrees or agrees with statement. 0/1 ‘I never seem to have enough time to get my job done’ (A8b)
Satisfied with pay	0.358	0.479	Very satisfied or satisfied with amount of pay received 0/1 (A10b)
Dissatisfied with pay	0.4	0.49	Very dissatisfied or dissatisfied with amount of pay received, 0/1 (A10b)
Job satisfaction scale	0	0.827	intrinsic job satisfaction composite normalised (3 items – scale 1, very dissatisfied, to 5, very satisfied): (A10) How satisfied individual employees are with the following aspects of their job: <ul style="list-style-type: none"> <li>- ‘The amount of influence you have over your job’</li> <li>- ‘The sense of achievement you get from your work’</li> <li>- ‘The respect you get from supervisors/line managers’</li> </ul>
Feels secure in job	0.54	0.498	Strongly agrees or agrees with statement 0/1 ‘I feel my job is secure in this workplace’ (A8c)
Good manager scale	0	0.959	composite scale normalised (5 items – scale 1, very good, to 5, very poor): (B8) How good managers at this establishment are at the following: <ul style="list-style-type: none"> <li>- ‘Keeping everyone up to date about proposed changes’</li> <li>- ‘Providing everyone with the chance to comment on proposed changes’</li> <li>- ‘Responding to suggestions from employees’</li> <li>- ‘Dealing with work problems you or others may have’</li> <li>- ‘Treating employees fairly’</li> </ul>

Job is hard work	0.773	0.419	Strongly agrees or agrees with statement. 0/1 'My job requires that I work very hard' (A8a)
Annual pay	16.17	8.708	How much pay received in current job (12 categories recoded and transformed to mid-point annual pay in thousands)
age	4.34	1.41	mid point categorical variable /10.
female	0.51	0.49	gender dummy variable – 1, female 0, male
Poor health	0.05	0.23	Has a long-standing health problem or disability which limits what work can do, 0/1 (D7)
Ethnic minority	0.05	0.21	Belongs to a non-white group on list of 8 (D8)
Single	0.22	0.41	single 0/1 (D4)
Widowed/sep/divorced			Reference group. Either widowed, separated or divorced. (D4)
Married or cohab	0.69	0.46	living with spouse or partner 0/1 (D4)
Child 0-4	0.14	0.34	respondent has any children aged 0 to 4 years 0/1 (D3)
Child 5-11	0.19	0.39	respondent has any children aged 5 to 11 years 0/1 (D3)
Child 12-18	0.20	0.40	respondent has any children aged 12 to 18 years 0/1 (D3)
Nokids			Reference group. respondent has no children 0/1
Degree	0.25	0.44	respondent's highest educational qualification is a degree or postgraduate degree or equivalent 0/1 (D5)
Training	0.63	0.48	During the last 12 months employee has had 5 or more days training paid for or organised by employer, 0/1 (B2)
Regular overtime	0.16	0.36	Usually works more than 3 hours extra overtime per week and is normally paid. 0/1 (A4 and A5)
Part time hours	0.20	0.39	Usually works less than 30 hours per week (A3)
Temp or fixed term	0.07	0.26	Job is temporary or fixed term, 0/1 (A2)
Discretion	0.47	0.49	Has a lot of influence over 'How you do your work' 0/1 (A9c)
Job Tenure			Reference group. Years in total at this workplace less than 1. 0/1 (A1)
Job tenure 1-2 years	0.12	0.33	Years in total at this workplace 1- less than 2. (A1)
Job tenure 2-5 years	0.23	0.42	Years in total at this workplace 2- less than 5. (A1)
Job tenure 5+ years	0.48	0.49	Years in total at this workplace more than 5. (A1)
Job manager/ Prof	0.28	0.45	Managers and senior administrators or professional employee 0/1 (D9)
Job associate professional/ technical	0.10	0.30	Associate professional and technical employee (reference category) 0/1 (D9)
Job clerical/ secretarial	0.21	0.40	Clerical or secretarial employee 0/1 (D9)
Job craft/skilled	0.08	0.27	Craft or skilled service employee 0/1 (D9)
Job semiskilled	0.15	0.35	Personal and protective service or Sales 0/1 (D9)
Job unskilled/ operative			Reference group 0/1 Operative assembly or other occupations (D9)
Ethos	0.53	0.49	Strongly agree or agree with statement. Managers here are understanding about employees having to meet family responsibilities. 0/1 (B5b)

Consulted	11.33	3.86	Composite scale (1 to 20) constructed from 5 replies – 1, never to 4, frequently): (B7) How often asked by managers for views on workplace issues? <ul style="list-style-type: none"> <li>- Future plans for the workplace</li> <li>- Staffing issues, including redundancy</li> <li>- Changes to work practices</li> <li>- Pay issues</li> <li>- Health and safety at work</li> </ul>
Works mainly men	0.33	0.47	Type of work you personally do at this workplace is done only or mainly by men 0/1 (A7)
Works mainly women	0.34	0.48	Type of work you personally do at this workplace is done only or mainly by women 0/1 (A7)
Works Equal gender mix			Reference group. Type of work you personally do at this workplace is done equally by men and women 0/1 (A7)
Union member	0.40	0.49	Is a member of a trade union or staff association 0/1 (C1)
Represented	0.10	0.31	representation at work – member of a trade union or staff association <u>and</u> frequently in contact with worker representatives 0/1 (C3)
Parental Leave	0.28	0.45	If you personally needed parental leave would it be available at this workplace? 0/1 (B3)
Job share	0.18	0.38	If you personally needed job share would it be available at this workplace? 0/1 (B3)
Working at of from home	0.11	0.32	If you personally needed to work at or from home would it be available at this workplace? 0/1 (B3)
Flexitime	0.34	0.47	If you personally needed flexible working hours (flexitime) would it be available at this workplace? 0/1 (B3)
Child care	0.04	0.19	If you personally needed a workplace nursery or help with the cost of childcare would it be available at this workplace? 0/1 (B3)
Emergency	0.64	0.48	If you needed to take a day off work at short notice for example, to look after a sick family member, how would you usually do it? Use paid leave =1/0 (B4)
N	28215		

**Table A2 Determinants of (logged) employee commitment – employee variables only**

Explanatory variables	All employees +		All non-managerial employees +		Private sector All employees +		Private sector All non-managerial employees +		Public sector All employees +		Public sector All non-managerial employees +	
	Coeff.	P>  t	Coeff.	P> t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
Age	0.009	0.00 **	0.009	0.00**	0.009	0.00**	0.008	0.00**	0.011	0.00**	0.011	0.00**
Female	0.008	0.05 *	0.014	0.01**	0.009	0.11	0.014	0.04**	0.010	0.11	0.015	0.11
Poor health	0.007	0.24	0.006	0.41	-0.003	0.69	-0.002	0.86	0.024	0.02**	0.021	0.07 *
Ethnic minority	0.035	0.00**	0.034	0.00**	0.043	0.00**	0.035	0.00**	0.023	0.05 **	0.031	0.04**
Single	0.000	0.98	0.002	0.93	0.027	0.14	0.022	0.28	-0.046	0.05**	-0.035	0.22
Married/cohab	0.011	0.43	0.015	0.34	0.036	0.04**	0.037	0.06 *	-0.033	0.14	-0.026	0.34
Separated/divorced	0.005	0.75	0.010	0.56	0.028	0.14	0.028	0.18	-0.034	0.15	-0.024	0.40
Child aged 0-4	-0.001	0.76	-0.004	0.50	-0.001	0.88	-0.003	0.68	-0.002	0.74	-0.004	0.68
Child aged 5-10	0.001	0.87	0.003	0.51	0.005	0.29	0.007	0.22	-0.011	0.06 *	-0.013	0.11
Child aged 12-18	0.007	0.06 *	0.008	0.11	0.003	0.57	-0.001	0.83	0.017	0.00**	0.024	0.00**
Degree	-0.020	0.00**	-0.010	0.11	-0.022	0.00**	-0.012	0.13	-0.007	0.34	-0.006	0.54
Training	0.024	0.00**	0.023	0.00**	0.025	0.00**	0.023	0.00**	0.019	0.00**	0.021	0.00**
Regular overtime	-0.001	0.89	0.003	0.58	0.004	0.94	0.003	0.53	0.006	0.48	0.010	0.33
Part time hours	-0.007	0.11	-0.006	0.24	-0.009	0.14	-0.011	0.08 *	-0.001	0.89	0.010	0.26
Temp or fixed term	-0.004	0.94	-0.002	0.79	-0.012	0.17	-0.013	0.22	0.014	0.10	0.014	0.23
Discretion	-0.008	0.15**	-0.011	0.00**	-0.007	0.06 *	-0.010	0.03**	-0.008	0.10	-0.015	0.02**
Job manager/prof	0.046	0.00**			0.072	0.00**			0.003	0.82		
Job associate professional/technical	0.030	0.00**	0.022	0.00**	0.044	0.00**	0.038	0.00**	0.010	0.35	0.008	0.52
Job clerical/secretary	0.023	0.00**	0.019	0.00**	0.041	0.00**	0.039	0.00**	-0.013	0.20	-0.008	0.45
Job craft/skilled	0.007	0.25	0.009	0.19	0.014	0.05 *	0.014	0.06 *	0.001	0.94	0.000	0.99
Job semi-skilled	0.059	0.00**	0.055	0.00**	0.042	0.00**	0.039	0.00**	0.068	0.00**	0.065	0.00**

Explanatory variables	All employees +		All non-managerial employees +		Private sector All employees +		Private sector All non-managerial employees +		Public sector All employees +		Public sector All non-managerial employees +	
	Coeff.	P>  t	Coeff.	P> t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
Job tenure 1-2 years	0.004	0.45	0.007	0.33	0.004	0.57	0.007	0.37	0.003	0.78	0.005	0.71
Job tenure 2-5 years	-0.017	0.72	-0.003	0.58	-0.003	0.59	-0.004	0.55	-0.000	0.99	-0.002	0.87
Job tenure 5+ years	0.005	0.30	0.002	0.76	0.011	0.05 *	0.008	0.24	-0.005	0.53	-0.010	0.35
Ethos	0.043	0.00**	0.042	0.00**	0.043	0.00**	0.040	0.00**	0.043	0.00**	0.045	0.00**
Consulted	0.002	0.00**	0.002	0.00**	0.001	0.01**	0.001	0.04**	0.002	0.01**	0.002	0.07 *
Works mainly men	0.004	0.31	0.006	0.27	-0.004	0.42	-0.001	0.94	0.015	0.04**	0.022	0.03**
Works mainly women	0.008	0.06 *	0.006	0.24	0.007	0.17	0.009	0.14	0.002	0.65	-0.004	0.60
Union member	-0.006	0.11	-0.004	0.43	-0.008	0.13	-0.009	0.15	-0.005	0.38	-0.005	0.47
Represented	-0.009	0.07 *	-0.011	0.07	-0.004	0.53	-0.007	0.32	-0.016	0.02**	-0.024	0.01**
Stress in job	0.002	0.63	-0.000	0.99	-0.001	0.84	-0.007	0.17	0.006	0.26	0.011	0.07 *
Satisfied with pay	0.004	0.27	0.009	0.07*	0.005	0.27	0.009	0.14	-0.003	0.63	0.000	0.99
Dissatisfied with pay	-0.029	0.00**	-0.033	0.00**	-0.029	0.00**	-0.033	0.00**	-0.029	0.00**	-0.034	0.00**
Job satisfaction scale	0.112	0.00**	0.120	0.00**	0.111	0.00**	0.119	0.00**	0.112	0.00**	0.121	0.00**
Feels secure in job	0.034	0.00**	0.039	0.00**	0.031	0.00**	0.032	0.00**	0.038	0.00**	0.049	0.00**
Good manager scale	0.076	0.00**	0.070	0.00**	0.080	0.00**	0.079	0.00**	0.069	0.00**	0.052	0.00**
Job is hard work	0.042	0.00**	0.040	0.00**	0.041	0.00**	0.038	0.00**	0.043	0.00**	0.044	0.00**
Annual pay £k p.a.	0.002	0.00**	0.002	0.00**	0.001	0.00**	0.001	0.00**	0.002	0.00**	0.002	0.00**
Constant	2.137	0.00**	2.120	0.00**	2.098	0.00**	2.091	0.00**	2.172	0.00**	2.139	0.00**
N	19940		14141		13046		9678		7387		4713	
R squared	0.470		0.461		0.488		0.473		0.454		0.456	

+ **Samples.** All employees with manager information on a range of structural and human resource characteristics

\*/\*\* significant at 90/95 % confidence levels respectively

**Table A2 continued Determinants of (logged) employee commitment – employer variables only.**

Explanatory variables	All employees With employer variables only		Non-managerial employees Employer+ employee vars		Private sector With employer variables only		Private sector Non-managerial employees Employer+ employee vars		Public sector With employer variables only		Public sector Non-managerial employees Employer+ employee vars	
	Coeff.	P>  t	Coeff.	P> t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
Estab 25-49	-0.015	0.04**	0.002	0.80	-0.026	0.00**	-0.006	0.51	-0.004	(0.75)	0.000	(0.98)
Estab 50-99	-0.018	0.02**	0.012	0.13	-0.016	0.08 *	0.005	0.62	-0.029	(0.03)**	0.016	(0.30)
Estab 100-199	-0.022	0.00**	0.015	0.07 *	-0.015	0.12	0.018	0.06 *	-0.033	(0.01)**	0.001	(0.97)
Estab 200-499	-0.015	0.06 *	0.015	0.09 *	-0.014	0.15	0.020	0.05 *	-0.025	(0.08)*	-0.003	(0.87)
Estab 500+	-0.007	0.46	0.029	0.00 **	0.011	0.35	0.048	0.00**	-0.049	(0.00)**	-0.013	(0.43)
Orgsize 500+	-0.018	0.00**	-0.019	0.00**	-0.014	0.07 *	-0.024	0.00**				
Org 2k-9999	-0.016	0.00**	-0.012	0.04**	-0.026	0.00**	-0.019	0.01**				
Org 10k-49999	-0.030	0.00**	-0.020	0.00**	-0.042	0.00**	-0.019	0.03**				
Org 50k+	-0.028	0.00**	-0.028	0.00**	-0.028	0.01**	-0.020	0.04**				
Manufacturing	-0.055	0.00**	-0.016	0.13	-0.040	0.00**	0.004	0.77				
Energy/utilites	-0.009	0.45	-0.009	0.49	-0.001	0.95	0.009	0.57				
Construction	-0.030	0.01**	-0.029	0.02**	0.019	0.20	0.005	0.77				
Whole/retail	-0.018	0.08 *	-0.004	0.73	-0.002	0.84	0.017	0.20				
Hotel & Catering	-0.000	0.97	-0.003	0.82	0.015	0.30	0.019	0.21				
Transport	-0.067	0.00**	-0.002	0.84	-0.053	0.00**	0.008	0.56				
Financial services	-0.023	0.05 *	-0.033	0.01**	-0.013	0.39	-0.035	0.02**				
Business services	-0.008	0.45	-0.009	0.45	0.018	0.17	0.004	0.77				
Public authorities	-0.031	0.00**	-0.023	0.03**					0.014	(0.09) *	-0.010	(0.31)
Education	0.062	0.00**	0.022	0.06 *	0.082	0.00**	0.040	0.04**	0.099	(0.00)**	0.023	(0.05)
Health	0.019	0.05 **	0.003	0.76	0.043	0.00**	0.022	0.16	0.047	(0.00)**	0.015	(0.20)
Foreign	0.007	0.25	-0.007	0.27	0.004	0.56	-0.010	0.15				



Explanatory variables	All employees With employer variables only		Non-managerial employees Employer+ employee vars		Private sector With employer variables only		Private sector Non-managerial employees Employer+ employee vars		Public sector With employer variables only		Public sector Non-managerial employees Employer+ employee vars	
	Coeff.	P>  t	Coeff.	P> t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
Owner	-0.008	0.25	-0.004	0.52	-0.006	0.40	-0.001	0.89				
Multinational	0.001	0.86	0.002	0.64	-0.005	0.35	0.002	0.68				
Recognised union	-0.029	0.00	-0.000	0.93	-0.036	0.00**	-0.011	0.08 *	0.005	(0.70)	0.019	(0.20)
Local market	0.005	0.39	0.001	0.86	0.008	0.19	0.005	0.46				
Internat markt	0.013	0.05**	0.011	0.09 *	0.013	0.06 *	0.013	0.07 *				
NoCompetitor	0.003	0.70	0.010	0.18	-0.009	0.41	0.001	0.95				
Few Competitor	-0.007	0.14	0.002	0.74	-0.010	0.07 *	0.004	0.41				
Competitors missing	0.015	0.02**	0.005	0.39	0.016	0.04 **	0.010	0.18				
Lab costs50-75%	-0.002	0.73	-0.004	0.46	-0.003	0.59	-0.005	0.43				
Lab costs 75%+	0.011	0.06 *	-0.011	0.07 *	0.012	0.14	-0.020	0.02**				
Labour costs missing	-0.005	0.44	-0.008	0.26	0.002	0.77	-0.006	0.44				
Workplace changes	0.001	0.23	0.001	0.31	0.005	0.00**	0.002	0.04**				
Above average financial perform	0.021	0.00**	0.008	0.03**	0.027	0.00**	0.009	0.05 *				
Recruitment difficulties	-0.001	0.75	-0.001	0.78	-0.014	0.00**	-0.006	0.21	0.017	(0.00)**	0.014	(0.04)
Temporary workers 25%+	-0.009	0.07 *	-0.006	0.25	-0.015	0.02**	-0.014	0.03**	-0.000	(0.98)	0.012	(0.018)
Family-friendly ethos	-0.008	0.06 *	-0.000	0.93	-0.009	0.12	0.003	0.60				

Explanatory variables	All employees With employer variables only		Non-managerial employees Employer+ employee vars		Private sector With employer variables only		Private sector Non-managerial employees Employer+ employee vars		Public sector With employer variables only		Public sector Non-managerial employees Employer+ employee vars	
	Coeff.	P>  t	Coeff.	P> t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t	Coeff.	P>  t
Investor in People	-0.001	0.85	-0.008	0.04 **	0.001	0.79	-0.004	0.39	-0.004	(0.52)	-0.011	(0.09)
Performance-related pay	0.004	0.39	0.004	0.41	0.011	0.07 *	0.010	0.08 *	-0.029	(0.00)**	-0.020	(0.03)
Consults on FF and EO	-0.009	0.03 **	-0.001	0.76	-0.009	0.08 *	-0.007	0.20	0.001	(0.93)	0.011	(0.14)
Equal Opps medium	0.005	0.46	0.006	0.36	0.003	0.64	0.003	0.64	-0.066	(0.00)**	-0.044	(0.06)
Equal Opps high	0.004	0.56	0.008	0.22	0.012	0.09 *	0.005	0.45	-0.073	(0.00)**	-0.044	(0.06)
Recent bad industrial relations	-0.032	0.00**	-0.008	0.10	-0.023	0.00**	0.003	0.58	-0.039	(0.00)**	-0.020	(0.00)
High commitment management	0.013	0.00**	0.005	0.14	0.018	0.00**	0.009	0.01**	-0.006	(0.23)	-0.010	(0.06)
Employee involvement	0.002	0.00**	0.001	0.39	0.004	0.00**	0.001	0.20	0.001	(0.75)	-0.002	(0.09)
Constant	2.348	0.00**	2.119	0.00**	2.307	0.00**	2.091	**	2.401	(0.00)**	2.218	(0.00)
N	24716		14141		16172		9678		8566		4477	
R squared	0.035		0.461		0.039		0.474		0.041		0.458	

+ **Samples.** All employees with manager information on a range of structural and human resource characteristics

\*/\*\* significant at 90/95 % confidence levels respectively



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## Notes

<sup>1</sup> The dependent variable measures of Guest et al (2000) are not entirely clear. The analysis seems to have concentrated on organisation explanatory variables and has in consequence relatively low R squared values. There results are as follows: Significant increased effects on worker commitment in the public sector came from: being in the health or education sectors and having higher employee involvement. Significant reduced effects on worker commitment in the public sector were associated with being in the community sector, having higher trade union density and a certain type of HR strategy. Significant increased effects on worker commitment in the private sector were associated with a longer time in the location, HR practices, HR strategy, increased consultation and a consultative climate. Significant reduced effects on worker commitment in the private sector were associated with being in larger organizations, larger establishments, part of a larger organisation, in the construction industry, and having higher trade union density.

<sup>2</sup> The survey also contained a panel element link to the earlier WIRS surveys of 1980, 1984 and 1990 but this is not used in the analyses described in this Report.

<sup>3</sup> Interpreting the coefficient from a log linear scale as a percentage is not strictly accurate. However, it is approximately correct for these small coefficient values.

<sup>4</sup> The interaction term between being satisfied with ones pay and annual pay was not significant; nor did it affect the size or significance of the two component variable coefficients. The interaction term between pay dissatisfaction and annual pay was significant and positive, but again it did not affect the size or significance of the two component variable coefficients. The interaction term between having a degree and being dissatisfied with one's pay was also significant and positive but did not affect the two component variable coefficients.

<sup>5</sup> Guest et al (2000) found that the negative effects of trade union density (a different measure from the one we used) were common to both public and private sectors.