



Working conditions

Employee involvement, work engagement and skill development

[How does employee involvement in
decision-making benefit organisations?](#)

Author: Duncan Gallie (Nuffield College, University of Oxford) and Ying Zhou (University of Surrey)

Research Managers: Agnès Parent-Thirion, Isabella Biletta and Stavroula Demetriades

Eurofound reference number: WPEF19061

The authors would like to thank Alex Bryson, Brendan Burchell, and Arne Kalleberg for their very helpful comments on a draft of the report.

© European Foundation for the Improvement of Living and Working Conditions (Eurofound), 2020
Reproduction is authorised provided the source is acknowledged.

For any use or reproduction of photos or other material that is not under the Eurofound copyright, permission must be sought directly from the copyright holders.

Any queries on copyright must be addressed in writing to: copyright@eurofound.europa.eu

Research carried out prior to the UK's withdrawal from the European Union on 31 January 2020, and published subsequently, may include data relating to the 28 EU Member States. Following this date, research only takes into account the 27 EU Member States (EU28 minus the UK), unless specified otherwise.

This report presents the results of research conducted prior to the outbreak of COVID-19 in Europe in February 2020. For this reason, the results do not take account of the outbreak.

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency established in 1975. Its role is to provide knowledge in the area of social, employment and work-related policies according to Regulation (EU) 2019/127.

European Foundation for the Improvement of Living and Working Conditions

Telephone: (+353 1) 204 31 00

Email: information@eurofound.europa.eu

Web: www.eurofound.europa.eu

Contents

Executive Summary	1
Introduction.....	1
Key Findings.....	1
1 Introduction	5
1.1 Policy issues	5
1.2 Employee involvement.....	6
1.3 Employee involvement and work engagement.....	7
1.4 Employee involvement and skill development.....	10
1.5 Data and methodology.....	11
1.6 Structure of the report	13
2 Patterns of employee involvement in Europe	14
2.1 Trends in task discretion and individual organisational influence	14
2.2 Accounting for trends in individual organisational influence.....	22
2.3 Employees' collective organisational participation	25
2.4 Types of employee involvement.....	26
2.5 Accounting for country differences in the prevalence of high involvement organisations.....	35
2.6 Summary.....	38
3 Employee involvement and the work environment.....	40
3.1 Employee involvement and work and employment conditions.....	40
3.2 Employee involvement and performance management practices	47
3.3 Representation	57
3.4 Summary.....	58
4 Employee involvement and work engagement	59
4.1 The measurement of work engagement	59
4.2 The distribution of work engagement	61
4.3 Employee involvement, Work environment and work engagement	66
4.4 Employee involvement and work engagement: direct and indirect effects	71
4.5 Variations by region and type of employee	73
4.6 Summary.....	78
5 Employee involvement and skills development	80
5.1 Measures of formal and informal skill development	80
5.2 Patterns of skill development.....	83
5.3 Organisational determinants of skill development practices.....	89
5.4 Accounting for differential skill development: occupational class.....	96
5.5 Accounting for country differences in skill development.....	98
6 Conclusions	104
Employee involvement, employee well-being and organisational productive capacity: mutual support or trade off?	104
Complementarities of Evidence	106
The Scope and Limits of Employee Involvement.....	109
Appendix 1 Trends in employee involvement by country.....	112
Appendix 2 EWCS Items on physical risks	113

Appendix 3: High Involvement Effects on Work & Employment Conditions, Performance Management Practices and Skill Development by Region, Occupational Class and Organisational Size	114
Appendix 4: Validity of the work engagement index.....	117
Appendix 5 Case studies	121
References	127

Executive Summary

Introduction

Employee involvement and skill development are central issues in the EU policy agenda. They lie at the interface of policies to improve growth and competitiveness on the one hand and policies to reinforce social rights and personal well-being on the other. The EU's initiatives are premised on the view that these economic and social objectives are mutually reinforcing rather than requiring a trade-off of benefits. This report seeks to assess the prevalence and trends over time in involvement practices at work and to examine empirically whether these are related positively not only to improved work conditions and work motivation but also to skill development practices. It uses new evidence from the Sixth European Working Conditions Survey, focusing on employees in the EU28 countries, together with Norway.

Key Findings

Trends in Employee Involvement

There was an overall improvement, over the period 2010 to 2015, in the two principal dimensions of employee involvement practices: task discretion (involvement with respect to immediate task activity) and, most particularly, in organisational participation (the wider voice or influence that employees can have over work organisation). The trend was very widespread, affecting most regions, industries and occupational classes. The change in workforce composition, but most particularly, in the prevalence of intensive computer use at work accounted for a significant part of the increase in organisational participation both overall and in most regions.

There was some convergence in employee involvement, particularly with respect to organisational participation, between the European regions and between employees in different occupational classes.

Despite the general trend to higher involvement, the highest proportion of employees was in the category of low involvement organisations, with the exception of the Nordic and North Western regions. Overall, in 2015, a third of all employees (35%) were in low involvement organisations (in which both task discretion and organisational participation were low), compared to 29% in high involvement organisations (where both aspects of involvement were high). The remainder were in organisations with intermediate levels of involvement: 20% in discretionary organisations (with high task discretion, but low organisational participation) and 16% in consultative organisations (with high organisational participation, but low task discretion).

The prevalence of high involvement organisations was affected by occupational class, intensive use of computers and type of industry. Even when such structural factors were taken into account, however, there remained differences between countries. These could be partially accounted for by the power resources of employees (reflected in the membership density of trade unions and the tightness of labour markets), the general education of the labour force (reflected by the percentage of the working age population with tertiary education) and by the degree of diffusion of advanced technologies (as indicated by the proportion of ICT specialists in total employment).

The 'dependent self-employed' – that is to say self-declared self-employed people who have no authority to hire and dismiss employees or are generally dependant on one client or customer – had a higher level of involvement than employees, but a lower level than the independent entrepreneurs. However, their relative advantage compared to employees deteriorated over the period 2010 to 2015 with respect to both task discretion and organisational participation.

Employee Involvement and the Work Environment

Employees in discretionary and high involvement organisations had significantly better work and employment conditions than those in low involvement organisations. They were exposed to fewer physical risks at work. They were also subject to lower levels of work intensity and they had lower job insecurity, key factors which have been identified as sources of psychosocial stress at work. But working in a consultative organisation that provided organisational participation, but with low task discretion, did not lead to a significant reduction in physical work risks compared to those in low involvement organisations. It also was associated with a smaller reduction in work intensity compared to other forms of involvement. High task discretion is then the principal aspect of involvement associated with lower physical and psychosocial risks.

Working in a high involvement or consultative involvement setting was associated with a number of more progressive performance management practices. Employees were more likely to experience line management as fair and supportive, they were less exposed to multiple work pace control systems and they were more likely to have representation through health and safety committees and through works councils or trade unions. Employees in discretionary organisations also reported better treatment by line management, but the relationship was less strong and they were no more likely than employees in low involvement organisations to have institutional representation. Overall, organisational participation was the aspect of involvement most strongly associated with a high quality of performance management.

The distinctiveness of high involvement management was that it was related to a particularly wide range of positive aspects of the work environment. It was associated with better physical working conditions, lower work intensity (implying a lower level of psychosocial risks), and a more employee orientated organisational climate with more supportive and egalitarian forms of supervision, less direct supervisory control over work pace and less exposure to intensive work pace control. It combined the different benefits of discretionary and consultative forms of involvement.

Employee Involvement and Work Engagement

Work engagement constitutes a particularly strong form of positive motivation involving high levels of energy, identification with work and absorption in the job. It is considered to be a vital factor for both job performance and employee well-being. The report confirms that employees with high work engagement spent significantly less time absent from work, reported higher levels of discretionary effort (working in their free time to meet work demands), preferred a later retirement age and had higher levels of affective well-being. The relationship was particularly strong with respect to increased personal well-being. In all cases, an effect of work engagement was evident even when account was taken of the individual's organisational commitment and job satisfaction.

High levels of work engagement were most common among independent entrepreneurs (49%), followed at some remove by the dependent self-employed (38%) and then by employees (34%).

The prevalence of high work engagement among employees in high involvement organisations (47%), however, was very similar to that of the self-employed. In contrast, only 24% of those in low involvement organisations had high levels of work engagement.

Contrary to the view that women may be less involved in their employed work than men, female employees in general and female full-time employees in particular had higher levels of work engagement than their male equivalents.

The quality of the working environment was significantly associated with the level of work engagement. Employees with better physical working conditions, lower work intensity and higher job security had higher work engagement. This was even more strongly the case where employees reported that management treated employees fairly and was supportive in personal and practical terms.

Although part of the relationship between employee involvement and work engagement was accounted for by the fact it was associated with a better working environment, there was still a significant direct or intrinsic effect of involvement on work engagement even when this had been controlled for. This suggests that involvement is important to employees not only for the instrumental benefits it may bring, but because it meets needs or values for self-determination. There was also evidence that this intrinsic effect may have been partly because higher involvement was associated with increased meaningfulness of work.

There were differences between regions and types of employee in the effects of high involvement on work engagement. The importance of mediated effects through improvements in the working environment was strongest in the East European countries, whereas the intrinsic importance of involvement was the more important factor in the EU-15 countries.

The overall effect of involvement on work engagement was lower among managerial and professional employees and among technicians and administrative employees. It was also lower among those in public service industries. This may reflect the fact that organisational context matters less to the work engagement of employees who have very high levels of intrinsic task interest or for whom the work task has a high social value.

Employee Involvement and Skill Development

The prevalence of formal and informal skill development practices was significantly higher in the Nordic and North Western countries, among employees in higher occupational classes, and among those in large organisations. In contrast, there was little difference between male and female employees.

Although there was an association of employee involvement with the likelihood that employees would receive high quality formal training, it was most strongly related to the prevalence of informal learning through everyday work practices that encouraged the acquisition and implementation of new ideas. Employee involvement, on its own, accounted for 24% of the variance in informal learning (some two-thirds of the overall variance that could be explained). While each type of involvement was associated with increased informal learning, this was particularly the case for those in high involvement organisations.

There is also evidence that the presence of representative institutions such as health and safety committees, as well as trade unions and work councils, raises the probability that employees will have high quality formal training. Such training is also more common as organisational size increases, perhaps reflecting the availability of stronger administrative support and greater economies of scale in the provision of training.

Occupational class differentials in both formal and informal skill development are still evident even when organisational, individual and job type factors are taken into account. But they are considerably reduced – for most classes by at least 60% in the case of both formal and informal skill development. Employee involvement was particularly important in reducing class differences in informal skill development, accounting for approximately 40% of the class gap.

When structural variables were controlled, there still remained country differences in skill development patterns. A multi-level analysis showed that about half of the country variance in formal and 40% of that in informal skill development can be accounted for by differences in work context and labour force composition. Over and above these factors, macro institutional arrangements increase the residual country variance accounted for to approximately 75% for both formal and informal skill development.

Formal skill development is influenced significantly by the prevalence of firms' product and/or process innovation activities and by the tightness of the labour market. Informal skill development is influenced by the strength of learning culture in the society (as reflected in the proportion of the working population with tertiary education and the pervasiveness of continuing vocational training) as well as by the extent of diffusion of advanced technologies. It is notable that a high general level of continuing vocational training not only has benefits for the individual's chances of acquiring good quality training, but, together with more widespread general skills, is associated with greater opportunities for informal skill development.

1 Introduction

The report examines the implications of forms of work organisation for employees' work engagement and skill development. Changes in the economic structure of advanced Western economies have raised sharply awareness of the need for a continual process of skill upgrading across peoples' working lives. The skill demands of a longer-term shift to an increasingly knowledge intensive economy have been accentuated by growing international competition and by an unfolding technological transformation driven by digital innovation. Employees increasingly need the capacity to update their skills if they are to work effectively, adjust to new task structures, contribute to innovation and retain their employability. It has become essential to understand better the organisational conditions that enhance employees' motivation and encourage the development of their skills.

The report focuses on employee involvement as a central factor distinguishing forms of work organisation. It is the common element of the most influential arguments about the need for 'new forms of work organisation' to meet the motivational and skill challenges of new technologies and higher levels of innovation. Its advocates view it not only as a key factor contributing to higher levels of employee well-being, but as vital to raising levels of work engagement and skill development, thereby enhancing organisational productivity and innovativeness.

1.1 Policy issues

The view that skill development and involvement have benefits both for employees and for the organisations for which they work has long been a central element of the EU's policy initiatives. It lies at the interface of its competitiveness and its social agendas. The importance of skill development for productivity is highlighted in the Employment Guidelines (Guideline 6) and underlies the creation of the 2016 Skills Agenda for Europe. At the same time, the European Pillar of Social Rights emphasizes its importance for the quality of life, with its first paragraph declaring that 'Everyone has the right to quality and inclusive education, training and life-long learning in order to maintain and acquire skills that enable them to participate fully in society and manage successfully transitions in the labour market'.

The benefits of employee involvement for productivity, and indeed its links to skill development, were made explicit in the 'Information and Consultation of Employees Directive 2002: 'There is a need to strengthen dialogue and mutual trust within undertaking to improve risk anticipation, make work organisation more flexible and facilitate employee access to training'. The provisions of the Directive will also 'make employees aware of adaptation needs, increase employees' availability to undertake measures and activities to increase their employability, promote employee involvement in the operation and future of the undertaking and increase its competitiveness' (para 7). In turn, the European Pillar of Social Rights emphasizes its importance for fair working conditions, declaring that 'workers or their representatives have the right to be informed and consulted in good time on matters relevant to them' (para 8).

However, the evidence underlying these assertions of the potential for organisational policies that will realise mutual benefits for employees' needs for personal development and employers' concerns for productive efficiency is still fragmentary and far from uncontested. There has been considerable research on the relationship between employee involvement and well-being, but our understanding of the way it

relates to work engagement and skill development remains rather limited. There is little knowledge about the relative efficacy of specific types of involvement or the mechanisms through which it affects motivation and learning.

Moreover, knowledge of the trends in employee involvement across Europe, and the way they have varied between countries and between different types of employee, is very limited given the past lack of reliable data. Improving the evidence on trends is important for assessing the efficacy of institutional provisions and for guiding future policy initiatives. Although there have been important initiatives from the EU to stimulate the involvement of employees through increased rights to information and consultation, considerable latitude was given to countries in ways of implementing the Directive. Similar formal provisions may well have led to very different outcomes at country level. Most crucially there is little evidence about how far such institutional developments have affected the everyday experience of involvement of employees. The EWCS 2015 provides for the first time the opportunity to assess change over time in European employees' own perceptions of their involvement in decision-making.

The report focuses on four key issues:

- The trends in employee involvement across time and their variation by country and type of employee.
- The implications of employee involvement for aspects of the working environment – in particular the quality of work and employment conditions and the nature of the work relations between management and employees.
- The nature of the relationship between employee involvement and work engagement.
- The implications of employee involvement for the development of employees' skills.

1.2 Employee involvement

Employee involvement refers to the opportunities for employees to take part in decisions that affect their work. It has been a central issue both for research and policy, reflecting a profound change over time in thinking about the types of organisation that are most effective in ensuring high employee and organisational performance.

In the early postwar decades, the most influential current of managerial thinking – Taylorism – was premised on the view that the key to high levels of organisational performance lay in centralised decision-making, a reduction of dependency on worker skills through simplification of tasks, the control of work pace through close supervisory control of work activities. In their classic early critique of the Taylorist model as a universally optimal solution to the organisation of work, Burns and Stalker (*The Management of Innovation*, 1961) argued that high rates of technical or market change required very different types of organisational design, facilitating the rapid mobilisation of the relevant knowledge of all organisational members and the adjustment and continual redefinition of tasks through interaction with others. This needed a decentralized network structure of decision-making authority and control, strong lateral rather than vertical communication, and high personal commitment of all members to the organisation, underpinned by shared values and beliefs about its goals, rather than a reliance on loyalty or obedience.

The most influential development of this approach was Lawler's (1986) advocacy of participative management¹. High involvement organisations, he argued, in which employees were given greater influence over decisions and greater access to information and knowledge, are the key to the higher levels of employee commitment that are necessary to make organisations effective in the new economic and cultural environment. In part, increasing involvement is a matter of giving employees greater say over the way they carried out their immediate jobs tasks (whether as individuals or as members of a team). Jobs needed to be redesigned to extend the range of tasks and give greater scope for employee initiative. Employees should be able to decide on certain work methods, scheduling issues and quality standards. Higher levels of task discretion are facilitated by relatively flat organisational structures, with fewer levels of management. But, at the same time high involvement management also requires participation at higher organisational levels, through the creation of a representative council or committee to deal with important organisation-wide matters, including hours of work, personnel policies, scheduling production work, communication, and planning major introductions of new products and equipment.

The thesis that high involvement is associated with improved organisational performance, particularly productivity, has been generally supported by longitudinal analyses (Wood, 2010). However, these studies have also found that its effects are moderated by the motivational incentives associated with human resource management and operational techniques related to quality and time-scheduling improvements (for instance quality management and just-in-time processes). Further, some evidence suggests that it is primarily task-level involvement that drives performance improvements. It is notable that some later studies have tended to treat teamwork as an inherent aspect of the high involvement model, contrary to Lawler's own view that teamwork practices are only appropriate under specific task conditions.

Our starting point is a typology of organisational forms derived from the high involvement literature on work organisation. The two central involvement dimensions of employee involvement are task discretion (involvement with respect to immediate task activity) and organisational participation (the wider voice or influence that employees can have over work organisation). The cross classification of these two dimensions provides a distinction between four organisational types: high involvement organisation (high task discretion and high organisational participation); discretionary organisation (high task discretion but low organisational participation), consultative organisation (high organisational participation but low task discretion) and low involvement (low on both dimensions).

1.3 Employee involvement and work engagement

Advocates of high involvement management emphasize its benefits for increasing employee motivation to achieve high levels of job performance. Such arguments have been partially grounded in the view either that self-determination is a basic human need (Deci and Ryan, 2000) or that, at least in Western societies, it is a core value resulting from a prolonged process of socialization in the family and educational system (Argyris, 1964). Higher involvement in decision making can instil a sense of

¹ A broadly similar argument, with a stronger emphasis on task discretion, was developed by Walton (1985) under the label of "high commitment" management.

meaningfulness, an essential psychological condition for individuals to fully invest themselves in their job tasks (Kahn, 1990).

At the same time, theories of employee involvement can draw on a long tradition of research on the motivational effects of participation, deriving from its importance for allowing people to be able to make full use of their skills, for enhancing self-esteem through more egalitarian treatment and for providing greater scope for people to align their work activities with their personal values.

Enriched job design gives rise to opportunities for job crafting which allows individuals to customize their job tasks to match their skills, talents and value preferences, thereby promoting a sense of ownership and goal commitment (Wrzesniewski and Dutton, 2001). Participation in wider organisation decisions provides employees with information on what is happening in the organisation, how their jobs relate to those of others and the rationale of organisational changes. Increased information flow leads to greater goal clarity and a more cooperative organisational climate. Research shows a significant increase in perceived organisational justice when employees are given a chance to express their views about organisational decisions, even when this does not alter the outcome (Tyler and Blader, 2003). Voice instils a sense of respect and fair treatment, which plays a major role in shaping employees' perception of management and intrinsic work motivation.

While there has been extensive research that supports the view that greater involvement of employees in decision-making enhances motivation, there has been a growing critique of the principal measure of motivation used in much of the research literature, namely job satisfaction. Job satisfaction, it is argued, can refer to a relatively passive contentment with the job. The concept of work engagement has been developed to capture the higher levels of employee motivation at work believed to be associated with employee well-being, openness to learning and skill development, innovativeness at work and high qualities of work performance. The most influential definition (Schaufeli, Bakker and Salanova, 2006) is that work engagement is a psychological state - involving a 'positive, fulfilling, work-related state of mind', characterised by high levels of energy (vigour) and identification/dedication with work. In earlier versions, the concept also included a third dimension – absorption in the job, but it remains controversial whether absorption is best understood as an outcome of energy and identification or as an independent dimension of work engagement (Bakker et al., 2008; Bakker, Albrecht and Leiter, 2011; Schaufeli and Salanova, 2011).

Schuck et al. (2012) have suggested that the distinctive characteristic of work engagement is the simultaneous investment of cognitive, affective, and physical energies into performance-related outcomes. In contrast to job satisfaction, which constitutes a favourable evaluation of one's work role, conveying contentment and fulfilment, work engagement involves an in-the-moment urgency, focus and intensity implying a concern to move forward rather than to accept the adequacy of the current state. In contrast to job involvement, which is a cognitive judgement about the importance of the job to one's individual identity, work engagement measures psychological states of energy directed to a task or work role. In contrast to organisational commitment, which refers to the employee's attachment to the organisation as a whole, employee engagement is directed to the job or task.

Research on work engagement is however much more limited than is the case for other motivational concepts, in part because it is a more recent development. There is little evidence about either its cross-national distribution or about the factors that lead to variation in levels of work engagement. The report aims to contribute by examining the relationship of work engagement to different patterns of employee involvement. At the same time, it will explore a range of potential linkages between employee

involvement and work engagement. The core motivational theories have emphasized primarily the direct effects of involvement. But it is also possible that there are significant indirect effects deriving from benefits for the quality of other aspects of the working environment – for instance, the nature of work and employment conditions and of personal treatment by management – that have in turn positive effects for work engagement.

Much of existing research on the determinants of employee engagement is grounded in the Job Demands–Resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Job demands are defined as the ‘physical, social or organisational aspects of the job that require sustained physical or mental effort’ (Crawford, LePine and Rich, 2010, p 835) while job resources refer to the aspects of the job or organisation that facilitate individuals’ personal development and goal achievement. These are rather general categories, but they can be related to more specific aspects of employees’ experience of the working environment.

Work and employment conditions are central in shaping the nature of job demands and their effects on engagement. For instance, poor and hazardous physical working conditions can lead to a level of exhaustion that undermines individuals’ enthusiasm for their work. Similarly, high levels of work intensity such as the pressure of working at high speeds or adhering to tight deadlines may reduce work engagement by leading to fatigue and stress. Highly repetitive and monotonous work is likely to decrease work engagement by undermining a sense of work as meaningful.

In addition to physical work demands, employment conditions also affect psychological demands. Open ended contracts and institutional protection can reduce job insecurity and provide a sense of psychological safety in which one can ‘try and perhaps fail without fearing the consequences’ (Kahn, 1990, p708). Research has shown that engagement is more likely when people work in environments that are stable, predictable and trustworthy (Joubert, & Rothmann, 2007; Mauno, Kinnunen, Mäkikangas, & Nätti, 2005; Vander Elst, Baillien, De Cuyper, & De Witte, 2010). By contrast, precarious employment arrangements (temporary agency contracts, fixed term contracts) can generate high levels of anxiety and a sense of organisational marginality that undercuts engagement in daily job tasks.

The resources available to individuals are also likely to be affected by the extent to which prevailing performance management practices are orientated to enhance organisational supportiveness and fairness. Supervisory support, recognition, reward and feedback can help employees cope with challenging physical or psychological work demands. Supportive supervisory style not only directly encourages employees to put in extra effort (Nembhard and Edmonson, 2006; Schaufeli and Bakker, 2004), but also helps to shape individuals’ perception of their core job characteristics (Piccolo and Colquitt, 2006). For instance, timely performance feedback has been shown consistently to increase employee engagement (Hallberg and Schaufeli, 2006, Bakker et al, 2003, Gorter et al., 2008). Recognition and reward are likely to promote psychological meaningfulness by making employees feel valued and appreciated (Crawford et al., 2010; Kahn, 1990; Saks, 2006).

Finally, formal representative institutions can reinforce employee engagement by providing a channel to support information sharing and organisational participation. They thereby enhance procedural and interpersonal justice by allowing employees to voice their concerns and advance their interests in the organisation. They are likely to help to ensure fair pay levels, which increase a sense of distributive justice and thereby enhance trust. Further, representative institutions such as trade unions reduce the risks of individual discrimination and victimization, which contributes to a sense of psychological safety.

In sum, high involvement management, progressive performance management practices, favourable work and employment conditions and representative institutions all provide crucial job resources that create a more positive and energizing work climate characterised by more meaningful work and higher levels of trust. High quality interpersonal connections generate more cooperative work patterns and organisational citizenship behaviour, leading to higher levels of employee proactivity and engagement.

1.4 Employee involvement and skill development

There has been a growing consensus from the 1980s that the combination of increasingly sophisticated technologies and greater internationalisation of markets has placed greater demands on the skill level and learning capacity of employees. One implication of such changes in skill demands is that organisations will need to update and raise skill levels through increased employer provision of training (Conceição *et al.*, 2003). The literature has focused primarily on the quantity of training provision: the proportion of employees who are given training. The quality of training provision has been relatively neglected – in part because of the scarcity of good data. Yet, this would seem to be a particularly crucial factor with respect to arguments about the need to sustaining rising levels of skill.

In the 1990s, the emphasis on learning in the form of formal knowledge, acquired by training, was challenged by a literature on the growing importance in the modern economy of ‘competences’ or ‘practical expertise’. These included not only technical know-how but also problem-solving skills. This perspective, which originated in cognitive psychology, became increasingly influential in educational and ergonomic theories and was finally taken up by an influential current of human resource management theory (Oiry, 2003). It is argued that there is a considerable gap between the possession of formal knowledge and the capacity for effective work performance. Even in work that appears relatively routine, qualitative studies reveal that the production process requires the continual use of practical expertise, acquired through experience on the job and the sharing of knowledge between employees, to cope with unanticipated variations in the functioning of machinery or the quality of materials (Darrah, 1996; Wenger, 1998). These factors are thought to be particularly important with more sophisticated forms of technology and in more competitive global markets, where rapid response to changes in product or service demand become ever more essential for economic success (Hirschhorn, 1984). In contrast to formal knowledge, practical expertise is acquired primarily through a process of ‘informal learning’ (Darrah, 1996; Boreham *et al.*, 2004) whether individually or with others.

The emphasis on informal learning, resulting from the everyday experience of work has been reinforced by analyses of the factors that underlie innovation. Whereas traditionally, innovation has been viewed as the result of advances in science and technology (the STI approach), the focus more recently has been on the importance of bottom-up initiatives from employees – the Doing, Using and Interacting (DUI) approach. DUI innovation is based on a broader, more incremental and activity-based understanding of innovation. Recursivity, tacit and collective knowledge and ideas emerging from within the organisation play an important role: it relies on an ‘informal process of learning and experience-based know-how’ (Jensen *et al.* 2007). There is some evidence that the DUI modes can have at least as strong an economic impact as the STI mode (Sanidas, 2005).

It has been frequently argued that High Involvement Management favours learning processes in organisations. In part this follows from the fact that an important aspect of the rationale of HIM is the concern to create better conditions for the personal development for employees. As Lawler put it ‘Its very

essence is learning, growth and development' (Lawler, 1986: 208). In terms of mechanisms, high levels of employee discretion with respect to the work task are likely to provide greater opportunities for experimentation and learning through trial and error. When accompanied by organisational participation, such benefits are accentuated by the capacity to share knowledge more easily between employees. However, there is no necessary path between task discretion and significant skill improvement. Decentralized decision-making also implies greater power resources for employees, which could be used to prevent change in work practices and skills.

Research in the UK has shown that it is above all organisational participation, rather than task discretion, that is associated with stronger training provision and longer training durations (Inanc et al. 2015). This is likely to reflect the fact that, given that managerial decisions about training are likely to be taken at company or workplace level, due to the economies of scale that can come from an overall organisational policy and the greater resources that need to be mobilized, it is influence over wider organisational decisions that is particularly crucial. In contrast, both task discretion and organisational participation are related significantly to better quality training, leading to skill improvement. Arguably, task discretion allows employees to take better advantage of training by trying out what they have learned in their immediate work setting.

Another vital factor affecting learning is the importance attached to training by Human Resource Management in the light of the strategic needs of the enterprise. The priority given to training by HRM will depend on the value placed on quality improvement, the nature of the technological environment, and, according to some evidence, the influence of trade unions. The nature of working and employment conditions may also be important. For instance, very high work intensity could reduce opportunities for informal learning, while job insecurity among employees may undermine the willingness of employers to invest in formal training and the motivation of employees to undertake it.

Finally, there may be important macro-contextual factors that affect both learning and creativity in work, relating to the effects of national education systems and labour markets. For instance, learning and creativity at work have been found to be greater in national institutional contexts that involve broad based systems of education and labour market policies that promote mobility, income security and broad access to training (Holm et al. 2010; Lorenz and Lundvall, 2011).

1.5 Data and methodology

The analysis draws on the sixth European Working Conditions Survey, which was carried out between February and December 2015. The EWCS data series, conducted at five yearly intervals since 1991, has provided the principal source of comparable evidence on the nature of working conditions in European countries since the 1990s. The country coverage of the surveys has changed over time in line with the expansion of the European Community and subsequently the European Union, together with that of countries in the process of negotiations for accession. The report focuses on the 28 EU member states, together with Norway which is a member of the European Single Market and is closely integrated into a wide range of EU activities. This country set is referred to in the report as the EU28+. The overall weighted sample numbers for these countries was 36,104 for all in employment (self-employed as well as employed) and 30240 for employees.

While a set of core questions have been retained since the early years of the survey, there have been significant modifications to the survey questionnaire over time. The report builds on the introduction of a

new set of items on employee involvement introduced in 2010, which were analysed in an earlier report by the current authors (Eurofound, 2013), to provide an analysis of trends over the period 2010 to 2015. The Sixth Survey has strengthened these indicators and has introduced a set of questions designed to measure work engagement, making it possible for the first time to make a cross-national assessment of the relationship between employee involvement and work engagement.

In the report occupational class is defined using the first digit categories of the International Standard Classification of Occupations 2008 (ISCO-08), and Industry Sector is derived from the first digit categories of the Statistical Classification of Economic Activities in the European Union (NACE) Rev. 2. Throughout the report, a cross-national weight (w5_EU28) – which adjusts for the relative size of the workforce in different countries - was applied to analysis carried out at the aggregate level and a post-stratification national weight (w4) to analysis at country level.

For more information on the survey methodology, see:

<https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys/sixth-european-working-conditions-survey-2015/ewcs-2015-methodology>

As well as giving the overall pattern for the EU (and Norway), the report analyses variations both at the level of individual countries and in different regions. The latter is relevant for assessing progress with respect to regional convergence, a key objective of EU social cohesion policy. Moreover, previous research has pointed to significant differences in institutional pattern between regions that may have implications for patterns of employee involvement and their implications (Soskice, 1999; Gallie, 2007, 2013, Eurofound, 2013). In the regional analyses, the report distinguishes between four well-established regional clusters in the EU-15 - the North West (Ireland, UK), Nordic (Denmark, Finland, Norway and Sweden), Continental (Austria, France, Germany and the Benelux), and Southern (Greece, Italy, Malta, Portugal and Spain). These have been shown to differ in terms of the structure of collective bargaining, the role of trade unions and the type of welfare state provision. The categorization for the New Member States is less well defined, but, for exploratory purposes, the report distinguishes between the North East (Estonia, Latvia and Lithuania), the Central East (the Czech Republic, Hungary, Poland, Slovakia and Slovenia) and the South East (Bulgaria, Cyprus, Croatia and Romania), given their relatively distinctive longer-term historical and cultural experiences.

The report has used, where possible, scales based on several correlated items for measures of key concepts, as these tend to reduce the error associated with individual items. In the interests of accessibility, it presents the evidence primarily in the form of charts based on cross-tabular analysis methods, although some issues have required the use of multiple linear regression models to provide a more rigorous assessment of the relative importance of different factors. In the second and final chapters, it also uses multi-level modelling to assess the extent to which country variance in employee involvement and skill development opportunities can be accounted for by compositional differences in the workforce as compared with macro level institutional arrangements. Multi-level modelling both takes into account that individuals within groups tend to be more similar to each other than those in randomly sampled populations and provides a useful tool for identifying contextual characteristics that help shape individual's experiences. Significant results from the analyses are shown by an asterisk (*) in the relevant figures in the report.

There are three important caveats that should be borne in mind in assessing the evidence presented. First it provides a report of work experiences through the eyes of employees. While it seems likely that employees are best placed to judge the real nature of organisational policies as they are implemented at

shop floor level, particularly with respect to their implications for work motivation and for personal development, the specification of organisational mechanisms would be clearly stronger if they could be confirmed by evidence from both employees and management. Moreover evidence drawn from a single source may be affected by biases arising from common method variance, which may artefactually raise the apparent strength of associations between variables. Second, given that organisations may have complex, segmented, structures, descriptions of ‘organisational’ characteristics based on employees’ reports are best taken as representing the immediate organisational context they experience rather than necessarily characterising the overall organisation to which they belong. Third, the EWCS surveys are cross-sectional, so while it is possible to assess whether or not the patterns in the data are consistent with theoretical predictions, it is not possible to identify causal links in a rigorous way. The use of terms such as ‘effects’ should be understood as shorthand for reporting statistical associations between various factors rather than implying any demonstrated causal relationships.

1.6 Structure of the report

The empirical results are reported in the next three chapters.

Chapter 2 provides a descriptive picture of the trends in, and distribution of, employee involvement. It examines the trends between 2010 and 2015 in a number of key indicators of employee involvement, constructs a typology of types of employee involvement and examines the levels of employee involvement across countries and categories of employee.

Chapter 3 is concerned with the relationship between employee involvement and the work environment. It examines the implications of employee involvement for aspects of work and employment conditions, for a range of performance management practices and for the presence of institutional representation of employees.

Chapter 4 focuses on the implications of employee involvement for work engagement. It describes and provides validation for a measure of work engagement, examines potential determinants of work engagement and assesses the direct and mediated effects of employee involvement. Finally, it examines variations in the relationship between high involvement and work engagement in different regions in the EU28+, and across different types of employee.

Chapter 5 examines the relationship of employee involvement to skill development practices. It introduces a range of variables that capture the formal and informal aspects of skill development practices, examines the distribution of skill development practices across regions and types of employee, assesses the relative effects of different work factors on skill development and considers the factors that may help to account for variations by class and country.

Chapter 6 discusses the policy implications of the empirical findings.

2 Patterns of employee involvement in Europe

This chapter examines the patterns of employee involvement in workplace decision-making in the EU28+ countries. It focuses on two main dimensions of employee involvement: task discretion, which concerns employees' ability to exercise independent initiative in carrying out their own job tasks and direct organisational participation, where employees are involved either individually or collectively in decisions that affect wider organisational issues.

Scenarios of the growth of the knowledge economy have suggested that it will increasingly require new forms of work organisation that provide employees with higher levels of involvement. The first half of this chapter examines the changes in the level of task discretion and individual organisational influence in various regions and economic sectors between 2010 and 2015. It then introduces a composite indicator of employee involvement. It shows the distribution of employees in organisations with different types of employee involvement practices and the extent to which the distribution of high and low involvement organisations varies by employees' individual demographic characteristics and the structural characteristics of their employing organisations. The chapter ends with a discussion of the institutional factors that may potentially account for the observed cross-national variations in high involvement organisations.

2.1 Trends in task discretion and individual organisational influence

The 5th and 6th EWCS provide consistent measures of employee task discretion and individual organisational influence which enable us to track their developments over time. An index of task discretion is derived from three questions that asked respondents whether they were able to choose or change the order of their tasks, the methods of their work and the speed or rate of their work. Individual organisational influence is measured by two questions that asked respondents whether they were involved in improving the work organisation or work processes of their department and whether they were able to influence decisions that were important for their own work. The index scores for task discretion and individual organisational influence were constructed by averaging individuals' responses across the relevant questions (rescaled to 0-10 to facilitate comparison).

TASK DISCRETION AND INDIVIDUAL ORGANISATIONAL INFLUENCE

Task discretion

Are you able to choose or change: 1) your order of tasks; 2) your methods of work; 3) your speed or rate of work (Yes/No)

Individual organisational influence

Which statement best describes your work situation: 1) You are involved in improving the work organisation or work processes of your department or organisation; 2) You can influence decisions that are important for your work. (Always, Most of the time, Sometimes, Rarely, Never)

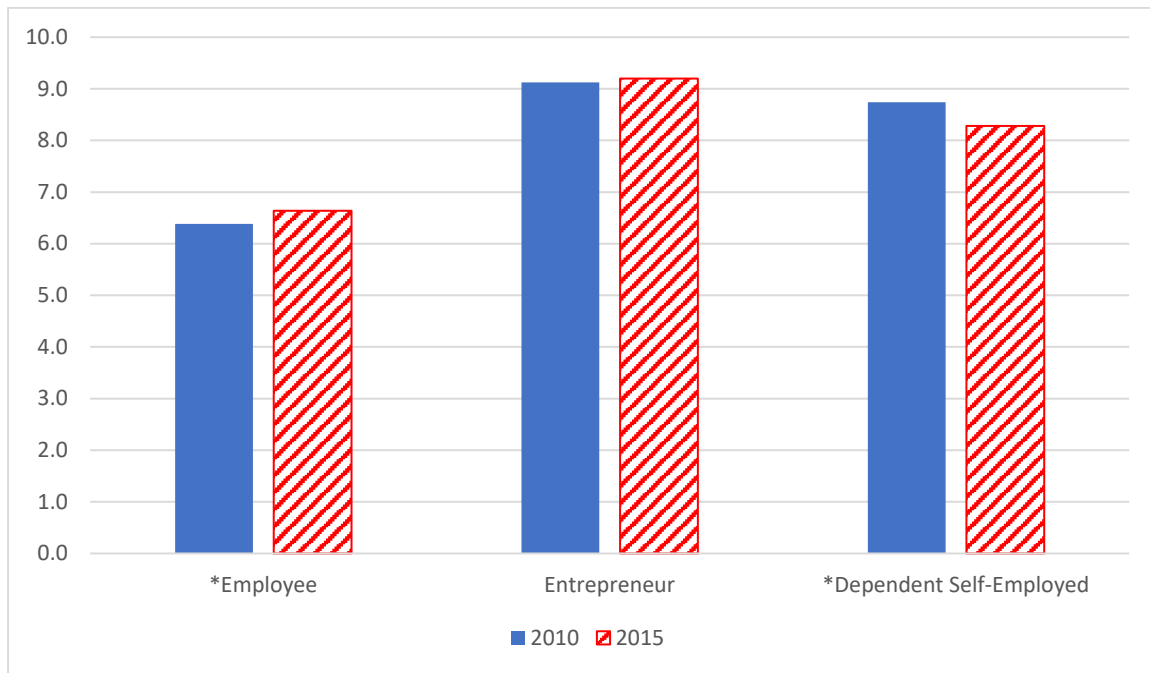
Figure 2.1 shows the pattern of change in task discretion and individual organisational influence index scores over time by employment status. The literature on job quality and employee well-being suggests that a significant advantage enjoyed by self-employed workers is the substantially higher levels of control over their work environments. The ability to decide when, where and how to carry out one's work is arguably one of the most attractive features of self-employment despite the multiple disadvantages associated with this type of work such as the lack of employment benefits, long working hours and higher economic uncertainty. Self-employment is highly heterogeneous, however, and there is a need to distinguish individuals who are able to make important business decisions such as the choice of their clients and the hiring and firing of workers and those who have limited influence over such decisions (for example, those who depend primarily on one single client for most of their business income). While the former captures the traditional notion of self-employment (being one's own boss), the latter may share more similarities with employees since financial dependence on one major client necessarily limits the scope of decision-making autonomy.

The 6th EWCS asked individuals a range of questions about the nature of their main paid jobs which allow us to differentiate three types of employment. Individuals were first asked whether they were paid a salary or wage by an employer. Those who answered positively were defined as employees. If the answer was negative, they were then asked whether they were a sole director of their own business; a partner in a business or professional practice; working for yourself; working as a sub-contractor; or doing freelance work. They were also asked whether they had the authority to hire or dismiss employees and whether they generally had more than one client or customer. Based on the responses, two types of self-employment can be distinguished. Those who both responded positively to one of the criteria of self-employment, had the authority to hire or dismiss employees and generally had more than one client or customer are defined as 'entrepreneurs'. By contrast, the 'dependent self-employed' refer to those who defined themselves as self-employed but either had no authority to hire or dismiss employees or generally had only one client or customer.

Figures 2.1 and 2.2 reveal a marked difference between employees and entrepreneurs in their levels of task discretion and individual organisational influence. The average task discretion score for employees is 6.4 in 2010, compared to 9.1 for entrepreneurs. The average level of task discretion reported by the dependent self-employed (8.7) is slightly lower than that of entrepreneurs, but nonetheless substantially higher than that of employees. The gradient of individual organisational influence follows a similar pattern: the highest score was reported by entrepreneurs (8.6), followed by the dependent self-employed (7.8) and finally employees (4.8). These results are consistent with previous research that highlights the benefits of self-employment for individuals' decision latitude at work.

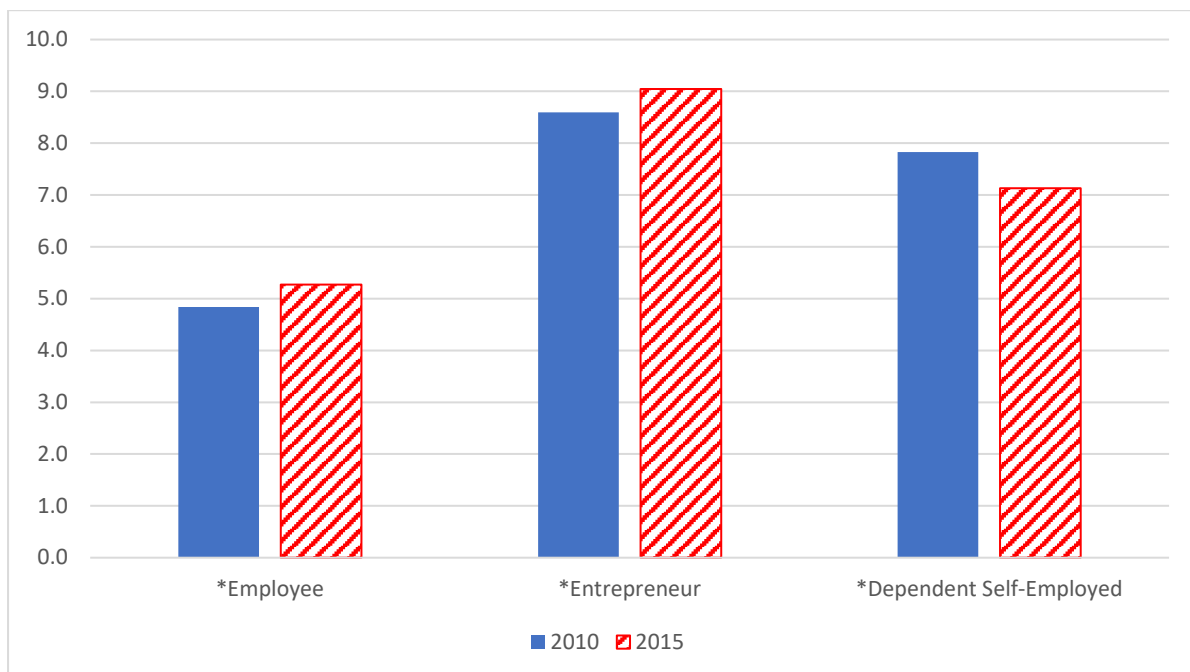
The pattern of change over time, however, shows some erosion of these benefits for the dependent self-employed. While both employees and entrepreneurs experienced a small increase in task discretion and individual organisational influence between 2010 and 2015, the dependent self-employed saw a significant decline in both indicators. The broad ranking of the three groups however remain unchanged.

Figure 2.1: Trends in task discretion index score by employment status



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

Figure 2.2: Trends in individual organisational influence index score by employment status



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

Regions

North West: UK, Ireland

Nordic: Finland, Sweden, Denmark, Norway

Continental: Germany, France, Austria, Belgium, the Netherlands, Luxembourg

Southern: Greece, Italy, Portugal, Spain, Malta

Central East: Czech Republic, Hungary, Slovakia, Slovenia, Poland

North East: Estonia, Lithuania, Latvia

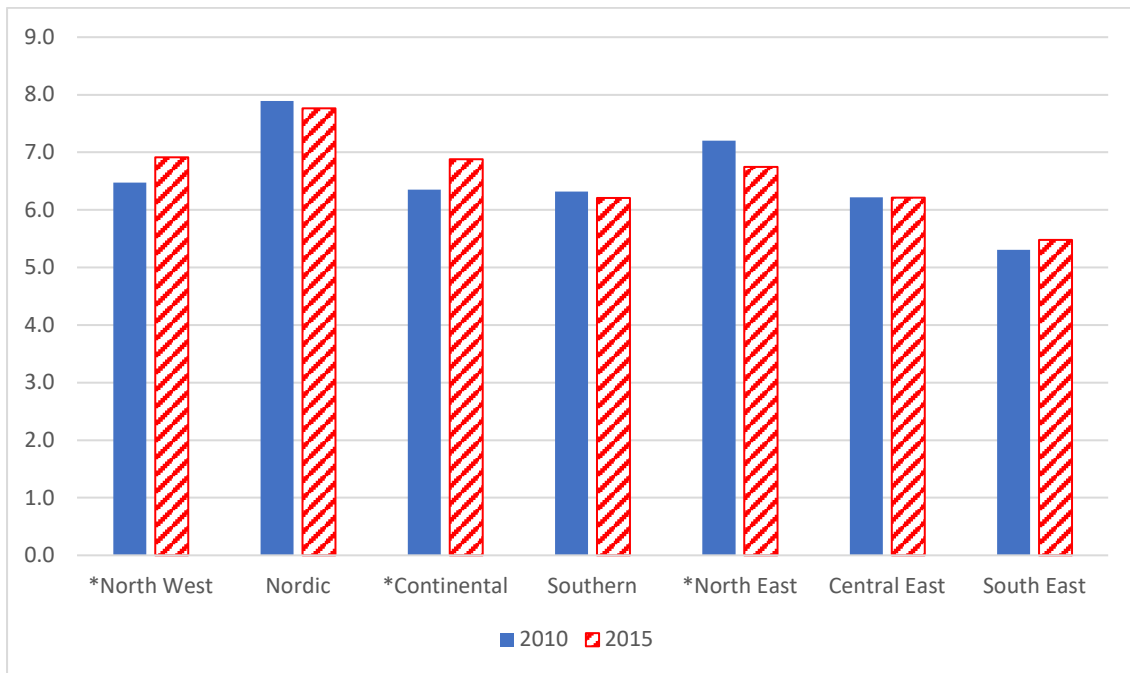
South East: Bulgaria, Romania, Croatia, Cyprus

Examining the pattern by region, Figures 2.3 and 2.4 show clear variations in both the levels and trends in employee involvement. The Nordic countries (Denmark, Finland, Sweden and Norway) stood out as having the highest level of employee task discretion and individual organisational influence (See Appendix 1 for specific country patterns). The North Western countries (UK and Ireland) also reported relatively high levels of task discretion and individual organisational influence. While there was no significant change in the Nordic countries, the North Western countries experienced a significant increase in both indicators of employee involvement over time.

The North Eastern countries (Estonia, Latvia and Lithuania) had relatively high levels of employee task discretion in 2010. However, the index declined significantly in 2015. The Central Eastern and Southern countries and particularly the South Eastern countries (Bulgaria, Cyprus, Romania and Croatia) were characterised by low levels of employee task discretion in both years.

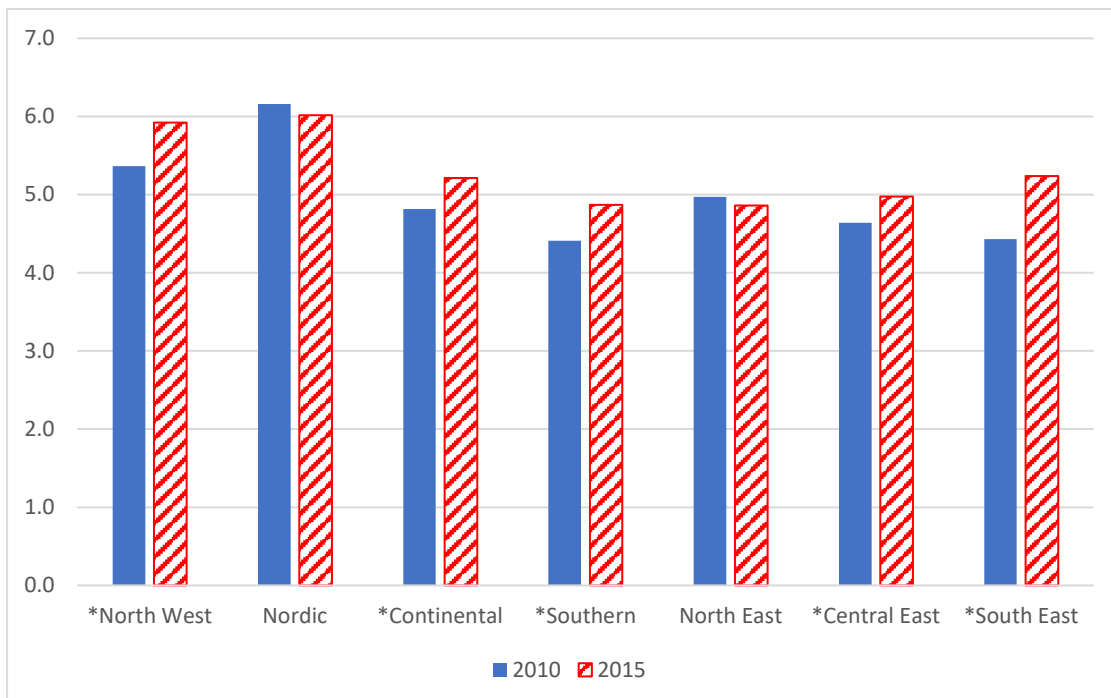
The South Eastern countries, however, reported the largest increase in individual organisational influence between 2010 and 2015. This pattern was driven largely by the positive developments in Bulgaria and Romania. In addition, the Southern countries (Greece, Spain, Italy, Malta and Portugal) also experienced a marked improvement in individual organisation influence. Overall, between 2010 and 2015, there was a measure of convergence in individual organisational participation between the Nordic countries (where it had been highest) and the Southern and South Eastern countries where it had been exceptionally low.

Figure 2.3: Trends in task discretion index by region



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

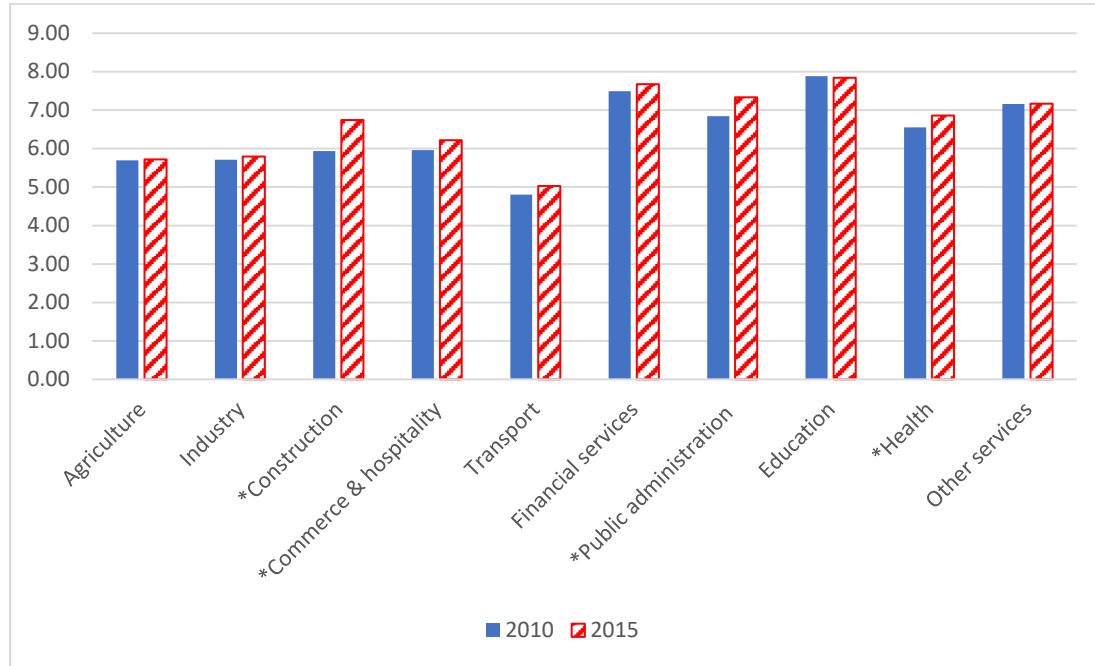
Figure 2.4: Trends in individual organisational influence index by region



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

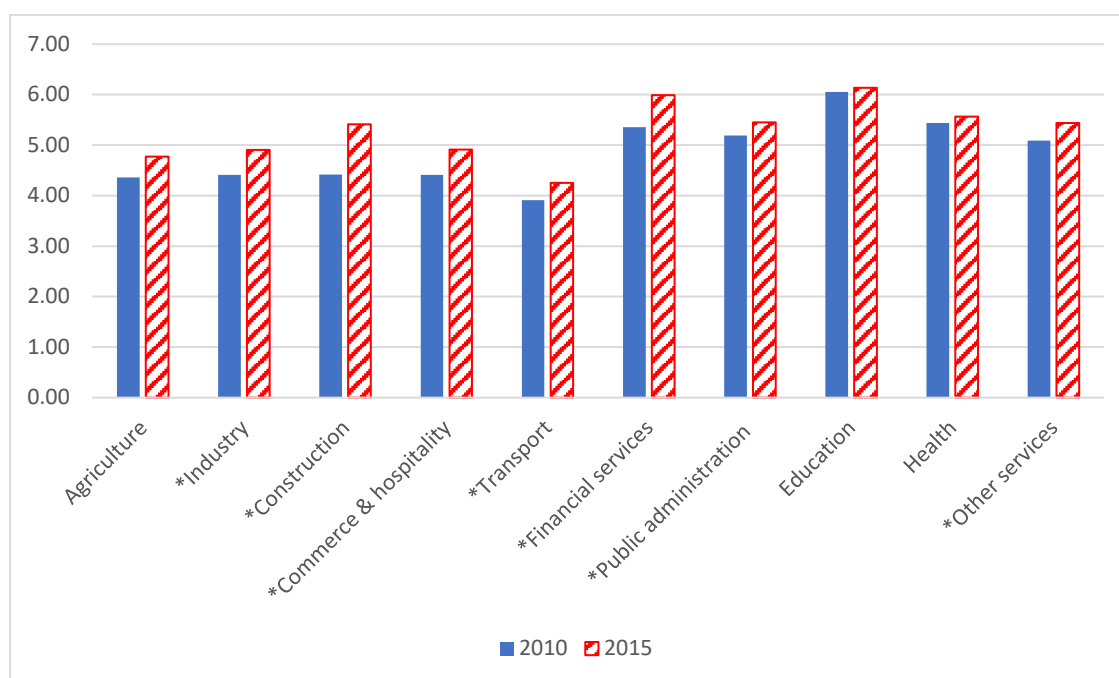
Figure 2.5 and Figure 2.6 present the trends in employee involvement by industry. Employees in almost all industries reported higher levels of task discretion and individual organisational influence in 2015 than 2010. The largest rise in task discretion was observed in the construction industry, where the average employee task discretion score increased from 5.9 to 6.7. Marked increases in task discretion scores were also found in public administration and health. The individual organisational influence index also increased in all industries, with largest increases recorded by construction and financial services.

Figure 2.5: Trends in task discretion index by industry



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender and occupational class.

Figure 2.6: Trends in individual organisational influence index by industry

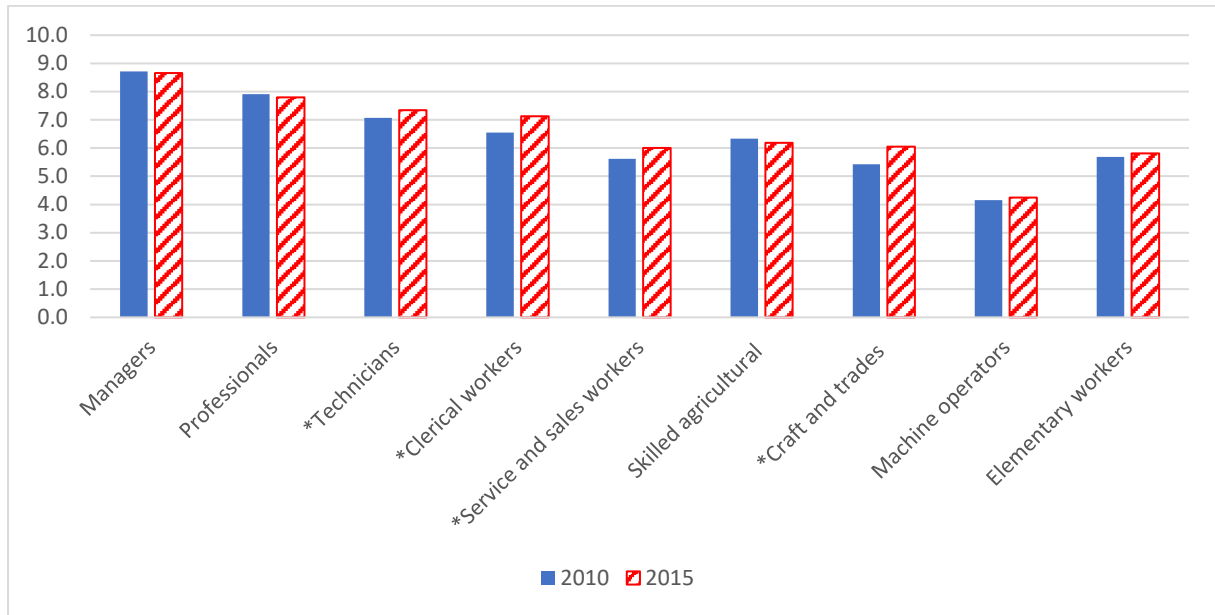


Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender and occupational class.

Similarly, Figures 2.7 and 2.8 show that employees in a wide range of occupational classes reported higher involvement in decision-making at work in 2015 than in 2010. Craft, clerical, services and sale and technicians reported increases in both task discretion and organisational influence, while operatives and elementary workers also experienced some improvement in organisational influence. By contrast, managers, professionals and agricultural workers remained unchanged on both indicators. The pattern suggests some convergence over time in organisational influence between the most highly skilled and lower skilled workers.

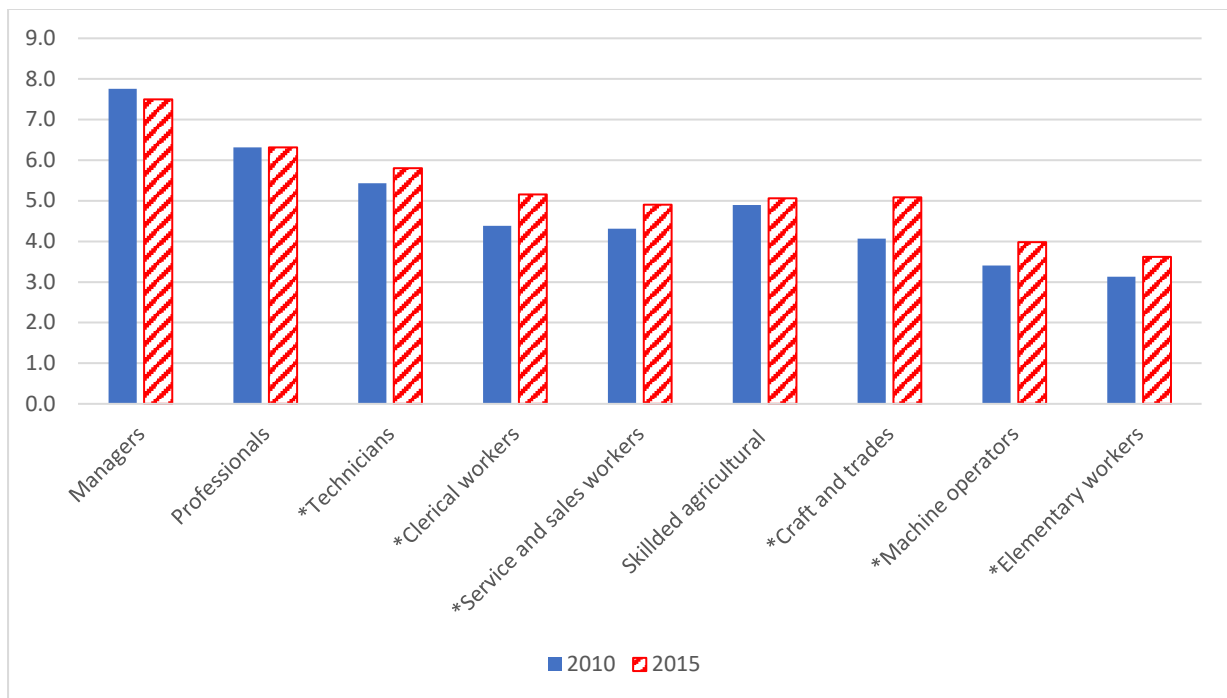
Unlike occupational class, gender does not appear to affect involvement in workplace decisions. Figure 2.9 shows that women reported slightly higher task discretion whereas men reported slightly higher organisational influence. Both male and female employees experienced a significant rise in task discretion and individual organisational influence over time, leaving the gender pattern largely unchanged.

Figure 2.7: Trends in task discretion index by occupational class



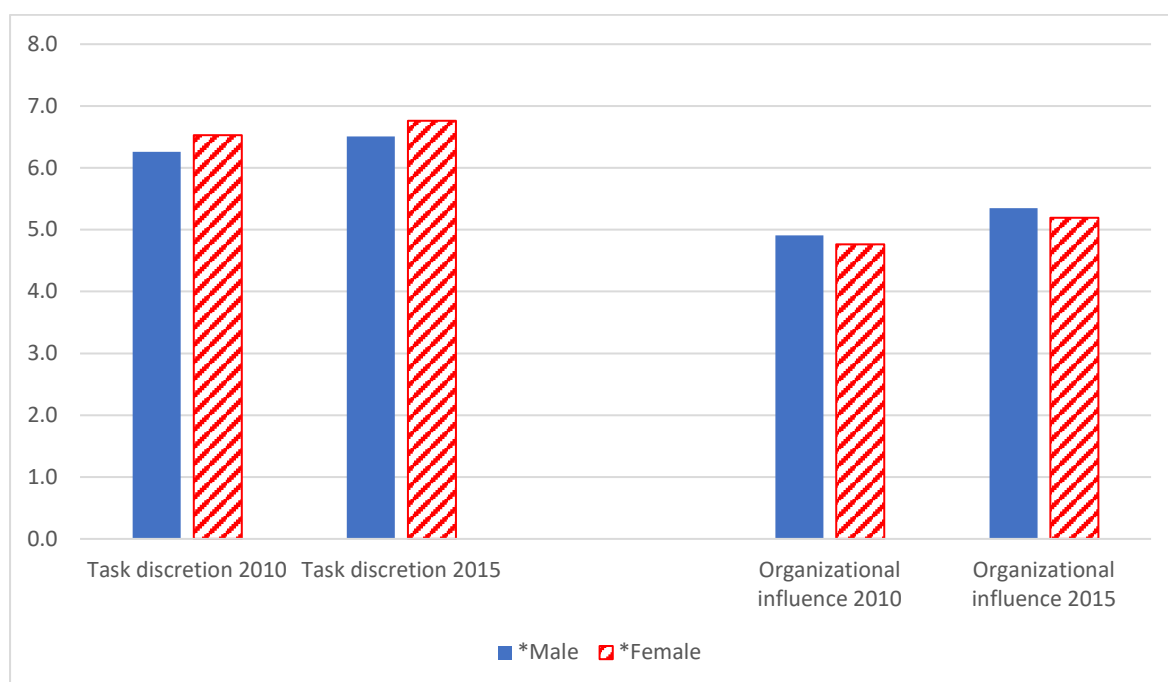
Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender and industry.

Figure 2.8: Trends in individual organisational influence index by occupational class



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender and industry.

Figure 2.9: Trends in task discretion and individual organisational influence index scores by gender



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender and occupational class.

2.2 Accounting for trends in individual organisational influence

The analysis of trends points to an increase in employees' individual organisational influence, particularly in regions such as the Southern and South Eastern countries. This raises the question of the extent to which the pattern reflects changes in economic structure in these countries.

One possibility is that, in the wake of the economic crisis, the level of employees' organisational influence in 2010 marked a sharp decline compared with earlier in the decade. The increase between 2010 and 2015 may have constituted a return to earlier levels, as economies recovered. The lack of measures before 2010 of organisational influence make it difficult to assess this. It is notable, however, that there is no evidence of such a pattern in most regions with respect to task discretion. An earlier analysis (Eurofound, 2013) showed that task discretion rose overall in the EU27 between 2005 and 2010 and particularly in the Southern and Eastern European countries. There were certain countries in which there was a marked decline after the economic crisis – in particular in Ireland, Sweden, France, and Greece, but this was not a general phenomenon.

Another possibility is that the trend reflects a change in the structure of the workforce. If the proportion of employees in industries (such as education and financial services) or occupations (such as managerial and professional employees), which are characterised by higher levels of organisational involvement, has increased over time, the compositional change of the labour force can lead to an overall increase in employee involvement even when there has been little change in management practices within industries or occupations.

Finally, the rise in organisational influence may have reflected the diffusion of new technologies over the last decade. The rapid introduction of computerised technologies is widely thought to have increased the

rate of change, making organisations increasingly compete on their ability to adjust rapidly to the changing product market. An expectation of rapid change is likely to encourage employers to provide the conditions for a flexible workforce that can use its own initiative to improve products, services and work processes. At the same time, the rapid diffusion of technology has also opened new possibilities for increasing employee involvement at work. For instance, the use of email, the internet and on-line discussion forums has greatly facilitated organisational communication by breaking down departmental or status barriers and by increasing the opportunities for both employees and employers to be aware of progressive managerial practices in other organisations.

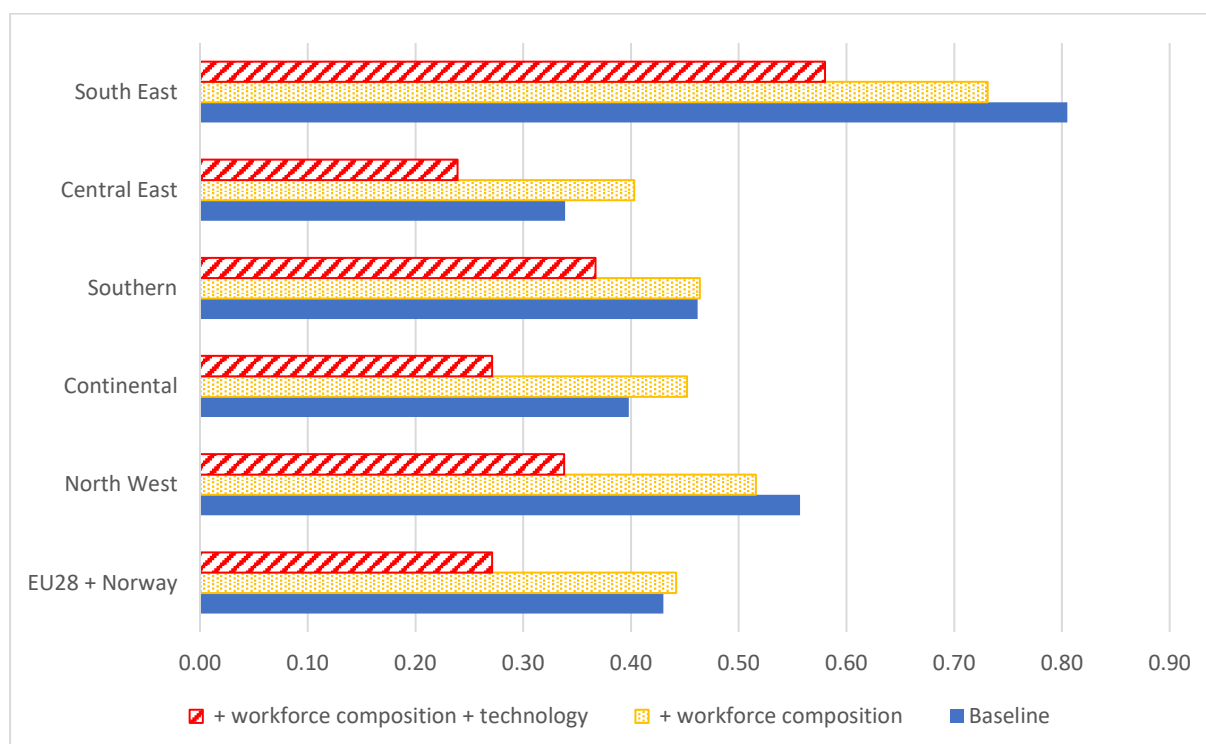
To assess the extent to which the increase in organisational influence reflected changes in economic structure and technology development, we performed a series of regression analyses for each region where there was a significant rise in individual organisational influence between 2010 and 2015. We first regressed the individual organisational influence index on a dummy variable for year 2015 (using year 2010 as base) to examine the extent of overall increase over the period. Then we introduced controls for workforce composition (age, gender, industry and occupational class) to assess how much it reduced the coefficient for year 2015. Finally, we added controls for computer use intensity to test its unique contribution to the overall rising pattern of organisational influence net of the compositional change of the workforce.

WORKFORCE COMPOSITION AND COMPUTER USE INTENSITY

Workforce composition: age, gender, industry (NACE10) and occupational class (ISCO8)

Computer use intensity: Does your main paid job involve working with computers, laptops, smartphones etc? High computer use intensity: All of the time, Almost all of the time, Around $\frac{3}{4}$ of the time; Medium computer use intensity: Around half of the time, Around $\frac{1}{4}$ of the time, Almost never; Low computer use intensity: Never.

Figure 2.10: Accounting for trends in individual organisational influence



The results presented in Figure 2.10 show the reduction of the coefficient for year 2015 when successive controls are introduced for workforce composition and computer use intensity. The increase in individual organisational influence was particularly marked in the South Eastern countries. Introducing controls for employee age, gender, occupational class and industry sector results in a moderate reduction of the year effect. Overall, only about 10% of the increase in organisational influence in the South East between 2010 and 2015 can be attributed to changing workforce composition. On the other hand, controlling for computer use intensity leads to a more substantial reduction of the effect (the coefficient of year 2015 declined from 0.81 to 0.58). Together with workforce composition, computer use intensity accounts for nearly a third of the increase in employee organisational influences in the South Eastern countries.

The patterns for the other regions are generally consistent with that of South East. In each region, computer use intensity plays a greater role in accounting for the rising level of individual organisational influence compared to the changes in economic structure during the same period. It is notable that the economic structural factors have hardly played any role in raising employee organisational influence in Central Eastern, Southern and Continental countries. Taking the overall figure for EU member states, our

analyses suggest that the diffusion of computerised technologies accounts for 37% of the overall increase in employee organisational influence between 2010 and 2015.

2.3 Employees' collective organisational participation

The 6th EWCS introduced a new question to measure the extent to which employees were able to exercise collective influence over organisational decision-making. Respondents were asked whether there were regular meetings in which employees could express their views about what was happening in the company or organisation to which one belonged. In contrast to task discretion and individual organisational influence, which largely focus on individualised forms of work control, these consultation meetings aim to give employees a sense of collective organisational participation through the development of more formal channels of communication and dialogue. This section starts by examining the prevalence of such consultative meetings in different countries and regions in Europe and then introduces a typology of employee involvement system that incorporates both individualised and collective forms of involvement. Drawing on this typology, the rest of the chapter will examine the distribution of different types of employee involvement systems by country, region, industry, occupation, gender, type of contract and workplace size.

COLLECTIVE ORGANISATIONAL PARTICIPATION

Does the following exist at your company or organisation...? - A regular meeting in which employees can express their views about what is happening in the organisation? (Yes/No)

Figure 2.11: Collective organisational participation index by country

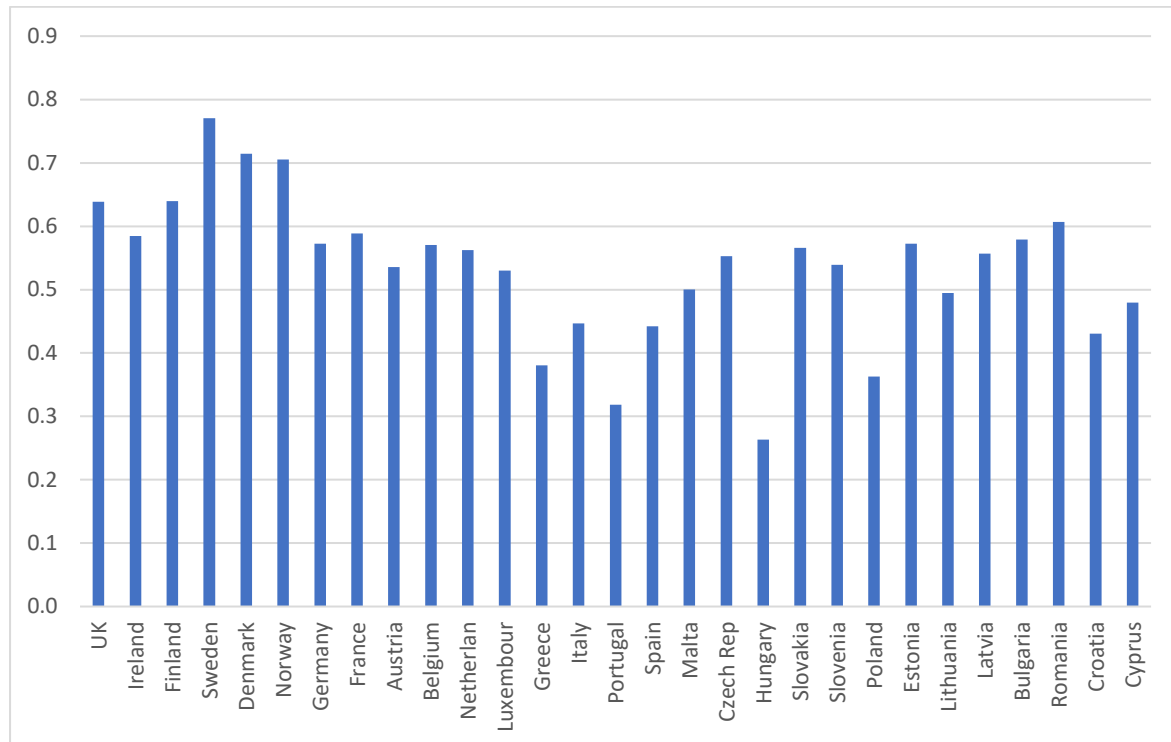
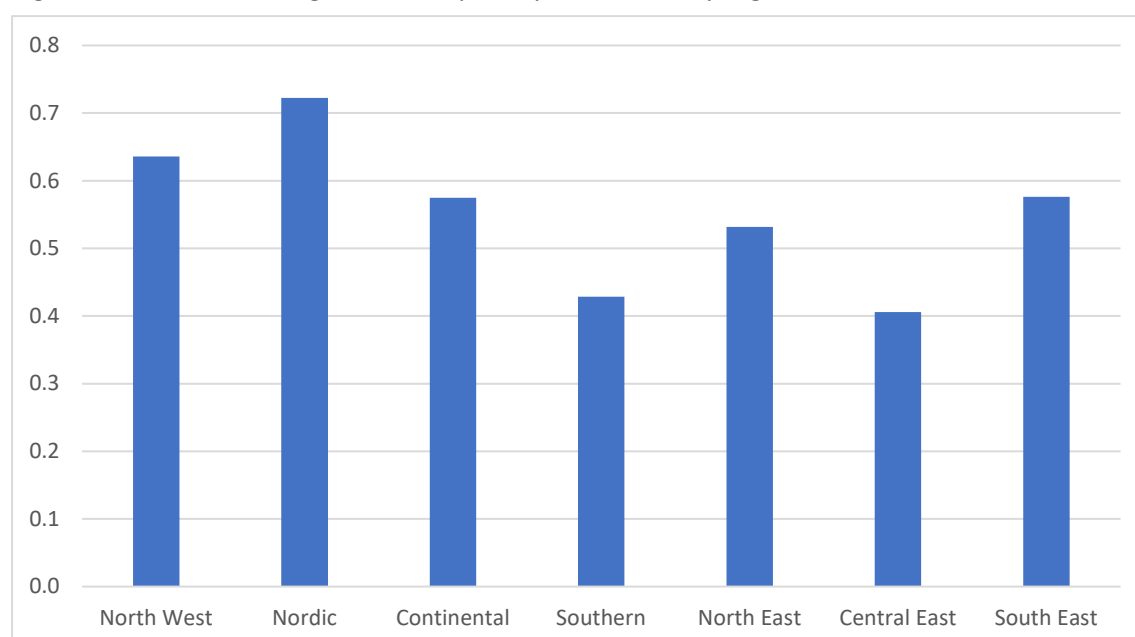


Figure 2.11 shows country differences in the percentage of employees who reported the presence of consultative meetings in their workplace. The highest incidence of such meetings is found in the Nordic countries: Sweden, Denmark, Norway and Finland, followed by the North Western countries (particularly the UK, which comes close to the pattern of Finland). It is notable that the South Eastern countries also reported relatively high levels of collective consultation: 61% of employees in Romania and 58% of employees in Bulgaria reported the presence of such meetings in their workplace. The Continental countries occupy an intermediate position, with more than half of employees in most countries reporting this practice. By contrast, the incidence of collective consultation is particularly low in the Southern countries and some of the Central Eastern countries. For instance, only a quarter of employees in Hungary and a third of employees in Portugal said there were regular meetings in which they could express their views about their work.

The pattern for individual country differences translates into regional disparities. Figure 2.12 shows that the Nordic countries have a distinctively high level of collective consultation, followed at some distance by the North Western countries. The Continental and South Eastern countries are characterised by intermediate levels of collective consultation, whereas the Southern and Central Eastern countries reported the lowest level of such involvement. A notable exception was found for the South Eastern countries: although they are characterised by particularly low levels of employee task discretion, the use of formal consultative schemes is relatively widespread.

Figure 2.12: Collective organisational participation index by region



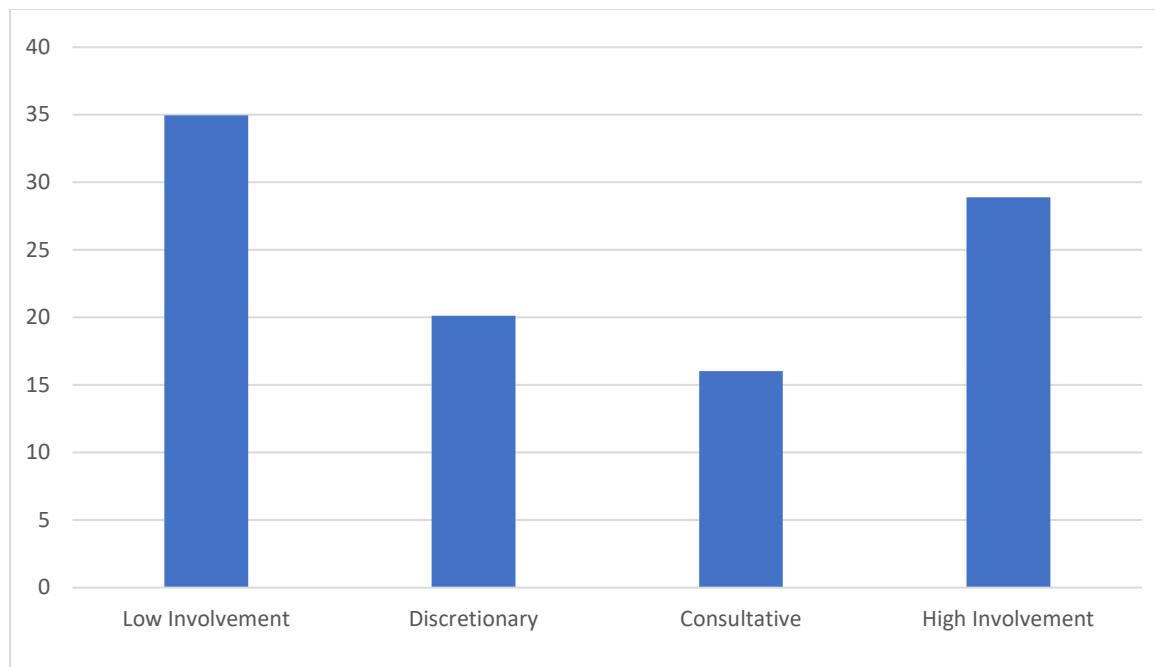
2.4 Types of employee involvement

A typology of employee involvement system was created by combining the two dimensions of employee involvement. First, an index for organisational participation was constructed by averaging individuals'

responses to the three questions about their influence over organisational decision-making (whether they were involved in improving the work organisation or work processes of their department or organisation; whether they could influence decisions that were important for their work, and whether there were regular meetings in which they could express their views about what was happening in the organisation). Then the task discretion index and the organisational participation index were dichotomised and cross classified to create four categories. Employees in 'high involvement' organisations were defined as those who reported both above median levels of task discretion (corresponding to answering yes to all three questions about task discretion) and above median level of organisational participation (corresponding to answering yes to at least two of the three questions about organisational participation). Those who reported below median levels of task discretion and organisational participation were defined as working in 'low involvement' organisations. Employees in 'discretionary' organisations consist of those who reported above median level of task discretion but below median levels of organisational participation, while those in 'consultative' organisations have the reverse combination.

TYPES OF EMPLOYEE INVOLVEMENT	
High involvement organisation	= high task discretion + high organisational participation
Discretionary organisation	= high task discretion + low organisational participation
Consultative organisation	= low task discretion + high organisational participation
Low involvement organisation	= low task discretion + low organisational participation

Figure 2.13: Percentage of employees in different types of organisations in EU28+



The distribution of various types of employee involvement in the EU28+ is shown in Figure 2.13. The main pattern revealed by the figure is the high incidence of employees (35%) in the low involvement category. High involvement organisation came next, with 29% of employees. A further 20% were in the discretionary and 16% in the consultative categories. Since nearly two thirds of employees in Europe were

in either the high or low involvement categories, the subsequent analyses will focus on these two types of employee involvement systems.

Figure 2.14 shows country differences in the distribution of high and low involvement organisations. The Nordic countries once again stood out as having the highest percentage of employees in high involvement organisations. Norway, Denmark and Finland are particularly distinctive, where about twice as many employees worked in high involvement organisations as in low involvement organisations. Sweden trailed behind the other Nordic countries by quite a margin: the percentage of employees working in high involvement organisations was only slightly higher than that of low involvement organisations (33% vs 31%), which is broadly similar to the pattern for the UK (35% vs 30%). Apart from the Nordic countries and the North Western countries, only a small number of countries reported a preponderance of high involvement organisations over low involvement organisations. These include Malta (45% vs 10%), the Netherlands (42% vs 24%), Estonia (39% vs 25%), Belgium (34% vs 27%), Luxembourg (35% vs 28%) and France (33% vs 28%).

In contrast, the Southern countries reported the highest prevalence of low involvement organisations. In Greece, for example, 59% of employees worked in low involvement organisations while only 12% worked in high involvement organisations. In Portugal and Cyprus more than half of employees were found in low involvement organisations while less than a fifth worked in high involvement organisations. Apart from the Southern countries, the prevalence of low involvement organisations was also relatively high in Croatia (47%), Slovakia (46%), Hungary (44%) and Latvia (44%).

The Nordic and North Western countries emerged as the only two regions where employees were more likely to work in high involvement than low involvement organisations (Figure 2.15). In the Continental countries, the proportions in high and low involvement organisations were relatively balanced. The prevalence of low involvement organisations was particularly high in the South Eastern, Central Eastern and Southern countries.

Figure 2.14: Percentage of employees in high and low involvement organisations by country

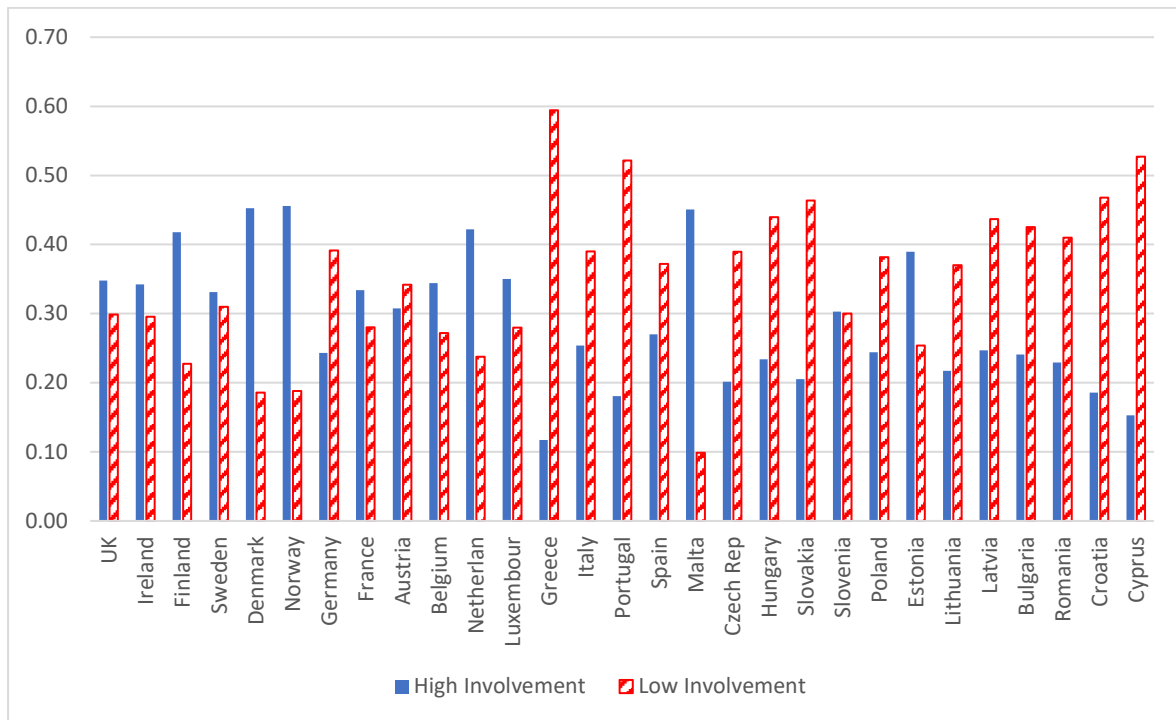
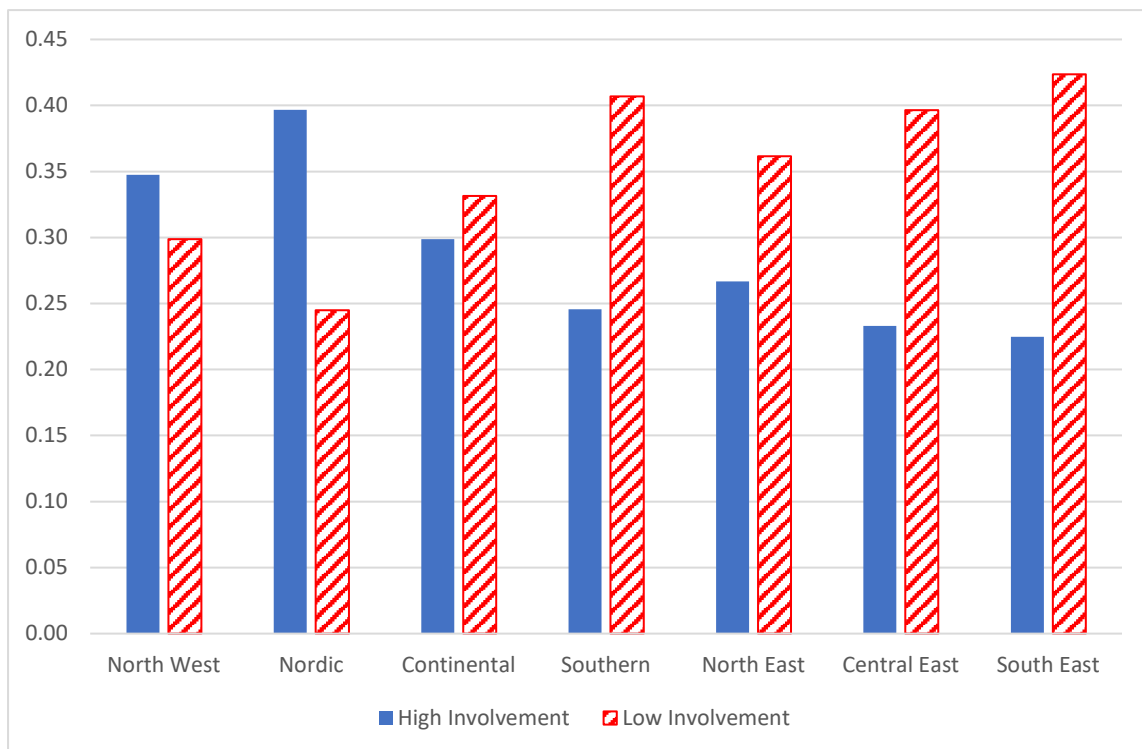


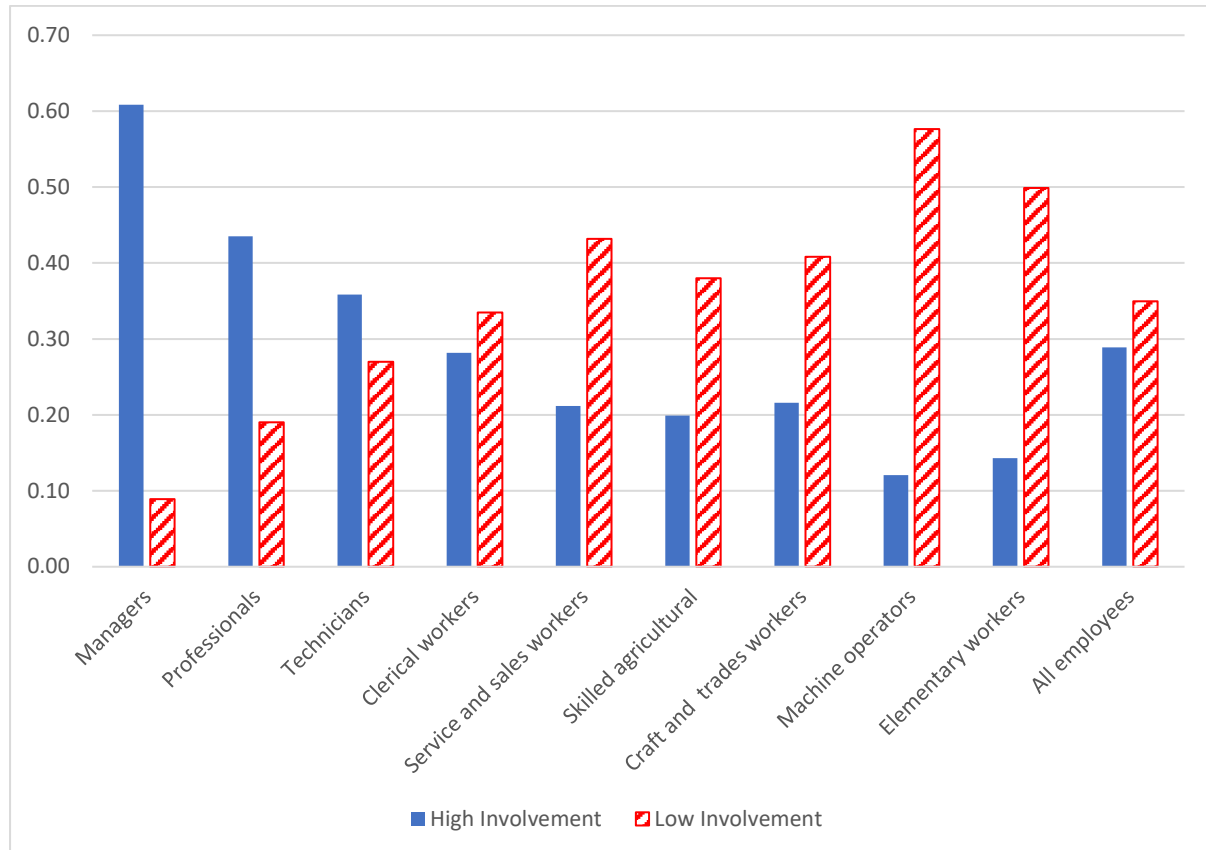
Figure 2.15: Percentage of employees in high and low involvement organisations by region



The likelihood of a high level of involvement is strongly influenced by occupational class (Figure 2.16). While it is the case for 61% of managers, the proportion falls to only 12% of machine operators and 14% of elementary workers. Conversely 58% of machine operators and 50% of elementary workers, compared

to 9% of managers had a low level of involvement. Compared to managers, there is a steady decline in the percentage of employees in high involvement as one moves down the occupational class hierarchy: 44% for professionals, 36% for associate professionals and 28% for technicians, and around 20% for service and sales, skilled agricultural and craft and trade workers. Overall, the pattern of occupational class confirms the importance of skill level in determining job autonomy and the scope of influence over wider organisational issues.

Figure 2.16: Percentage of employees in high and low involvement organisations by occupational class



There were also considerable industry disparities in the prevalence of employee involvement (Figure 2.17). Education and financial services were characterised by the highest percentages of employees in high involvement organisations (45% and 41% respectively). By contrast, low involvement organisations were most common in transport (52%), manufacturing (43%), agriculture (43%), and commerce and hospitality (41%). In terms of ownership sector 35% of employees in the public sector worked in high involvement organisations, compared to 26% for the private sector (2.18). Conversely, employees in the private sector were more likely to be employed in low involvement organisations (39%) than their public sector counterparts (26%).

Figure 2.17: Percentage of employees in high and low involvement organisations by industry

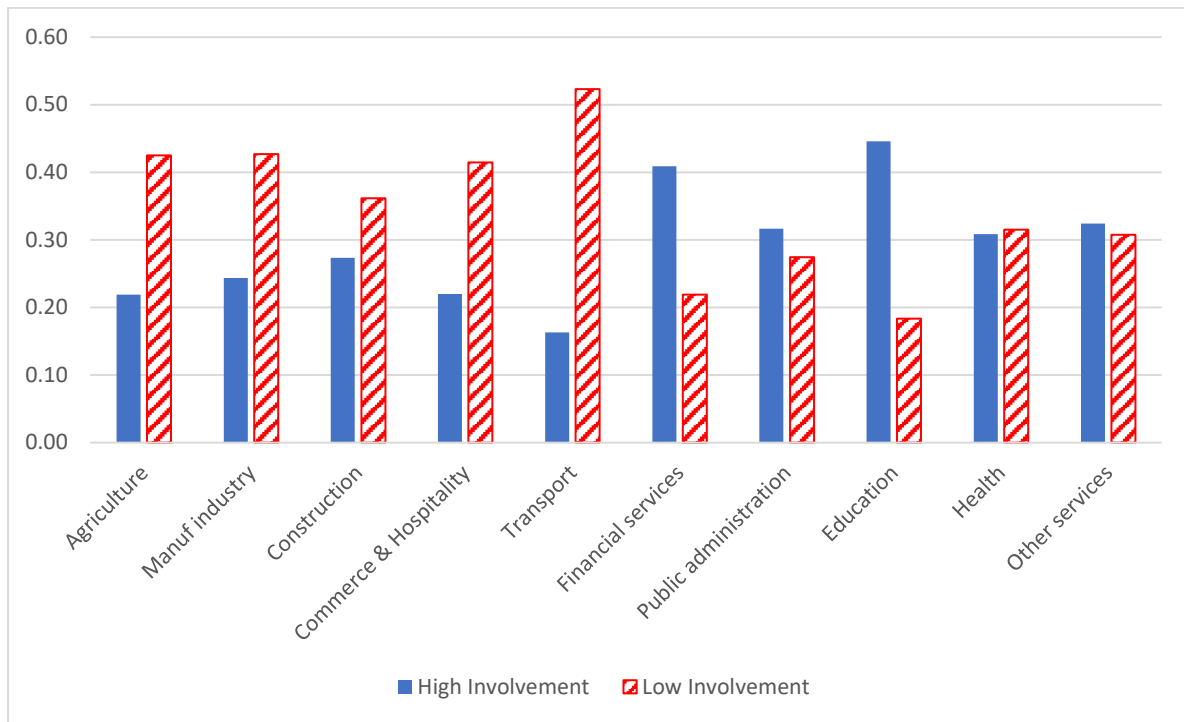
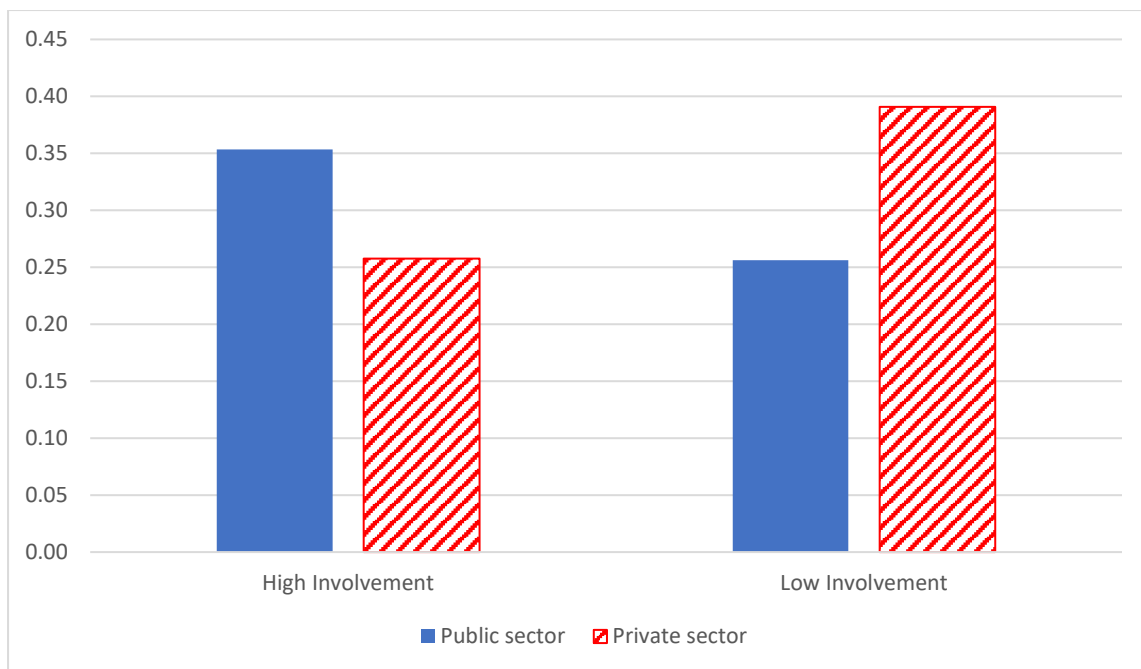


Figure 2.18: Percentage of employees in high and low involvement organisations by ownership sector



The association between employee involvement and computer use intensity is shown in Figure 2.19. Among employees who reported high computer use intensity (those who use computers for at least ¾ of the time), 39% worked in high involvement organisations and 25% worked in low involvement organisations. On the other hand, the figures for the low computer use intensity group (those who never

use computers at work) are 16% and 49%. Employees who used computerised equipment at a medium level were distributed more evenly in high and low involvement organisations (30% and 34%). The evidence indicates that advanced technology generally has been positively associated with employees' job control and organisational participation.

Figure 2.19: Percentage of employees in high and low involvement organisations by computer use intensity

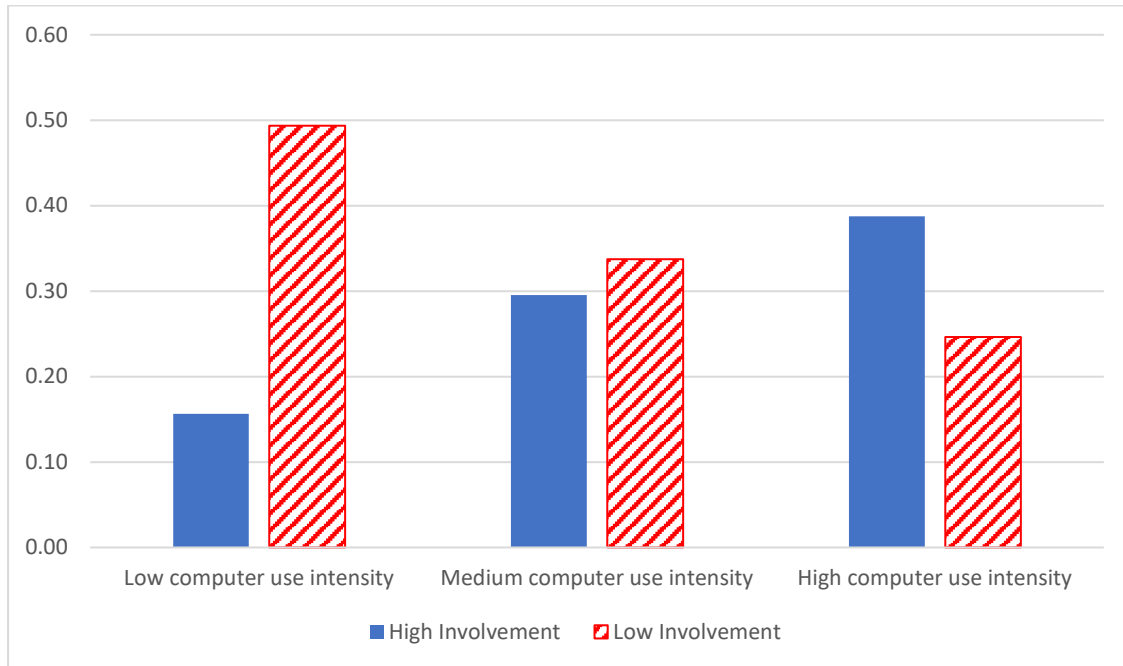
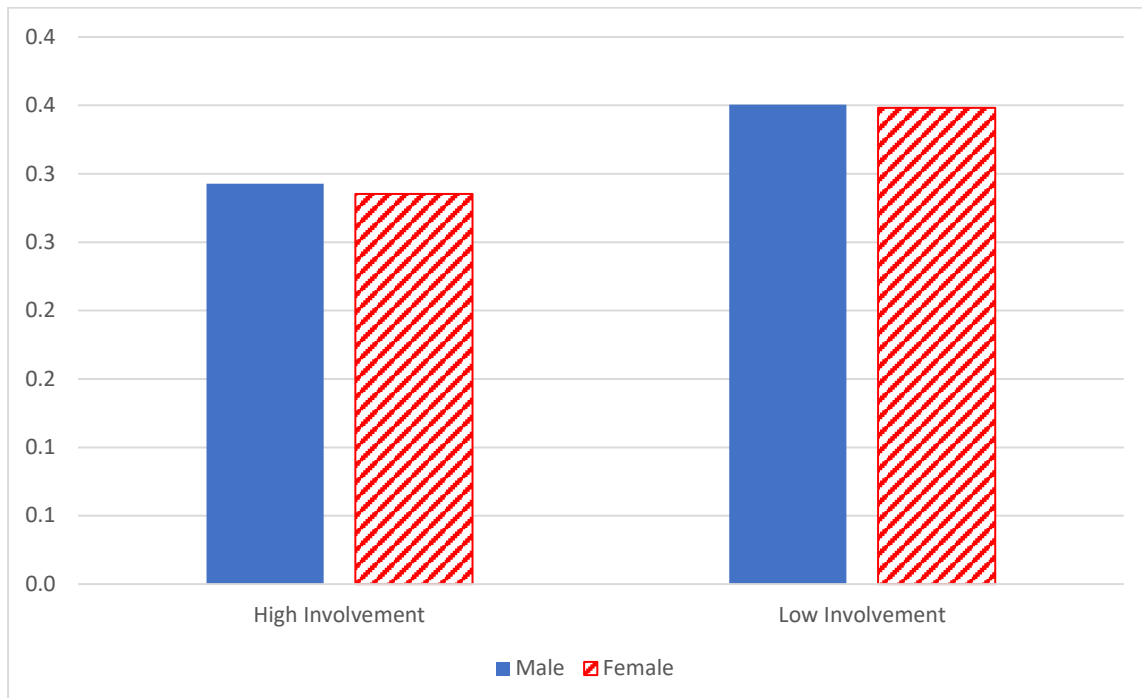
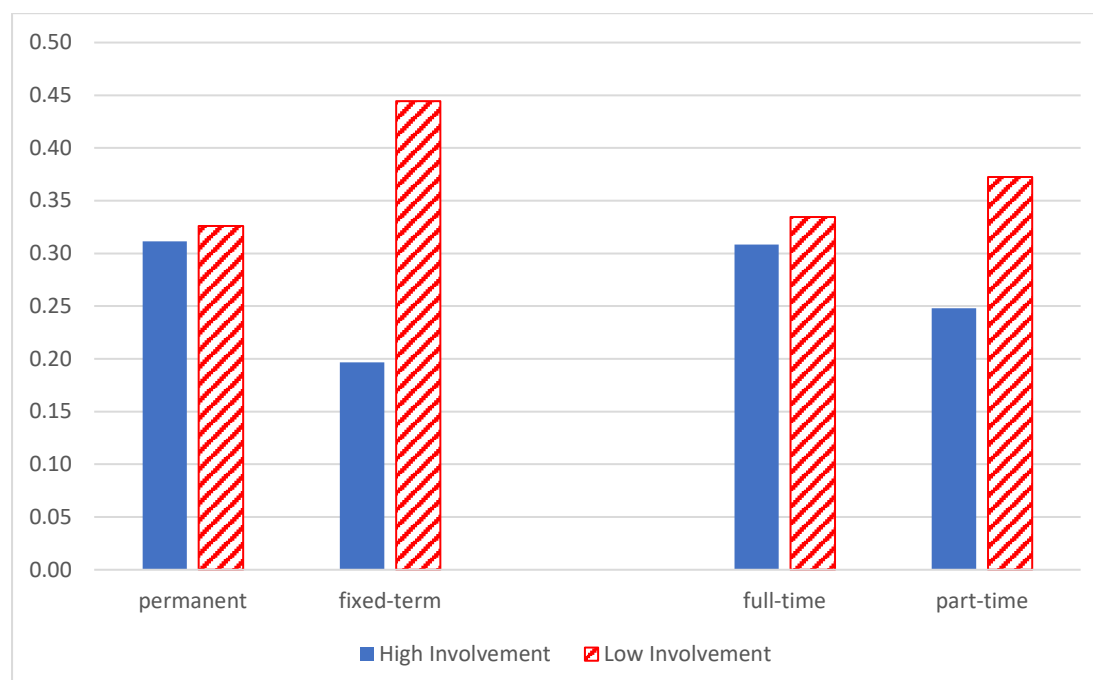


Figure 2.20: Percentage of employees in high and low involvement organisations by gender



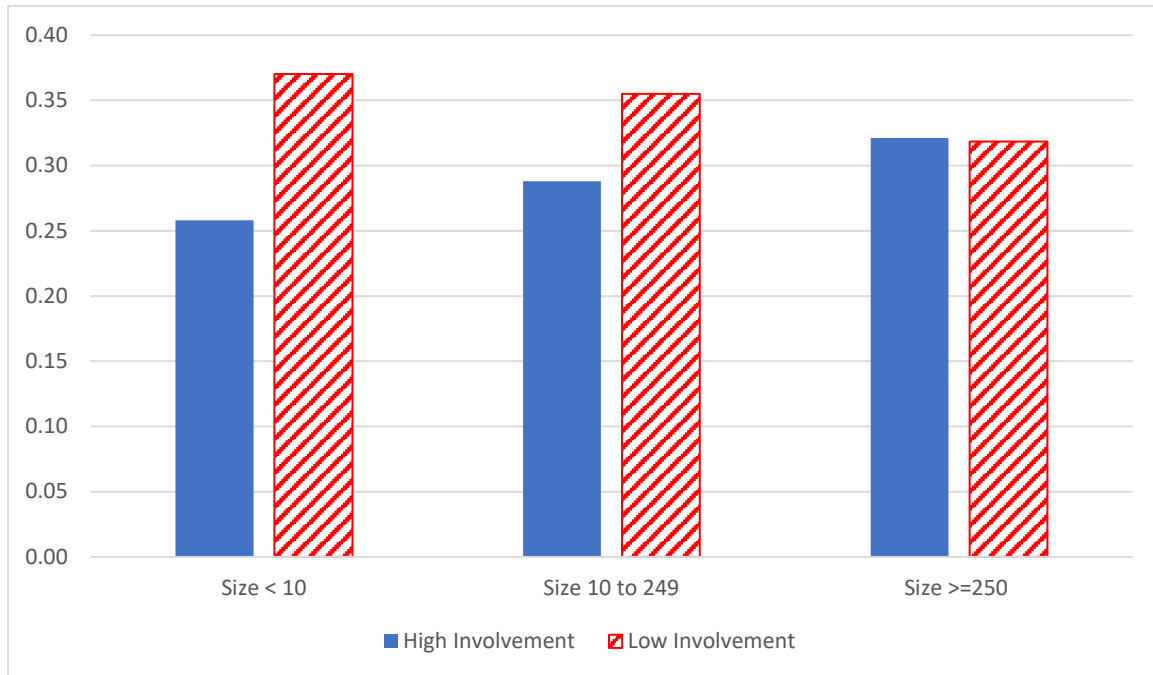
Gender does not appear to affect employee involvement. As Figure 2.20 shows male and female employees had similar likelihoods of working in high and low involvement organisations. But involvement is strongly influenced by type of work contract: Figure 2.21 shows that those who held fixed-term contracts were more likely to work in low involvement organisations (44%) compared to those who held permanent contract (33%). Similarly, part-time employees had lower levels of involvement than full-time employees: while the latter were relatively equally distributed in high and low involvement organisations, the former were predominantly employed in low involvement organisations. The differences between full-time and part-time employees are however smaller in magnitude than those between fixed-term and permanent employees, indicating that temporary workers were particularly disadvantaged in their ability to exercise influences over workplace decisions.

Figure 2.21: Percentage of employees in high and low involvement organisations by type of contract



Finally, Figure 2.22 shows the relationship between organisational/workplace size and employee involvement systems. As can be seen in Figure 2.24, employees in larger workplaces/ organisations were more likely to work in high involvement organisations. About a quarter of employees in small organisations (with fewer than ten employees) reported working in high involvement organisations, while the figure rose to 32% for those in large organisations (with more than 250 employees). The reverse is the case for the percentage of employees in low involvement organisations (37% in small organisations and 32% in large organisations). This pattern could reflect the fact that larger organisations have greater administrative resources to enhance employees' organisational involvement.

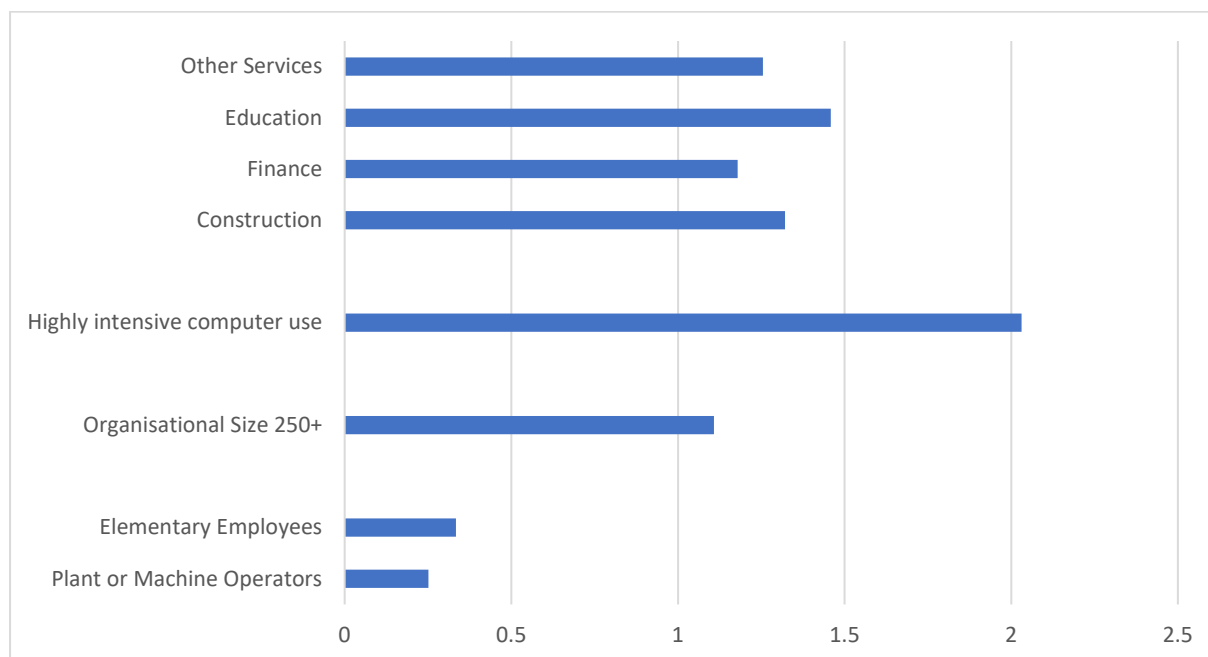
Figure 2.22: Percentage of employees in high and low involvement organisations by organisational size



Summary

High involvement organisation is significantly related to a range of structural factors – occupational class, industry, company size, ownership sector, technology and contract. However, when the full set of structural factors associated with high involvement are entered together into logistic regression, ownership sector and part-time work are not significant. The strongest effects that emerge (figure 2.23) are related to class, the intensity of computer use and industry. Employees who were operatives have only a quarter of the chance, and elementary employees only a third of the chance, of being in such organisations compared to managers and professionals, while those working with advanced technologies had twice the chance of working in a high involvement organisation compared to other employees. Employees in education were almost 50% more likely to be in high involvement organisation than employees in manufacturing.

Figure 2.23 Strongest Net Effects on Participation in a High Involvement Organisation (Exponentiated Coefficients from Logistic Regression)



Note: Coefficients less than 1 represent reduced chances, higher than 1 increased chances relative to the reference categories: manufacturing, no computer use, small organisation <10, professionals and managers. All effects were statistically significant at the 0.001 level.

2.5 Accounting for country differences in the prevalence of high involvement organisations

In addition to within-country structural determinants, it is possible that the prevalence of high involvement organisation is affected by national cultural and institutional characteristics. In particular, there are grounds for thinking that it may be influenced by the power resources available to employees, the general level of education of the workforce and the degree of diffusion of computerised technologies.

Employees with greater power resources are likely to enjoy higher levels of job control and organisational involvement. For instance, where trade union membership is strong at national level, trade unions are likely to be in a better position to promote higher levels of workplace dialogue, either through influencing government policies or through direct pressure on employers. Apart from union representation, employees' bargaining power is also influenced by the conditions of the labour market. Higher levels of unemployment can reduce individuals' power resources by making them more easily substitutable. Tighter labour markets, on the other hand, encourage employers to adopt high involvement management practices as a means of increasing employee motivation and retention.

The general level of education in a society may also influence employees' scope of job autonomy and wider decision-making influence by shaping the expectations of both employees and employers. Higher levels of education are likely to enhance the analytical, critical and communication skills of individuals, creating higher expectations of being able to exercise initiative in work task, to make full use of their skills and abilities and to contribute to the improvement of broader work processes. A more educated

workforce is likely to be impatient with traditional forms of top down management or a strong emphasis on hierarchical status. It could be expected that the higher the national educational level, the wider would be the diffusion of norms of more egalitarian relations at work, giving employers a stronger incentive to decentralize decisions both to make best use of employee skills and to enhance organisational commitment. Finally, as discussed earlier, a wider diffusion of computerised technologies is also likely to lead to higher level of employee involvement due to both increased demand for employee initiative and increased opportunities for effective communication and consultation in the organisation.

To assess the possible influence of these factors, we use multilevel modelling, which is ideally suited to analysing hierarchically structured data where individuals are nested within higher-level units. Multilevel models take into account the fact that employees nested within the same country tend to be more similar to one another than those randomly drawn from the general population due to a shared economic and social environment. By separating overall variance in high involvement organisations into between and within-country components, it enables us to identify macro institutional factors which shape employee involvement over and above the effect of individual and organisational characteristics.

In the multilevel analysis, our dependent variable is the presence of high involvement organisations (measured as a dummy variable). Our country-level predictor variables include three aspects of institutional environment. Employee power resources are measured by trade union density and the unemployment rate, the educational level by the percentage of the working age population who hold tertiary educational qualifications and the diffusion of computerised technologies by the percentage of ICT specialists in the workforce.

The analysis takes four steps. First, we fit a random intercept model (baseline model) to partition overall variance in the prevalence of high involvement organisations into between and within-country components. The intra-class correlation coefficient (ICC) is used to assess the percentage of variance in high involvement organisations that lies at the country level. In the second step, we introduce controls for employee demographic characteristics (age, gender, occupational class and type of work contract) and economic structure (industry, ownership sector and organisational size) to examine the extent to which country variance in high involvement organisations reflects differences workforce composition. Finally, we test whether the institutional factors affect employee involvement after controlling for individual characteristics and economic structure.

COUNTRY LEVEL PREDICTORS OF HIGH INVOLVEMENT

Union density: ICTWSS. Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts dataset (Visser, 2011).

Unemployment rate in 2015: Eurostat (une_rt_a)

Percentage of working age population with tertiary education: *OECD Education at a Glance 2015*.

Employed ICT specialists as % of total employment: Eurostat (isoc_sks_itspt)

The results of the multilevel analyses are presented in Table 2.1 and Figure 2.24. Given the high intercorrelation of national level variables and the small sample numbers of countries, the indicators relevant to different theoretical approaches are introduced in separate models. The baseline model in Table 2.1 shows that 4.5% of the overall variance in the prevalence of high involvement organisations lies between countries.

Controlling for individual characteristics and economic structure reduces ICC to 3.1%, which suggests about a third of country variance in the prevalence of high involvement organisations reflects compositional effects. Controlling for union density further reduces ICC to 2.7%, while controlling for unemployment rate leads to a similar reduction (2.2%). Both union density and unemployment rate are associated with high involvement in the expected way. The sixth column of Table 2.1 shows that high involvement organisation is positively associated with the percentage of working age population who hold tertiary educational qualifications. Controlling for education reduces ICC to 1.8%. Finally, technological level also emerged as a strong determinant of employee involvement. The last column of Table 2.1 shows that controlling for the percentage of ICT specialists in the workforce reduces ICC to 1.7%. These results confirm that high involvement is positively associated with employee power resources, education level and the spread of computerized technologies.

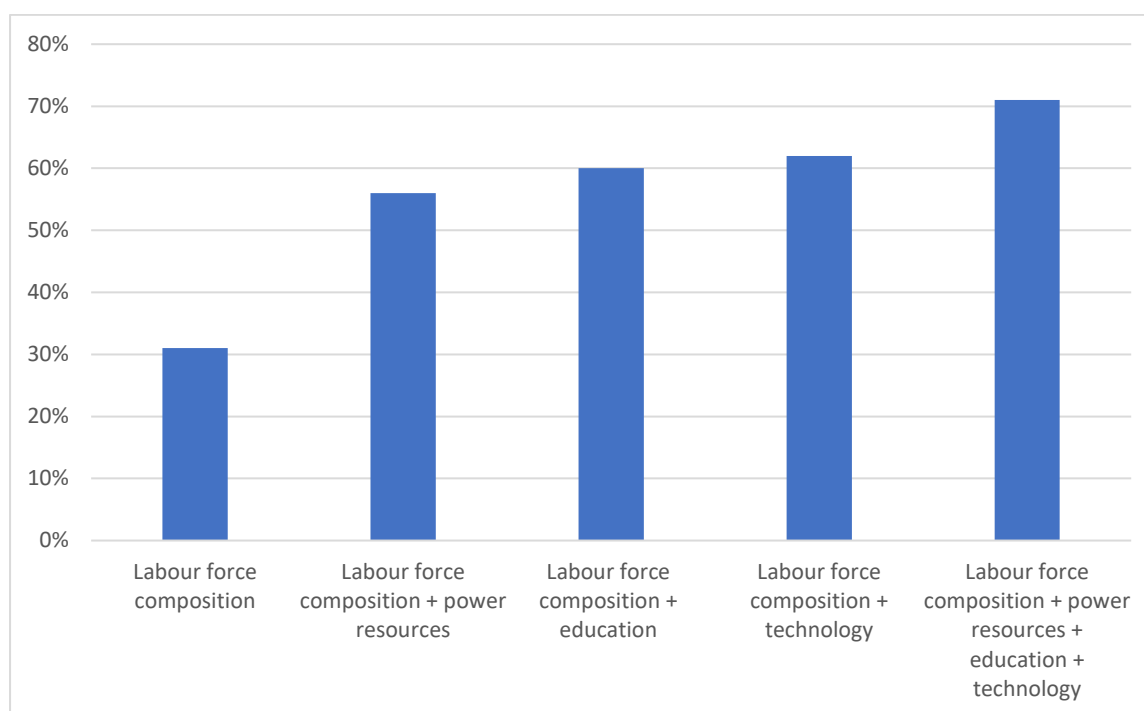
Table 2.1: Accounting for country variance in the prevalence of high involvement organisations

	Baseline model	+Structural Controls (SC)	+SC +Union density	+SC +Unemployment rate 2015	+SC +Education level	+SC +ICT employment
Standardised Coefficient			0.030	-0.046	0.042	0.054
ICC	0.045	0.031	0.027	0.022	0.018	0.017

Note: Standardised estimates from separate multilevel analyses predicting high involvement organisations (versus all other types of employee involvement) from single country-level variables are shown. Numbers in bold are significant at the 95% level. Structural Controls (SC): age, gender, occupational class, industry, type of work contract, ownership sector, organisational size and computer use intensity.

In order to compare the relative importance of the three institutional factors, we show the degree of reduction in ICC when each country-level factor is entered stepwise into the multilevel model. It can be seen in Figure 2.23 that, while labour force composition accounts for about a third of the overall country variance in high involvement organisations, adding institutional controls nearly doubled the amount of variance explained. The diffusion of advanced technologies emerged as the strongest macro-level determinant of high involvement organisation. Together with labour force composition, it accounts for over 60% of the country variance in high involvement organisations. Power resources, education and technology together account for over 70% of the initial country variance.

Figure 2.24: Accounting for country variance in high involvement organisations



2.6 Summary

This chapter has assessed the patterns of employee involvement in the EU 28 member states and Norway. It started by tracking the changes in the level of task discretion and individual organisational influence between 2010 and 2015, then examined the distribution of employees in high involvement and low involvement organisations geographically and by types of employee.

The principal finding is an upward trend in employee involvement over time. Overall, both task discretion and individual organisational influence index scores increased significantly over time. The increase was relatively widespread – employees in most regions, industries and occupational class positions reported significantly higher levels of involvement at work in 2015 compared to 2010. The North Western and Continental countries reported the largest gains in task discretion while the North Western and South Eastern countries reported the largest gains in individual organisational influence.

The generally rising pattern of employee involvement was also evident from separate industry and occupational class analyses. Some industries traditionally characterised by low levels of employee involvement (in particular transport) reported some of the greatest improvements. The positive developments were found for employees in a wide range of occupational class categories. With the exception of managers, professionals and skilled agricultural workers, employees in all occupational class positions reported increased task discretion and individual organisational influence over time, and there was an increased convergence between employees in highly skilled and low skilled jobs.

However, the analysis of the distribution of various types of employee involvement systems showed that the most common form of work organisation in Europe is still the type characterised by both low levels of task discretion and restricted organisational participation. With the exception of the Nordic countries and North Western countries, employees are more likely to work in low involvement organisations than high

involvement organisations in every region, with the risks particularly high in the South Eastern and Southern countries. Low involvement work organisations are more prevalent among employees in lower occupational class positions, with non-standard work contracts, working in the private sector (particularly in transport, manufacturing and commerce and hospitality) and rarely using computerised equipment at work.

Among the structural predictors investigated, technology and occupational class emerged as particularly important determinants of employee involvement. Nearly 40% of the overall increase in employee organisational participation between 2010 and 2015 could be accounted for by the diffusion of computerised technologies in the EU. In accounting for the variance between countries, after account of such structural factors, the role of employee power resources (in terms of trade union density and the tightness of the labour market), the general educational level in the society and the diffusion of computerised technologies were all significantly related to the prevalence of high involvement.

3 Employee involvement and the work environment

A potential benefit of employee involvement is that it may provide an effective way for employees to secure improvements in the quality of their work and employment conditions. They should be in a stronger position to defend and forward their interests both because they hold greater effective power over the immediate work process and because they have better channels for exercising voice. However, some analysts have contested this view, arguing that involvement provides employers with a way of securing the identification of employees with managerial objectives and their internalisation of the priority of productive efficiency even at the cost of the quality of their working conditions.

This chapter examines the relationship between the types of employee involvement described in chapter 2 and the work environment. It first looks at the implications of employee involvement for work and employment conditions. It then examines its relationship to employers' performance management practices – the fairness and supportiveness with which they treat employees, the intensity of controls over work pace, the use of teamwork and of pay incentive systems. Finally, it looks at whether employee involvement is associated with an increased prevalence of employee representation, whether through elected employees or trade union representatives, thereby providing greater influence over higher level organisational decisions.

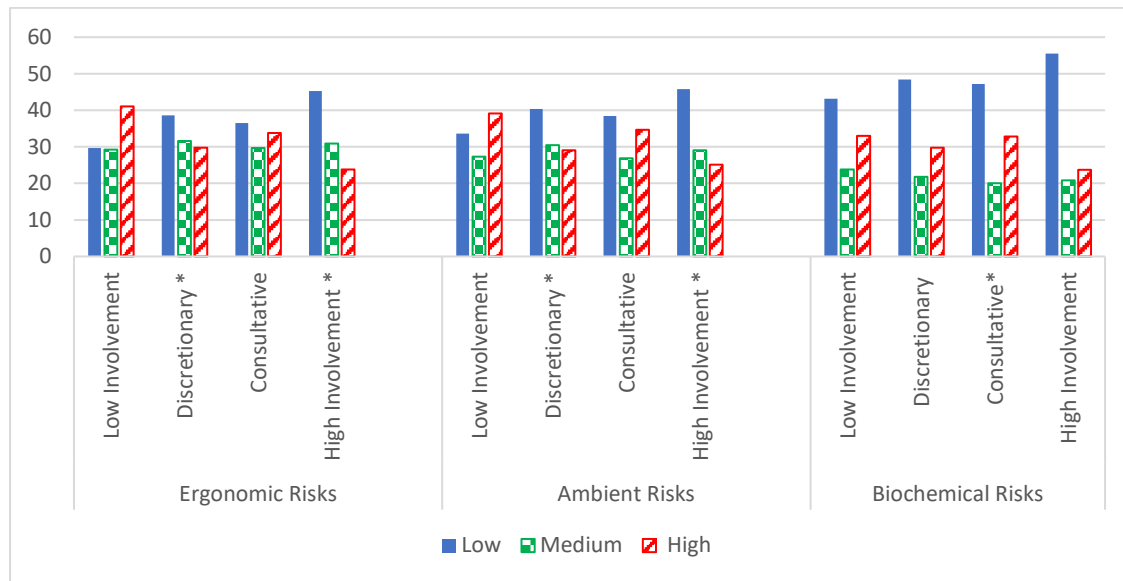
3.1 Employee involvement and work and employment conditions

The analysis focuses on three aspects of non-financial work and employment conditions that may be affected by the level of employee involvement – the quality of physical working conditions, the pace of work and the level of job security. It has been particularly the implications for work intensity that have been controversial – with some claiming that employee involvement leads to higher work intensity and others that it restrains it.

Physical work conditions

Physical working conditions can be grouped into three broad categories (for details see Eurofound, 2016). The first relates to '*posture-related or ergonomic risks*'. These cover physical risks deriving from vibrations from hand tools and machinery, working in tiring or painful positions, lifting people, carrying heavy loads and carrying out work involving repetitive movements - characteristics of the working environment which may contribute to musculoskeletal disorders. The second consists of exposure to '*ambient risks*', which include conditions such as high levels of noise and high and low temperatures. The third involves '*biological and chemical risks*' which may derive from breathing in smoke fumes or dangerous vapours, being in skin contact with chemical products or handling infectious materials. There are several items in the EWCS covering each of these types of risk (see Appendix 2). An additive index scores was constructed across the items representing the three types of risk, with employees with scores in the highest third taken to be those at high risk.

Figure 3.1: Employee involvement and percentage of employees experiencing physical risks

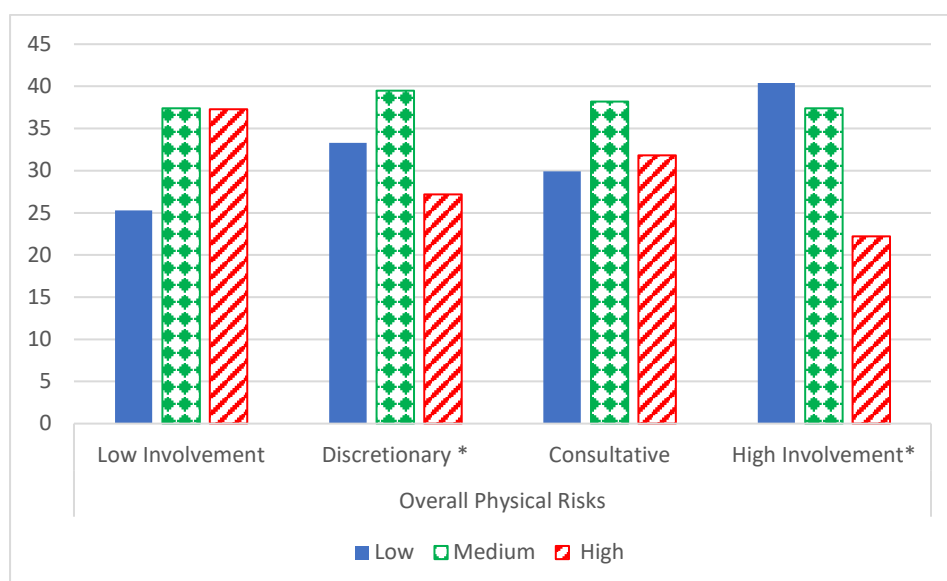


Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, class and organisational size.

It can be seen from Figure 3.1 that employees in high involvement organisations were distinctive from those in other organisational types in having a particularly high proportion in jobs with a low level of physical risk and a low proportion at high risk. This was the case for each of three types of risk - ergonomic, ambient and biochemical. Employees in both high involvement and in discretionary organisations had significantly lower risks than those in low involvement organisations, but those in high involvement organisations were in even safer jobs even than those in discretionary organisations.

To capture the overall level of physical risk at work, an index was constructed based on the average of the full set of items (Figure 3.2). For presentation, scores have been divided into high, medium and low with each representing approximately a third of employees. Overall risk scores were lower for employees in discretionary, consultative and high involvement organisations than for those who were in low involvement organisations, but this was particularly the case for those in high involvement and discretionary organisations. Those in high involvement organisations stand out as having the safest jobs of all.

Figure 3.2: Employee involvement and percentage of employees at high, medium or low risk



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, class and organisational size.

To take account of potential confounding factors, controls were introduced for sex, age, occupational class and company size. Women were more likely to experience poor ergonomic work conditions, but less likely to be affected by dangerous ambient or biochemical conditions. Older workers, particular 50+, were less likely to report poor physical work conditions, while those in lower occupational class positions (skilled agricultural workers, craft workers, operators, and elementary workers) were more affected than those in higher occupational classes. All three types of risk were greater the larger the size of the company people were working in.

Once these controls were introduced it was only employees in high involvement and discretionary organisations that were still significantly better protected than those in low involvement organisations. The relatively small differences in the effects of high involvement and discretionary organisations (non-significant with controls) suggests that it is high task discretion (which is common to both discretionary and high involvement organisations) that is particularly effective in providing protection against physical risks.

Work intensity

With the growing recognition that psychological demands can be a major factor underlying both psychological and physical ill health, there has been increasing concern about the health implications of high levels of work intensity. Work intensity is the common element in the main explanations of the sources of psychosocial risks at work. Where employees have greater influence over work decisions, they may be able to limit management policies to intensify work. However, a contrary view is that employee involvement policies are adopted by management as a way of increasing work effort by making employees feel greater personal responsibility for the organisation's output.

WORK INTENSITY
Work intensity refers to the physical and mental effort that is required to carry out job tasks in a given number of hours. A measure of work intensity has been constructed using three items in the EWCS:
Q49. Does your job involve:
<ul style="list-style-type: none"> A. Working at very high speed B. Working to tight deadlines
The scores of response options were reversed, so that higher scores represented higher intensity: (7. All the time, 6. Almost all the time, 5. Around $\frac{3}{4}$ of the time, 4. Around half the time, 3. around $\frac{1}{4}$ of the time, 2. almost never 1. never) and grouped into three categories of work intensity: high =7,6; medium=5,4,; low=3,2,1. The cut off points were selected to place approximately the highest quarter of scores into the 'high category' and the lowest half in the 'low' category.
Q61. Please select the response which describes your work situation:
- You have enough time to get your job done
The scores of response options were: 1. always, 2. most of the time, 3. sometimes, 4. rarely, 5. Never. They were grouped into three categories of work intensity: high=5, medium=4, low=3,2,1. The cut off points were selected to place approximately the highest quarter of scores into the 'high category' and the lowest half in the 'low' category.
The grouped scores on each of the three variables were coded into 1=low work intensity, 2=medium work intensity, 3=high work intensity. An overall measure of work intensity was constructed by taking the average score across the three trichotomized variables.

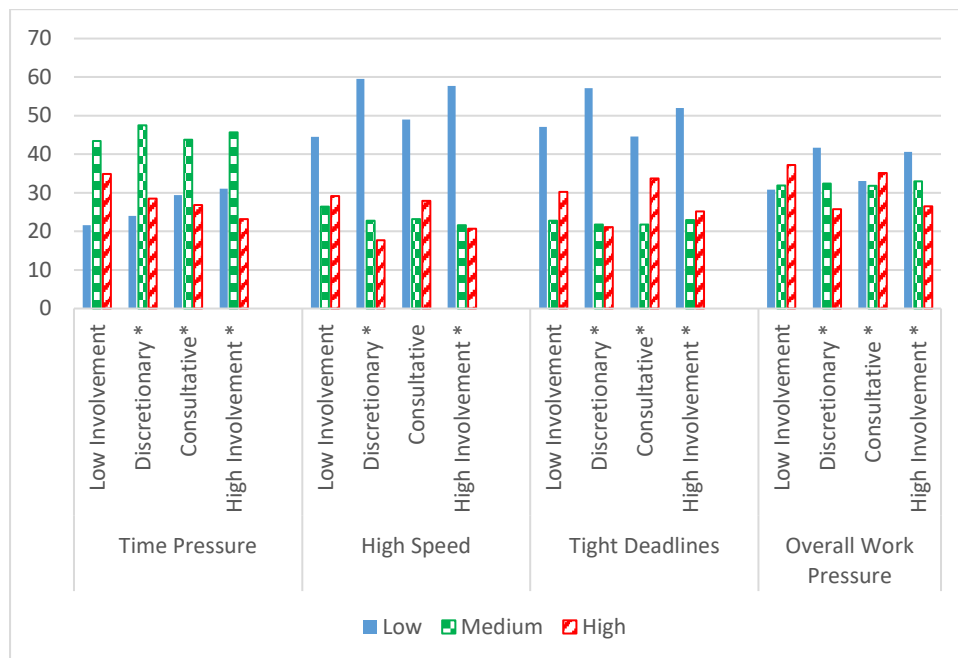
The principal focus has been on *quantitative* pressures or the pace of work, since these have been shown to have a severe negative impact on employee well-being and health. There are three well-established indicators of quantitative demands in the EWCS, asking how frequently the person works at a high speed and to tight deadlines and how often it is the case that they had enough time to get the job done (for details see BOX). An overall index was created by taking the average work intensity scores across the three items,

The pattern in Figure 3.3 supports the view that employee involvement practices reduce rather than increase work intensity. On each of the measures, those in high involvement organisations had a lower proportion experiencing high work intensity than was the case for employees in low involvement or consultative organisations. Those in discretionary organisations also experienced relatively low work intensity. Although those in consultative organisations had somewhat lower work intensity than those in low involvement organisations, the differences were relatively small (and not significant with respect to high speed). Differences were most marked with respect to time pressure. Whereas 35% of those in low involvement organisations experienced high time pressure, this was the case for only 29% of employees

in discretionary organisations, 27% in consultative organisations and 23% in high involvement organisations.

The correlation between employee involvement and work intensity remained significant with controls for individual and labour composition characteristics. Several of the control factors were related to work intensity. There was no difference between men and women, but prime age employees (25-49) experienced higher work intensity than younger or older employees. Work intensity was highest among managers and craft workers and among employees in large companies. But, even taking account of these factors, employees in high involvement and discretionary organisations were the least subject to high work intensity and the effects were statistically similar. As in the case of the specific types of physical work hazards, this suggests that high task discretion is particularly important in accounting for better work conditions.

Figure 3.3: Types of involvement and work intensity

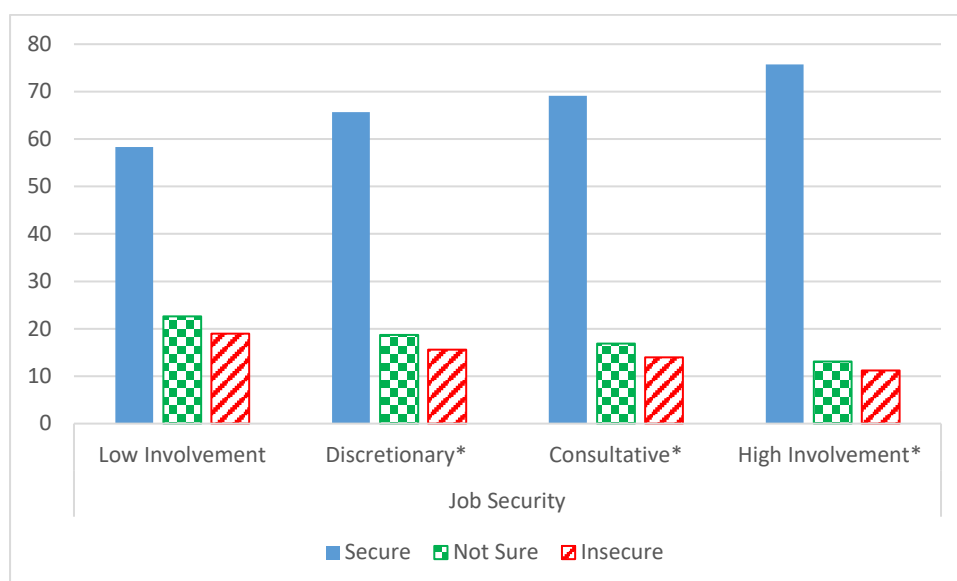


Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Job security

As well as affecting working conditions, there are grounds for expecting that the degree of involvement in decision-making in the organisation will have an influence on job security. Employees will be in a better position to alter decisions that could lead to staff cuts and encourage alternative responses to financial or efficiency pressures. The EWCS measures job insecurity with the item 'I might lose my job in the next six months', with a five point response scale ranging from 'strongly agree' to 'strongly disagree'. Those who agreed that this was the case are classified as insecure, those who replied with the neutral middle category as 'not sure' and those disagreed as 'secure'.

Figure 3.4: Employee involvement and percentage of employees reporting job insecurity



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

There was indeed a significant effect of employee involvement on perceptions of job security. Employees in each of the involvement types – discretionary, consultative and high involvement – felt more secure than employees in low involvement organisations (Figure 3.4). But the difference was particularly marked for those in a high involvement setting: 76% felt secure in their jobs and only 11% felt insecure, compared to 58% and 19% respectively for those in low involvement organisations. Moreover, those in high involvement organisations were significantly more likely to feel secure than employees in either discretionary or consultative organisations. These differences remained significant even with controls for the individual and work context factors.

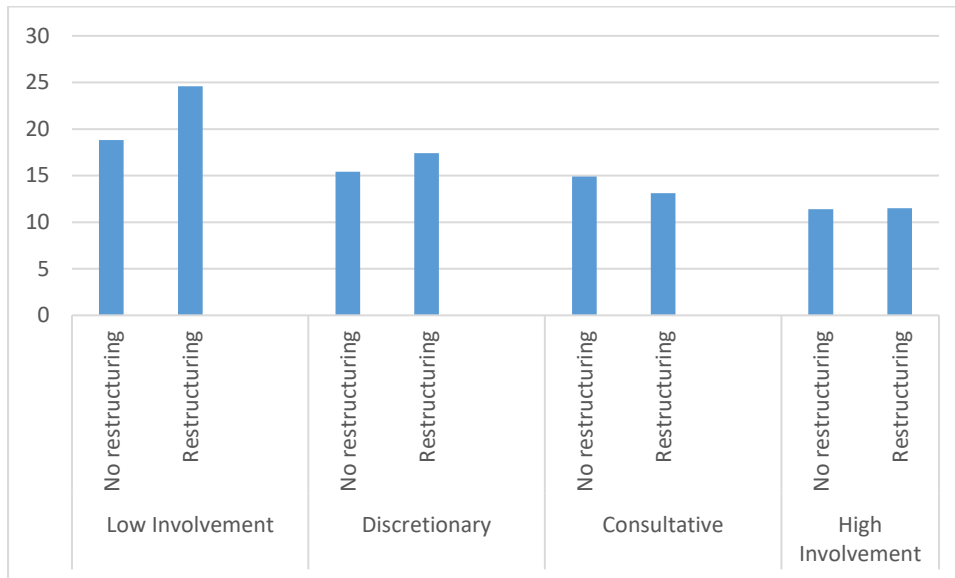
One factor that might have accounted for this is that high involvement organisations were less likely to employ workers on temporary contracts (9% compared to 16% in low involvement organisations). The level of involvement, however, also affected the insecurity felt by temporary workers, with 38% feeling insecure in high involvement organisations, compared with 46% in low involvement organisations. Controlling for temporary work reduced the strength of the effect of high involvement relative to low involvement (by just under a third), but the difference between types of organisation remained highly significant.

This association of employee involvement with lower insecurity also may partly reflect the way it moderates the experience of organisational restructuring – a well-established source of higher insecurity. Organisational change can heighten anxieties both because of its explicit implications for employment and job status and because it raises levels of uncertainty that can foster negative speculative scenarios of future developments. Higher employee involvement is likely to reduce both sources of insecurity. By giving employees greater say over decisions about the restructuring of work tasks, it is likely to enhance the quality for employees of the real outcomes of change. By providing channels for fuller information about plans for change, it is likely to reduce ungrounded worries about the future.

The lower insecurity of employees in high involvement organisations was not due to the fact that organisational change was less frequent. Indeed employees in high involvement organisations were the

most likely to report that in the last three years 'there had been a restructuring or reorganisation at the workplace that has affected substantially your work'. This was the case for 31% compared with 27% in consultative, 23% in discretionary and 21% in low involvement organisations. This is consistent with the view that employers benefit from higher levels of involvement in contexts of more rapid rates of change.

Figure 3.5 Organisational restructuring, employee involvement and insecurity (% insecure)



The notable point is that, despite the greater prevalence of restructuring, higher involvement was associated with lower levels of insecurity. As can be seen in Figure 3.5, employees with low involvement had markedly higher insecurity when there had been organisational restructuring than when this was not the case. The difference was still evident, but considerably less marked, for those in discretionary organisations. Moreover, insecurity was lower for employees with discretionary involvement than for those with low involvement among both those that had and those that had not experienced restructuring. In consultative organisations, there was a further reduction in levels of insecurity, but insecurity was a little lower for those experiencing restructuring than for those that had not. Finally, employees in high involvement organisations had the lowest of insecurity of all, whether or not restructuring had taken place. In cases of restructuring, employees with high involvement had less than half the risk of feeling insecure compared to those with low involvement. The pattern indicates that involvement plays a vital role in mitigating the impact of restructuring on insecurity.

Variations by Region and Type of Employee

Overall, both discretionary and high involvement forms of organisation offered significant protection against potentially hazardous physical work conditions, while all three forms of involvement contributed to reducing risks arising from work intensity and job insecurity. In particular, those in high involvement organisations felt particularly well protected from job insecurity.

It is possible, however, that employee involvement is more effective in reducing physical risks in countries that have reduced their reliance on the older and more dangerous technologies associated with heavy

industry and that have a longer tradition of strong health and safety regulation. The implications of high involvement practices were widely prevalent across European regions and types of employee. There were variations, however, particularly in the case of its implications for physical risks at work, as can be seen from the more detailed analyses presented in Appendix 3 Table 3.1. After controls for age, sex, occupational class and organisational size, high involvement did not significantly decrease physical risks in the Southern countries and it is notable that the strength of its effects was stronger in the Liberal, Nordic and Continental countries than in the East European countries. There was also no clear evidence that it reduced physical risks among the least skilled (operators and elementary workers) or among those in the smallest organisations (with 1 to 9 employees). In contrast, high involvement was associated lower work intensity and lower job insecurity in all of the European regions, across employees in all of the different occupational class categories and among those in small, medium and large organisations.

3.2 Employee involvement and performance management practices

A second way in which employee involvement may lead to an improved work environment is through its effects on employers' performance management policies. In particular, it may affect the way line managers treat their employees in terms of the quality of interpersonal relations, the intensity of controls to increase work pace, the role attributed to teamwork and the extent to which the pay system rewards individual contribution.

The EWCS asks a wide range of questions relating different aspects of management's policies to ensure high levels of performance. Some of these emphasize the fairness and trust with which employees are treated, others the supportiveness of line management. There is a set of questions designed to capture the mechanisms for controlling work pace, there are items on the use of, and type of, teamwork, and a set of questions assessing the extent to which performance incentives are built into the pay system. A factor analysis showed that these were four distinct dimensions of managerial practice. There were two factors relating to the way management treated its employees in interpersonal relations, capturing respectively the fairness of treatment and the supportiveness of management. A third concerns the mechanisms for controlling work pace and the use of teamwork (confirming the control aspect of teamwork) and the fourth comprised the items relating to pay incentives.

Interpersonal Relations

Research on organisational justice has highlighted the importance of the quality of interpersonal relations between managers and workers for employees' sense of fairness and their trust in the organisation. There is extensive evidence that managerial 'support' is an important source of employee well-being. Management styles emphasizing hierarchical distance are likely to clash with expectations of respect and recognition on the part of employees, leading to a sense of alienation from the job.

Higher levels of employee involvement can be expected to encourage more employee-centered styles of management treatment. They imply more everyday contact and discussion between managers and employees, which should lead to a more informed understanding of the problems employees face and a greater respect for their views. Higher task discretion means that employees have greater control over of the work process, leading to a distinctive knowledge of the problems with current procedures and the possibilities for improving them, making management more dependent on employee cooperation and

willingness to communicate. Stronger organisational participation provides more effective channels for employees to express their voice whether with respect to advice for improvement or complaints about the way they are treated. Employee involvement thus simultaneously increases the incentives for management to develop closer relations with their employees and increases the potential for employees to retaliate in cases of poor treatment.

ORGANISATIONAL FAIRNESS
Organisational fairness refers to whether or not managerial practices in relation to employees are seen to be just and impartial rather than based upon arbitrary or personally biased decision-making. A measure was constructed on five items in the EWCS:
Q70. The next questions are about your workplace. To what extent do you agree or disagree with the following statements:
B. The management trusts the employees to do their work well
C. Conflicts are resolved in a fair way
D. The work is distributed fairly
F. In general, employees trust management
Response options were: Strongly agree, Tend to agree, Neither agree nor disagree, Tend to disagree, Strongly disagree.
Q. 61 Please select the response which best describes your work situation:
K. You know what is expected of you at work (Response set: Always, Most of the time, Sometimes, Rarely, Never)
Response scores were reverse coded into a 1 to 5 scale, with higher responses representing greater fairness. The scale alpha for the five items was 0.78.
An overall measure of organisational fairness was constructed by taking the average score across the five items, with scores ranging between 1 and 5.

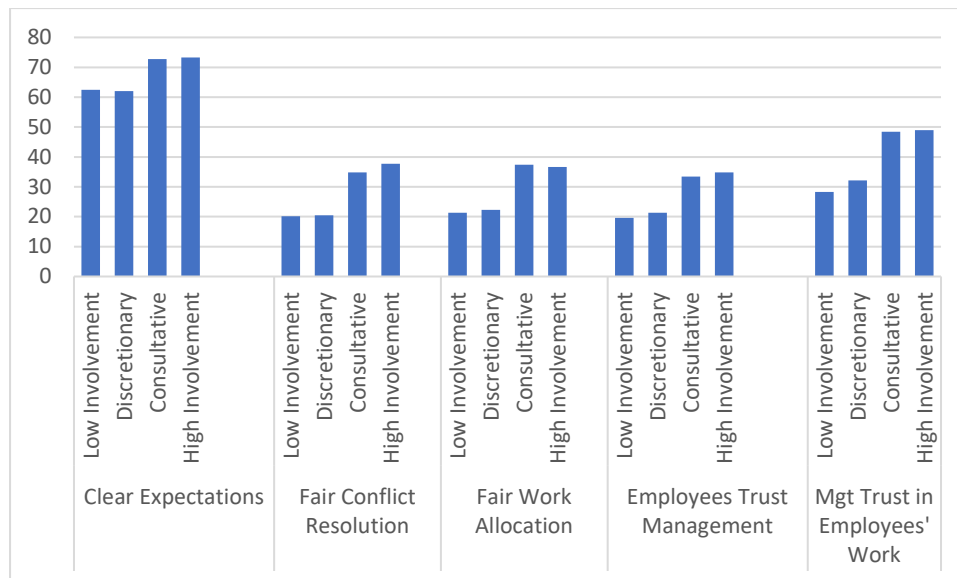
Organisational fairness

Five EWCS questions provided a strong scale (alpha 0.78) of perceptions of the fairness of treatment of employees (for details of questions see BOX). They included one item on the clarity of expectations whether 'you know what is expected of you at work'. Clear expectations are fundamental for fairness in that they provide a basis for assessing the justice of judgements about performance. Four other items explore fairness and trust directly, including employees' perceptions of management's trust in the quality of employees' work performance, the fairness of the way conflicts are resolved, the fairness of the distribution of work and whether in general employees trusted management.

In general, a majority of employees agreed to some extent with the view that management was fair in its treatment and trusted its workers. However, with the exception of clear expectations, this was strongly felt only by a minority: 38% strongly agreed that management trusted employees to work well, 28% that conflicts were resolved in a fair way, 29% that work was distributed fairly and 27% that employees in general trusted management.

Employee involvement was related strongly to perceptions of management fairness. In all cases those in high involvement and consultative organisations were notably more positive in their attitudes about management than those in discretionary or low involvement organisations (Figure 3.6). For instance, with respect to personal fair treatment, 58% of those in high involvement organisations (and 52% of those in consultative) said this was always the case, whereas this was true for only 39% of those in discretionary organisations and 35% of those in low involvement organisations. Taking the overall set of responses (with controls for sex, age, occupational class and company size), employees in discretionary, consultative and high involvement organisations had significantly more favourable views of management treatment on each item than those in low involvement organisations. This was particularly the case with respect to consultative and high involvement management, although those in high involvement organisations were the most positive of all, with significantly higher scores than those in consultative organisations.

Figure 3.6: Employee involvement and percentage of employees reporting high management fairness



Note: 'High' fairness for items on conflict resolution, work allocation and trust='strongly agree', for items on expectations and fair treatment 'always'.

Managerial supportiveness

Seven EWCS question items provided a strong scale of perceptions of management supportiveness (Alpha 0.88). Four related to managers' ability to facilitate the immediate work process providing 'personal help and support', 'getting people to work together', providing help 'in getting the job done' and 'useful feedback on your work'. Three were concerned with the personal treatment of employees – whether the manager 'respects you as a person', gives 'praise and recognition when you do a good job', and whether 'employees are appreciated when they have done a good job'.

MANAGERIAL SUPPORTIVENESS

Managerial supportiveness refers to the extent to which management provides practical help on the job and treats the employee well in personal terms. The measure was based on seven questions in the EWCS:

Q61. Please select the response which best describes your situation

B. Your manager helps and supports you. (Response options: Always, Most of the time, Sometimes, Rarely, Never).

Q.63. To what extent do you agree or disagree with the following statements? Your immediate bosses..

- A. respects you as a person
- B. gives you praise and recognition when you do a good job
- C. is successful in getting people to work together
- D. is helpful in getting the job done
- E. provides useful feedback on your work

(Response options were: Strongly agree, Tend to agree, Neither agree nor disagree, Tend to disagree, Strongly disagree)

Q70. The next questions are about your workplace. To what extent do you agree or disagree with the following questions.

- A. Employees are appreciated when they have done a good job (Response options as in Q.63)

All items were reverse coded into a 1 to 5 scale with higher responses representing greater supportiveness. The scale alpha for the five items was 0.88.

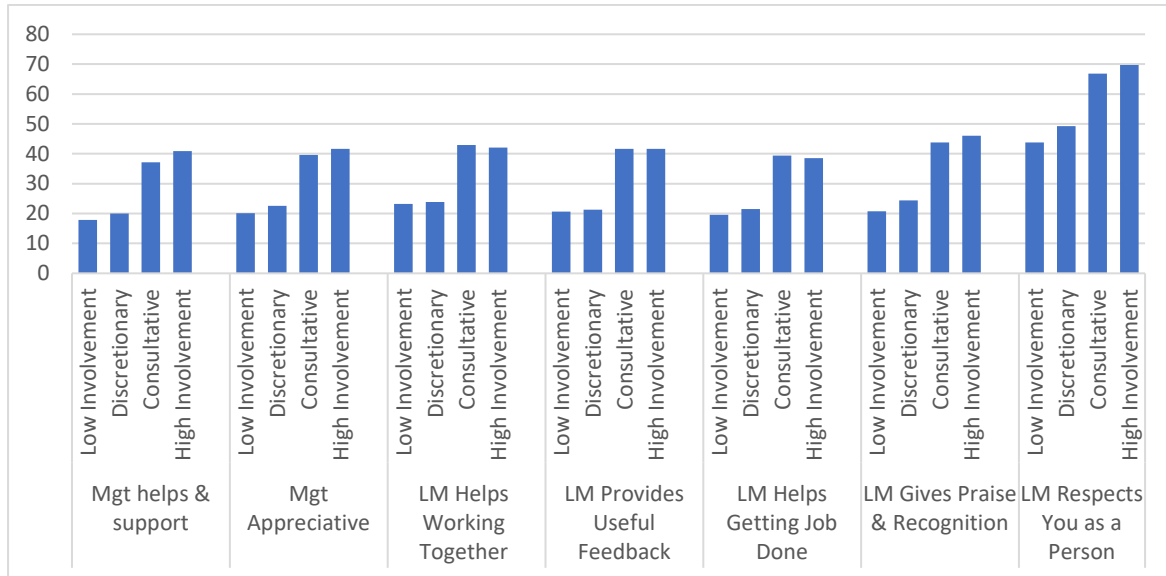
An overall measure of managerial supportiveness was constructed by taking the average score across the five items, with scores ranging between 1 and 5.

Overall employees were positive rather than negative about the supportiveness of management, but only a minority were strongly positive. Just under a third of employees thought that they could always count on the help and support of management, while 40% said that this happened only sometimes or less often. Only 30% strongly agreed that employees were appreciated for good work. Less than a third were strongly positive about the supportiveness of their manager, ranging from 29% strongly agreeing that they were helpful in getting the job done to 32% who thought that they were successful in getting people to work together and gave praise and recognition when they did a good job. But those giving negative responses were also a minority – between a quarter and a third of employees.

There were substantial variations by type of organisation with respect to views about the supportiveness of line management (Figure 3.7). Employees in low involvement organisations were systematically less likely to report management supportiveness favourably, followed by those in discretionary organisations. Employees were markedly more positive and quite similar in high involvement and consultative organisations. The differences were quite substantial. For instance, the proportion strongly agreeing that

their line manager respected them as a person was 70% among employees in high involvement organisations compared with only 44% in low involvement organisations.

Figure 3.7: Employee involvement and percentage of employees reporting high managerial supportiveness



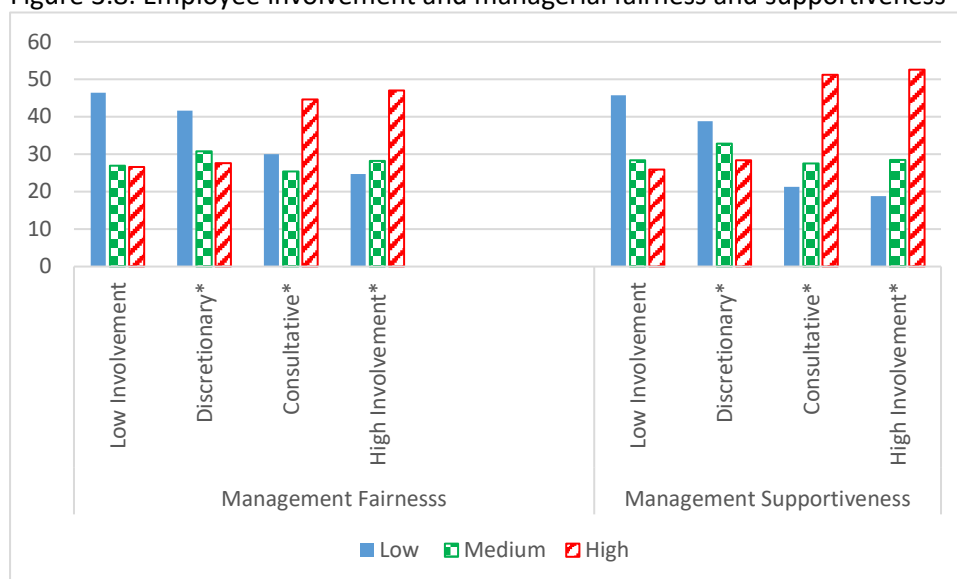
Note: ‘High’ supportiveness for items on ‘help and support’=‘always’; for items on ‘appreciative’, ‘working together’, ‘useful feedback’, ‘getting job done’, ‘praise and recognition’ and ‘respect’=‘Strongly agrees’.

Regression analysis showed that all types of employee involvement were significantly associated with more favourable attitudes to managerial treatment than was the case for low involvement, even with controls for individual characteristics, occupational class and company size. The effects for those in high involvement and consultative organisations were the highest and not significantly different from each other with respect to the practical role of the line manager. But employees in high involvement organisations were significantly more positive than those in consultative organisations about the recognition and respect given by their managers.

Fairness and supportiveness: an overview

To provide an overview of the relationship between types of employee involvement and managerial treatment of employees, two summary indices have been constructed giving the average scores across the items relating to fairness and supportiveness respectively. As can be seen in Figure 3.8, on both indices all types of involvement were associated with better treatment by management than in the case of low involvement. Employees in high involvement and consultative organisations had the highest scores. However, when controls were introduced to take account of differences in the sex, age and occupational class of employees and the size of the organisations they worked in, employees in high involvement organisations had significantly higher scores than those in consultative organisations.

Figure 3.8: Employee involvement and managerial fairness and supportiveness



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Further, additional analyses (Appendix 3, Table 3.2) showed that the effects of high involvement on managerial fairness and supportiveness were highly significant in each of the European regions, albeit most strongly in the Eastern European countries. They were evident for each of the three broad occupational class groupings - higher (managers, professionals and associate professionals); intermediate (clerical, service and skilled manual workers); and lower (operators and elementary employees). Indeed, it is notable that the strongest coefficients were to be found for the least skilled (operators and elementary employees), showing that the benefits of high involvement are not only present for highly skilled categories of employee. Finally, high involvement was associated with fairer and more supportive managerial practices for employees in large, medium and small organisations, with the effects being particularly strong for those in the smallest organisations.

Work pace control systems

Supervisors or first line managers were traditionally the central pillar of managerial control systems for ensuring the effort and quality of work required from the workforce. But the potential interpersonal friction this can lead to has encouraged an increasing reliance on a range of more indirect and impersonal methods of work control. With the growth of Fordist production techniques, the use of machine pacing – most notoriously through the introduction of assembly line production – became more widespread. However, this proved difficult to reconcile with the levels of flexibility and discretion required of skilled labour. From the 1980s there has been increased attention to use of systems of targets and post-facto performance monitoring for ensuring high levels of work performance. Finally there has been some suggestion that employers have increasingly relied on peer pressure from colleagues, particularly where work is organised in teams, and exposure to the demands of customers.

The EWCS investigates the nature of control systems over the pace of work with a question asking people whether ‘your pace of work is dependent on work done by colleagues’; ‘the direct demands from people such as customers, passengers, pupils, patients etc’; ‘numerical production targets or performance

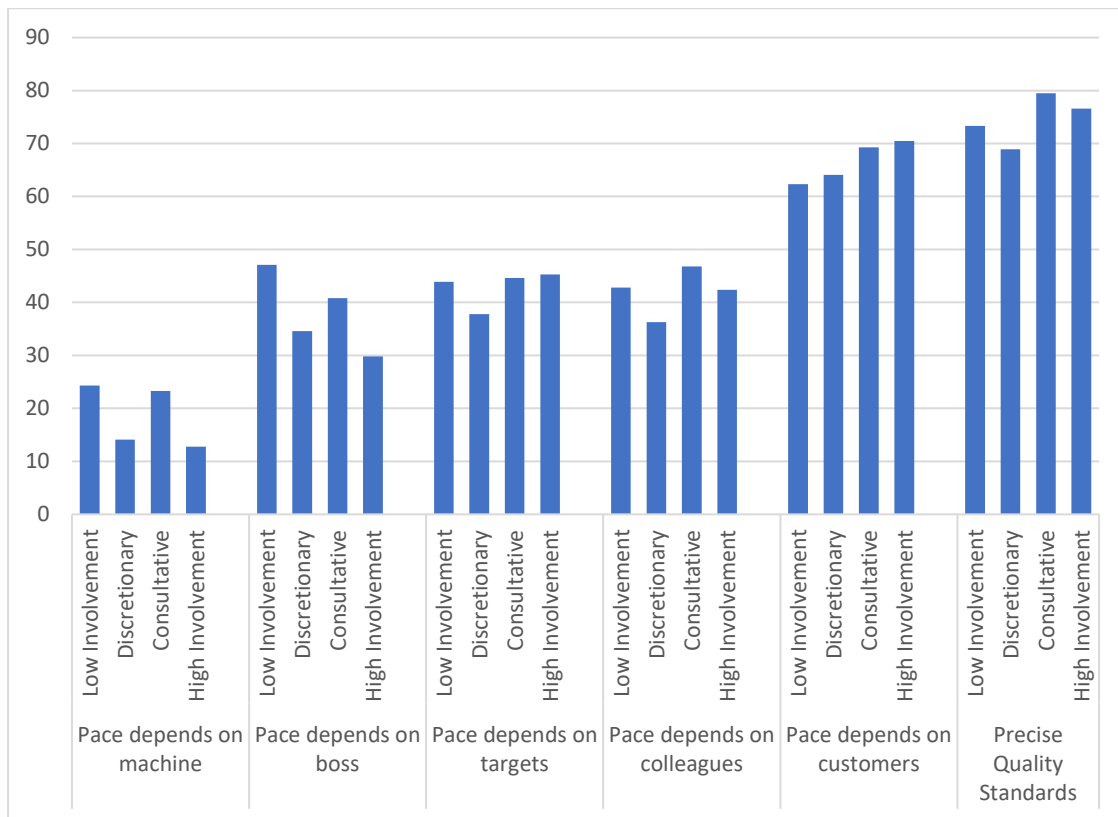
targets'; 'the speed of a machine or movement of a product'; or 'the direct control of your boss'. In addition, to capture quality control, it includes a question about whether or not the job involves 'meeting precise quality standards'.

For employees in all organisational types the most commonly mentioned forms of control were quality standards (75%) and customer demand (66%). But pace control was also frequently exercised through the first line manager (39%), target setting (43%) and colleagues (41%). The use of machine paced control was much more limited (19%).

Employees in organisations with different levels of employee involvement had distinct profiles with respect to the control mechanisms to which they were subject (Figure 3.9). Employees in low involvement organisations were the most likely to have their pace controlled by their boss. It is notable that 47% of employees in low involvement and 41% in consultative organisations were subject to supervisory control. In contrast, the proportions were only 35% for those in discretionary organisations and lowest of all (30%) for those in high involvement organisations.

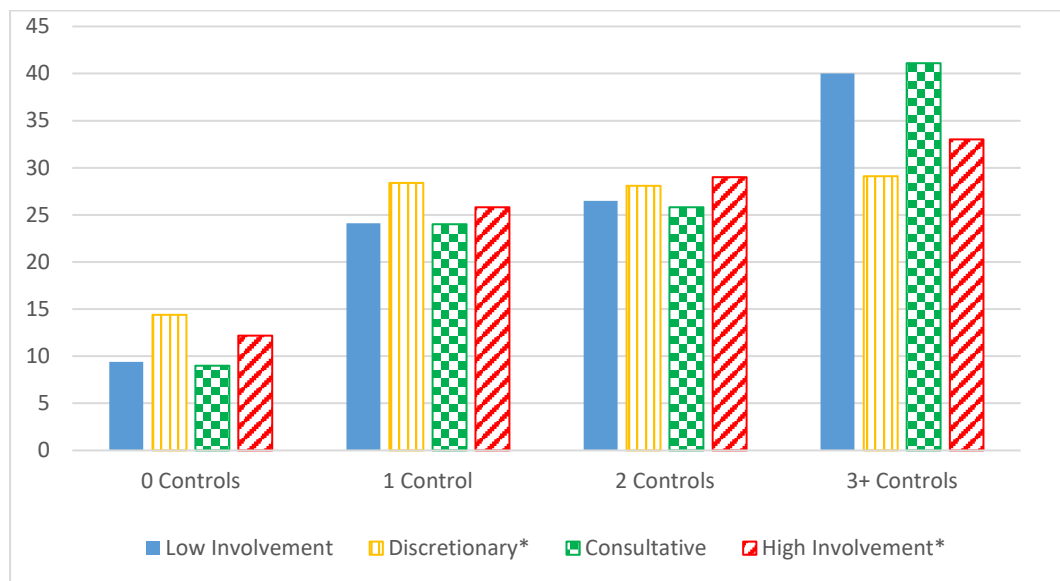
Those in discretionary organisations were the least likely to experience each of the other forms of control. Those in consultative organisations had the highest proportion working to precise quality standards and dependent on the work of colleagues. Employees in high involvement organisations were the most likely to experience control through targets and customers, although in both cases employees in consultative organisations were very similar.

Figure 3.9: Employee involvement and reported controls of work pace and quality



The number of types of control can be taken as indicator of the intensity of work pace control, with those experiencing three or more types representing those with a high intensity of work control (Figure 3.10). Employees in consultative and low involvement organisations were the most likely to be subject to high control intensity (41% and 40% respectively), while this was the case for only 33% of those in high involvement organisations and 29% in discretionary organisations. A regression analysis confirmed that, even with controls, employees in high involvement and discretionary organisations had significantly lower exposure to high control intensity than employees in low involvement organisations. Those in consultative organisations however were statistically no different from those with low involvement. The least exposure to multiple control systems was among those in discretionary organisations.

Figure 3.10: Number of types of control over pace and quality



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

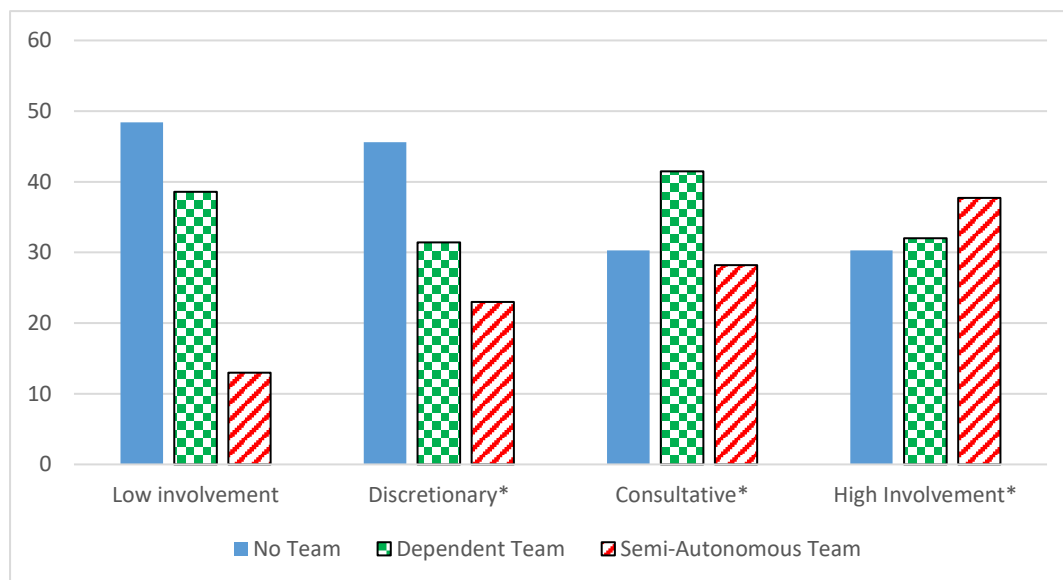
Teamwork

The use of teamwork is sometimes regarded as a central aspect of performance management policy. Arguably it motivates employees by enhancing their responsibilities and providing greater colleague support at work (Hamilton et al, 2003; Batt, 2004; Delarue et al. 2007). However, an alternative view is that it is better viewed as a sophisticated way of controlling work performance by replacing direct supervisory control with peer pressure to enforce higher levels of work effort (Berggren, 1992, Barker, 1993; Sewell, 1996). However, types of teamwork can differ significantly in their degree of responsibility for work activities, which may affect their implications for work motivation and control (Gallie et al. 2010).

The survey measures teamwork with two questions: first asking whether the person works in a group or team and, and if they do, whether the team can make decisions about the division of tasks, who will be head of the team and the timetable of the work. We have distinguished three situations: where there is no team, 'dependent teams' where the team has limited decision-making powers (no powers of decision

or on only one item) and 'semi-autonomous' teams where it is able to make decisions with respect to two or three items).

Figure 3.11: Employee Involvement and types of teamwork



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

As can be seen in Figure 3.11, there is an association between employee involvement and teamwork. The proportion of those who work outside a team is highest in low involvement organisations and lowest in consultative and high involvement organisations. In contrast, there is a rise in the proportion working in semi-autonomous teams across the different involvement types, from 13% of those in low involvement organisations to 38% in high involvement organisations. Nonetheless, a majority of employees in high involvement organisations are not in semi-autonomous teams, confirming Lawler's view that high task discretion will only be associated with semi-autonomous teamwork in specific production settings (Lawler 1986). Further, dependent teamwork has no systematic relationship to the level of involvement – it is highest in low involvement and consultative organisations and lowest in discretionary and high involvement organisations.

Performance pay incentives

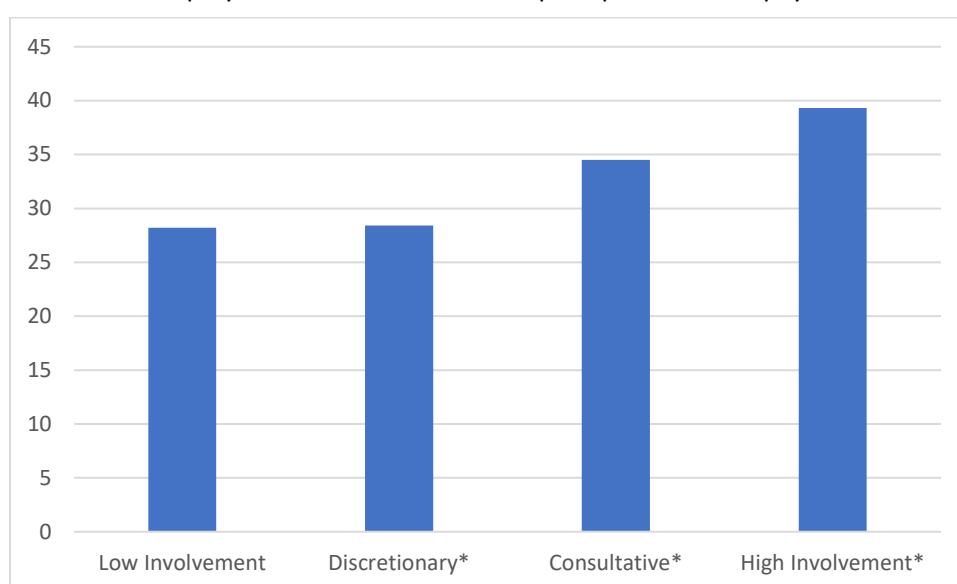
A series of questions focused on the issue of whether or not the pay structure provided rewards for employee performance either on an individual basis or as part of a wider collectivity. People were asked whether their earnings included:

- Piece rate or productivity payments
- Payments based on your individual work performance
- Payments based on the performance of your team/working group/ department

- Income from shares in the company you work for
- Payments based on the overall performance of the company (profit sharing) where you work

The relatively small proportion of employees receiving many of the specific pay incentives make it difficult to examine the association of employee involvement with particular types of incentive. But a dichotomous measure was constructed, indicating whether or not a person received at least one of these performance-related sources of payment. As can be seen in Table 3.12, there was little difference between low involvement and discretionary organisations in the prevalence of performance-related pay, but it was somewhat more common in consultative organisations and considerably more common in high involvement organisations.

Table 3.12: Employee involvement and receipt of performance pay incentives



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size

Variations by Region and Type of Employee

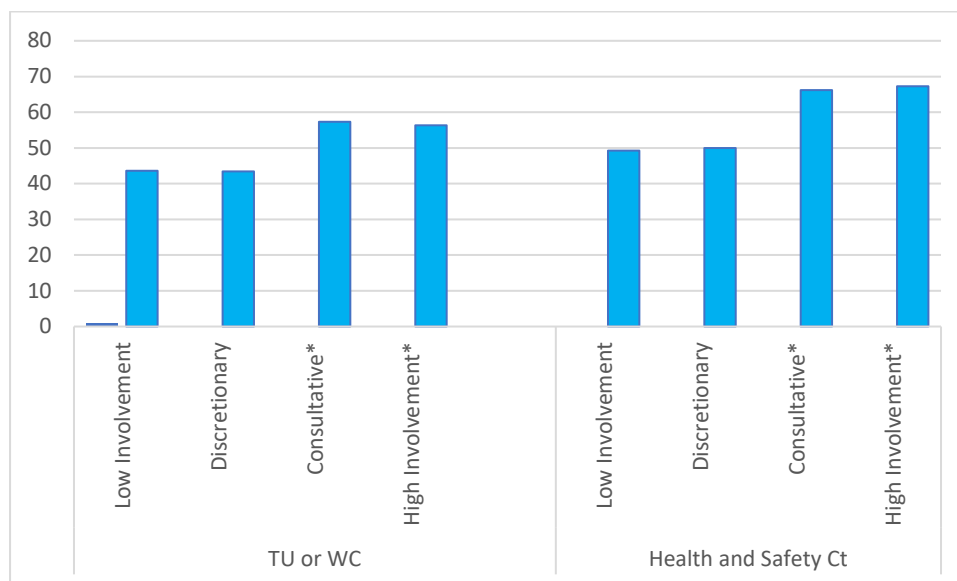
A more detailed analysis of the effects of high involvement on control intensity, teamwork and performance pay for different types of pay revealed that, while the effects were very widespread, there were some variations across different types of employee, (Appendix 3 Table 3.3). For instance, the evidence for a positive association between employee involvement and work control intensity in the Liberal countries is much weaker than for other regions. Similarly, high involvement made a more substantial difference in control intensity for those in intermediate (clerical, service and skilled manual workers) and lower (operators and elementary employees) occupational classes than for the higher skilled (managers, professionals and associate professionals). In contrast there was no clear evidence that it was associated with a greater use of performance pay in the Nordic countries. The association of high involvement with greater use of teamwork, however, was general across all European regions and different types of employee.

3.3 Representation

Representation involves the exercise of voice through elected committees or trade unions. It may be influenced by, as well as influence, the degree of direct involvement of employees. It may result from wider national systems of regulation, it may derive from pressures from the workforce or it may reflect management's own preference for more formal channels of dialogue with trade unions or elected employees. It adds to the resources available to employees by providing a collective channel for expressing the concerns of the workforce, by ensuring a better information flow to employees about what is happening in the wider organisation and by making it possible to draw on external expertise in formulating judgements and proposals. The EWCS has two questions that address representation. The first asks people whether a trade union, works council or similar committee representing employees exists in their company or organisation, with a positive response indicating that there is at least one of these forms of representation. The second asks whether there is a health and safety delegate or committee.

As can be seen in Figure 3.13, employees in high involvement and consultative organisations were more likely than those in low involvement organisations to have both trade union/work council representation and a health and safety committee. Over half (56%) of employees in high involvement organisations reported the presence of a trade union or works council, whereas this was the case for a minority (44%) of those in low involvement organisations. The divergence between the two types of organisation was even greater with respect to the presence of a health and safety committee. Whereas two thirds of employees in high involvement organisations had a health and safety committee, this was true for only 49% of those in low involvement organisations. The pattern for employees in consultative organisations was very similar to that for high involvement employees. But those in discretionary organisations had similarly low levels of representation to those in low involvement work settings.

Figure 3.13: Employee involvement and presence of representative institutions



Note: An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

3.4 Summary

Discretionary, consultative and high involvement forms of organisation were associated with better outcomes in terms of the work environment than low involvement organisations. However, the different types of involvement varied in the scope of the factors with which they were positively related.

Discretionary involvement was associated with better work and employment conditions, but it was only weakly related to the quality of management practices. Consultative management was strongly associated with better management practices and stronger representative channels, but less so to improved work and employment conditions.

The distinctiveness of high involvement management was that it was related to a particularly wide range of positive aspects of the work environment. It was associated with better physical working conditions, lower work intensity, a more humane organisational climate, more supportive and egalitarian forms of supervision, less direct supervisory control over work pace and less exposure to multiple forms of control. It combined the different benefits of discretionary and consultative forms of involvement. It shared with discretionary organisation its strong positive relationship with work conditions and work intensity and its lower exposure to multiple forms of control, and it shared with consultative organisation its strong positive relationship with fairer and more supportive management practices and stronger forms of representation.

4 Employee involvement and work engagement

Given the motivational benefits commonly attributed to employee involvement, this chapter examines whether higher involvement is associated with higher levels of work engagement. Arguably, employee involvement can affect work engagement in two main ways. It may have direct effects due to a positive attitudinal response to the opportunity to participate in decision-making, whether in terms of greater job interest or a greater sense of the meaningfulness of work. Alternatively, it may have indirect, or mediated, effects resulting from the leverage that it provides for improving work conditions and the way that employees are treated by management.

As measures of work engagement are less well established than those of other motivational concepts such as job satisfaction and organisational commitment, we first examine whether there is statistical support for its distinctiveness and for its separate contribution to employee outcomes or whether, as one analyst has put it, it is 'old wine in new bottles'. We then turn to examine its relationship to high involvement and a range of potential mediating variables, before turning to consider the relative importance of the direct and mediated effects of high involvement on work engagement.

4.1 The measurement of work engagement

Growing recognition that employees can contribute both to the efficiency and improvement of work processes have underlined the need for stronger indicators of positive work motivation than were captured by the notion of 'job satisfaction'. Advocates of work engagement propose that it has the connotations of energy and activation that are required for high levels of employee well-being, job performance, ability to learn at work and willingness to contribute new ideas. It has been characterised as a psychological state involving high level of energy, identification with work and (in some versions) absorption in the job. An overall measure of work engagement was constructed drawing on three items in the EWCS designed to capture these three dimensions of the construct (See details in BOX).

WORK ENGAGEMENT

Work engagement refers to strongly positive work motivation characterised by a high level of energy, identification with work and absorption in the job (Bakker et al., 2008; Bakker, Albrecht and Leiter, 2011; Schaufeli and Salanova, 2011).

It was measured in the EWCS with three question items:

Q90. The following statements are about how you feel about your job. For each statement, please tell me how often you feel this way...

‘At my work I feel full of energy’

‘I am enthusiastic about my job’

‘Time flies when I am working’

The response categories for each item were: Always, Most of the time, Sometimes. Rarely and Never

The internal consistency of the work engagement items was tested through a reliability analysis, which yielded a satisfactory Cronbach’s alpha of 0.74.

An overall measure of work engagement was constructed taking the average score across the three items.

A series of tests were carried out to establish the validity of the work engagement measure (for full details see Appendix 4 for details). Given the strong relationship between the items, an index of work engagement was created by averaging individuals’ responses. The distinctiveness of the work engagement index from earlier established motivational measures such as job satisfaction (proxied by ‘satisfaction with working conditions’) and organisational commitment was then examined. Work engagement is only moderately correlated with satisfaction with working conditions ($r=0.45$, $p<0.001$) and organisational commitment ($r=0.46$, $p<0.001$), which confirms the view that it is not redundant to existing work attitudes constructs.

We also examined the associations between each motivational measure and a range of work behaviour indicators available in the 2015 EWCS. Work engagement, together with satisfaction with working conditions and organisational commitment, was entered into regressions on well-being, absenteeism, presenteeism (coming to work despite illness), willingness to work in one’s free time predicted retirement age and affective well-being. This showed that it had a significant independent effect over and above the other motivational measures except with respect to presenteeism and to the more constrained forms of absenteeism resulting from health, accidents and work related illnesses. For presenteeism, it had no effect, which perhaps still compares favourably to the negative effects associated with satisfaction with working conditions and organisational commitment. Comparing the strength of the measures, work engagement is distinctive with respect to the strength of association with well-being, general absenteeism, and work in free time but has a similar effect to job satisfaction with respect to predicted

retirement age. The strength of the effect of work engagement and its distinctiveness from other measures is particularly marked with respect to personal well-being.

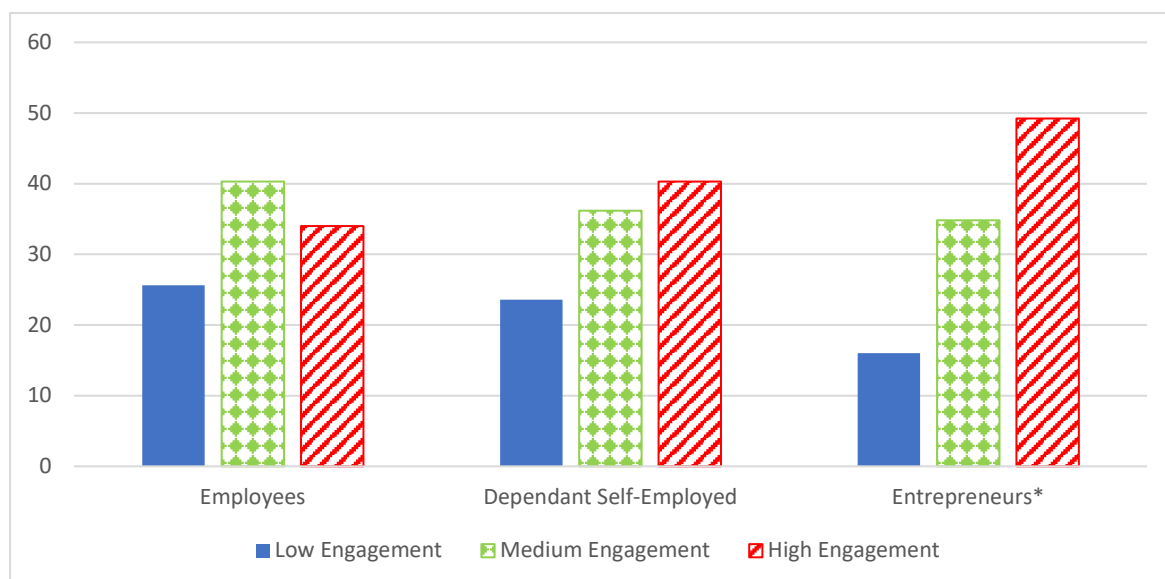
Overall, the results provide support for the view that work engagement constitutes a distinct measure from satisfaction with working conditions and organisational commitment and, in some respects, a stronger indicator of work motivation, although the differences with respect to outcome variables are relatively modest. Its most important association was with increased general personal well-being.

4.2 The distribution of work engagement

In presenting the distribution of work engagement across country, region and different categories of employee, scores have been grouped into three categories – low, medium and high. The overall index ranges from 1 to 5, with scores reversed so that 5 represents the highest engagement. Scores higher than 4 ('most of the time' in the original items) are taken to reflect high engagement, while those lower than 3.5 (i.e., closest to original item score points for 'sometimes' or lower) are classified as low. Overall in the EU28+, 34% of employees were in the high engagement category, 40% in the medium engagement and 26% in the low engagement categories.

Although the main analysis will focus on employees, the overall distribution of work engagement in the workforce is shown in Figure 4.1, allowing a comparison between employees and the self-employed. It distinguishes between entrepreneurs and dependent self-employed on the basis of whether or not the person had the authority to hire and dismiss employees or generally had more than one client or customer (see chapter 2).

Figure 4.1: Work engagement among employees, the dependent self-employed and entrepreneurs



Note: An asterisk indicates that the difference relative to employees on the overall engagement index is statistically significant at the 95% level.

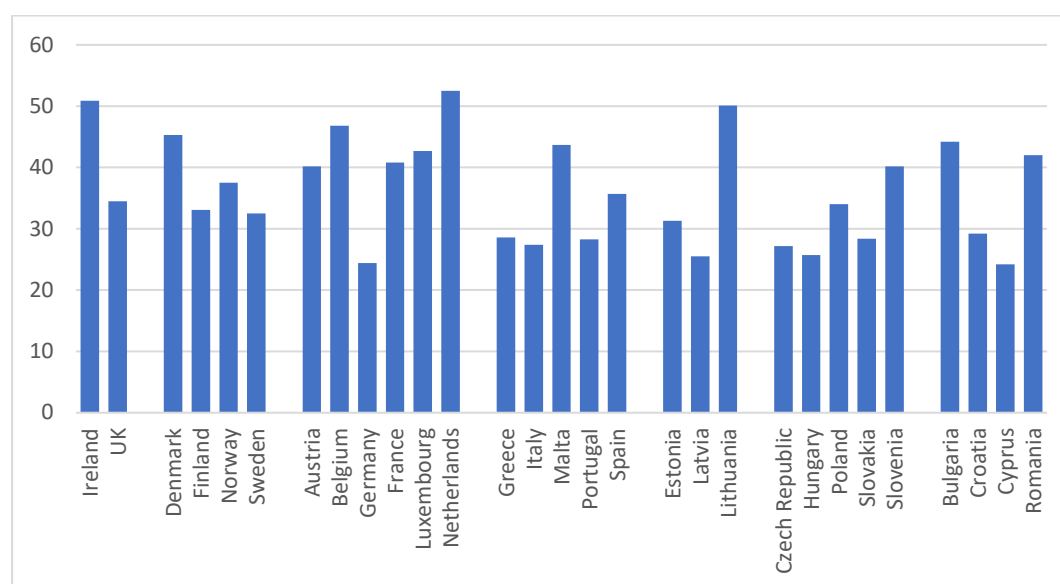
It can be seen that high levels of work engagement were most common among the independent entrepreneurs (49%), followed at some remove by the dependent self-employed (40%), and then by employees (34%). However, turning to the figures for low work engagement, the picture is somewhat

different. Consistently the independent entrepreneurs have a particularly low proportion of people with low engagement, but this was not the case for the dependent self-employed. Low engagement was nearly as high among the dependent self-employed as among employees (24% compared with 26%). A regression analysis using the full engagement scale showed that, while entrepreneurs had significantly higher engagement than employees, there was no significant difference between employees and the dependant self-employed.

Country and region

Taking first the distribution by country, Figure 4.2 shows the proportion of employees in each country that can be considered highly engaged in their work. The countries are grouped by broad geographic region. The highest proportions of engaged employees were to be found in Ireland, the Netherlands and Lithuania. There were also, however, a number of East European countries, with relatively high proportions of engaged employees: Lithuania, Slovenia, Bulgaria and Romania. The countries with the lowest proportions of highly engaged employees were Germany, Latvia and Cyprus, together with most of the Southern region countries.

Figure 4.2: Percentage of employees with high work engagement by country

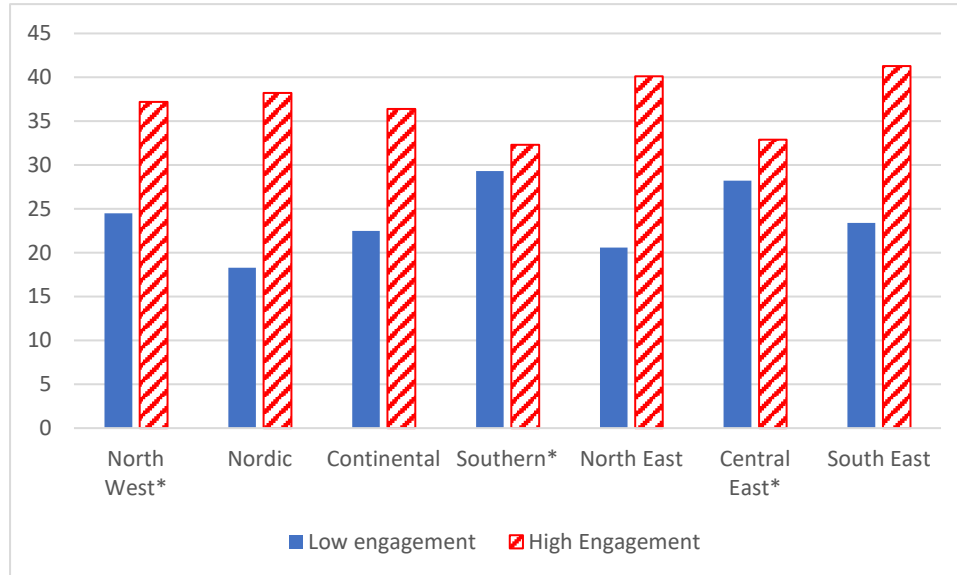


If countries are grouped by region, with countries weighted according to size, it can be seen that there was very little variation between different regions in the proportions with high engagement, with the exception of the Southern countries, where the proportion was particularly low (Figure 4.3). Notably the East Europeans are very close to their counterparts in the North Western, Nordic and Continental countries.

The stronger variations are in the proportions of employees with low engagement. These are not simply a reflection of the proportions of highly engaged employees. While the North Western, Nordic, Continental and East European regions have broadly similar figures with respect to highly engaged workers, they have very different proportions of employees with low engagement. The North Western and East European countries have considerably greater proportions of employees with low engagement than the Nordic

countries. The Southern countries, however, stand out as having both the lowest proportion of employees with high engagement and the highest proportion with low engagement.

Figure 4.3: Percentage of employees with high and low work engagement by region

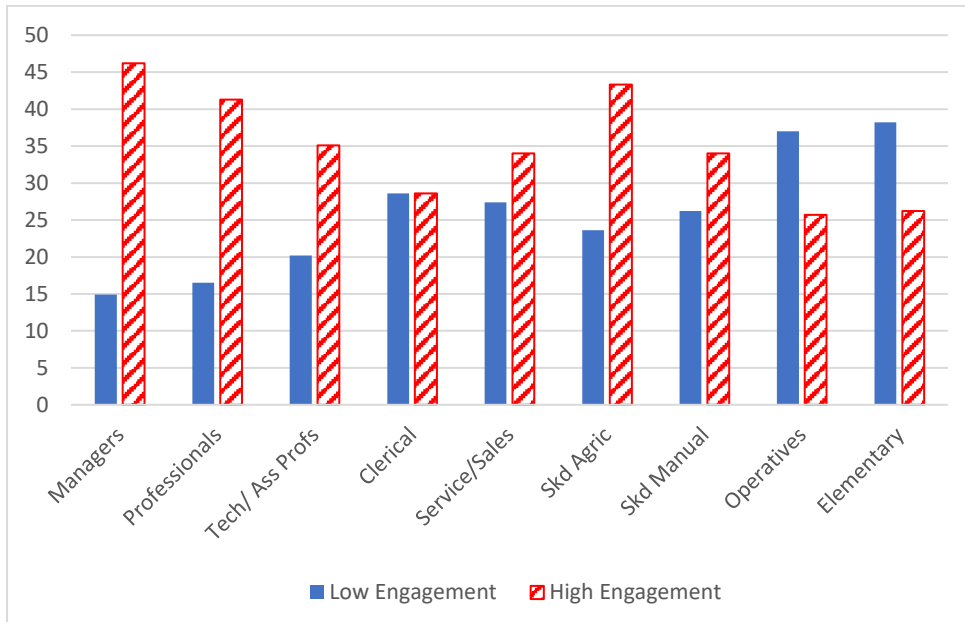


Note: An asterisk indicates that the differences relative to the Nordic countries on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Occupational class

As can be seen in Figure 4.4, work engagement is strongly related to occupational class. Overall, there is a sharp occupational class gradient ranging from managers and professionals (with 46% and 41% highly engaged) to operators and elementary employees (with only 26% highly engaged). However, skilled agricultural workers stand out as distinctive from other intermediate classes, having exceptionally high levels of engagement (43%). A striking feature of the occupational class pattern is the difference in the relative frequency of high and low engagement. Among managers and professionals, and, with the exception of clerical employees, the intermediate classes (technicians, service and sales, skilled agricultural, and skilled manual workers) there are higher proportions of highly engaged employees than of those with low engagement. However, among clerical employees, they are equally frequent, while among both operators and elementary employees, the proportions with low engagement are substantially higher than the proportions for the highly engaged.

Figure 4.4: Percentage of employees with high and low work engagement by occupational class



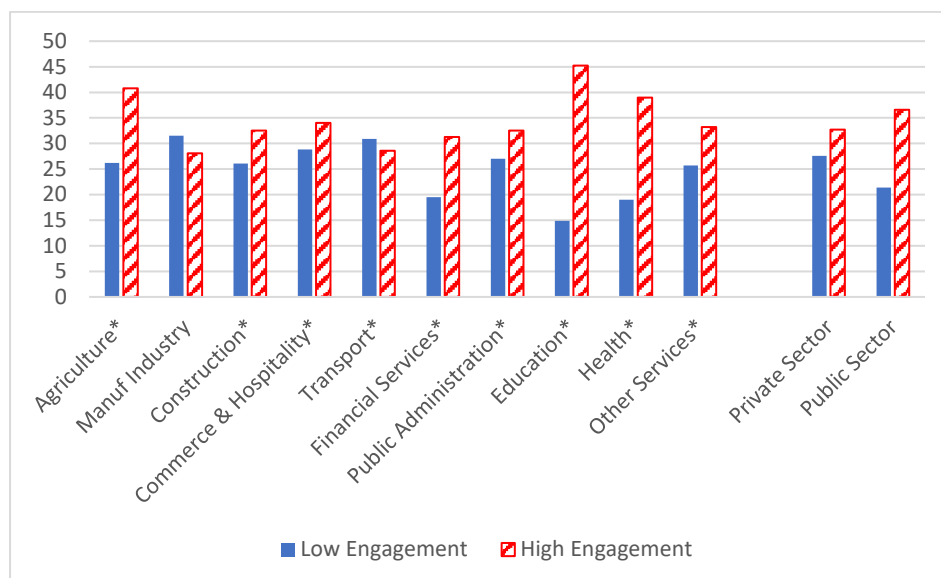
Note: An asterisk indicates that the difference relative to managers and professionals on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, class and organisational size.

Industry and ownership sector

As with occupational class, there are wide variations in work engagement between employees in different industries (Figures 4.5). Work engagement is highest in education, followed by agriculture and health, and it is lowest in manufacturing industry and transport. The differences are substantial: whereas 45% of employees in education are highly engaged in their work, the proportion is only 28% in manufacturing industry. In most industries, the proportion of highly engaged employees is greater than the proportion of low engaged. But manufacturing and transport are the exceptions, with a higher proportion of those with low engagement. A regression analysis, using the full engagement scale, showed that all industries were higher in engagement than in manufacturing even after controls for age, sex, occupational class and organisational size.

As can be seen in the last two columns, if employees in the private sector are compared with those in the public sector, those in the public sector show higher levels of engagement – but the differences between the two sectors were not significant once controls had been introduced.

Figure 4.5: Percentage of employees with high and low work engagement by industry



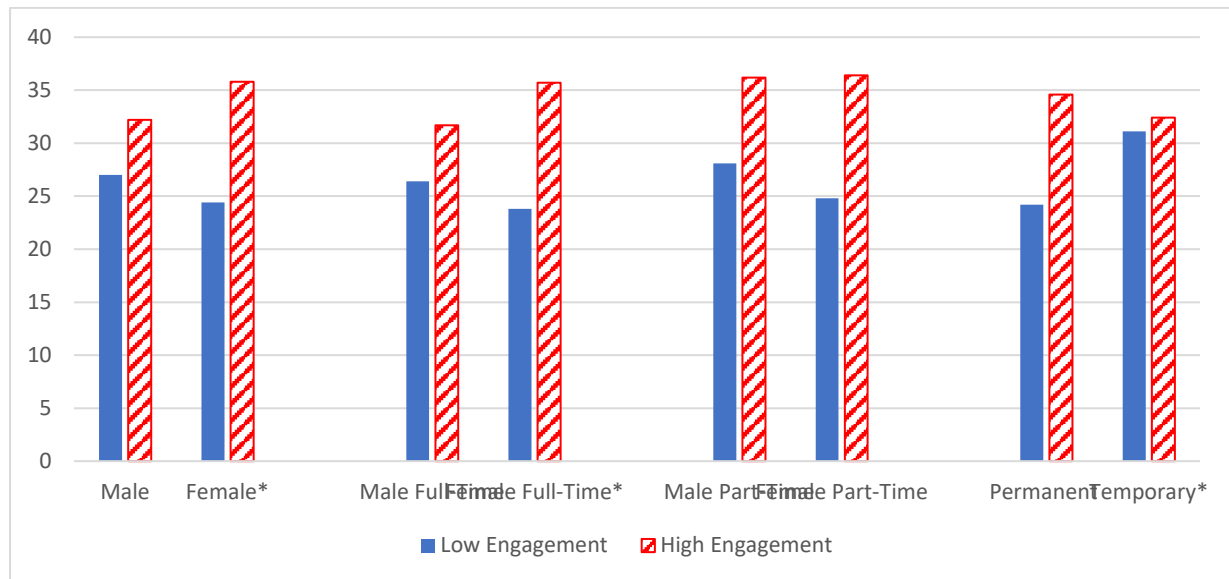
Note: An asterisk indicates that the difference relative to manufacturing industry on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Sex and contract status

There has been a long, and continuing debate, about whether or not there are differences between men and women in their attitudes to work. In particular, it is sometimes suggested that women give priority to their domestic roles and are consequently less committed to, and involved in, their employed work activities. The evidence for work engagement contradicts this. Female employees in general and female full-time employees in particular have higher levels of work engagement than their male equivalents: they have a higher proportion of highly engaged and a lower proportion with low engagement (Figure 4.67).

A variant of the argument that there are sex differences points to the higher proportion of women who take part-time work and suggests that these have particularly low motivation. Taking part-time work as 34 hours or less, the evidence with respect to work engagement shows that female part-timers have the same proportion of highly engaged as female full-timers, and only a slightly higher proportion of low engaged. Taking the overall scores, there is no significant difference in the work engagement of women in full-time and part-time work. Further, comparing men and women in part-time work, it is notable that, while the proportions of engaged are very similar, it is among male part-timers that there is a higher proportion of low engaged.

Figure 4.6: Percentage of employees with high and low work engagement by sex and hour contract status



Note: An asterisk indicates that the difference relative to the adjacent column (e.g., female relative to male) on the full engagement scale is statistically significant at the 95% level, with controls for age, occupational class, industry and organisational size.

Another contract divide, sometimes seen as distinguishing a core from a peripheral workforce, is that between employees on permanent and those on temporary contracts. Arguably, relative marginalization in terms of the employment relationship is likely to discourage a high level of motivation in the work itself. It may be difficult to be fully engaged in the knowledge that one will soon be obliged to move to different types of work and a different employer. In practice, those on permanent contracts did show higher levels of engagement, but the differences with respect to high engagement were relatively small (35% compared with 32%). The more substantial difference lay in the fact that that temporary employees were more likely to have low levels of engagement (31% compared with 24% for permanent employees). Contractual differences with respect to duration of employment made a bigger difference to levels of work engagement than contractual differences with respect to work hours.

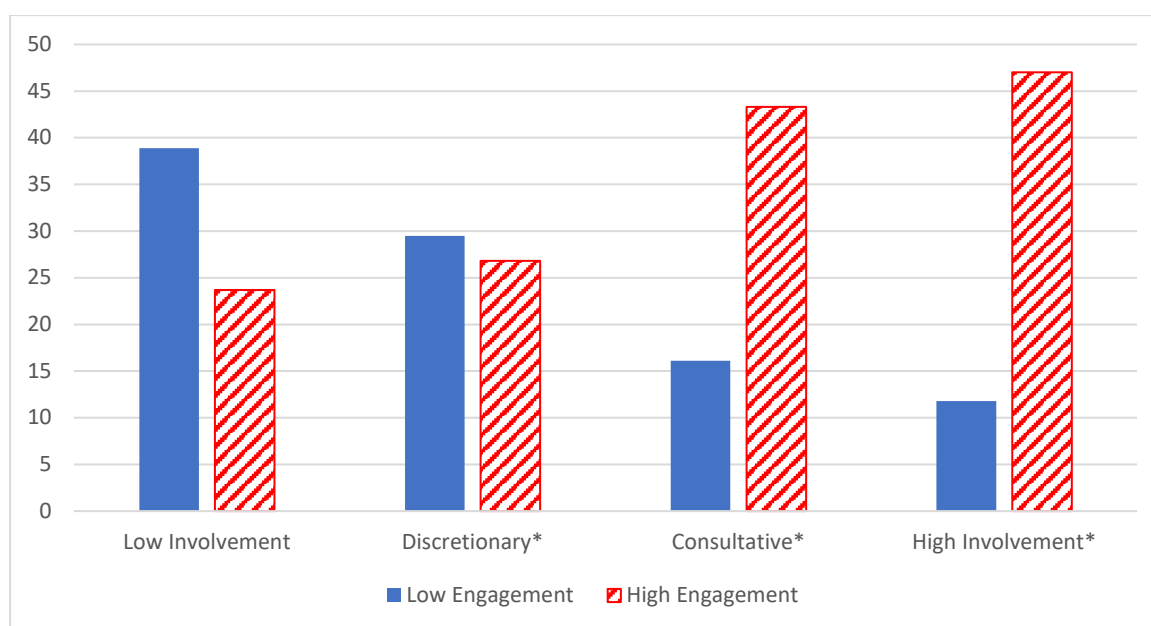
4.3 Employee involvement, Work environment and work engagement

Turning to the relationship of employee involvement to work engagement, there may be two distinct paths through which effects pass. Employee involvement may have direct effects, because it corresponds to needs for or values of self-determination. Or it may have indirect effects through the benefits of employee involvement for the quality of the working environment. In the previous chapter it was seen that employee involvement was associated with better conditions across a range of work and employment conditions and performance management practices. This was the case for the prevalence of physically hazardous work conditions, work intensity, job security, as well to the quality of line management, the nature of control systems (including teamwork) and the use of performance pay incentives. This section turns to examine the extent to which these different factors were related to the level of work engagement.

Employee involvement and work engagement

A first point to note is that there was a strong relationship between the degree of employee involvement in organisations and work engagement (Figure 4.7). Employees in high involvement organisations, followed by those in consultative organisations, were the most strongly engaged, and had the smallest proportion of those with low engagement.

Figure 4.7: Types of employee involvement and work engagement



Note: An asterisk indicates that the difference relative to low involvement on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class, industry and organisational size.

The differences were considerable: 47% of employees in high involvement organisations had high work engagement, compared to only 24% of those in low involvement organisations. The level of work engagement of employees in high involvement organisations was very comparable to that of the entrepreneurs, among whom 49% were highly engaged (shown earlier in Figure 4.1).

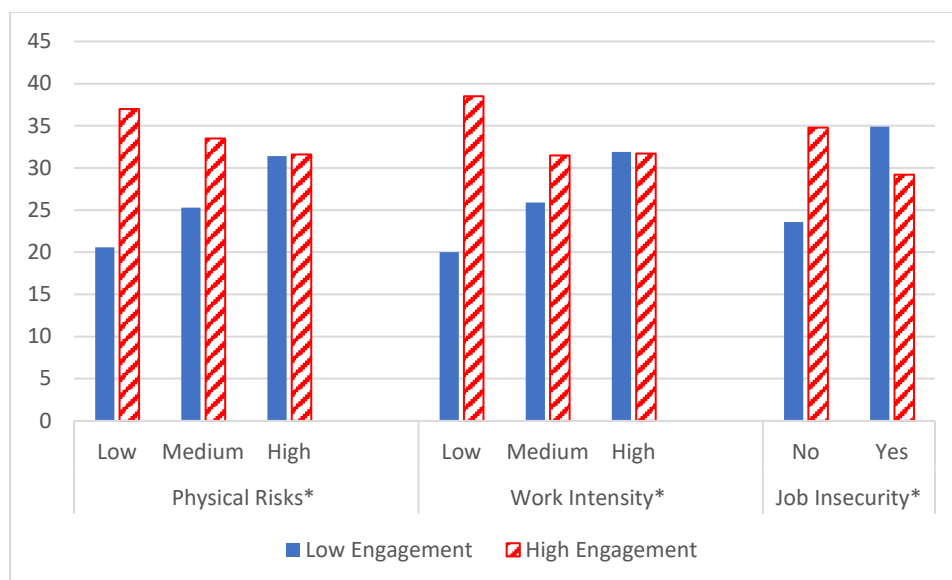
High levels of work engagement were much less common in discretionary organisations; indeed the proportion highly engaged was only slightly above that in low involvement organisations. But there was a difference between the two types of organisation with respect to low engagement. Whereas 39% of employees in low involvement organisations had low levels of engagement, this was the case for 30% in discretionary organisations. The striking feature of the pattern for low involvement organisations is that the proportion of employees with low engagement was very much higher than the proportion with high engagement.

Work engagement and work and employment conditions

In examining the impact of work conditions, we have taken the summary indicators of physically hazardous conditions and work intensity. For physical hazards, we take the average intensity of exposure

across the full set of items, categorised into three levels each representing approximately a third of the distribution (Figure 4.8).

Figure 4.8: Work engagement among employees and work and employment conditions



Note: An asterisk indicates that the association of better work conditions with higher scores on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

As exposure to physical risk rises the proportion of highly engaged declines and the proportion of those with low engagement increases. In the lowest risk category, the proportion of employees highly engaged is considerably higher than that of those with low engagement. But in the highest risk category the proportion of low engaged is equal to that of the highly engaged. A notable point is that increased physical risks have a stronger effect in raising the proportion of the low engaged than decreasing that of the highly engaged. The difference between those with low and high physical risks makes an 11 percentage point difference for the prevalence of low engagement, while it only makes a 5 percentage point difference for the proportion highly engaged.

Turning to work intensity, the summary measure gives the average level of intensity across the three indicators of speed, tight deadlines and time pressure. Work engagement is highest among those with low intensity, but it is rather similar, albeit at a lower level, among those working at medium or high intensity. However, the proportion of those with low involvement rises steadily across the three categories. As with physical hazardous conditions, the effect of differences in work intensity is stronger for low involvement than for high (12 percentage points, compared with 7 percentage points).

Finally, the level of job security has a strong association with work engagement. The insecure are significantly less engaged than those who do not feel that their jobs are threatened. Again the effect is more marked with respect to the proportions of the low than of the highly engaged. Insecurity reduces the proportion of the highly engaged by 6 percentage points, but raises the proportion of the low engaged by 11 percentage points.

Each of the different aspects of working conditions, then, proved significantly associated with work engagement: better physical working conditions, a lower level of work intensity, and higher job security,

all meant it was more likely that employees would be highly engaged and less likely that they would have low engagement. But a notable aspect of the pattern of the results is that better work conditions and greater job security had asymmetrical effects – they had a stronger effect in reducing the proportion of those with low engagement than in boosting the proportion of those with high engagement.

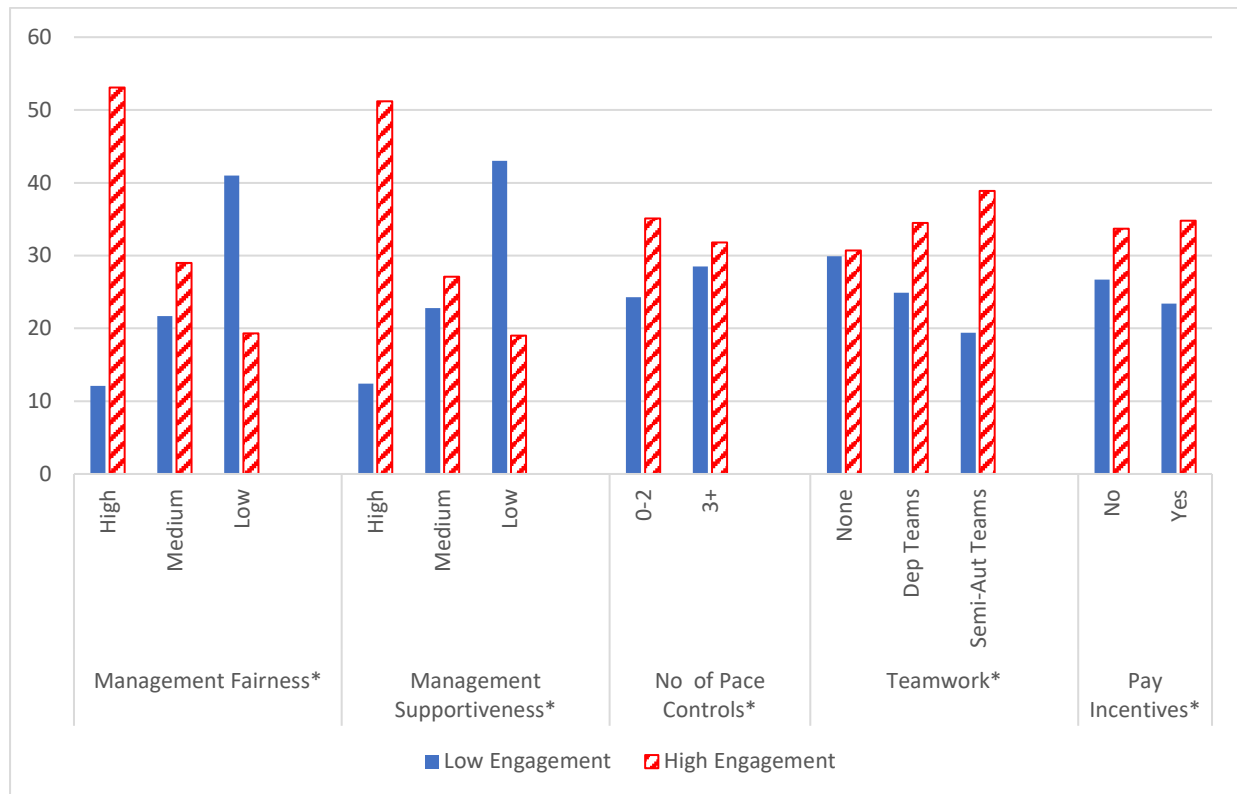
Work engagement and performance management policies

It was shown in Chapter 3 that employee involvement is associated with several distinct dimensions of performance management: the fairness and supportiveness of line management, the intensity of the work control system, teamwork and the presence of incentive pay systems. Were these factors also significantly related to the level of work engagement of employees?

Taking the summary measures of management fairness and supportiveness, it can be seen in Figure 4.9 that both aspects of management practice are very strongly associated with work engagement and have broadly similar effects on the proportions of both the highly and low engaged. The percentage differences between the high and low categories are notably greater than in the case of work conditions. Where management fairness was thought to be high, the proportion of those who have low engagement is 29 percentage points less and the proportion of those highly engaged is 34 percentage higher than where management fairness is thought to be low. The differences are very similar for those who perceive the supportiveness of management to be high or low – 31% and 32% respectively.

The intensity of the work control system, measured by the number of different factors that affect work pace, was also associated with work engagement. The highly engaged were the predominant category in contexts where there were less than three types of pace control. However, where there was a high intensity of pace controls (3+ types), there is only a small difference between the proportions of employees who have low or high involvement. Working in a team was also associated with higher work engagement. Among employees who worked on their own, low and high engagement were at similar levels. But participation even in a dependent team increased high and decreased low engagement and this effect was accentuated for those who worked in semi-autonomous teams. Incentive pay systems were also associated with higher work engagement, although the effects were relatively modest.

Figure 4.9: Performance management practices and employee work engagement

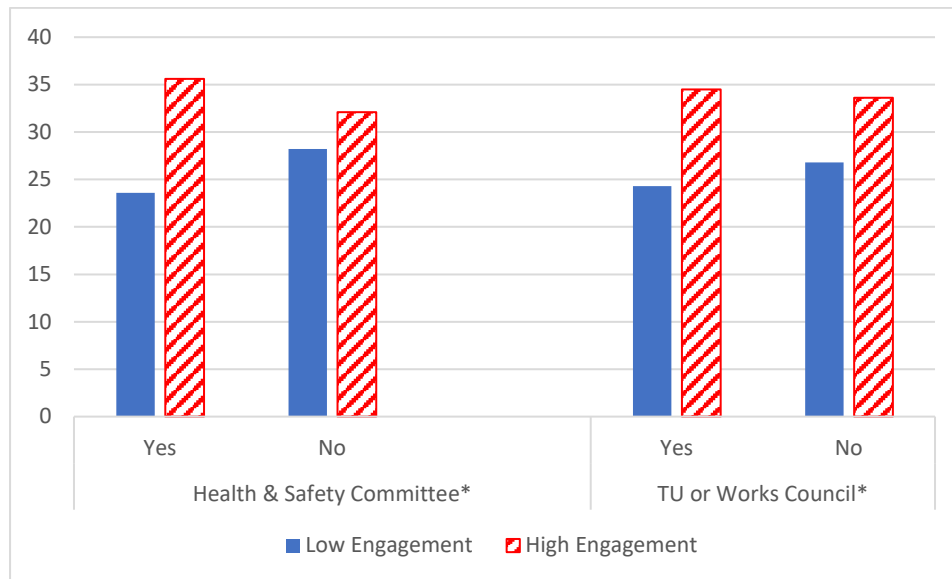


Note: An asterisk indicates that the association of higher scores on a managerial practice with scores on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Work engagement and employee representation

Employee engagement is also higher where employee relations have been institutionalized through representative bodies such as trade unions, works councils or health and safety committees. Both the effect of the presence of a trade union or works council, and of health and safety committee were statistically significant for higher engagement. But the differences they made were relatively small (Figure 4.10). The presence of a trade union or works council increases the proportion of employees that are highly engaged by one percentage point and reduces the proportion that have a low level of involvement by three percentage points. Working in an establishment with a health and safety committee increases the proportion of highly engaged by five percentage points and decreases the proportion of low engaged by four percentage points. It might have been expected that institutional representation would have a stronger effect in large organisations, since they are less conducive to the development of supportive interpersonal ties between managers and employees, but this was not the case.

Figure 4.10: Representation and work engagement



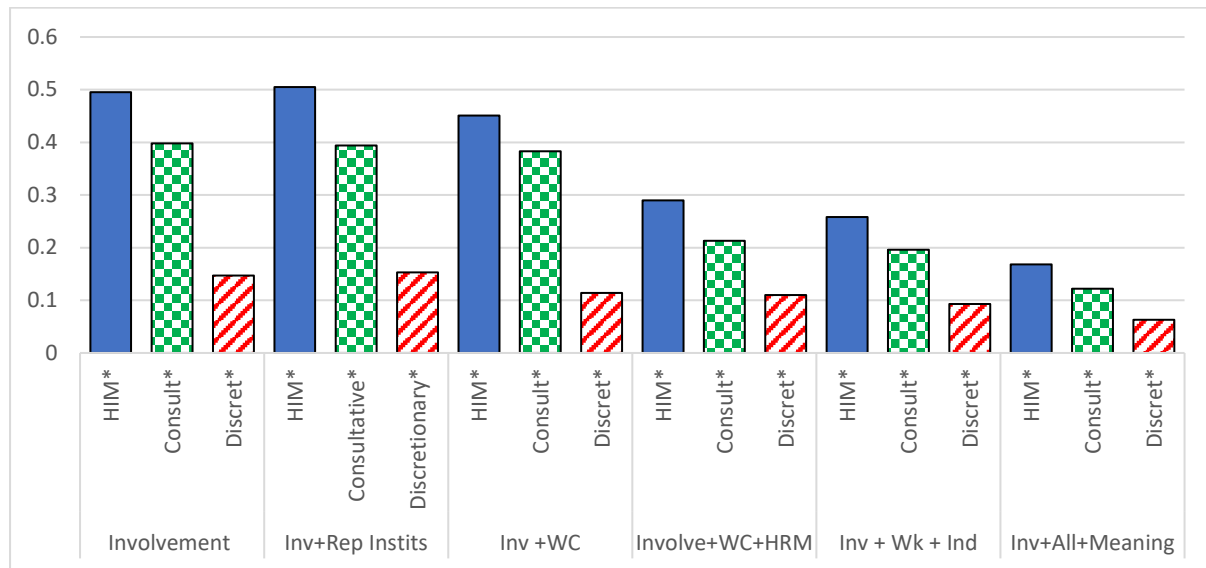
Note: An asterisk indicates that the association of each type of representation with scores on the full engagement scale is statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

Overall, while all of the performance management practices examined made some difference, it was the fairness and supportiveness of management in its treatment of employees that had the strongest relationship with work engagement.

4.4 Employee involvement and work engagement: direct and indirect effects

It was seen previously that there is a significant positive association between types of employee involvement and the quality of the work environment. Further both employee involvement and characteristics of the work environment were related to the level of work engagement. This section turns to the issue of whether the effects of employee involvement on engagement are intrinsic or arise from the fact that employee involvement is associated with better work and employment conditions. This can be explored through a regression analysis that examines change in the strength and significance of the coefficients for the different types of employee involvement when other factors such as the quality of work conditions, performance management practices and the presence of representative institutions are taken into account. If the effect of involvement is passing through such factors, the coefficients for involvement should diminish when they are controlled for.

Figure 4.11: Employee involvement coefficients on work engagement with controls for representation, work and employment conditions, and performance management practices



Note: Chart shows the coefficients of effects of involvement on work engagement relative to low involvement with successive sets of controls. Control sets are: Involvement (Inv)=Employee Involvement; Rep Institutions=Union/Work Councils & Health & Safety Committees; WC=Work and Employment Conditions; HRM=Performance Management Practices, Control & Teamwork. All=Rep Instits+WC+HR. An asterisk indicates that the differences relative to low involvement are statistically significant at the 95% level, with controls for age, sex, occupational class and organisational size.

The first column in Figure 4.11 shows the coefficients for the effects on work engagement of each involvement type without considering other factors. It confirms that employees in high involvement, consultative and discretionary organisations have higher work engagement than those where involvement is low. As can be seen from the second set of columns (Inv+Rep Instits) these initial coefficients change little when representative institutions are introduced, indicating that these are not important mediators of the effect of involvement on work engagement. This shows that direct employee involvement is quite distinct in its effects from that of formal representation. The coefficients for involvement are reduced, in contrast, in the third set of columns (Inv+WC) where working conditions are taken into account (a reduction of approximately 9%). Work intensity and job insecurity make the largest contribution to this difference.

The subsequent introduction of performance management practices (Inv+WC+HRM), however, has a much larger effect (leading to an overall reduction of the initial coefficient of employee involvement by c 40%). The perceived fairness of management practices is by far the strongest contributor to this, followed by the supportiveness of line management. In contrast, neither the number of controls on work pace nor the use of pay incentives makes a significant difference, while teamwork contributes only very marginally to the effects of performance management practices on work engagement.

Although the initial coefficients for consultative involvement are lower than in the case of high involvement management, performance management practices are also the principal mediating variable that account for their reduction. In contrast, the main source of reduction in the effects of discretionary involvement is the nature of work and employment conditions and the additional effect of performance management practices is rather small. It is notable, however, that even taking account of the mediating

effects of both work and employment conditions and performance management practices, the types of involvement remain significantly associated with differences in work engagement at a high level of statistical significance.

It was seen previously that work engagement varied considerably between different types of employee. It could be that the remaining effects are attributable to compositional differences in individual or labour force characteristics, which are not captured by the measures of employee involvement, work and employment conditions and management practices. When controls are introduced for age, sex, occupational class, industry, public sector, and contract status organisational size, they do have a significant effect on work engagement over and above those of the basic model. However, when the full set of these controls are taken into account, they lead to only a relatively small further reduction of the effects of the involvement types – which still remain highly significant.

Overall, the pattern suggests that, although partially mediated by the effects of involvement in improving the work environment, there is also a direct effect of involvement on engagement. What accounts for this? One possibility is that it is important because work becomes more meaningful when people are in a position to influence decisions. They can, to a degree, craft their task activities to take account of their own ideas and they can identify more easily with the value of organisational decisions that they have been able to influence. There are two questions in the EWCS referring to the meaningfulness of work. The first asks people how often they feel 'Your job gives you the feeling of doing useful work', the second how often they feel 'Your job gives you the feeling of work well done' (with a 5 point response set from 'Always' to 'Never'). The last set of columns in Figure 4.11 show the effect of controlling for these indicators of the meaningfulness of work. They indeed lead to a further substantial reduction in the effect of each type of involvement, supporting the view that the positive effects of involvement on work engagement are partly due to the fact it provides employees with greater opportunities to find meaning in their work.

4.5 Variations by region and type of employee

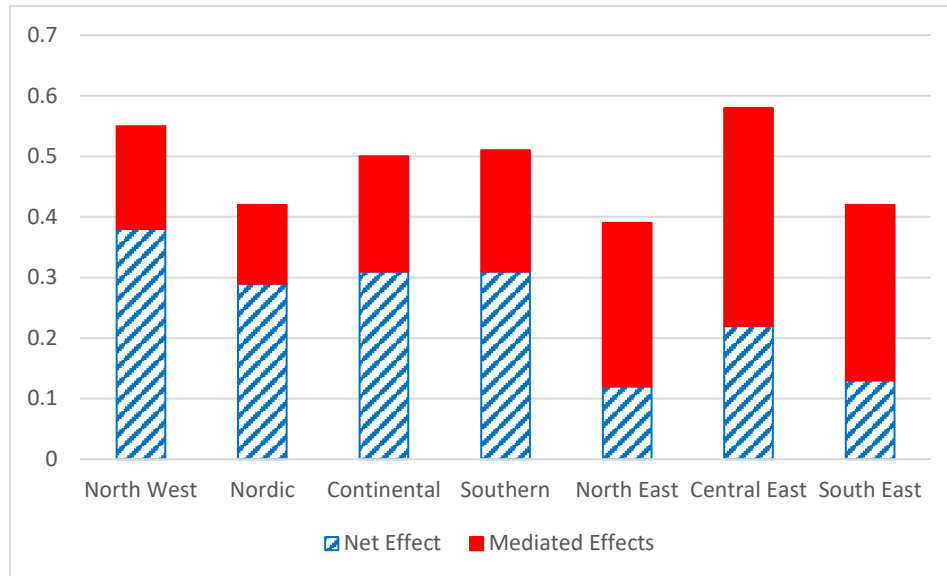
This final section examines whether the overall (gross) and net effects of working in a high involvement organisation vary between employees depending on the region of Europe in which they work, their occupational class, their industry and whether they are working in the public or private sector.

In Table 4.12 the overall height of each column indicates the strength of the gross effect of working in a high involvement organisation on work engagement compared to that of working in a low involvement organisation. This effect was strongest in the Northwest and Central European countries and was weakest in the Nordic, North East and South East countries. As was seen earlier, the effect of high involvement is partly direct (or intrinsic) and partly mediated through its effects on other aspects of the work context. The lower sections of the column (with diagonal pattern) show the strength of the direct effect on its own, once mediating factors have been taken into account.

The notable point is that a greater share of the overall effect of high involvement on work engagement is attributable to the direct effect of involvement in the EU-15 countries. In contrast, in the Eastern European countries, high involvement matters for work engagement primarily because of its effects on the mediating variables of work and employment conditions and performance management policies. Thus, although similar with respect to the overall effect, the Nordic, North Eastern and South Eastern

countries were quite different in terms of the relative importance of the direct effect of involvement on employees work engagement. The greater importance of mediated effects in the East European countries may reflect a greater prevalence of poor working conditions, increasing the salience of improvements in material conditions and social relations for work motivation. The pattern for the EU-15 is consistent with the view that, in more developed economies, the importance attached to opportunities for self-realization becomes greater.

Figure 4.12: High involvement effects on work engagement by region

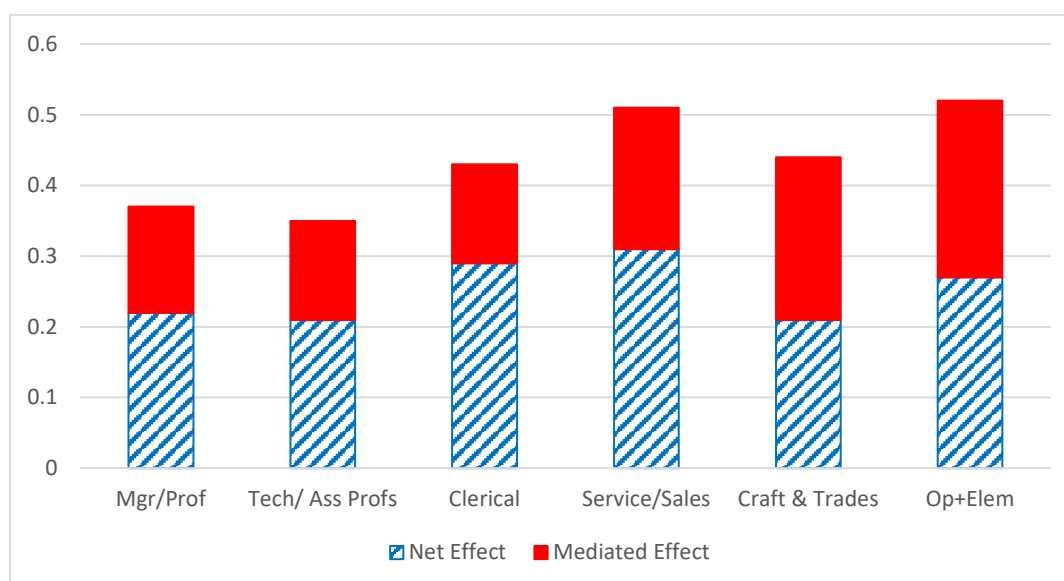


Note: The figure shows the strength of the coefficients for employees in high involvement organisations relative to those of employees in low involvement organisations. The 'net' effect, shown in the lower half of columns, give the coefficient after controls for Work and Employment Conditions, Performance Management Practices and the presence of representative institutions.

Turning to differences by occupational class, Figure 4.13 shows that working in a high involvement organisation has a stronger overall effect on work engagement for those in less skilled classes than for managers, professionals and technicians. The strongest effect of all was for employees in service and sales occupations and for operatives and elementary workers. Arguably, the effects on work engagement of being in a high involvement organisation may matter less where people have particularly strong intrinsic interest in their work, since the tasks themselves provide the sense of engagement. The relatively low effect of high involvement for managers and professionals and technicians may reflect the fact that they are the employees likely to have the most intrinsically interesting work.

The direct effects of high involvement account for the greatest share of the overall effect among managers and professionals (60%), technicians (60%), clerical workers (67%) and service workers (61%), but falls to 48% among craft employees and 52% among operatives and elementary workers.

Figure 4.13: High involvement effects on work engagement by occupational class

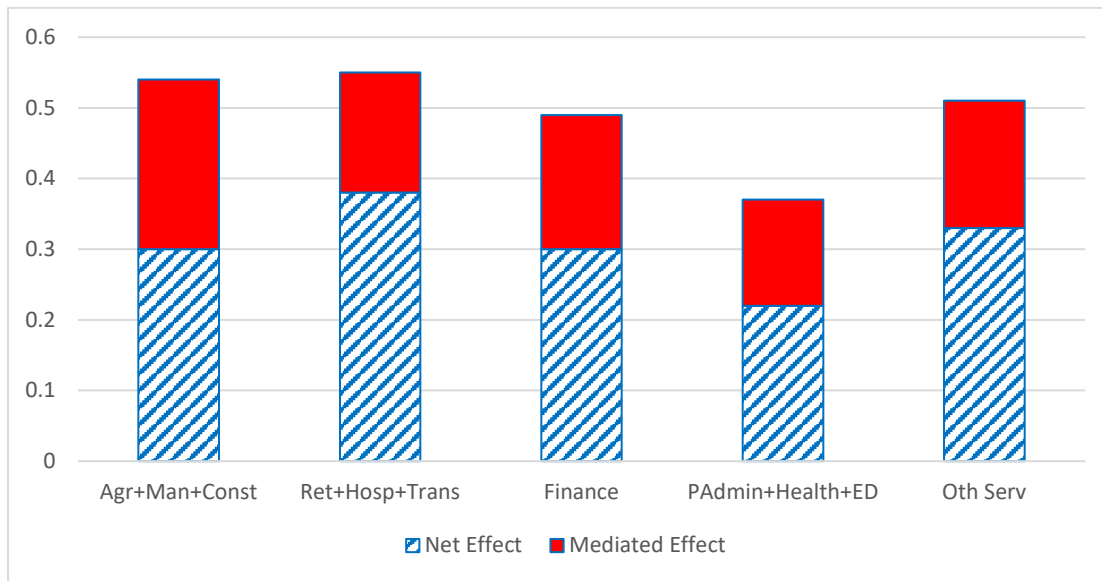


Note: The figure shows the strength of the coefficients for employees in high involvement organisations relative to those of employees in low involvement organisations. The 'net' effect, shown in the lower half of columns, give the coefficient after controls for Work and Employment Conditions, Performance Management Practices and the presence of representative institutions.

Industry variations in the overall effects of high involvement on work engagement are less marked than those for occupational class (Figure 4.14). The overall effect of high involvement for engagement of workers in agriculture, manufacturing and construction is similar both to that of workers in retail, hospitality and transport and to workers in other services. It is only slightly lower in financial services. The proportion of the overall effect accounted for by the intrinsic importance or value of involvement to employees is also very similar across industries.

It is the public service industries (public administration, health and education) that stand out in terms of the relatively low overall effect of high involvement on work engagement. This again may be in part explicable in terms of the significance of the task itself in motivating high work engagement. The strong focus of work tasks on the well-being of people in the social sector has been shown to be a source of strong work motivation (Gallie et al., 1998). Work engagement in that sector may be driven more strongly by the nature of the tasks themselves and the values attached to them, with a corresponding reduction of the importance of organisational context.

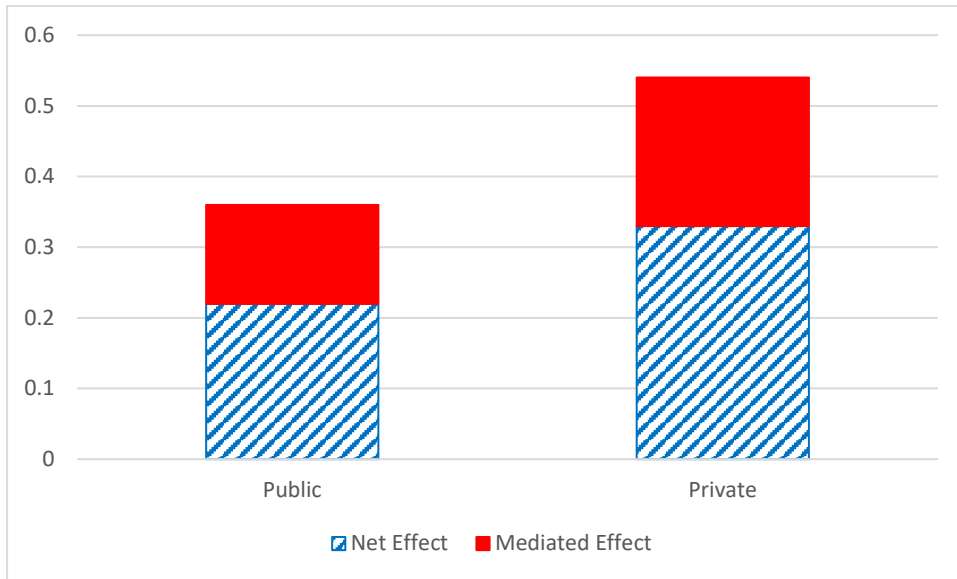
Figure 4.14: High involvement effects on work engagement by industry



Note: The figure shows the strength of the coefficients for employees in high involvement organisations relative to those of employees in low involvement organisations. The 'net' effect, shown in the lower half of columns, give the coefficient after controls for Work and Employment Conditions, Performance Management Practices and the presence of representative institutions. Agr+Man+Const=Agriculture, Manufacturing and Construction; Ret+Hosp+Trans=Retail, Hospitality and Transport; PAdmin+Health+ED=Public Administration, Health and Education; Oth Serv=Other Services.

There is also a broad difference between the public and private sectors. The overall (or gross) effect of high involvement practices is stronger in the private sector than in the public (Figure 4.15). However, the relative importance of the net effect, which reflects the direct importance of involvement for work engagement, is very similar in the two sectors. Again, arguably engagement in the public sector is more affected by intrinsic task interest and public services values, leaving a reduced impact of organisational context.

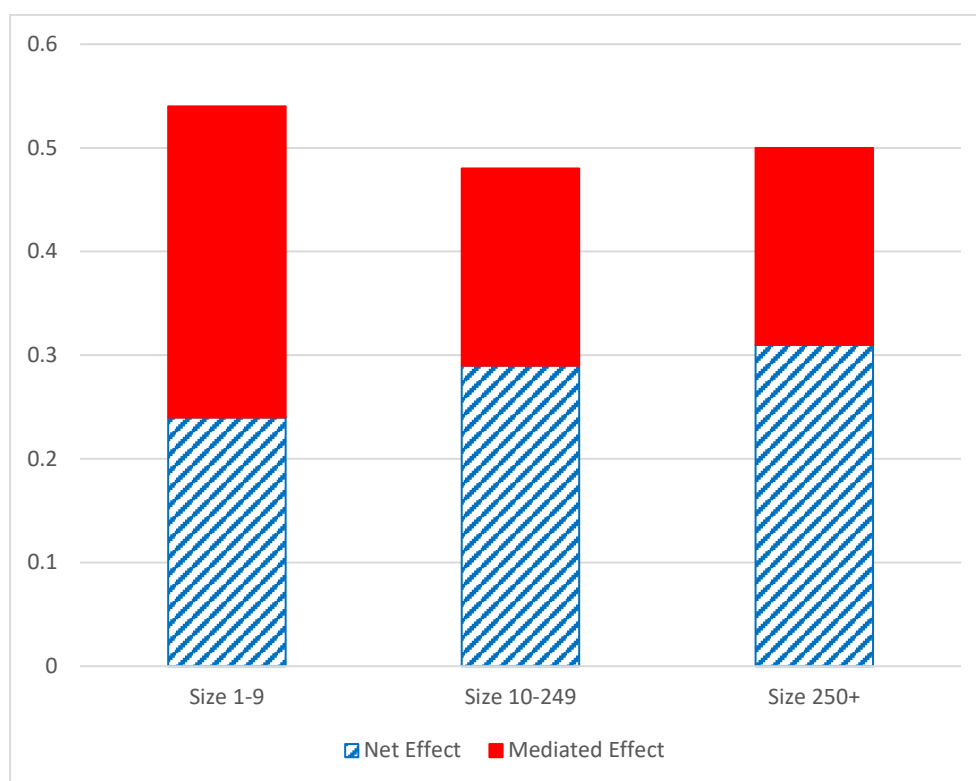
Figure 4.15: High involvement effects on work engagement by public-private ownership sector



Note: The figure shows the strength of the coefficients for employees in high involvement organisations relative to those of employees in low involvement organisations. The 'net' effect, shown in the lower half of columns, give the coefficient after controls for Work and Employment Conditions, Management HRM Practices and the presence of representative institutions.

Finally the effect of high involvement practices on work engagement is significant for employees in organisations of very different sizes, although the differences between different size categories is relatively small (Figure 4.16). The overall effect of high involvement is strongest for those in the smallest organisations. However, the direct effect of involvement is also strongest among those in larger organisations, whereas in small organisations more of the effect is attributable to the association of high involvement with improvements in the working environment.

Figure 4.16: High involvement effects on work engagement by organisational size



Note: The figure shows the strength of the coefficients for employees in high involvement organisations relative to those of employees in low involvement organisations. The 'net' effect, shown in the lower half of columns, give the coefficient after controls for Work and Employment Conditions, Management HRM Practices and the presence of representative institutions.

4.6 Summary

The analysis has focused on the implications of employee involvement for work engagement. It has examined both its direct effects and its potential indirect effects through the mediating factors of work and employment conditions and performance management practices.

There were substantial variations in the prevalence of work engagement in different countries and among different categories of the workforce. High work engagement was highest in North Western, the Nordic, and East European regions. Low work engagement was greatest in the Southern, East European, and North Western regions. The countries of the Southern regional group stood out as combining a particularly low level of high engagement with a very high level of low engagement. With respect to the overall workforce in the countries studied, work engagement was highest among managers, professionals and agricultural workers, in the agricultural and educational and health industries, among women and among employees with a permanent contract.

A comparison of the direct effects of employee involvement and the potential mediating factors relating to the improvement it was associated with in the work environment showed that there was a significant effect of employee involvement (most strongly with respect to high involvement) that persisted even with the introduction of successive controls. This could be attributable in part to the fact that those who benefited from involvement practices were able to find greater meaning in their work. However, together with this direct effect, the evidence supported the view that there could be important indirect effects of

employee involvement that passed through its positive relationship with work and employment conditions, and most especially, with the increased fairness and supportiveness of managerial practices.

Both the overall importance of high involvement and the relative importance of direct and mediated effects of high involvement varied, however, between employees in different European regions, occupational classes, and industries (and to a lesser extent between employees in organisations of different sizes). With respect to region, the most notable difference is that the direct or intrinsic effects of high involvement were relatively more important in accounting for the overall effect in the EU-15 countries than for the East European countries, where the mediated effect due to the improvement involvement brought to the work environment were more important.

While interpretation of differences between types of employee must be very tentative, they suggest that there are sectors of the workforce where the nature of the job task itself is likely to be a particularly strong factor behind work engagement, making the importance of organisational context for work engagement less important. This may account for why its effects were less strong among professionals, managers and technicians, and among those in the public service industries, for whom work engagement may have been driven primarily by intrinsic interest in the work task or a sense of the public value of the work. In contrast, the pattern suggested that working in a high involvement context made a particularly marked difference for employees whose jobs tasks were less likely to offer very high levels of intrinsic motivation.

5 Employee involvement and skills development

The long-term shift towards a more knowledge intensive economy, together with the pressures and opportunities of growing international competition, have made skill development increasingly central to the political agenda. This has been accentuated by predictions of a new wave of technological innovation that will increase the pace of change with respect to both products and services, as well as providing the potential for a significant transformation of work processes. A rising rate of change makes the traditional reliance on training prior to labour market entry increasingly inadequate as skills need to be regularly adapted and upgraded to be effective in handling new technologies and new working environments. Innovation implies that organisation's need to develop a capacity for continuous skill development.

A central argument has been that the degree of employee involvement is a major determinant of the skill development opportunities available to employees. This chapter examines whether different types of employee involvement are conducive to skill development in terms of formal training and informal learning, how far such effects are reinforced by the work environment and the work engagement of employees, and the extent to which these factors account for the differential prevalence of skill development between types of employee and between countries.

5.1 Measures of formal and informal skill development

While skill development has been seen primarily in terms of the provision of continuous training, analysts of innovation have argued that at least equally important is the extent to which the practices and culture of organisations provide opportunities for informal learning through the work process itself. Informal learning requires everyday work practices that encourage the acquisition and implementation of new knowledge and ideas. Much effective innovation is incremental and it is through the everyday experience of carrying out the work that employees can learn about the problems of current methods and develop ideas about how they can be improved.

The EWCS provides a range of measures relevant to both formal and informal skill development. With respect to formal skill development (for details see BOX), respondents are initially asked separately whether they have received any training from their employer or on-the-job training to improve their skills. Those who had received training were asked two further questions designed to assess the quality of the training. The first related to the duration of the training, making it possible to construct an indicator in which a period of 6 days or more training is taken as a measure of quality. The second asked people how strongly they agreed that their training helped them to improve the way they worked. Those who agreed are taken as having received better quality training.

FORMAL SKILL DEVELOPMENT PRACTICES

Formal skill development refers to training provided by the employer. A measure of formal skill development was constructed from four questions in the EWCS:

Q. 65 Over the past 12 months, have you undergone any of the following types of training to improve your skills?

A. Training paid for or provided by your employer

B. On-the-job training (coworkers, supervisors)

For each the response categories were: Yes, No

If a person had received training, they were asked two further questions that were indicative of the quality of the training:

Q.66 Over the past 12 months, how many days in total did you spend in training paid for or provided by your employer? Responses options were: 1 day or less, 2-3 days, 4-5 days, 6-9 days, 10-11 days, 20 days or more. Of those who had received training, 33% (13% of the overall sample of employees) had received training of 6 days or more. Responses were dichotomised taking 6 days+ as an indicator of significant training duration in order to ensure adequate sample numbers.

Q.67 Do you agree or disagree with the following statements on the training received over the last 12 months? 'The training has helped me to improve the way I work'. The response options were 'Strongly agree, Tend to agree, Neither agree nor disagree, Tend to disagree, Strongly disagree'. Responses were dichotomised between those who replied 'strongly agree' or 'tend to agree' on the one hand and others.

Responses to each of the four questions were coded 0,1. The overall measure of formal skill development is an additive measure of the four dichotomised items giving a score range of 0 to 4. The scale has a Cronbach's alpha of 0.78.

The indicators of informal skill development are work activities that could be expected to enhance learning. People are asked whether their job requires learning new things, involves solving unforeseen problems, whether they can apply their own ideas in work and whether their job involves them personally assessing the quality of their work.

INFORMAL SKILL DEVELOPMENT PRACTICES
Informal skill development refers to work practices that are conducive to learning by doing. A measure was constructed from the following four questions in the EWCS:
Q53. Generally, does your main paid job involve (Yes/No):
B. Assessing yourself the quality of your own work
C. Solving unforeseen problems on your own
F. Learning new things
Q61i Please select the response which best describes your work situation:
- 'You are able to apply your own ideas in your work'. The response options were: Always, Most of the time, Sometimes, Rarely, Never. These were dichotomised with 'Always' and 'most to the time' scored 1 and other responses scored 0.
The overall measure of informal skill development is an additive measure of the four dichotomised items giving a score range of 0 to 4. As the Cronbach's alpha is 0.56, it should be regarded as an additive measure of different types of informal skill development practices. However, as can be seen in Table 1, the items are strongly correlated and fall on a distinct factor dimension from the formal skill development items.

A factor analysis confirmed that the items represent two distinct dimensions of learning (Table 5.1). Another potential item relating to informal learning is job rotation, although there has been disagreement about whether this is likely to involve skill upgrading or simply moving between jobs of a similar (possibly low) skill level. But as an alternative factor analysis showed that job rotation was unrelated to the informal learning dimension and represented a distinct dimension of work experience, it has been omitted. Two scales (with a range from 0 to 4) were created, by dichotomising the component items and taking the sum of positive responses that represent respectively formal and informal skill development practices.

Table 5. 1 Principal components with varimax rotation

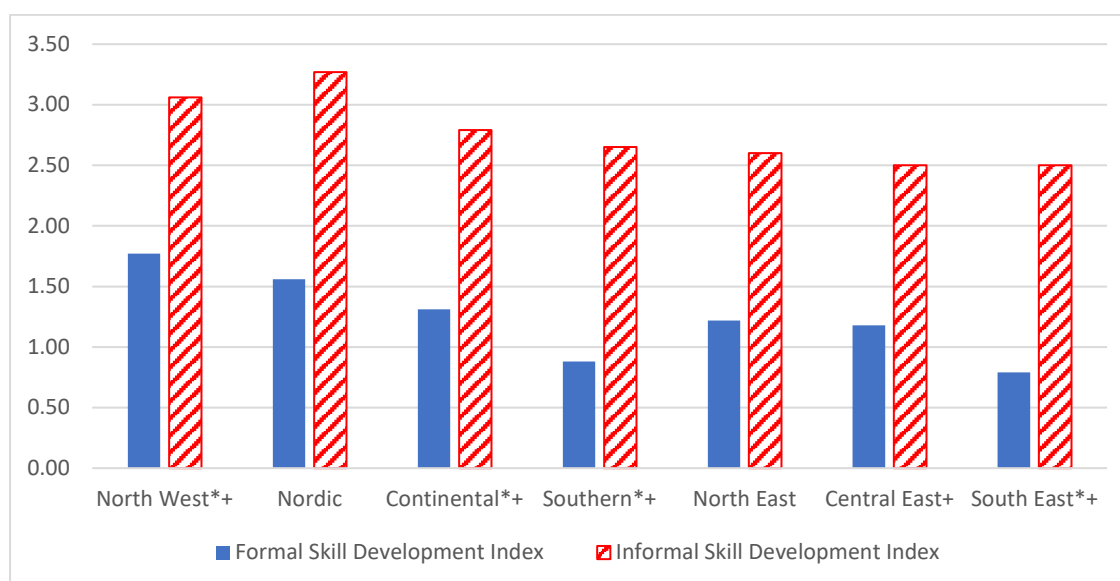
	Factors	
	1	2
Employer provided training	0.90	0.12
Training 6+ days	0.68	0.01
Training Improves work	0.90	0.11
On-the-Job Training	0.57	0.13
Job requires learning new things	0.29	0.64
Job involves solving unforeseen problems	0.05	0.73
Can apply own ideas in work	0.06	0.54
Assesses own work quality	0.03	0.69
Eigenvalue	2.67	1.42
% of variance	29.4	21.7

The next section examines the distribution of formal and informal skill development between European regions and different types of employee with respect to occupational class, sex, industry and size of organisation.

5.2 Patterns of skill development

Figure 5.1 shows the average scores on the two skill development indices across regions, with the first bars representing formal skill development and the second bars representing informal skill development. Informal skill development was notably more prevalent in all regions than formal skill development. The highest level of formal skill development is found in the North Western countries (1.77), followed by the Nordic countries (1.56) and the Continental countries (1.31). The North Eastern countries and Central Eastern countries reported intermediate levels of formal skill development (1.22 and 1.88), while the lowest levels of formal skill development are found in the Southern countries (0.88) and South Eastern countries (0.79).

Figure 5.1: Formal and informal skill development by region

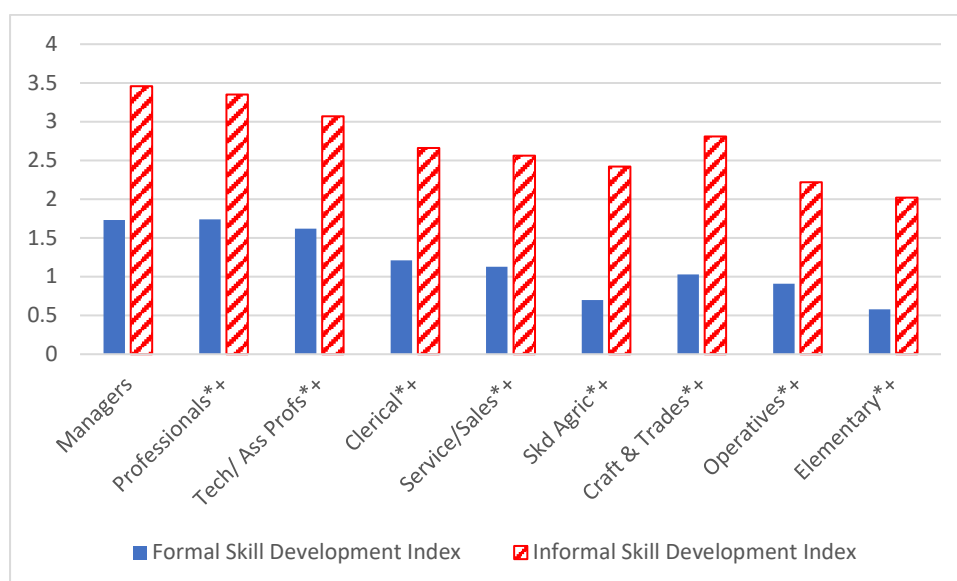


Note: *=significant difference in formal skill development compared to Nordic countries with controls for sex, age, occupational class, industry and organisational size; += significant difference in informal skill development compared to Nordic countries with controls for sex, age, occupational class, industry and organisational size.

In contrast to the pattern of formal skill development, the highest level of informal skill development is found in the Nordic countries (3.27), followed by the North Western (3.06) and the Continental countries (2.79). The other regions share a broadly similar pattern, with informal skill development index scores ranging from 2.50 to 2.65. Taking together the patterns for formal and informal skill development, employees in the Nordic and North Western countries stand out as having the greatest skill development opportunities at work.

Occupational class differences in skill development opportunities are shown in Figure 5.2. With respect to formal skill development, the highest scores are reported by professionals (1.74), managers (1.73) and technicians and associate professionals (1.62). The lowest scores are reported by elementary workers (0.58) and skilled agricultural workers (0.70). Between these extremes, clerical and services/sales workers have slightly higher scores than craft and trade workers and machine operators.

Figure 5.2: Formal and informal skill development by occupational class

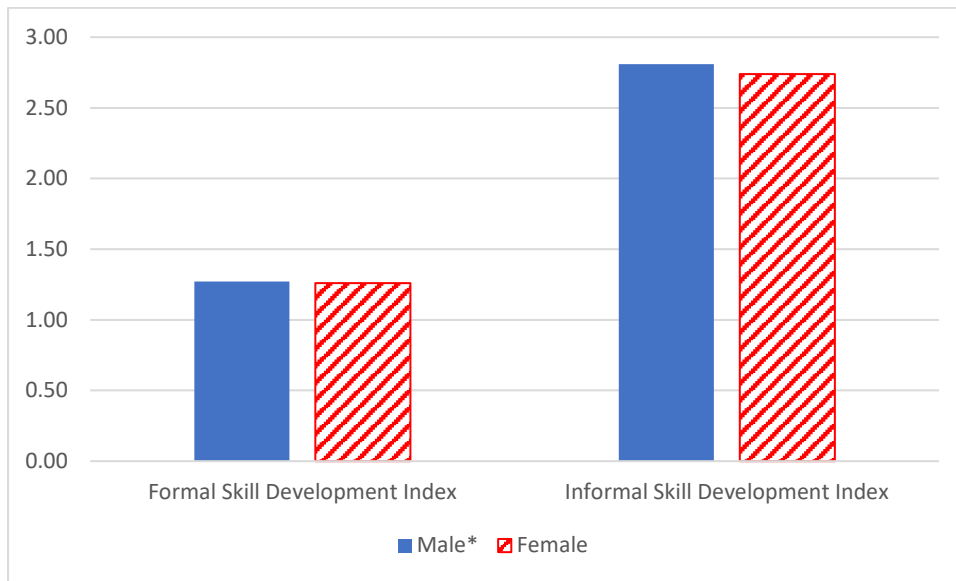


Note: *=significant difference in formal skill development compared managers with controls for sex, age, occupational class, industry and organisational size. += significant difference in informal skill development compared to managers with controls for sex, age, industry and organisational size.

The pattern of informal skill development also follows a clear occupational class gradient. The most advantaged occupational groups are again managers (3.46), professionals (3.35) and technicians and associate professionals (3.07). In contrast, the lowest levels of informal skill development were reported by elementary workers (2.02) and machine operators (2.22), with most other occupational groups occupying intermediate positions. A notable exception to the pattern is found for craft and trade workers: despite their low levels of formal skill development, these workers enjoy relatively high levels of informal skill development opportunities at work (only trailing that of associate professionals). It appears that the nature of their work tasks allows more scope for informal learning (for instance, in problems solving through trial and error by the individual or knowledge sharing among co-workers).

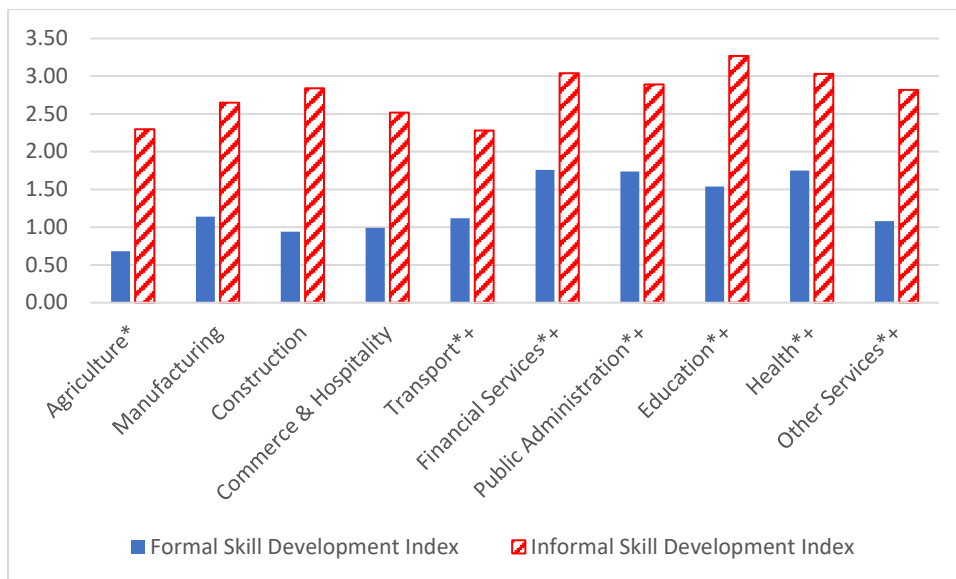
Overall, the pattern confirms that occupational class is a crucial determinant of an individual's skill development opportunities. By contrast, gender does not appear to have a strong impact. Figure 4.3 shows that both formal and informal skill development index scores are broadly similar for male and female employees. When controls are introduced for age, class, industry and organisational size, male employees have a small, but statistically significant, advantage with respect to formal training.

Figure 5.3: Formal and informal skill development by gender



Note: *=significant difference in formal skill development compared managers with controls for age, occupational class, industry and organisational size.

Figure 5.4: Formal and informal skill development by industry



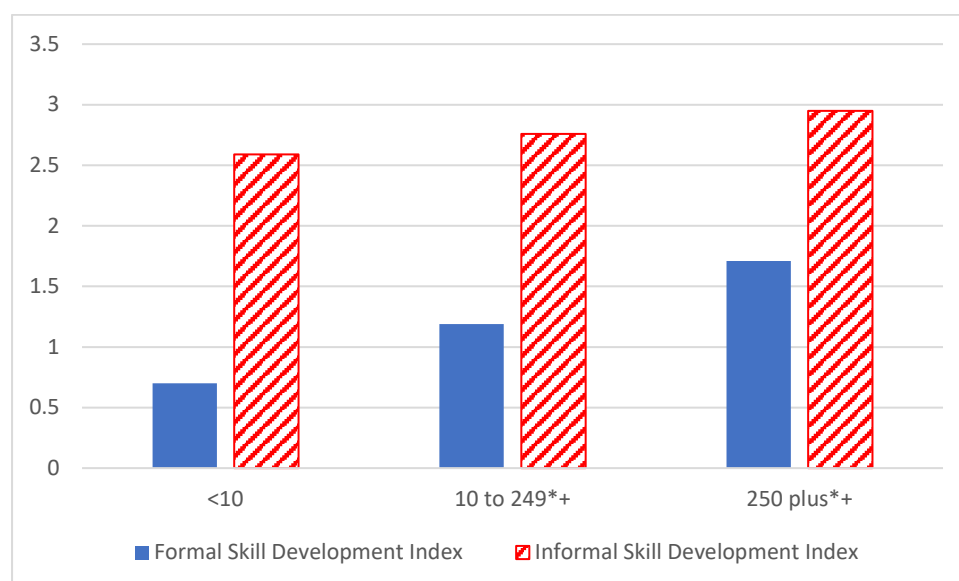
Note: *=significant difference in formal skill development compared to manufacturing with controls for sex, age, occupational class, industry and organisational size. += significant difference in informal skill development compared to manufacturing with controls for sex, age, occupational class, and organisational size.

Figure 5.4 shows substantial variations in skill development opportunities by industry. The highest levels of formal skill development are reported by employees in financial services (1.76), health (1.75) and public administration (1.74). On the other hand, those working in agriculture, construction and commerce reported particularly low levels of formal skill development at work (0.68, 0.94 and 0.99 respectively). Informal skill development is highest in education (3.27), followed by financial services (3.04) and health

(3.03). Transport and agricultural workers reported the lowest levels of informal skill development (2.28 and 2.30), followed by those in commerce and hospitality (2.52). These results indicate a broad correspondence between formal and informal skill development opportunities. It appears that the industries that provide extensive training also tend to allow greater scope for informal learning.

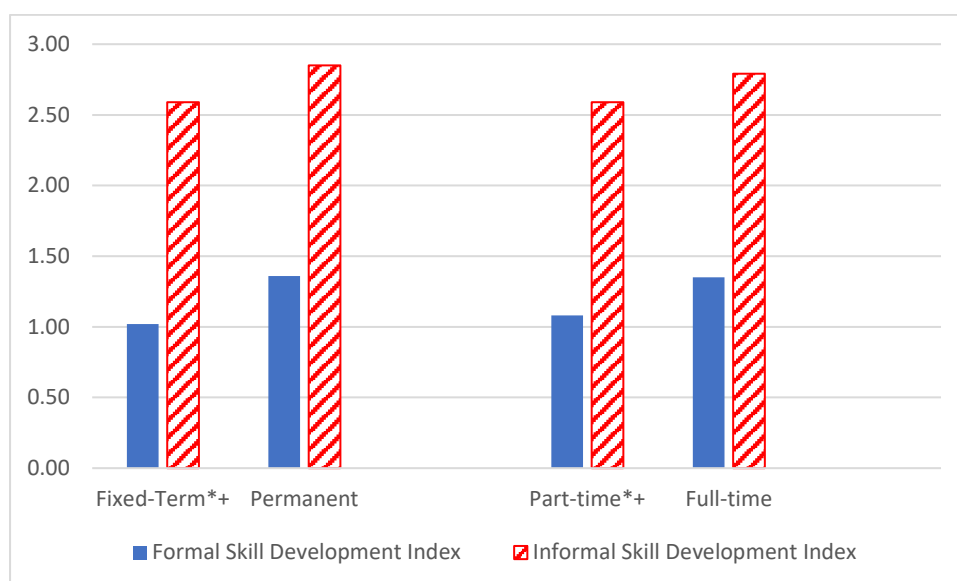
Turning to the association of skill development with organisational size, Figure 5.5 shows that both formal and informal skill development index scores are higher in larger organisations. The average formal skill development index score is 1.71 for large organisations with more than 250 employees, 1.19 for medium-sized organisations with 10 to 259 employees and 0.7 for small organisations with fewer than 10 employees. The respective figures for informal skill development indices are 2.95, 2.76 and 2.59.

Figure 5.5: Formal and informal skill development by organisational size



*Note: *=significant difference in formal skill development compared to organisations with less than 10 employees, with controls for sex, age, occupational class, industry and organisational size. += significant difference in informal skill development compared to organisations with less than 10 employees with controls for sex, age, occupational class, and industry.*

Figure 5.6 Formal and informal skill development by contract status



Note: *=significant difference in formal skill development compared to employees on standard contracts, with controls for sex, age, occupational class, industry and organisational size. += significant difference in informal skill development compared to employees on standard contracts, with controls for sex, age, occupational class, industry and organisational size.

Finally, contract status made a significant difference to skill development opportunities. Those who were on non-standard contracts were less likely to be involved in either formal or informal learning practices than those on regular contracts (Figure 5.6). This was the case both for those in temporary work and for those working part-time, although disadvantage was somewhat stronger for temporary workers. Further analysis (not shown) indicates that part-time contracts were particularly disadvantageous for the skill development opportunities of male employees.

Overall, our analyses have shown that skill development is linked to a range of individual and work context characteristics. At the individual level, intensive working with new technology is associated with markedly better opportunities for learning new skills. Similarly, employees' skill development opportunities are closely associated with their occupational class positions, with managerial and professional employees enjoying substantially higher levels of formal and informal skill development compared to their counterparts in lower occupational class positions. Employees on non-standard contracts – whether temporary or part-time workers – are also significantly disadvantaged with respect to the opportunities for upgrading their skills. Employees in larger work organisations and in knowledge intensive industries such as education, health and financial services enjoy particularly high levels of training and learning opportunities, whereas those in agriculture, commerce and transport are most severely disadvantaged. Finally, employees in the Nordic and the North Western countries stand out as having distinctively high levels of skill development opportunities, whereas employees in the Southern and South Eastern countries have poorer opportunities for formal skill development than those in the other regions.

5.3 Organisational determinants of skill development practices

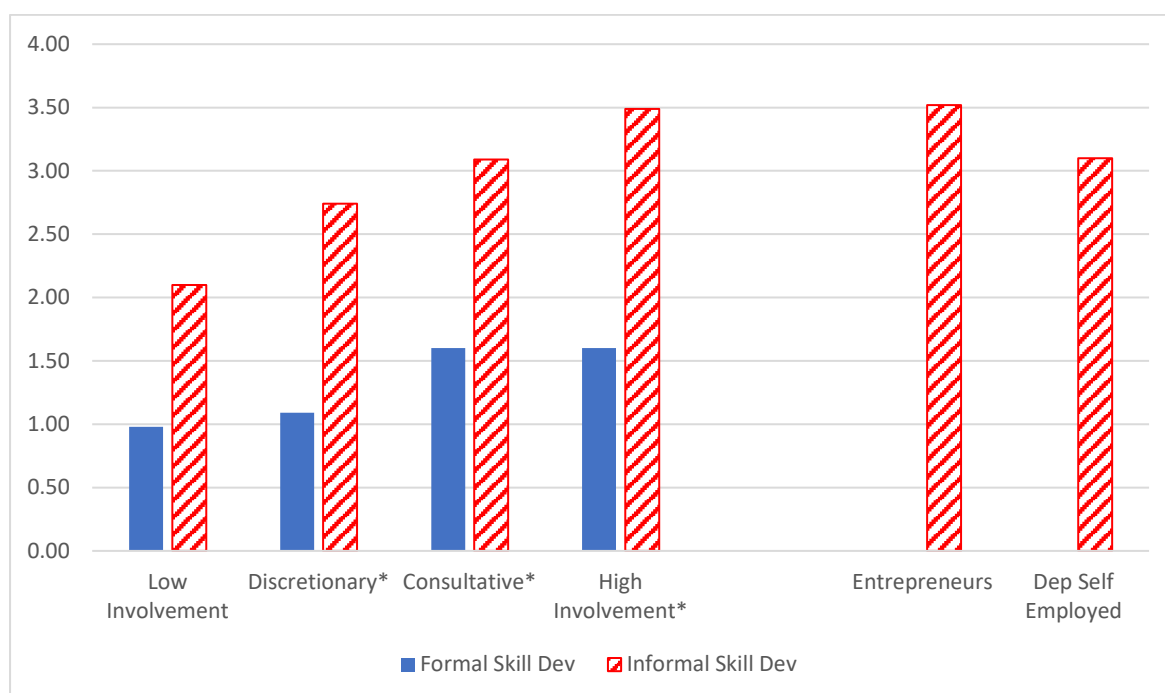
This section examines first the relationship between types of employee involvement and formal and informal skill development practices on the one hand and the types of employee involvement on the other. It then considers the relationship to skill development of the various aspects of the work environment associated with high involvement practices. It concludes by examining the relative importance of involvement and different aspects of the work environment in accounting for skill development.

Employee involvement

It has been argued that employee involvement is likely to be an important determinant of the skill development opportunities available to employees. This is attributable to a several factors. With respect to formal skill development, more involved employees are likely to have stronger motivation to acquire new skills to improve their performance, since they will be more committed to their work tasks and the objectives of the organisation. At the same time, they will have greater leverage on management to press for effective training provision. The effect of employee involvement on informal learning is more direct, since, in addition to enhancing motivation, the greater opportunities for decision-making it provides should increase the scope for personal experimentation at work, as well as the possibilities for discussing work problems with management and colleagues.

A first point to note from Figure 5.7 is that the patterns for formal and informal skill development are rather different. Employee Involvement practices are more strongly related to informal skill development than to formal skill development. There is only a small (although statistically significant) difference between low involvement and discretionary organisations with respect to training. The training benefits of working in a consultative or high involvement organisation are considerable greater (and very similar between the two types of organisation). The more marked contrasts are with respect to informal skill development. The increase in informal skill development is substantial for each category of involvement and rises in a linear way between involvement types.

Figure 5.7: Employee involvement and skill development



Note: An asterisk indicates that the differences of other involvement types relative to low involvement are statistically significant at the 95% level for both types of skill development, with controls for age, sex, occupational class and organisational size.

The data do not allow a comparison with the level of formal skill development received by the self-employed, but there are comparable figures for informal skill development. These show that employees in high involvement organisations benefit from the same level of informal skill development as independent entrepreneurs and a higher level than the dependent self-employed (those who cannot hire or dismiss employees or are generally dependent on a single client or customer).

Further analyses (Appendix Table 3.4) showed that the effect of high involvement practices on both formal and informal skill development was evident for all European regions (although somewhat lower with respect to formal skill development in the Liberal countries than in other regions). It was also to be found for each of the three broad occupational class groupings – higher (managers, professionals and associate professionals); intermediate (clerical, service and skilled manual workers); and lower (operators and elementary employees). The coefficients, however, were somewhat stronger for higher and especially intermediary level employees than for those in the least skilled positions. It was highly significant for employees in each of the organisational size categories (1 to 9, 10 to 249 and 250+), with the effect growing greater with increased size of the organisation. Despite then some variation in its strength, the association between high involvement and skill development was remarkably general across different types of employee.

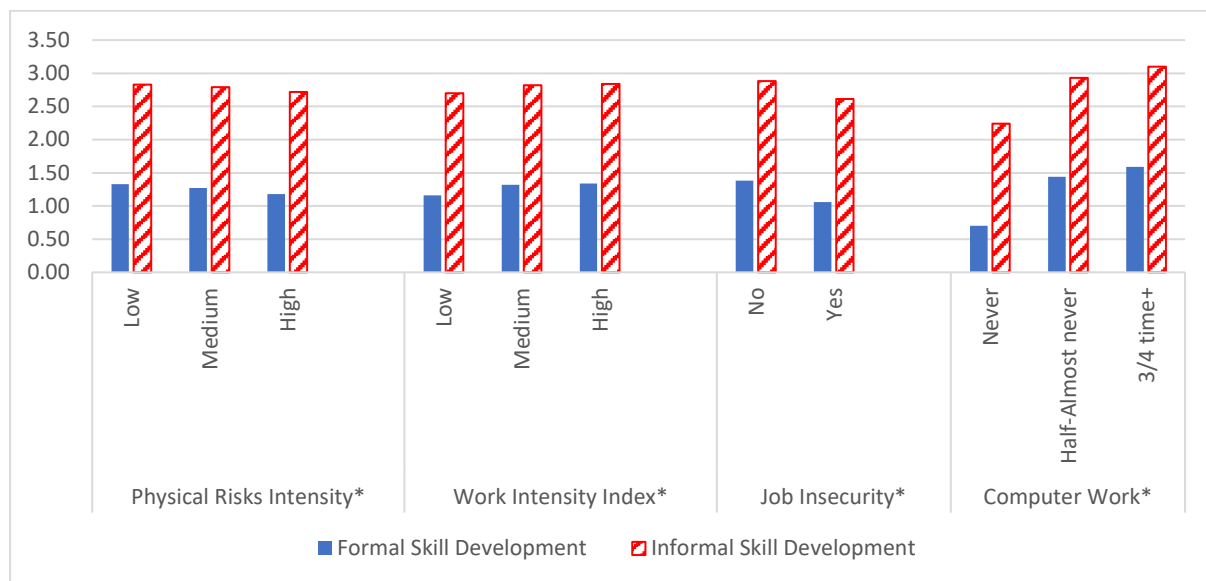
Work and employment conditions

The report has highlighted three aspects of work and employment conditions that may affect skill development – the level of physical risks, the intensity of work and job insecurity. Arguably poor physical work conditions could be expected to lead to levels of exhaustion that may reduce people's motivation

and energy to acquire additional skills. There could be contrasting expectations with respect to work intensity: high work intensity may reduce the time available for learning, but it may increase the motivation to learn new ways of working to handle better the pressures. Finally, job insecurity could be expected to have negative effects on skill development, since employees may be reluctant to invest in new skills for an organisation that they may soon be leaving.

As can be seen from Table 5.8, in practice none of these factors have a strong effect on either formal or informal skill development. There are small but significant negative effects of physical risks and job insecurity. The pattern for work intensity shows a small positive effect of both medium and high levels of work intensity compared to a low level of work intensity, consistent with the idea that work pressures may provide challenges that stimulate learning.

Figures 5.8: Work and employment conditions and skill development



Note: An asterisk indicates that the differences between the highest and lowest categories of each set of variables relating to work and employment conditions are statistically significant at the 95% level for both types of skill development, with controls for age, sex, occupational class and organisational size.

A much stronger effect on skill development is associated with the intensity of computer work. There was a linear increase in both formal and informal skill development between those who never use computers, those who use them between half of the time and almost never and those who use them three-quarters of more of the time. This pattern was evident within most occupational classes (not shown). The exceptions were technicians and associate professionals and skilled agricultural workers. Although there was a sharp rise in formal learning for technicians and associate professionals from low to medium computer use intensity, there was no further increase (and indeed a small decline between the medium and high categories). The increase in informal learning however followed the usual pattern of linear increase. Among skilled agricultural workers the reverse was the case. While formal learning increased in a linear fashion with computer use intensity, the rise in informal learning peaked among those in the medium category and was a little lower among the most frequent users. The overall pattern is consistent with the view that new technology is a driving force behind the demand for, and acquisition of, higher

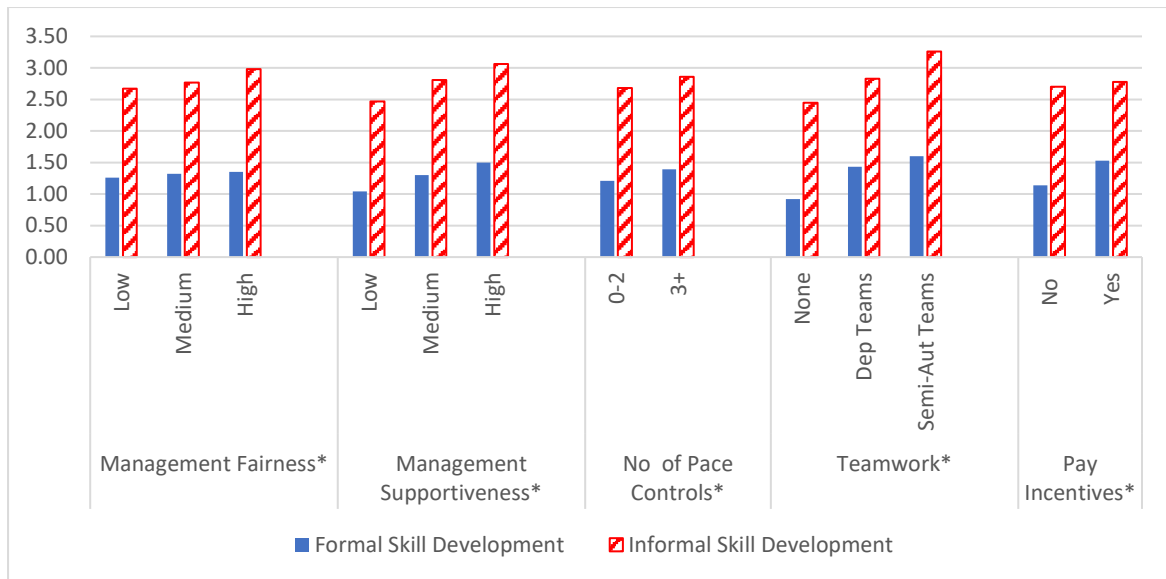
skills. There is no evidence in general that it was eroding skill development among intermediary class categories, as would be expected in some versions of skill polarisation theory.

Performance management practices

Performance Management Practices are taken as a proxy of the broader quality of HRM in the organisation. Arguably, organisations in which management shows a greater general concern to treat its employees well, provide them with practical and social support and provide financial motivation for better performance will also be active in taking steps to improve the skills of the workforce. The use of teamwork may be beneficial for learning since it provides opportunities for mutual assistance in carrying out tasks, with team members able to share their experiences and expertise. The use of pay systems with incentives for better performance may encourage employees to develop their skills, in order to improve their ability to meet managerial performance norms and hence become eligible for pay increases.

Table 5.9 provides some evidence in support of each of these propositions. But the effects of management fairness and of pace controls are relatively modest, while those of management supportiveness and teamwork are more substantial both for formal and informal learning. The use of pay incentives has a stronger effect on formal learning than it has on informal learning.

Figure 5.9: Performance management practices and skill development



Note: An asterisk indicates that the differences in skill development between the highest and lowest categories of each set of variables relating to performance management practices are statistically significant at the 95% level for both types of skill development, with controls for age, sex, occupational class and organisational size.

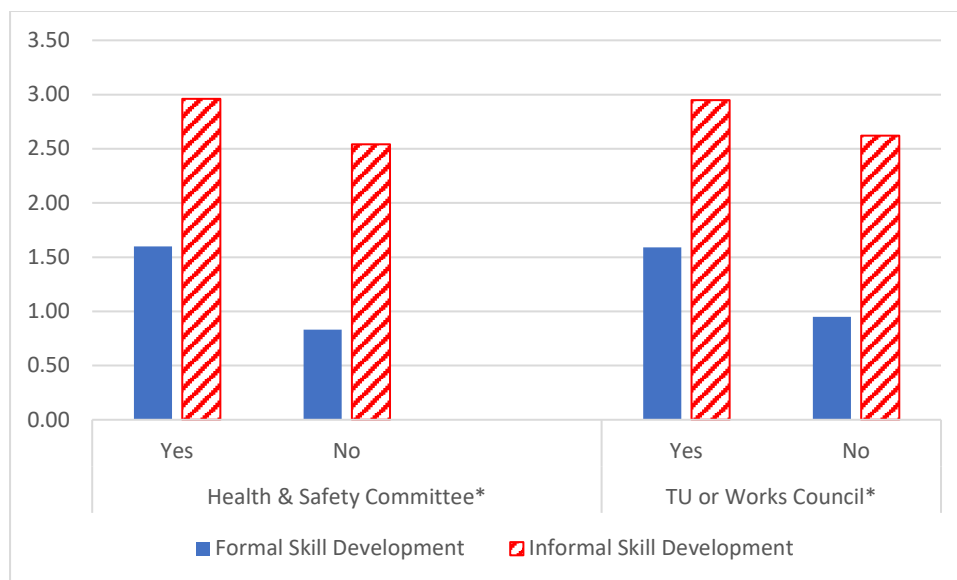
Representation

Where direct employee involvement is accompanied by an institutional system of workplace representation, conditions could be expected to be particularly conducive to skill development. Representative institutions provide a regular arena for raising problems about current work procedures and exercising pressure for change. The voice of employee representatives is likely to be stronger than that of individual employees, because they speak on behalf of the workforce as a whole or at least of a significant section of it. The greater formality of procedures for recording decisions and agreements is

likely to lead to more effective implementation of measures. The presence of representative institutions should then help to ensure that higher aspirations of employees are translated into effective provisions for skill development.

Table 5.10 confirms that there is an association between whether or not organisations provide for representation (either through health and safety committees, or through trades unions or a work council) and stronger skill development. The effect is evident for both formal and informal skill development, but it is more marked for formal. It is likely that discussions between representatives and management about the resources to be allocated for training are more amenable to negotiation, given their greater specificity and more time limited implications, than discussions about issues relating to job redesign which underlie the opportunities for informal learning.

Figures 5.10: Institutional representation and skill development

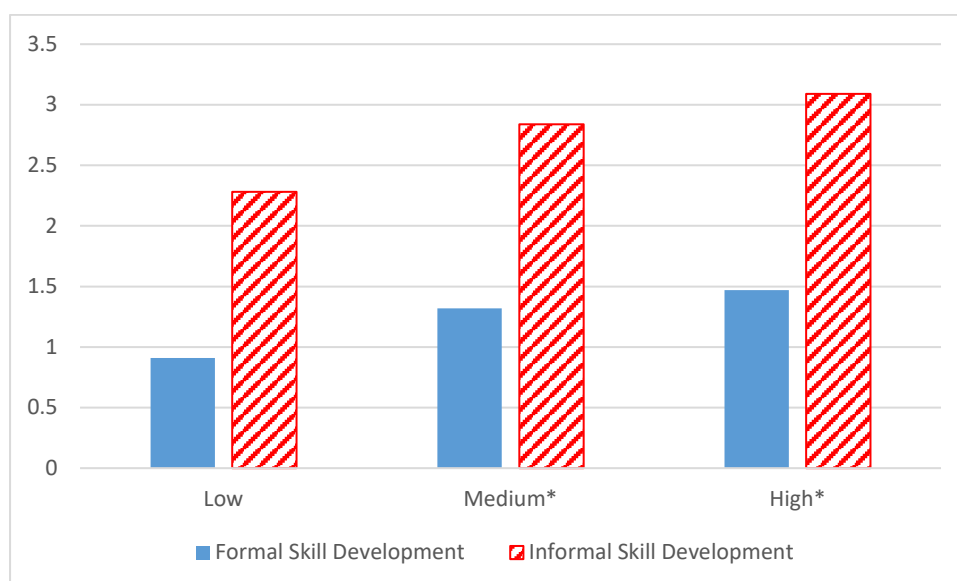


Note: An asterisk indicates that the differences between employees who have and do not have representation are statistically significant at the 95% level for both types of skill development, with controls for age, sex, occupational class and organisational size.

Work Engagement

Advocates of the benefits of higher levels of employee involvement have emphasised the positive effects of higher motivation for the willingness to improve job performance. It could be expected then that it would be an important predictor of skill development, increasing interest in training and experimentation in the work process itself. Table 5.11 confirms that employees with higher levels of work engagement are indeed more likely to be involved in skill development practices, with the level of both formal and informal skill development increasing steadily across the three categories of low, medium and high work engagement.

Figure 5.11: Work engagement and skill development

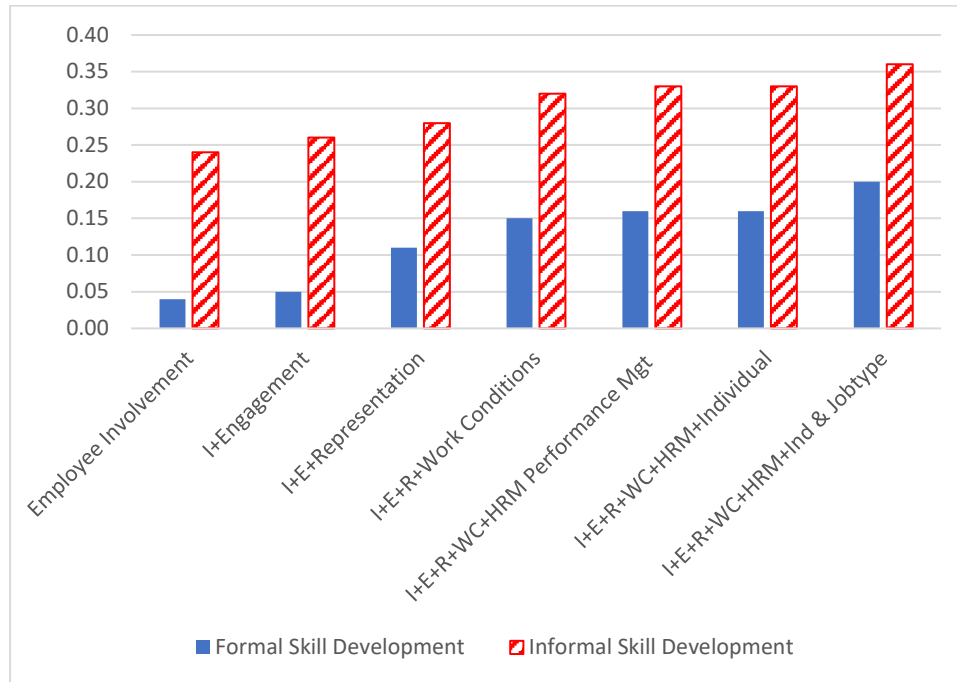


Note: An asterisk indicates that the differences in skill development high and medium engaged employees relative to those with low engagement are statistically significant at the 95% level for both types of skill development, with controls for age, sex, occupational class and organisational size.

Cumulative effects on skill development

To provide an overview of the cumulative effects of these different factors for skill development, Figure 5.12 shows the change in variance explained (adjusted r-squared) with the successive addition of different sets of variables. The first pair of columns (relating respectively to formal and informal skill development) show the variance explained by the employee involvement types taken on their own. The second show the amount of change when employee work engagement is added to this. The following three pairs of columns add successively the variables relating to representation (health and safety committees, trade unions or works councils), work and employment conditions, and performance management practices. The sixth pair shows the variance explained when including the individual's personal characteristics in terms of age and sex. Finally, the last column adds the type of job the person has with respect to occupational class position, industry and organisational size.

Figure 5.12: Variance explained in formal and informal skill development by employee involvement, work environment, individual and job type factors



Note: I=Employee Involvement; E=Work Engagement; R=Representation; WC=Work & Employment Conditions; HRM=Performance Management; Ind=Sex & Age; Jobtype= Occupational Class, Industry & Organisational Size.

A first point to note is that the overall variance explained (shown in the final pair of columns) is much lower in relation to formal than to informal skill development (0.19 and 0.35 respectively). Turning to the specific factors relating to formal skill development, employee involvement makes only a small difference to formal skill development. Employee work engagement and performance management practices also give only a small increase. Representation through health and safety committees or trade unions and works councils adds substantially more. Similarly work conditions give a substantial increase primarily through the importance of computer work, and there is a further increase with variables relating to the type of job. Examination of the more detailed standardized beta coefficients for the component variables shows the strongest effects relating to job type are the low formal skill development of non-skilled (elementary) employees and the strong positive effect of large company size (250+ employees). The importance of organisational size may reflect the greater prevalence of internal labour markets in larger organisations and hence the stronger incentives for employers to invest in training.

The picture is notably different with respect to informal learning. Employee involvement has a strong effect on its own, accounting for 24% of the variance (some two-thirds of the overall variance explained). Including work conditions gives another substantial increment (again primarily because of the influence of computer work). Each of the other work-related factors – employee work engagement, representation, and performance management policies – adds further to the variance explained, but the increments are relatively small. Individual characteristics do not make a significant contribution, but there is a more marked increase when job type characteristics are included. In contrast to the case for formal skill development, although occupational class remains important, company size makes only a small difference to informal skill development.

Taken overall, although employee involvement is associated with formal skill development, it is most strongly related to the prevalence of informal skill development practices. There is evidence that representative institutions play a significant role in promoting formal skill development and it is also facilitated by larger company size, which may reflect stronger administrative support and greater economies of scale in the provision of training.

5.4 Accounting for differential skill development: occupational class

It has been seen in previous sections of the chapter that there are notable differences in skill development between employees in different occupational classes. How far can these be accounted for in terms of differences in organisational and other job characteristics? This can be examined by looking at the extent to which the coefficients for class differences are reduced when successive factors are controlled for.

Figure 5.13 shows how occupational class effects on formal skill development change when controls are introduced for different aspects of the work situation. The lowest bar for each occupational class shows the initial difference for skill development practices in that class compared to the level for managers and professionals. The negative coefficients show that each class was substantially less involved in skill development practices than those in managerial and professional work, with elementary employees, skilled agricultural workers and operatives the most disadvantaged. The bars above this show the class coefficients when different factors are cumulatively added to the controls: first employee involvement, then all work organisation factors, then work engagement and finally age, sex, industry and the size of company.

As can be seen from the second bar up the implications of employee involvement for associate professionals and technicians are very substantial, reducing the differential by 42%. The effect of employee involvement is also evident, although less strongly, for other classes, ranging from an 20% reduction for service and sales workers to a 10% reduction for skilled agricultural workers.

The third bar up shows the effect of adding all of the organisational factors – employee involvement, representation, work and employment conditions and performance management practices. For all classes except for associate professionals and technicians, this leads to a marked further reduction in the occupational class differential- particularly for those in service and sales, skilled agricultural work and elementary work. The overall effect of the work organisation factors reduces the negative coefficients by 70% for service and sales workers, by 20% for clerical workers, by over 40% for skilled agricultural workers, craft workers and operatives, and by 52% for elementary workers.

Figure 5.13: Occupational class differentials in formal skill development

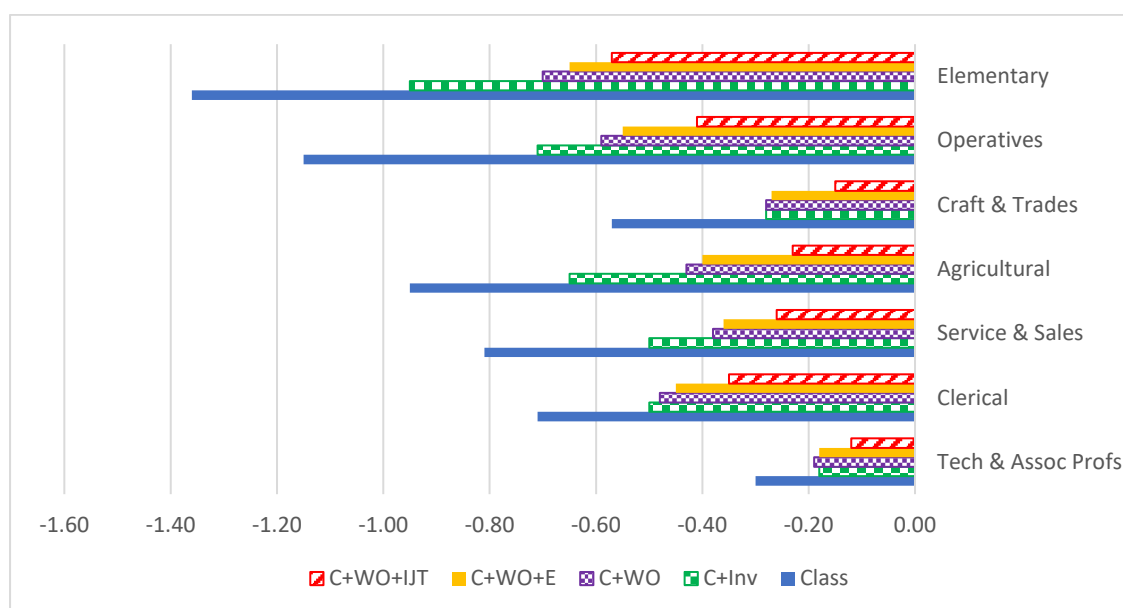


Note: C=Occupational Class; Inv=Employee Involvement; WO=Involvement+Work & Employment Conditions+Performance Management Practices; E=Work Engagement; JT=Sex, Age, Industry & Company Size.

The fourth bar up shows that including work engagement leads only to a small further reduction of the occupational class differential (between 1 and 5%). But, as can be seen from the top bar, adding in the effects of individual characteristics (sex and age) and the industry and size of the organisations in which people work leads to a further major reduction in most of the class differentials. A closer examination of the standardized beta coefficients for the component items shows that it is particularly the relatively high level of formal skill development practices among those in large companies (250+ employees) that contributes to this. The overall reduction of the differential resulting from the full set of factors is at least 60% for all occupational classes other than clerical employees (32%) and technicians and associate professionals (33%).

The occupational class differentials in informal skill development were generally even sharper than those in formal skill development. This is shown by the fact that the initial class effects, shown in the lowest bar for each occupational class, are more strongly negative in comparison to managerial and professional work (Figure 5.14). Differences in employee involvement again play an important role in accounting for this. When controlled for, the negative coefficients are reduced by 30% or more for all occupational class categories. For craft workers they drop by as much as by 51%, for technicians and associate professionals by 40% and for operatives by 38%. Taking all work organisation factors together, as can be seen from the third bar up, over 40% of the difference compared to managerial and professional employees is accounted for, except in the case of clerical employees (32%) and technicians (37%).

Figure 5.14: Occupational class differences in informal skill development



Note: C=Occupational class; Inv=Employee Involvement; WO=Involvement+Work & Employment Conditions+Performance Management Practices; E=Work Engagement; JT=Sex, Age, Industry & Company Size.

The inclusion of work engagement again leads to only a small further reduction of the occupational class differential (between 2 and 3%). But, when account is taken of individual characteristics, industry and organisational size (the top bar), the reduction of the initial occupational class differential amounts to at least 50% for all classes. It is reduced by 58% for elementary employees, 64% for operatives, 68% for service and sales workers, 60% for technicians and professionals and 51% for clerical employees.

There remain significant class differentials in both formal and informal skill development even when organisational and job type characteristics are controlled for, but they are sharply reduced – by at least 60% for five out of seven occupational classes with respect to formal and for six out seven occupational classes with respect to informal skill development. Employee involvement makes an important contribution to this, but the work environment and job type factors also contribute substantially to the reduction.

5.5 Accounting for country differences in skill development

This section examines the extent to which skill development opportunities vary across countries and the structural factors that potentially account for such variance. We use multilevel models to identify significant institutional factors which shape employee skill development net of the influence of individual or organizational characteristics (for a discussion of the models see Chapter 2).

Previous research shows that trade unions plays a significant role in increasing training provision. Unions have a concern to encourage training provision since it leads to an upgrading of employees' skills, which both helps to protect the employability of workers and increases their relative power in relation to employers. Strong and well-resourced national unions are in a better position to actively promote training initiatives both through their influence on government and employer organisations and through encouraging representatives in the workplace to make training a salient issue. Where unions have a

strong membership base, they can reduce the opportunities for local employers to increase profits through hiring cheap labour, since they can ensure the implementation of pay rates agreed through collective bargaining or national minimum wage legislation. This in turn is likely to encourage employers to invest in training to ensure the productivity of employees given their higher rates of pay. Employers' skill development strategies may also be influenced by the relative balance of supply and demand in the labour market. When unemployment rates are higher, it is easier for employers to recruit skilled workers from the external labour market, whereas tight labour markets imply greater recruitment difficulties and thus greater need for internal training investments. A tight labour market also increases the potential power resources of the workforce in demanding training to protect future employability.

The level of training provision may also depend on the extent to which innovation drives long-term economic growth. Successful innovation requires not only creative ideas but also a good supply of competent personnel that can turn ideas into well-functioning technologies, products or processes. Innovation intensiveness can also increase the prevalence of exemplar managerial practices and trigger isomorphic responses from employers which can stimulate both training and informal learning. Rapid economic growth and technological development often accompany or accelerate innovation, which can increase the competition for skilled workers and encourage training investments.

While formal skill development is expected to be influenced by employee power resources and firms' innovation activities, informal skill development is likely to be affected by both the orientation to innovation in the wider economy and the general cultural importance attached to knowledge and education. It has been increasingly recognised that an important component of innovation lies in the contribution that employees can make, both in generating ideas for improvements in work processes and in ensuring the successful implementation of new technologies. In societies where innovation is more widespread, it could be expected that employers will be more aware of the need to allow employees scope in their jobs to develop their skills in their everyday work activities. Similarly, in societies where there is a strong learning culture, reflected in the resources provided to higher level general education and the emphasis placed on continuing learning, it is likely that employers will be more ready to both allow and encourage employees to extend their skills through experimentation in their everyday work. Similarly, a strong general learning culture is likely to affect the expectations and motivation of employees to engage in informal learning.

To examine these hypotheses, we first fit a random intercept model to calculate the extent of variation between countries in both formal and informal skill development opportunities. Then we introduce controls for a wide range of work context characteristics which include the physical work environment, work intensity, job insecurity, organizational support, organizational fairness, the number of work control mechanisms, employee representation, the type of employee involvement, the presence of health and safety committees, the type of teamwork and the use of incentive pay. Next, we add further controls for employee demographic characteristics (age, gender and occupational class) and economic structure (industry, sector and organizational size). Finally, we test a range of indicators of the theoretically relevant country level factors which are expected to influence employee skill development over and above the structural controls. For formal skill development, we focus on employee power resources and firms' engagement in innovation activities. For informal skill development, we focus on innovation and learning culture.

In the multilevel analysis, we use two indicators to measure employee power resources: trade union density and the unemployment rate. Innovation is measured by the percentage of enterprises with

product and/or process innovation, the percentage of ICT specialists in total employment and GDP change between 2010 and 2015. Learning culture is measured by the percentage of enterprises that provide continuing vocational training and the percentage of the working age population that hold tertiary educational qualifications.

COUNTRY LEVEL PREDICTORS OF SKILL DEVELOPMENT

Union density: ICTWSS. Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts dataset (Visser, 2011).

Unemployment rate in 2015: Eurostat (une_rt_a)

Percentage of product and/or process innovative enterprises: Eurostat (2016 Community Innovation Survey).

GDP change 2010-2015: Eurostat (nama_10_gdp)

Employed ICT specialists as % of total employment: Eurostat (isoc_sks_itspt)

Continuing vocational training: Eurostat (trng_cvt_34s).

Percentage of working age population with tertiary education: *OECD Education at a Glance 2015*.

The results of the multilevel analyses are presented in Table 5.2 and Figure 5.15. The intraclass correlation coefficient (ICC) is a measure of the degree of similarity between individuals in the same country. The higher the coefficient, the stronger that individuals in the same country resemble one another in terms of skill development index scores. The ICC in the baseline model in Table 5.2 shows that 7% of the overall variance in formal skill development is to be found between countries. Controlling for work context reduces ICC to 4%, while adding controls for labour force composition did not result in much further reduction of ICC. Together, work context and labour force composition account for half of the initial country variance in formal skill development.

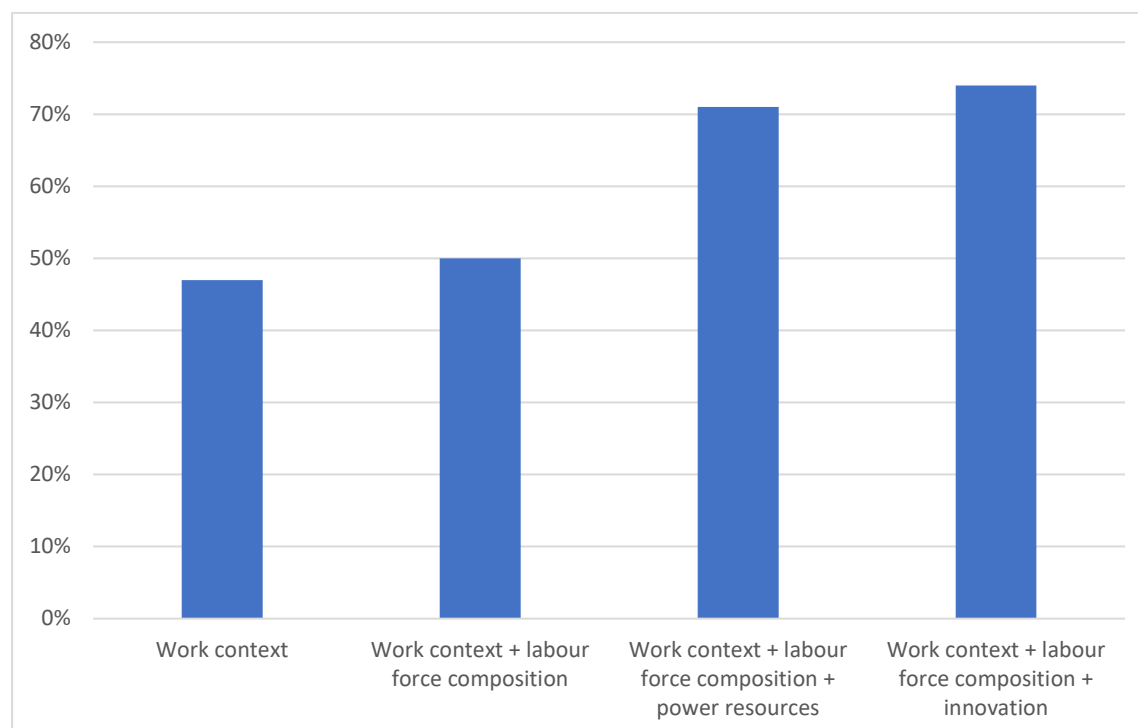
Turning to the country level predictors of formal skill development, contrary to our expectation, union density has no significant effects on formal skill development once work context and labour force composition have been taken into account. A lower unemployment rate, however, does appear to raise employers' tendency to provide training, in line with the view that the tightness of the labour market places employees in a stronger position to acquire new skills. Consistent with our expectation, innovation emerged as a strong determinant of formal skill development. Table 5.2 shows that formal skill development is significantly and positively associated with GDP change, firms' innovation activities and the percentage of ICT specialists in the workforce. While work context and labour force composition together account for half of total country variance in formal skill development, adding controls for innovation increase the figure to three quarters (Figure 5.15).

Table 5.2 Accounting for country variance in formal skill development

	Baseline	+ SC (work context & labour composition)	+ SC + Union density	+ SC + UR	+ SC + innovation	+ SC + GDP change	+ SC + ICT employmen t
Standardis ed coefficient			-0.014	-0.103	0.117	0.096	0.136
ICC	0.070	0.035	0.026	0.030	0.027	0.029	0.024

Note: Standardised estimates from separate multilevel analyses predicting formal skill development from single country-level variables are shown. Numbers in bold are significant at the 95% level. Structural controls (SC): type of employee involvement, physical risk, work intensity, job insecurity, organizational support, organizational fairness, number of control mechanisms, employee representation, health and safety committee, teamwork, incentive pay, computer use intensity, age, gender, occupational class, industry, type of contract, ownership sector and organizational size. UR: unemployment rate in 2015.

Figure 5.15: Accounting for country variance in formal skill development



Turning to informal skill development, the baseline model in Table 5.3 shows that 11% of variance in informal skill development lies between countries. Controlling for work context and labour force composition reduces it to 7%. Together these factors account for about 40% of the country variance in informal skill development (Figure 5.15).

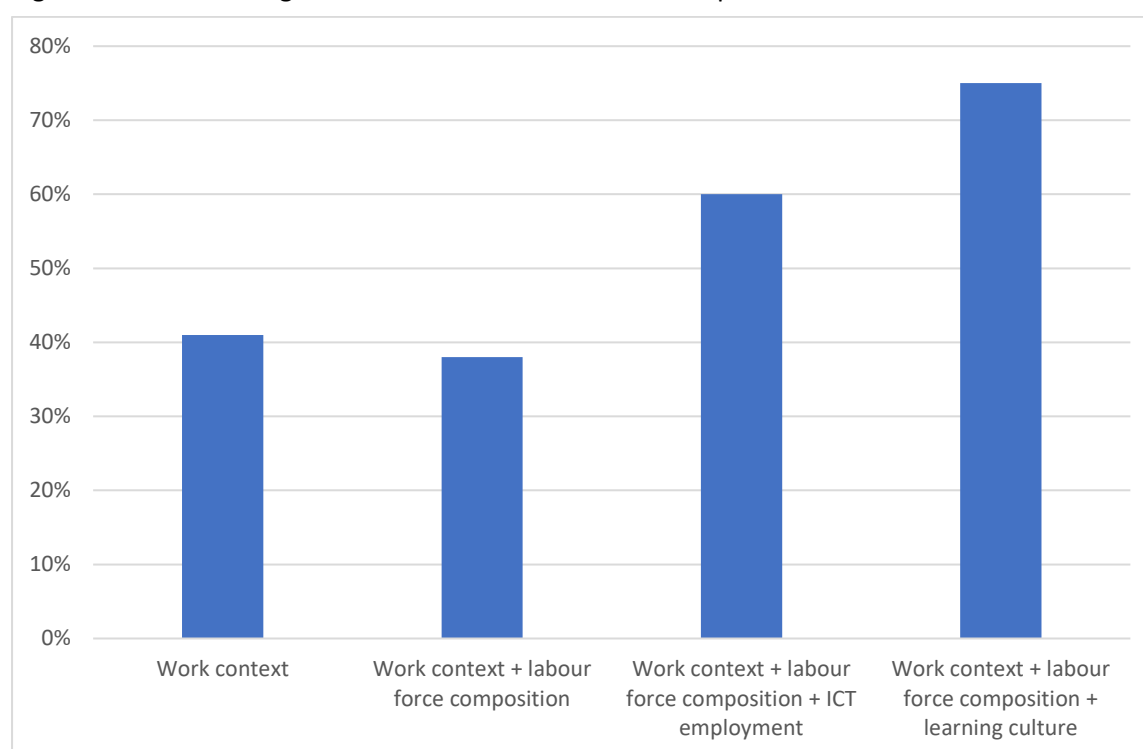
Over and above the structural controls, three country level predictors emerged with significant and positive coefficients when entered on their own: the percentage of ICT specialists in the labour force, the percentage of enterprises that provide continuing vocational training and the percentage of the working age population that hold tertiary educational qualifications. In contrast to the pattern for formal skill development, informal skill development is not significantly associated with firms' engagement in innovation activities. Rather it is the degree of diffusion of advanced technology and the strength of learning culture (reflected in continuing vocational training and the prevalence of tertiary qualifications) that have the greatest impact on informal skill development. Together with work context and labour force composition, the variables reflecting wider learning culture account for 75% of the country variance in informal skill development.

Table 5.3 Accounting for country variance in informal skill development

	Baseline	+ SC (work context & labour composition)	+ SC + Innovation	+ SC + ICT employment	+ SC + Tertiary education	+ SC + Continuing vocational training
Standardised coefficient			0.052	0.125	0.129	0.125
ICC	0.114	0.071	0.067	0.046	0.043	0.043

Note: Standardised estimates from separate multilevel analyses predicting informal skill development from single country-level variables are shown. Numbers in bold are significant at the 95% level. Structural controls (SC): type of employee involvement, physical risk, work intensity, job insecurity, organizational support, organizational fairness, number of control mechanisms, employee representation, health and safety committee, teamwork, incentive pay, computer use intensity, age, gender, occupational class, industry, type of contract, ownership sector and organizational size.

Figure 5.16: Accounting for variance in informal skill development



In summary, our multi-level analysis shows that about half of country variance in formal and 40% in informal skill development reflect differences in work context and labour force composition. Adding controls for country level structural factors markedly increased these figures to three quarters, suggesting a substantial proportion of country differences in skill development opportunities are to be found in their macro institutional environment. Formal skill development is influenced by the societal prevalence of innovation and tight labour market conditions while informal skill development is influenced primarily by strong learning cultures that encourage both general education and continuing vocational training and by the degree of diffusion of advanced technologies in the society. It appears that the pressures to respond to rapid product market change encourage employers to provide vocational training, while training not only directly improves formal skill development opportunities but also increases the capacity of employees to engage in informal learning and continuous self-development.

It is notable that these effects persist even after a wide range of work context characteristics are taken into account. This suggests that innovation, technological development, employer training provision and more developed general education -can influence societal norms and create upward pressures for individuals to maintain and update their skills even when they are not personally employed in work organizations that adopt high involvement management practices. National institutional arrangements that promote innovation and broad-based systems of education and training appear to have a far-reaching impact, affecting individuals' learning and growth beyond the influences of their immediate work environment.

6 Conclusions

The objective of this report was to examine the view, common to both the knowledge economy literature and to EU policy statements, that employee involvement is associated with benefits both for the well-being of employees and for the productive capacity of the organisations for which they work. More specifically, it has focused on the implications of employee involvement for work and employment conditions, employees' personal treatment by management, work engagement and skill development. With respect to employee well-being, it has investigated how employee involvement relates to both the quality of the work environment and to employees' subjective work engagement. With respect to the productive capacity of organisations, it has examined the association of employee involvement with formal and informal skill development, both of which have been seen as crucial to the ability of organisations to adapt to, and take advantage of, rapidly changing technological and market environments.

The analysis has distinguished four types of employee involvement. The first is low involvement where employees lack discretion over their work tasks and have no say over broader organisational decisions that affect them. The second is discretionary involvement, in which employees have significant influence over how they carry out their everyday work tasks, but lack voice over wider organisational decisions. The third is consultative involvement, in which they have a say in wider organisational matters, but lack discretion over the work task and the fourth is high involvement, in which they have both high task discretion and significant organisational voice.

Employee involvement, employee well-being and organisational productive capacity: mutual support or trade off?

The evidence examined provides considerable support for the view that there are mutual benefits of involvement for employees and management. Employee involvement was associated with better work conditions, more humane and supportive performance management and higher job security. The type of involvement made a difference to the type and scope of these benefits for employees. Organisations that provided high levels of task discretion were those that had the greatest advantages in terms of better work conditions, while those that had channels for employee voice on organisational matters had better performance management practices and stronger forms of institutional representation –through health and safety committees and works councils or unions.

The strength of high involvement systems was that, by combining task discretion with organisational participation or voice with respect to wider organisational issues, they were associated with a particularly wide scope of benefits with respect to the work environment. Employees working in high involvement organisations reported safer physical working conditions, lower levels of work intensity and greater job security than those in low involvement organisations. They also were more likely to find that managers were fair in the way they dealt with people and that they were supportive on both a personal and practical level. And they were more likely to benefit from the additional protection, voice and leverage that representatives can provide.

Employee involvement was associated with higher levels of engagement with the job in part because it was intrinsically valued and it part because of its benefits for the work environment. Work engagement

has positive effects for both well-being and performance. It is related to higher psychological well-being, but also is associated with reduced absenteeism and a greater willingness to exert discretionary effort at work. Its effects on absenteeism and discretionary effort were somewhat stronger than those of either job satisfaction or organisational commitment, and considerably stronger with respect to well-being.

While employees in organisations with each of the forms employee involvement had higher work engagement, this was particularly true for those in consultative and, above all, in high involvement organisations. Indeed, it is notable that employees in high involvement organisations were almost as likely as the self-employed to have high levels of work engagement (47% compared with 49%).

The benefits of high involvement for the productive capacity of organisations lie partially in its effects on work engagement, but most clearly in its relationship to skill development. Employees with higher levels of involvement were more likely to have received good quality formal training at work and they were much more likely to benefit from informal skill development practices. This was most strongly the case for those in high involvement organisations, for whom the level of informal skill development was the same as that of the independent entrepreneurs and higher than that of the dependent self-employed.

The association of high involvement with a relatively wide range of benefits for both employees and employers raises the issue of the potential underlying mechanisms that may help account for this. One possibility is that it is due to a process of selection – such organisations may attract employees who have particularly high levels of work motivation and are keen to learn new skills. But such a view involves the very demanding assumption that patterns of work organisation and their associated benefits are highly visible to those outside a firm and that workers searching for jobs have a good knowledge of the internal workings of significant range of employers. While this may be true of some employees in relation to highly renowned firms, it is implausible as a general picture of the recruitment process. As Blackburn and Mann (1979) demonstrated in their major study of the empirical nature of labour market decisions, the conditions of employment offered by firms, even their real benefits in terms of pay, are extremely opaque to the normal worker searching for a job. This is not surprising given the limited effort organisations make even to measure the quality of their working conditions in a way that provides comparability with other employers, let alone to make such information publicly available.

An alternative view, rooted both in psychological research on motivation and sociological research on participation, is that the efficacy of forms of high involvement procedures lies in the fact that they subtly shift the nature of power relations within organisations. While this is not the equivalent of the formal rights of employees associated with institutionalised collective bargaining or the existence of formal works councils, it does involve a *de facto* acceptance by management of higher levels of employee influence over decision-making with respect to both everyday task activity and changes to work organisation. Given the well-established importance of self-determination as a vital factor in people's motivation (*inter alia*, Deci and Ryan, 2000), it understandably strengthens employees' level of engagement in their work, with benefits for both their well-being and performance. As Alan Fox (1974) convincingly argued, the organisation of work deeply affects the extent to which people feel recognised as of value and hence their view of their employing organisation. Procedures that allow greater involvement stimulate a virtuous circle of higher levels of trust between members of the organisation, as well as providing the opportunity for employees to demonstrate the constructive contribution they can make and to develop their skills.

Cross-sectional evidence from a survey such as the EWCS does not permit an empirical assessment of these theoretical perspectives (although as will be seen in the next section, other types of evidence does

reinforce the view that involvement in decision-making is causally efficacious). But the survey evidence does confirm the important fact that there is no necessary trade-off between policies that benefit employee well-being and those that are beneficial to the productive capacity of the organisation. Rather, with respect to the issues examined, such policies appear to be mutually supportive, in that organisational conditions that are more advantageous for employee well-being are associated with a higher level of practices that are essential for productive efficiency.

Complementarities of Evidence

Company-Level Surveys

While surveys of employees can be regarded as having a privileged status in terms of accounts of the personal experience of work, they also have limitations. Patterns of response may be affected by underlying personality traits, leading to a 'halo' effect with more positive or negative responses across items. Further employees may not be aware of organisational processes that are outside their own immediate area of work. A combination of employee and employer accounts provides a stronger grounding of evidence.

Eurofound has been responsible for several major studies that provide information on managers' views about the prevalence of participation and its implications for business performance. An important early research programme - the EPOC Project - carried out in the 10 Member States of the European Union between 1993 and 1998, focused on the nature and extent of direct participation at work (Eurofound, 1994, 2000). Drawing on evidence from a representative postal survey of managers in 5,800 workplaces, it concluded that direct participation had a strong positive influence on a range of indicators of business performance – in particular on quality, throughput time, cost reduction and output (Eurofound 2000, p. 5). Further, the more forms of direct participation that were used, and the greater the scope of the issues employees were consulted on, the greater the reported effects. Most recently Eurofound conducted a major survey of European companies (the 3rd European Company Survey) which provided evidence that establishments practising more developed direct and indirect participation reported more positively on workplace well-being and that establishments practising the most developed form of direct employee participation more frequently reported positive establishment performance (Eurofound, 2017). It found that where employees are consulted or take part in joint decisions, the likelihood of innovation rises by 7% (p. 49). The authors conclude that organisations with strong employee involvement practices 'gave opportunities to the employees to use their discretionary effort through participatory work practices' and 'more often than not encourage knowledge transfer and the sharing of good work practices among employees' (p. 67). Overall, there is a notable convergence in the conclusions about the effects of employee involvement from surveys of employers and those of the current study of employees.

Qualitative Case Study Research

Whether conducted at the employee or company level, however, quantitative research relies on a very restricted set of indicators to try to capture complex social realities. Qualitative research can provide much richer accounts of structures and processes, but relies on relatively small samples that may be highly selective given the difficulties of securing research access and in some cases are deliberately

selective since they focus on 'exemplar' cases. The extent of similarity of findings of studies using the two methodologies is then important for assessing the likely validity of either.

Since the 1990s, there have been a number of substantial research programmes, based on qualitative case studies, that have addressed the issue of the nature and significance of processes of employee involvement. The main source of these have been projects investigating the organisational conditions that underpin high levels of company innovation, grouped under the broad umbrella of 'workplace innovation' studies. The principles underlying workplace innovation can be traced back to socio-technical theories of the 1950s and theoretical developments in the analysis of work stress in the 1990s, with participation seen as critical to realising the simultaneous objectives of organisational performance and quality of working life (Pot, 2017).

An early overview of 100 case studies in six countries (Denmark, Ireland, Italy, the Netherlands, Sweden and the UK (Totterdill et al 2002) concluded that 'effective change requires widespread involvement and participation across the whole workforce. Innovation arises in part by making it possible to question established expertise, received wisdom and authority'. (p. 54) Further 'Employee involvement, information sharing, participation and joint decision-making become powerful forces for sustaining change, building the capacity and momentum required to find the win-win approaches to organisational innovation' (p. 51). An overview of cases examining the conditions that support organisational learning cultures (Johnstone and Hawke, 2002) similarly concluded that 'Building and maintaining a learning culture orientation is fostered by an increased capacity of employees to contribute to decision-making if not at the policy-making level, then at the work process level about practices in the workplace' (p.5).

More recent case study evidence, drawn from 51 follow-up case studies of organisations drawn from the European Company Survey, came to broadly the same conclusions (Eurofound, 2015). The study distinguishes between two types of 'participative' organisation, which contrast with organisational forms that are more externally oriented or traditional in management structure. These are 'interactive and involving' and 'systematic and involving' workplace practice systems, which share high levels of direct participation, but, inter alia, differ in the extent to which the control of daily tasks is joint or top down. Establishments of both types scored best on establishment performance, while 'interactive and involving' establishments scored best on well-being. The analyses of the impact of workplace innovation (WPI), defined as structure and culture that enable employees to participate in organisational change, showed that, with respect to benefits to the organisation, 'employee engagement was cited as the most important outcome of WPI, with approximately 80% of companies choosing this option' (p. 48). With respect to the impacts on employees, the most important outcomes were 'increased learning opportunities, greater voice or participation, and challenging and active jobs' (p. 51).

A second stream of qualitative studies has investigated more specifically the determinants of employee-driven contributions to innovation (Hoyrup et al 2012). Speigelaere and Van Gyes (2012) conclude from an overview of case studies examining the implications of industrial relations for employees' innovative behaviour that the evidence with respect to the role of formal works councils is inconsistent, with studies showing both positive and negative effects. In contrast 'Various studies with different methodologies in different countries indicate positive effects of direct participation on innovation...Forms of direct participation are a central component of the 'innovative' organisation. Direct participation intensifies and enlarges knowledge flows because of better vertical decentralization, horizontal coordination and organisational commitment. Employees have to be given the opportunity to put their knowledge to use in the workplace.' (p.236). Norwegian research, involving 20 companies that were regarded as especially

successfully examples of innovation also underlined the importance of ‘high trust organisations, broad involvement of employees and a cooperative climate between management and unions’ (Aasen et al. p. 71).

Third case studies of development projects have shown the importance of involvement for the successful introduction of new workplace practices. Some of the most ambitious programmes of work reform in Europe have been conducted in Finland – the Finnish Workplace Development Programmes (1996-2005 and 2004-2010). Evidence from 409 development projects funded in the first phase and 163 in the second showed that, where there was employee participation in the planning and implementation phase, projects were more likely to have simultaneous benefits for organisational performance and the quality of working life (Ramstad, 2009, 2014). This confirms the importance of a wider voice in organisational decisions.

Case study research has then largely supported the view that higher employee involvement is supportive of, rather than detrimental to, high levels of work engagement and learning opportunities. In addition, however, it has cast light on several issues that are difficult to assess with survey evidence. To begin with, as can be seen from the examples in Appendix 5, it has highlighted the wide variety of work settings and types of employee (from highly skilled technicians and operators in aerospace to office cleaners working for a municipality, from employees in large organisations to those in small family firms) to which employee involvement practices can bring benefits. It also reveals the diverse forms that involvement can take in the context of establishments with different production processes and workforces.

Second it has provided a more qualified picture of the role of technology. As has been seen in the analyses in Chapter 2, there is support for the view that working with advanced technology is conducive to higher levels of involvement in decision-making. But the case study evidence makes it clear that technology is not strongly determinative of patterns of work organisation, as was widely believed in the early post-war decades. For instance, an in-depth comparative study of matched French and British oil refineries, taken as examples of highly advanced forms of automation, showed that managers could organise work in quite different ways around the same technologies, with substantial implications for employees’ participation in the work process and their satisfaction with their work (Gallie, 1978). Similarly, a recent comparison of work processes in similar workplaces in the Aerospace Industry in France and Sweden has shown that the introduction of lean techniques took place in quite different ways in the two countries (Ahlstrand and Gautié, 2018). Whereas in France ‘lean was implemented in a quite technocratic-top down way, mainly focusing on the standardisation and formalisation of procedures’, in Sweden, it was ‘based on the idea that an individual worker has a lot of autonomy and discretion as long as it is exercised within the frame of a group’ (p. 61-62). These variations point to important scope for management choice in the structuring of work organisation with any given technology, although such choices are likely to be strongly influenced by wider cultural norms and institutional patterns.

There are, however, some differences in the picture that emerges from case study and survey research. The case study literature, while pointing to the importance of higher-level involvement in major change processes, has stressed very strongly the benefits of semi-autonomous teamwork as a mechanism of on-going participation. In contrast, the estimates from survey analyses in Chapter 3 indicate that only 38% of those who have both high task discretion and wider organisational participation work in semi-autonomous teams. Clearly employees can have high task discretion without participating in a semi-autonomous team and this may be increasingly the case as work becomes delocalised with the greater opportunities for distance working provided by the internet. Further, survey analyses more strongly

underline the complementarity of task discretion and wider organisational participation (Gallie, 2013, Eurofound, 2013, Dhondt et al., 2014; Pot, 2017). As was shown in Chapters 3 and 5, the two dimensions of involvement affect different aspects of the working environment – with task discretion particularly important for the quality of physical work conditions and organisational participation for the quality of management practices and opportunities for training.

National Longitudinal Studies

There are well-established theoretical grounds for why employee involvement should have a positive influence on work conditions, work engagement and skill development. It provides stronger leverage in terms of voice and power to improve work conditions. It is better adapted to meet widespread values of self-determination, thereby increasing motivation. It is a precondition for the capacity to experiment, which is essential for higher levels of learning at work. Although it is likely that there are important feedback processes, the evidence is consistent with these expectations for beneficial effects of employee involvement.

Empirical support with respect to likely causal influence can be drawn from national longitudinal studies that have investigated whether involvement processes have predictive power with respect to well-being and productive capacity. For instance a number of studies, conducted in the light of the demand-control model (Karasek and Theorell, 1990), have shown that higher task discretion improves psychological health, whether as a direct effect or by moderating the effects of high work intensity (Chandola et al. 2008, Kivimaki et al 2012, Theorell et al. 2015, Theorell et al 2016). Similarly, a major ten-year Australian panel study found that higher job control led to higher levels of mental health (Bentley et al. 2015). A British study, based on a longitudinal panel drawn from a national survey of people in employment, has shown that both task discretion and organisational participation predict employees' motivation in terms of organisational commitment, job satisfaction and affective psychological well-being (Gallie et al. 2017). Given the strong association of work engagement with general measures of psychological health, it seems likely that it is similarly affected by the level of employee involvement. Indeed, specifically with respect to engagement, a longitudinal study of Finnish health care personnel has shown that job control was an important predictor work engagement (Mauno, Kinnunen and Ruokolainen, 2007). Longitudinal evidence with respect to skill development is more limited, but a British study has shown that higher involvement predicts increased skills, better skill utilisation and greater skills development training (Felstead et al., 2019).

The Scope and Limits of Employee Involvement

While there is substantial evidence that employee involvement is associated with significant benefits in terms of both employees' well-being and their ability to develop their skills on an ongoing basis, it remains the case that a large minority of European employers do not adopt involvement practices. Indeed the highest proportion of employees (35%) were to be found in the category of low involvement, providing neither task discretion nor organisational voice. Just over a third were in organisations with an intermediary level of involvement (20% in discretionary and 16% in consultative organisations), while less than a third (29%) were in the high involvement category, which has been shown to be the most beneficial both for employee well-being and for skill development. This picture of relatively limited

prevalence of higher-level participative practices is confirmed by the 3rd European Company Survey, which found that less than 50% of establishments engaged in extensive direct and indirect employee participation (Eurofound, 2015b).

One factor that may underlie the relatively low adoption of high involvement practices may be the persistence of more paternalistic forms of managerial culture in some regions of Europe. Employees in the Southern and Eastern European countries are notably less likely to work in a high involvement context than those in the Continental and North Western countries, and above all in the Nordic countries. While explanation of the source of these differences must be speculative, it seems likely that they reflect long-term differences in cultures differences, rooted in distinct political and religious historical trajectories (Gallie, 2013). As has been seen in Chapter 2, the prevalence of involvement is related to the structure of industrial relations (in particular the membership strength of trade unions), as well to the broader orientation to innovation.

It might also be the case that involvement practices are more suitable for some types of work than for others. It is notable that much of the early advocacy of employee involvement focused on its benefits in manufacturing, given the need for greater production flexibility and higher quality standards in the light of more competitive and rapidly changing product markets. However, the prevalence of employee involvement in different industries does not suggest that its benefits are primarily relevant to work in manufacturing. High involvement practices were most frequently found in education and financial services, while they were also more common in public administration, health and public services than in manufacturing. While high involvement is relatively rare in commerce and hospitality and in transport, the overall picture is that it has been adopted across very diverse industrial settings. Moreover, its benefits for work engagement were evident in both the production and service industries, although its effects were less strong in the public service industries than in other industrial sectors. It has been suggested tentatively that this may reflect the greater importance of service values and intrinsic task interest in stimulating work engagement in the public service sector.

Another possibility is that employee involvement is mainly of value with respect to high skilled occupations. The growing interest in the potential benefits of involvement has been closely associated with the view that advanced economies are becoming increasingly knowledge-based economies. Employee involvement, it has been argued, is necessary to unleash the creativity of an increasingly skilled workforce. Certainly, there is a strong relationship between occupational class (which can be taken as rough proxy of skill level) and the likelihood that people will be working in a high involvement environment. While 61% of managers and 44% of professionals were in a high involvement work context, this was the case for only 12% of machine operators and 14% of elementary workers.

But, although the existing prevalence of high involvement practices is closely connected with higher skill levels, the effects of such practices in terms of work engagement are not. Rather they are most strongly associated with strong work engagement among service and sales employees, operatives and elementary workers. It was seen also that, while substantial class differences in skill development remain even taking account of differences in employee involvement, they are sharply reduced, particularly with respect to informal skill development. The potential benefits of employee involvement practices are not confined, then, to the highly skilled, but may have an even stronger effect on the work motivation and skill development opportunities of the less skilled.

In addition to broad occupational class, there was some evidence that the adoption of high involvement practices was affected by the type of work tasks in which people were engaged and by whether or not

they were employed on a regular or non-standard contract. Where the work involved the use of computers, employees were notably more likely to have high levels of involvement. In part, this may reflect the fact that computers facilitate communications within the organisation and make it easier to deploy good feedback mechanisms. The use of computers makes it possible to stay in touch and exchange views even when jobs involve working away from the main workplace. It is notable that the factor that accounted best for the increase in organisational participation between 2010 and 2015, shown in Chapter 2, was the prevalence of intensive computer work.

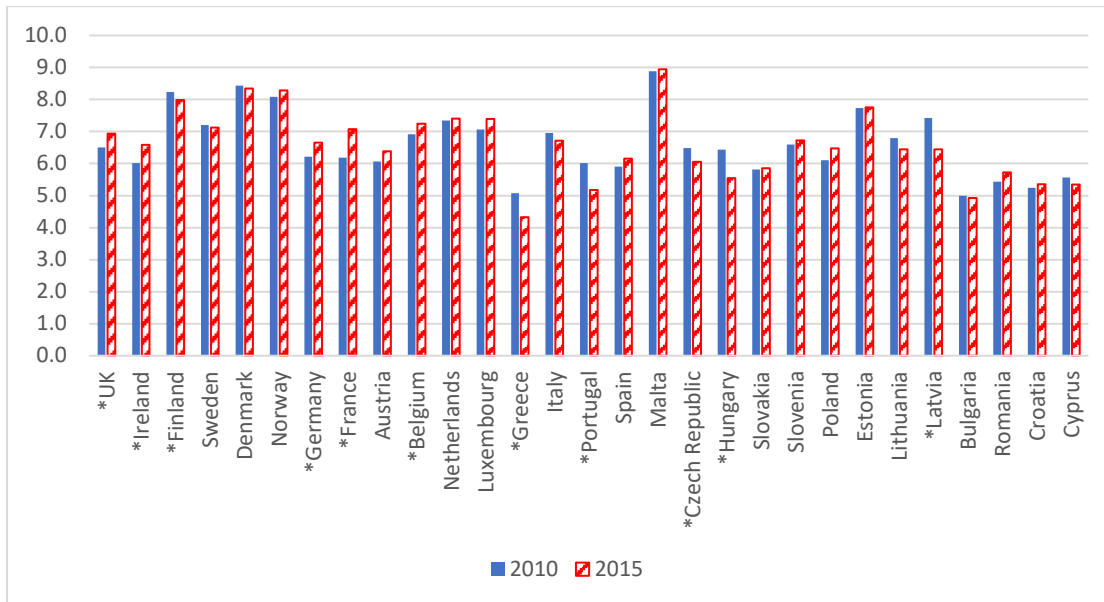
In contrast, employees on non-standard contracts were less likely to work in a high involvement context. This was to some degree true for part-time workers, but was much more strikingly the case for those on fixed term contracts. Low involvement, then, aggravated other disadvantages associated with these types of contract. Employers may perceive non-standard employees as less central to the operation of their organisations and be less willing to deploy resources on ensuring their involvement. Part time workers may be on work time schedules that may not coincide with the opportunities for voice provided to the core workforce, while management may be reluctant to give either discretion or voice to employees that are likely to be working for the organisation for a relatively short period of time, given their limited experience of organisational practices.

Finally, size of organisation may have implications for decisions about whether or not to introduce high involvement systems. Effective involvement practices require time, resources and a reasonable degree of continuity over time. These features may account for the fact that the introduction of high involvement is more common in larger than in smaller organisations. Larger organisations can afford to have specialist staff to devise and maintain voice procedures and to introduce changes in job design that increase the scope of employees to influence everyday task decisions. In practice, however, the differences by organisational size were limited. While approximately a quarter of employees in small organisations (with fewer than ten employees) worked in high involvement organisations, this was the case for 32% of those in the largest organisations (250 employees or more). This may reflect the fact that the operational definition of high involvement that has been used in this report is relatively modest in its resource requirements. While it requires regular meetings to discuss organisational issues, these can be informal in character. The procedures are likely to be much less resource intensive than those required to maintain formal systems of representation. It is notable that even such relatively simple forms of involvement are so strongly associated with higher levels of work engagement and skill development.

While the study has found that the prevalence of high involvement varies by type of employee and work context, the more notable feature of the evidence is the very wide range of work situations in which it brings benefits. Current levels of prevalence are not a strong indicator of the categories of employee that can benefit from better involvement practices. Given that the resources demanded for the type of involvement described here are relatively modest, but the potential advantages for both employees and employers are substantial, there appear to be strong grounds for the pursuit of policy initiatives to encourage a much wider adoption of practices to strengthen the active involvement of employees in the decisions that affect their work.

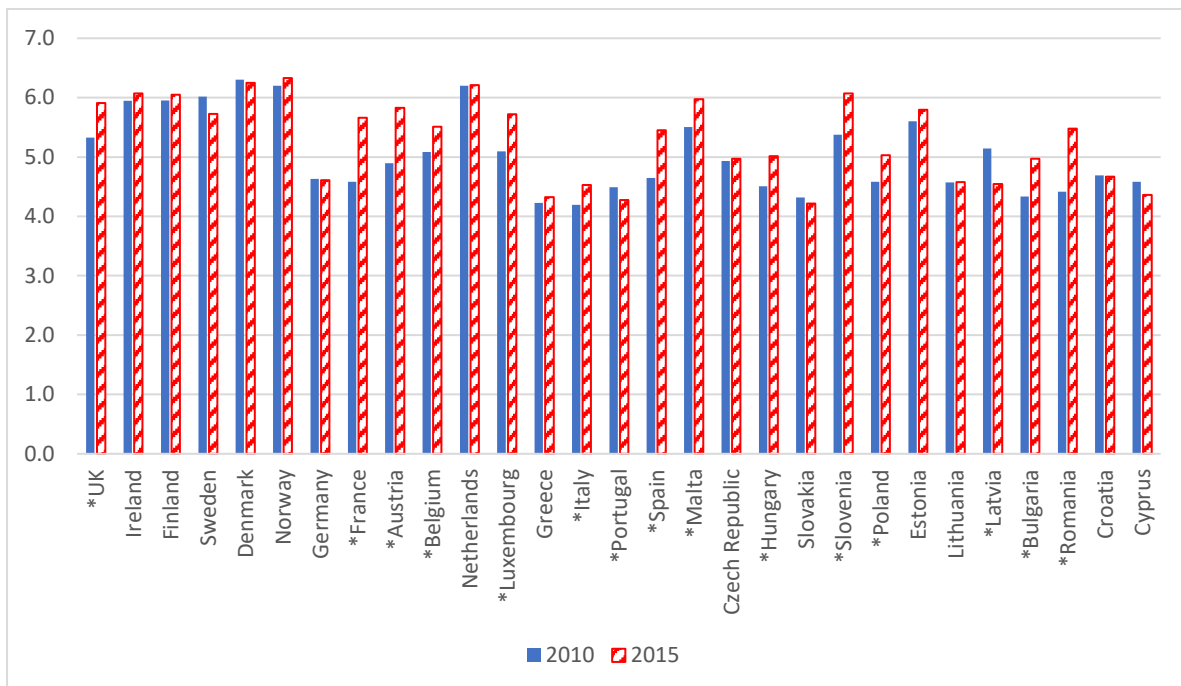
Appendix 1 Trends in employee involvement by country

Figure A1.1: Trends in Task Discretion Index by Country



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

Figure A1.2: Trends in Individual Organisational Influence Index by Country



Note: Asterisk indicates the change is statistically significant at the 95% level after controlling for age, gender, industry and occupational class.

Appendix 2 EWCS Items on physical risks

Q29. Please tell me, using the following scale, are you exposed at work to..?

Ergonomic Risks

Vibrations from hand tools, machinery etc

Tiring or painful positions

Lifting or moving people

Carrying or moving heavy loads

Repetitive hand or arm movements

Ambient Risks

Noise so loud you would have to raise your voice to talk to people

High temperatures which make you perspire even when you are not working

Low temperatures whether indoors or outdoors

Biochemical Risks

Breathing in smoke, fumes (such as welding or exhaust fumes), powder or dust (such as wood dust or mineral dust) etc

Breathing in vapours such as solvents and thinners

Handling or being in skin contact with chemical products or substances

Tobacco smoke from other people

Handling or being in direct contact with materials which can be infectious, such as waste, bodily fluids, laboratory materials etc

Response Set: All of the time, Almost all of the time, Around $\frac{3}{4}$ of the time, Around half the time, Around $\frac{1}{4}$ of the time, Almost never, Never

Appendix 3: High Involvement Effects on Work & Employment Conditions, Performance Management Practices and Skill Development by Region, Occupational Class and Organisational Size

Table A3.1 Gross and Net Effects of High Involvement on Physical Risks, Work Intensity and Job Insecurity by Region, Occupational Class and Organisational Size

	Physical Risks				Work Intensity				Insecurity			
	Gross		Net		Gross		Net		Gross		Net	
	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
<i>Region</i>												
Liberal	-6.35	***	-4.01	***	-0.11	***	-0.18	***	-0.05	***	-0.05	***
Nordic	-5.44	***	-3.58	***	-0.28	***	-0.30	***	-0.08	***	-0.07	***
Continental	-5.52	***	-1.40	***	-0.22	***	-0.21	***	-0.08	***	-0.07	***
Southern	-3.95	***	-0.14	n.s.	-0.17	***	-0.15	***	-0.11	***	-0.09	***
Eastern Europe	-4.64	***	-1.06	*	-0.20	***	-0.19	***	-0.08	***	-0.06	***
<i>Occupational Class</i>												
Mgrs, Profs, Assoc Profs	-3.64	***	-3.66	***	-0.15	***	-0.16	***	-0.07	***	-0.07	***
Intermediate	-1.08	***	-1.11	***	-0.18	***	-0.18	***	-0.06	***	-0.06	***
Operators & Elementary	-1.16	(*)	-0.49	n.s.	-0.25	***	-0.24	***	-0.12	***	-0.13	***
<i>Size of Organisation</i>												
1 to 9	-3.19	***	-0.36	n.s.	-0.23	***	-0.22	***	-0.07	***	-0.06	***
10 to 249	-5.03	***	-0.90	***	-0.16	***	-0.15	***	-0.10	***	-0.08	***
250+	-6.92	***	-3.23	***	-0.19	***	-0.20	***	-0.08	***	-0.07	***

Note for Tables A3.1, A3.2, A3.3 and A3.4: Gross=coefficients for high involvement without controls, net=coefficients with controls for age, sex, occupational class and organisational size. Sig: ***= $p < 0.001$, *= $p < .05$, (*)= $p < 0.10$.

Table A3.2 Gross and Net Effects of High Involvement on Organisational Fairness and Organisational Support by Region, Occupational Class and Organisational Size

	Organisational Fairness				Organisational Support			
	Gross		Net		Gross		Net	
	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
<i>Region</i>								
Liberal	0.44	***	0.53	***	0.54	***	0.58	***
Nordic	0.40	***	0.45	***	0.56	***	0.59	***
Continental	0.30	***	0.37	***	0.54	***	0.57	***
Southern	0.39	***	0.43	***	0.58	***	0.58	***
Eastern Europe	0.53	***	0.51	***	0.69	***	0.65	***
<i>Occupational Class</i>								
Mgrs, Profs, Assoc Profs	0.38	***	0.40	***	0.51	***	0.53	***
Intermediate	0.39	***	0.42	***	0.53	***	0.57	***
Operators & Elementary	0.53	***	0.52	***	0.71	***	0.72	***
<i>Size of Organisation</i>								
1 to 9	0.52	***	0.53	***	0.66	***	0.68	***
10 to 249	0.37	***	0.40	***	0.55	***	0.54	***
250+	0.38	***	0.42	***	0.57	***	0.57	***

Table A3.3 Gross and Net Effects of High Involvement on Control Intensity, Teamwork and Performance Pay by Region, Occupational Class and Organisational Size

	Control Intensity				Teamwork				Performance Pay			
	Gross		Net		Gross		Net		Gross		Net	
	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
<i>Region</i>												
Liberal	-0.04	n.s.	-0.09	(*)	0.32	***	0.24	***	0.12	***	0.07	***
Nordic	-0.38	***	-0.31	***	0.40	***	0.37	***	0.07	*	0.05	n.s.
Continental	-0.27	***	-0.22	***	0.40	***	0.31	***	0.14	***	0.10	***
Southern	-0.18	***	-0.11	*	0.41	***	0.35	***	0.07	***	0.06	***
Eastern Europe	-0.08	(*)	-0.01	n.s.	0.41	***	0.39	***	0.13	***	0.13	***
<i>Occupational Class</i>												
Mgrs, Profs, Assoc Profs	-0.05	(*)	-0.08	**	0.32	***	0.32	***	0.13	***	0.10	***
Intermediate	-0.28	***	-0.26	***	0.40	***	0.40	***	0.08	***	0.08	***
Operators & Elementary	-0.22	***	-0.16	**	0.30	***	0.32	***	0.04	*	0.06	***
<i>Size of Organisation</i>												
1 to 9	-0.29	***	-0.25	***	0.35	***	0.32	***	0.07	***	0.06	***
10 to 249	-0.19	***	-0.09	**	0.44	***	0.38	***	0.11	***	0.09	***
250+	-0.20	***	-0.17	***	0.42	***	0.35	***	0.11	***	0.09	***

Table A3.4 Gross and Net Effects of High Involvement on Formal and Informal Skill Development by Region, Occupational Class and Organisational Size

	Formal				Informal			
	Gross		Net		Gross		Net	
	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
<i>Region</i>								
Liberal	0.36	***	0.21	***	1.26	***	0.99	***
Nordic	0.58	***	0.46	***	0.96	***	0.82	***
Continental	0.59	***	0.36	***	1.30	***	1.10	***
Southern	0.59	***	0.38	***	1.54	***	1.37	***
Eastern Europe	0.58	***	0.39	***	1.43	***	1.24	***
<i>Occupational Class</i>								
Mgrs, Profs, Assoc Profs	0.37	***	0.36	***	0.99	***	0.97	***
Intermediate	0.45	***	0.45	***	1.27	***	1.26	***
Operators & Elementary	0.22	***	0.30	***	1.32	***	1.36	***
<i>Size of Organisation</i>								
1 to 9	0.37	***	0.37	***	1.47	***	1.35	***
10 to 249	0.54	***	0.54	***	1.39	***	1.17	***
250+	0.68	***	0.68	***	1.25	***	1.02	***

Appendix 4: Validity of the work engagement index

Drawing on previous research on work engagement, the 2015 EWCS included a set of three questions to assess employees' level of engagement in their daily work tasks, together with three items that have been used as indicators of burnout. With respect to engagement people were asked how often (on a five point scale between 'always' and 'never') they felt the following about their job:

'At my work I feel full of energy';

'I am enthusiastic about my job';

'Time flies when I am working'.

For burnout, the same question format was used with the items:

'I feel exhausted at the end of the working day';

'I doubt the importance of my work',

'In my opinion, I am good at my job'.

An initial issue is whether the engagement items capture a distinct dimension from burnout, or as some have suggested, measure the positive end of a single dimension with burnout at the negative end. Based on the literature that emphasizes the distinction between engagement and burnout (Schaufeli, Salanova, González-Romá, & Bakker, 2002), the six items were subjected to a two factor confirmatory factor analysis through structural equation models. Items a, b and c were specified to load onto a latent construct which measures work engagement, while items d, e and f were specified to load onto a second latent construct that captures burnout. The results of the confirmatory factor analysis show the model fit meets the conventional criteria (CFI=0.993, TLI=0.975, RAMSEA=0.041; SRMR=0.015).

As a second step, we examined the internal consistency of the work engagement items through a reliability analysis which yields a Cronbach's alpha of 0.74. Given the strong relationship between the items, we were able to create an index for work engagement by averaging individuals' responses.

We next turned to the issue of whether engagement was a distinct measure from earlier established motivational measures such as job satisfaction and organisational commitment. Job satisfaction was proxied by the item: 'On the whole, are you very satisfied, satisfied, not very satisfied or not at all satisfied with working conditions in your main paid job?', with responses on a four point scale ranging from 'very satisfied' to 'not at all satisfied'. Organisational commitment was measured by individuals' responses to the question: 'The organisation I work for motivates me to give my best job performance', with answers ranging from 5 'strongly agree' to 1 'strongly disagree'. A correlation analysis shows that work engagement is only moderately correlated with satisfaction with working conditions ($r=0.447$, $p<0.001$) and organisational commitment ($r=0.460$, $p<0.001$), which confirms the view that the concept of engagement is not redundant to existing work attitudes constructs.

As a final step of validation we examined the associations between each motivational measure and a range of work behaviour indicators available in the 2015 EWCS. One test of the distinctiveness of measures of motivation is whether they make a difference to absenteeism. The assumption is that highly motivated employees will do their best to stay at work even in difficult circumstances, while poorly motivated employees may not only take time off more readily when in ill health but find health excuses to take time off because of their disenchantment with the experience of work. The EWCS makes it possible to take a number of measures of absenteeism. Initially, absenteeism is measured by the question: 'Over the past 12 months how many days in total were you absent from work due to sick leave or health-related leave?' Those who answered positively were further asked the reason and length of their absence. It was possible then to distinguish three types of absenteeism – whether people had

substantial periods of absence from work (more than five days over the past 12 months) due to health problems, or accidents in work or work related illnesses.

In addition to absenteeism, there are three further measures of work attitudes and behaviour that could be expected to be affected by people's level of motivation. The first is presenteeism – that is coming to work even when it would be normal to stay at home because of illness. Presenteeism is measured by the question: 'Over the past 12 months did you work when you were sick? (Yes/no)'. Second, there is a measure of discretionary effort 'Over the last 12 months, how often have you worked in your free time to meet work demands? (Daily, several times a week, several times a month, less often, never)'. Individuals were asked about their ideal age of retirement: 'Until what age do you want to work?' As highly engaged employees are more enthusiastic about their work, we could expect engagement to be positively correlated with presenteeism, discretionary efforts and preferred age of retirement.

Finally we include a measure of affective well-being derived from five questions that asked individuals how often they felt "cheerful and in good spirits", "calm and relaxed", "active and vigorous", "fresh and rested" and "daily life filled with things that interest me" over the last two weeks (the WHO5 well-being index). As the notion of work engagement embodies a sense of absorption, passion and self-efficacy, we expect work engagement to be positively associated with affective well-being.

We first examine the gross effect of work engagement on absenteeism, presenteeism, discretionary efforts, preferred age of retirement and affective well-being (Table 4.1) and then analyse its net effect on these factors after controlling for satisfaction with working conditions and organisational commitment. Beta coefficients are reported to enable comparison across independent variables. As expected, Table A4.1 shows that work engagement significantly reduces absenteeism and increases discretionary effort, preferred retirement age and affective well-being. Contrary to our expectation, the tendency to work while being sick is negatively associated with work engagement. A tentative explanation is that presenteeism could be more the result of fear of sanctions rather than of genuine enjoyment of work activities.

Turning to the net effects of work engagement (Table A4.2), our analysis shows that engagement has greater negative effects on general absenteeism (total number of days absent from work due to health problems) than both satisfaction with working conditions and organisational commitment. Absence due to work-related accidents or illnesses, however, appears to have a stronger association with satisfaction with working conditions than either organisational commitment or work engagement. With respect to presenteeism, both satisfaction with working conditions and organisational commitment are related to lower the tendency to work during illness, while engagement has no significant effect on presenteeism once satisfaction with working conditions and organisational commitment are controlled for.

The three motivational measures relate rather differently to 'Discretionary Effort' (the tendency to work in one's free time to meet work demands). While unaffected by organisational commitment, it is negatively associated with job satisfaction and positively associated with work engagement, indicating that highly engaged workers are more likely to sacrifice their leisure time for the sake of work. The preferred age of retirement is positively associated with both work engagement and satisfaction with working conditions but unaffected by organisational commitment.

Finally, while affective well-being is positively associated with work engagement, satisfaction with working conditions and organisational commitment, the greatest effect is found for work engagement. The beta coefficient for engagement is 0.355, compared to 0.155 for job satisfaction and 0.128 for organisational commitment.

Taken together, the analyses suggest that engagement is distinctive with respect to the strength of its correlations with presenteeism and discretionary effort, whereas its associations with ideal retirement age are broadly similar to those of satisfaction with working conditions. The results on absenteeism are ambivalent. Work engagement is more strongly related to reduced absence in general than the other measures, whereas satisfaction with working conditions is more strongly associated with reduced absence in cases of accidents or work related illness. The causal direction, however, of the association in the case of accidents and work-related ill-health is more problematic.

The most distinctive effect of work engagement is found for individuals' affective well-being, as reflected both by the magnitude of the beta coefficient and the amount of variance explained. These results confirm work engagement is associated with desirable outcomes organisations, but particularly strongly for individual well-being.

Table A4.1 Regressions of work engagement on absenteeism, presenteeism, discretionary effort, preferred retirement age and well-being

	(1) absente eism	(2) absent_E SAW	(3) abs_acc_E SAW	(4) abs_WRI_E SAW	(5) presente eism	(6) workinfre etime	(7) idealretire age1	(8) wellbei ng
Engage ment	- 0.095*** (0.00)	-0.104*** (0.00)	-0.038*** (0.00)	-0.089*** (0.00)	-0.079*** (0.00)	0.014** (0.01)	0.130*** (0.00)	0.483** *
r2	0.009	0.011	0.001	0.008	0.006	0.000	0.017	0.234
N	31483.0 00	31483.00 0	30774.000	30635.000	31050.0 00	34783.000	25412.00 0	35193. 000

Absent G= General Absenteeism. Absent_H=ESAW: absent from work for 5 days or more for reasons of health problems in the last twelve months; Abs_acc_ESAW: absent from work for 5 days or more due to a work accident in the last twelve months; Abs WRI_ESAW: absent from work for 5 days or more due to a work-related illness in the last twelve months.

Standardized beta coefficients; p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

Table A4.2 Regressions of work engagement, job satisfaction and organisational commitment on absenteeism, presenteeism, discretionary effort, preferred retirement age and well-being

	(1) absente eism	(2) absent_E SAW	(3) abs_acc_E SAW	(4) abs_WRI_E SAW	(5) presente eism	(6) workinfre etime	(7) idealretire age1	(8) wellbe ing (WHO)
Engage ment	- 0.068*** (0.00)	-0.059*** (0.00)	-0.002 (0.72)	-0.013* (0.05)	-0.002 (0.75)	0.047*** (0.00)	0.086*** (0.00)	0.355** *
Satisfact ion	- 0.027*** (0.00)	-0.056*** (0.00)	-0.050*** (0.00)	-0.119*** (0.00)	-0.082*** (0.00)	-0.070*** (0.00)	0.092*** (0.00)	0.155** *
Commit ment	- 0.036*** (0.00)	-0.046*** (0.00)	-0.030*** (0.00)	-0.048*** (0.00)	-0.091*** (0.00)	-0.005 (0.45)	0.006 (0.43)	0.128** *
r2	0.012	0.017	0.005	0.024	0.023	0.004	0.024	0.278
N	30898.0 00	30898.00 0	30201.000	30069.000	30445.0 00	34089.000	25040.00 0	34448. 000

Standardized beta coefficients; p-values in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix 5 Case studies

Case study 5.1: Increased participation among cleaners as a strategy to improve quality and occupational health

This case discusses the organisational change process within the public cleaning division in a Swedish municipality. The case study was carried out in the cleaning division of a municipality in the north of Sweden, employing 86 cleaners, serving publicly owned services such as public schools, preschools and kindergartens. A major challenge faced by the cleaning industry is the extensive use of outsourcing practices to achieve greater cost efficiency, often associated with worsening work conditions. As a result, cleaning has become a high-risk occupation plagued by high levels of work-related illnesses and early retirements. Financial cutbacks had clear negative effects on cleaners' health. As a cleaning manager observed:

"We have always been at the top, or bottom (depending on the perspective), when it comes to sick leave statistics in the municipality; it's no fun. We employ young healthy people to help us with this job and then when they get sick, we spit them out 'on the other side' in their 50s, when they are hurt and sick."

The organisational change was introduced to improve the health of cleaners and avoid being outsourced to private agencies by becoming better prepared for market competition. To achieve this end, the managers sought to gain more independence from the municipality. First, they negotiated a special contract with the municipality which essentially turned the cleaning division an "intrapreneurship." Then the managers passed on the new independence to the cleaners by increasing their job autonomy and organisational participation. Staff councils and steering committee consisting of cleaners and cleaning managers were organized in order to improve cleaners' participation in work decisions. The majority of the cleaners reported significantly increased involvement in decision-making processes, improved communication and faster decision-making processes. One cleaner said: *"Before, many of the clients' requests never reached a conclusion, as they never got through to the last person in the decision-making process. And we were not allowed to do anything before we got an approval from the person in charge. Now it is so simple. We, on our own, can take the initiative and just call our manager, and she can just say "Yes, let's do that", and we do it and the client is pleased. It feels like you are more effective now."*

The increased positive feedback led to higher job satisfaction and pride among the cleaners. Statistics provided by the municipality shows a dramatic decline in the number of sick days among cleaners since the new measures were introduced. Financial performance also improved. The cleaning division has for many years ended with a budgetary surplus which was used to further improve the work environment for the cleaners and the quality of the cleaning service. The business became more sustainable as a result of increased employee engagement, performance and well-being.

Source: Öhrling, T. (2014). Increased participation among cleaners as a strategy to improve quality and occupational health. *Nordic Journal of Working Life Studies*, 4(3): 79-98.

Case study 5.2: Employee resilience in times of change: participation and well-being during merges and restructuring

Hempel is an international marine surface coatings business in Denmark located in the north of Copenhagen. It employs 120 blue collar workers and 30 white collar workers. During to cost pressures, in 2003 the Board was recommended to relocate three production plants in Europe to a new facility in Malaysia. In adherence with Danish law, two employee representatives were elected as full members of the board. They raised concerns with the time and logistical costs of transportation and the potential risk of political instability in Malaysia. At the same time, they also identified the potential opportunity to reduce costs by 25% at the Danish factory.

As a result of their recommendations, the operation continued at the factory in Denmark and employees were involved in designing an efficiency overhaul. They were organised in self-managing teams (with their own planning coordinators, quality coordinators, environment and safety coordinators and staff coordinators) to identify ways of increasing productivity and reducing waste. The rescue of the production plant was a resounding success, as reflected in CE's statement in the annual report:

"In 2003 our employees did a great job, which I am very proud of. In connection with the implementation of our new strategy it has become clear to us that in coming years we must invest much more in our employees in order to enable them to handle the major challenges that our customers want Hempel to shoulder for them."

This model of delegated responsibility worked successfully for both employees and management for a number of years until 2008, when the pressures of cost reduction led to renewed discussions of relocating the operation to Poland, where the average wage level was a quarter of Danish wages.

Following a series of consultations and negotiations employees accepted the economic rationale for relocation. The impact of the organisational change was mitigated by the extensive involvement of employee representatives and unions in the decision-making process. Some employees even volunteered to visit Poland to transfer their accumulated tacit knowledge to the new workforce. Both financial and non-financial support (including training) was provided by the company to support the transition.

Source: UK WON. (2008). How is Resilience Achieved? Hempel Case Study [Online]. Nottingham: UK Work Organisation Network. Available: http://www.UKWON.net/resilience/how_is_resilience_achieved.php [Accessed 1st January 2013].

Case study 5.3: Work organisation, job quality and the making of innovative workplaces in the Aerospace Industry

This case study was carried out in the aerospace industry where innovation in products, materials and processes is key to financial success. Unlike many other industries the aerospace industry was not heavily hit by the 2008 economic recession and has instead enjoyed steady growth in demand since the mid-2000s. It employs a highly skilled workforce that competes on quality, creativity and innovation.

The case study focuses on an OEM of aircrafts with 2500 employees (SW-Plane). Lean production procedures were introduced in the company to eliminate wastes, improve quality standards and increase responsiveness to the customer demands. The lean principles were introduced with an agile approach based on the assumption that employees should be given plenty of autonomy and discretion in implementing the continuous improvement initiative.

On the shop floor workers were organized in teams to discuss and take decisions on production targets, methods, procedures and staffing. Team leaders also participated in daily steering meetings with the production manager and technicians. Employee participation was supported by the development of the training body. The human resource manager appointed an education manager and set up the “strategic education council” comprising 10 representatives from different departments dealing with competence and training questions. Employees regularly participated in problem solving and improvement activities. For instance, a weekly 45-minute brainstorming-improvement meeting was organised with all workers to foster the bottom-up suggestions and initiatives. Managers, team-leaders and workers all reported high levels of satisfaction with the new organisation in terms of hierarchical relations and associated coordinated outcomes. Employees were particularly satisfied with how team leaders contributed to the Lean development. An operator said:

“It is easier to find the person that can answer your questions. Before, it was just one person [the production leader] for all of us. Now, you can get hold of the team leader, fast, and he can take your question further, if you don't have time to chase somebody responsible for the thing you want to ask about. It's really good, I think.”

Organisational involvement also increased employees' motivation and opportunities for innovation. As an operator put it when asked about innovation: *“Well here, innovation is part of daily work”*.

This study illustrates the role of job quality as a mediating factor between work organisation and innovation. When lean production principles are introduced in a bottom-up way with extensive employee involvement and skill development, it increases job satisfaction, work motivation and workplace relationships, which enhanced the innovative capacity of the workers and their firms.

Source: Gautié, J., Ahlstrand, R., Green, A. and Wright, S. (2018). Innovation, Job Quality and Employment Outcomes in the Aerospace Industry: Evidence from France, Sweden and the UK. In: K. Jaehrling (ed.) Virtuous circles between innovations, job quality and employment in Europe? Case study evidence from the manufacturing sector, private and public service sector. Lund: QuinnE Working Paper No. 6.

Case study 5.4: Innovation, job quality and employment outcomes in the agri-food industry: evidence from Hungary and Spain

A number of case studies were carried out in the agri-food sector in Hungary and Spain, involving workers in wineries, biscuits factories, pasta factories and oil mills. The agri-food sector is traditionally dominated by small and medium-sized companies, a high proportion of which are family owned. The main challenge faced by the agri-food industry is to ensure the supply of healthy and nutritious food products in a context of growing population and consumption levels. The pressure for innovation arises both bottom-to-top and top-to-bottom in this sector. Workers often propose ideas for modernizing the business and receive direct feedback from managers on the viability of their ideas. During this process, the direct and open communication between the workers and their managers is essential. In one of the cooperative wineries it was observed:

“The company workers are the ones that are most up to date with innovations in the sector. Ultimately, cooperative members are farmers who specialize more in agriculture. However, the final decisions on implementing innovations rest with the Governing Board selected from the members of the Cooperative.”

In larger companies where communication is less direct, other mechanisms are in place to ensure workers' involvement in workplace decision-making. A good example is the “*idea box*” in the Hungarian pasta company where employees can put their proposals into the box located in the centre of the shop floor. The submitted proposals are evaluated by the management and employees are given financial rewards if their ideas are adopted. The use of idea box also encouraged cross-functional networking. An employee said:

“Sometimes an outsider looks at things differently and simpler. Through the idea boxes, I can share my opinion not only in my own professional field.”

These case studies show that small and medium-sized companies can successfully integrate employees in day-to-day decision-making in a more direct and informal way, which helps to cultivate a sense of belonging and organisational commitment. Even in sectors which are traditionally seen as technology backwater, employee involvement can still play an important role in facilitating the innovation of products, services and work processes, which benefits both business performance and quality of working life.

Source: Fuensanta Martín, Nuria Corchado, Laura Fernández, Miklós Illéssy and Csaba Makó with the support of Mariann Benke, Mónika Gubányi and Ákos Kálman (2018) Innovation, Job Quality and Employment Outcomes in the Agri-food Industry: Evidence from Hungary and Spain, in Jaehrling, K., Payton, C.P., Postels, D., Rehnström, F., Wright, S. and Warhurst, C. (ed). *Virtuous circles between innovations, job quality and employment in Europe? Case study evidence from the manufacturing sector, private and public service sector*. QuInnE Working Paper WP6 Volltext.

Case study 5.5: Bridgestones UK – Achieving quality and customer focus through employee involvement

Bridgestone UK is a regional subsidiary of Tokyo-based Bridgestone Corporation, the world's largest manufacturer of tyres and other rubber products which employs over 140,000 employees in 25 nations. Recent corporate restructuring was introduced to improve product quality and customer focus and employee voice lies at the heart of the change. As Bridgestone UK HR Director said:

"It's not an area where people have to just conform, if they disagree and they want to say what they think, there is a channel to do that."

Works Council meetings were used to test ideas at an early stage and then provided feedback to management on company-wide developments. Senior management including the CEO and Senior Vice-Presidents take part in regular Town Hall meetings to inform employees on company's priorities and challenges. Employees were encouraged to raise questions, express their ideas freely and engage in the decision-making process. The greater visibility of the senior management team and the open two-way communications were greatly appreciated by staff. As an employee representative commented:

"They've made the employees aware that they are humans and they are approachable . . . That's good, I think it's really, really, good."

The use of cross functional 'Kaizen' teams also stimulated continuous improvement and innovation. Employees from different parts of the business are brought together to discuss work related problems and make decisions on how to improve business efficiency. These teams reduced silo working by increasing employees' understanding of how their work connects with those of others. This is illustrated by the remark of the HR Director:

"Often it's the guys in the field who . . . bring it back into us and say 'well this is how x, y and z customers want it (so) why aren't we doing that with other customers?'"

Teamworking also cultivated a sense of collective ownership and increased the visibility and approachability of managers at different level in different business function areas. An employee representative said:

"It's a friendly sort of atmosphere, everyone is approachable . . . You can just walk in to see the MD or the Financial Director or whoever. It is a definite open-door policy".

Increased employee involvement led to win-win outcomes for both employees and the company. Town Hall meetings and Kaizen projects led to enhanced job satisfaction and organisational commitment among employees, which in turn translated into increased product quality, customer focus, business efficiency, profitability, innovation and sustainability. Openness, transparency and fairness in each stage of the decision process played a significant role in ameliorating the impact of organisational change on employee well-being.

Source: Eurofound (2016) Workplace innovation in European companies: Case study: BRIDGESTONE, UK. Available at: <http://portal.ukwon.eu/document-store/workplace-innovation-in-european-companies-case-study-bridgestone-uk>.
[e/workplace-innovation-in-european-companies-case-study-bridgestone-uk](http://portal.ukwon.eu/document-store/workplace-innovation-in-european-companies-case-study-bridgestone-uk).

References

- Aasen, T. M., Amundsen, O., Gressgård, L. J. and Hansen, K. (2012). In Search of Best Practices for Employee-Driven Innovation: Experiences from Norwegian Work Life. In: S. Høystrup, Bonnafour-Boucher, M., Hasse, C., Lotz, M. And Møller, K (ed.) *Employee-Driven Innovation. A New Approach*. Basingstoke: Palgrave Macmillan.
- Argyris, C. (1964). *Integrating the Individual and the Organisation*, New York, Wiley.
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organisational Psychology*, 20(1), 4-28.
- Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands–resources model. *European Journal of work and organisational psychology*, 12(4), 393-417.
- Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress*, 22(3), 187-200.
- Barker, J. R. (1993). Tightening the iron cage - concertive control in self-managing teams. *Administrative Science Quarterly*, 38 (3): 408–37.
- Batt, R. (2004). Who benefits from teams? Comparing workers, supervisors and managers. *Industrial Relations*, 43 (1): 183–212.
- Bauer, T. K. (2004). High Performance Workplace Practices and Job Satisfaction: Evidence fom Europe. Discussion Paper No 1265, Bonn, Institute for the Study of Labor (IZA).
- Berggren, C. (1992). *Alternatives to Lean Production. Work Organisation in the Swedish Auto Industry*. Ithaca, NY: ILR Press.
- Blackburn, R. and Mann, M. (1979). *The Working Class in the Labour Market*, London, Macmillan.
- Boreham, N., Fischer, M., and Samurcay, R. (2004). *Work Process Knowledge*. London: Routledge.
- Boxall, P. and Macky, K. (2009). Research and theory on high-performance work systems: progressing the high-involvement stream. *Human Resource Management Journal*, 19, 1, 3-22.
- Burns, T. and Stalker, G. M. (1961). *The Management of Innovation*. London, Tavistock.
- Engeström, E. (2001). Expansive learning at work: toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14, 1, 133-156.
- Eurofound (2016) Workplace innovation in European companies: Case study: BRIDGESTONE, UK. Available at: <http://portal.ukwon.eu/document-store/workplace-innovation-in-european-companies-case-study-bridgestone-uk>.
- Chandola, T. (2008). 'Work stress and coronary heart disease: what are the mechanisms?' *European Heart Journal*, 29, 640-648.
- Conceição, P., Heitor, M. V., and Lundvall, B.-Å (2003). *Innovation, Competence Building and Social Cohesion in Europe. Towards a Learning Society*. Cheltenham: Edward Elgar.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of applied psychology*, 95(5), 834.
- Darrach, C. N. (1996). *Learning and Work: An Exploration in Industrial Ethnography*. New York and London: Garland Publishing.
- De Spiegelare, S. and Van Gyes, G. (2012). Employee-Driven Innovations and Industrial Relations. In: S. Høystrup, Bonnafour-Boucher, M., Hasse, C., Lotz, M. And Møller, K. (ed.) *Employee-Driven Innovation. A New Approach*. Basingstoke: Palgrave Macmillan.
- Deci, E. L., & Ryan, R. M. (2000). The " what" and " why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.

- Delarue, A., Van Hootegem, G., Procter, S. and Burridge, M. (2007). Teamworking and organisational performance: a review of survey-based research. *International Journal of Management Reviews*, 10 (2): 127–48
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, 86(3), 499.
- Dhondt, S., Pot, F. and Kraan, K. O. (2014). 'The importance of organisational level decision latitude for well-being and organisational commitment.' *Team Performance Management*, 20, 7/8, 307-327.
- Eurofound (2000). *Direct Participation and the Modernisation of Work Organisation (Author Keith Sisson)*, Luxembourg, European Foundation for the Improvement of Living and Working Conditions.
- Eurofound (2013). *Work Organisation and Employee Involvement in Europe. A report based on the fifth European Working Conditions Survey* (authors Gallie, D. and Zhou, Y.). Luxembourg, Publications Office of the European Union.
- Fox, A. (1974). *Beyond Contract: Work Power and Trust Relations*, London, Faber and Faber.
- Eurofound (2015). *Third European Company Survey - Overview report: Workplace practices - Patterns, performance and well-being*, Luxembourg, Publications Office of the European Union.
- Eurofound (2015). *Third European Company Survey - Workplace innovation in European companies (authors Oeij, P, Ziauberyte, R. Dhondt, S., Corral, A., Totterdill, P., Preenen, P.)*, Luxembourg, Publications Office of the European Union.
- Eurofound (2016). *Sixth European Working Conditions Survey - Overview Report*, Luxembourg, Publications Office of the European Union.
- Eurofound (2017). *Innovative Changes in European Companies: Evidence from the European Company Survey*, Luxembourg, Publications Office of the European Union.
- European Commission (2015). *Employment and Social Developments in Europe 2014*. Luxembourg, Publications Office of the European Union.
- Felstead, A., Gallie, D., Green, F. and Henseke, G. (2019). 'The determinants of skill use and work pressure: A longitudinal analysis.' *Economic and Industrial Democracy*, 40, 3, 730-754.
- Fuensanta Martín, Nuria Corchado, Laura Fernández, Miklós Illéssy and Csaba Makó with the support of Mariann Benke, Mónika Gubányi and Ákos Kálman (2018) Innovation, Job Quality and Employment Outcomes in the Agri-food Industry: Evidence from Hungary and Spain, in Jaehrling, K., Payton, C.P., Postels, D., Rehnström, F., Wright, S. and Warhurst, C. (ed). *Virtuous circles between innovations, job quality and employment in Europe? Case study evidence from the manufacturing sector, private and public service sector*. QulnnE Working Paper WP6 Volltext.
- Gallie, D. (1978). *In Search of the New Working Class - Automation and Social Integration within the Capitalist Enterprise*, Cambridge, Cambridge University Press.
- Gallie, D., White, M., Cheng, Y. and Tomlinson, M. (1998). *Restructuring the Employment Relationship*, Oxford, Clarendon Press.
- Gallie, D. (2007). Production regimes and the quality of employment in Europe. *Annu. Rev. Sociol.*, 33, 85-104.
- Gallie, D., Zhou, Y., Felstead, A. and Green, F. (2012). Teamwork, skill development and employee welfare. *British Journal of Industrial Relations*, 50 (1): 23-46.
- Gallie, D. ed. (2013). *Economic Crisis, Quality of Work and Social Integration. The European Experience*, Oxford: Oxford University Press.
- Gallie, D., Zhou, Y., Felstead, A., Green, F. and Henseke, G. (2017). 'The implications of direct participation for organisational commitment, job satisfaction and affective psychological well-being: a longitudinal analysis.' *Industrial Relations Journal*, 48, 2, 174-191.
- Gautié, J., Ahlstrand, R., Green, A. and Wright, S. (2018). Innovation, Job Quality and Employment Outcomes in the Aerospace Industry: Evidence from France, Sweden and the

- UK. In: K. Jaehrling (ed.) *Virtuous circles between innovations, job quality and employment in Europe? Case study evidence from the manufacturing sector, private and public service sector*. Lund: QuinnE Working Paper No. 6.
- Geary, J. and Sisson, K. (1994). 'Europe: Direct Participation in Organisational Change. Introducing the EPOC Project.' *European Foundation for the Improvement of Living and Working Conditions Working Paper No: WP/94/18/EN*.
- Godard, J. (2004). A critical assessment of the high-performance paradigm. *British Journal of Industrial Relations*, 42(2), 349-378.
- Gorter, R. C., Te Brake, H. J., Hoogstraten, J., & Eijkman, M. A. (2008). Positive engagement and job resources in dental practice. *Community dentistry and oral epidemiology*, 36(1), 47-54.
- Hallberg, U. E., & Schaufeli, W. B. (2006). "Same same" but different? Can work engagement be discriminated from job involvement and organisational commitment?. *European psychologist*, 11(2), 119-127.
- Hamilton, B.H., Nickerson, J.A. and Owan, H. (2003). Team incentives and worker heterogeneity: An empirical analysis of the impact of teams on productivity and participation. *Journal of political Economy*, 111(3): 465-497.
- Hirschhorn, L. (1984). *Beyond mechanization: Work and technology in a postindustrial age*. MIT Press (MA).
- Holm, J. R., Lorenz, E., Lundvall, B. A. and Valeyre, A. (2010). 'Organisational learning and systems of labor market regulation in Europe.' *Industrial and Corporate Change*, 19, 4, 1141-1173.
- Høyrup, S., Bonnafour-Boucher, M., Hasse, C., Lotz, M. and Møller, K. (2012). *Employee-Driven Innovation. A New Approach*, Basingstoke, Palgrave Macmillan.
- Ichniowski, C., Kochan, T. A., Levine, D., Olson, C., & Strauss, G. (1996). What works at work: Overview and assessment. *Industrial Relations: A Journal of Economy and Society*, 35(3), 299-333.
- Inanc, H., Zhou, Y., Gallie, D., Felstead, A. and Green, F. (2015). Direct participation and employee learning at work. *Work and Occupations*, 42(4), 447-475.
- Jensen, M. B., Johnson, B., Lorenz, E., & Lundvall, B. Å. (2007). Forms of knowledge and modes of innovation. In Lundvall, B.A (ed) *The Learning Economy and the Economics of Hope*. Anthem Press.
- Johnston, R. & Hawke G. (2002). *Case studies of organisations with established learning cultures*. Leabrook, Australia: National Centre for Vocational Education Research (NCVER).
- Joubert, J. H. M., & Rothmann, S. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in the North West Province. *South African Journal of Business Management*, 38(3), 49-61.
- Inanc, H., Zhou, Y., Gallie, D., Felstead, A. and Green, F. (2015). Direct participation and employee learning at work. *Work and Occupations*, 42, 4, 447-475.
- Jense, M. B., Johnson, B., Lorenz, E. and Lundvall, B. A. (2007). Forms of knowledge and modes of innovation. *Research Policy*, 36, 5, 680-693.
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal*, 33(4), 692-724.
- Karasek, R. and Theorell, T. (1990). *Healthy Work. Stress, Productivity and the Reconstruction of Work Life*, New York, Basic Books.
- Kivimaki, M., Nyberg, S. T., Batty, G. D., Fransson, E. I., Heikkila, K., Alfredsson, L., Bjorner, J. B., Borritz, M., Burr, H., Casini, A., Clays, E., De Bacquer, D., Dragano, N., Ferrie, J. E., Geuskens, G. A., Goldberg, M., Hamer, M., Hoftman, W. E., Houtman, I. L., Joensuu, M., Jokela, M., Kittel, F., Knutsson, A., Koskenvuo, M., Koskinen, A., Kouvonen, A., Kumari, M., Madsen, I. E., Marmot, M. G., Nielsen, M. L., Nordin, M., Oksanen, T., Pentti, J., Rugulies, R., Salo, P., Siegrist, J., Singh-Manoux, A., Suominen, S. B., Vaananen, A., Vahtera, J., Virtanen,

- M., Westerholm, P. J., Westerlund, H., Zins, M., Steptoe, A., Theorell, T. and Consortium, I. P.-W. (2012). 'Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data.' *Lancet*, 380, 9852, 1491-7.
- Lave, J. and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*, New York, Cambridge University Press.
- Lawler, E. (1986). *High Involvement Management*, San Francisco, Jossey-Bass.
- Lorenz, E. and Valeyre, A. (2005). Organisational innovation, Human Resource Management and labour market structure: A comparison of the EU-15. *The Journal of Industrial Relations*, 47, 4, 424-443.
- Lorenz, E. and Lundvall, B.-Å. (2011). 'Accounting for Creativity in the European Union: A multi-level analysis of individual competence, labour market structure, and systems of education and training.' *Cambridge Journal of Economics*, 35, 2, 269-294.
- Mauno, S., Kinnunen, U., Mäkikangas, A., & Nätti, J. (2005). Psychological consequences of fixed-term employment and perceived job insecurity among health care staff. *European Journal of Work and Organisational Psychology*, 14(3), 209-237.
- Mauno, S., Kinnunen, U. and Ruokolainen, M. (2007). Job Demands and Resources as Antecedents of Work Engagement: A Longitudinal Study. *Journal of Vocational Behavior*, 70, 1, 149-171.
- Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organisational Behavior: The International Journal of Industrial, Occupational and Organisational Psychology and Behavior*, 27(7), 941-966.
- Öhrling, T. (2014). Increased participation among cleaners as a strategy to improve quality and occupational health. *Nordic Journal of Working Life Studies*, 4(3): 79-98.
- Oiry, E. (2003). De la qualification à la compétence, rupture ou continuité? Paris: L'Harmattan.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management journal*, 49(2), 327-340.
- Pot, F. (2017). Workplace Innovation and Wellbeing at Work. In: P. Oeij, D. Rus and F. Pot (eds.) *Workplace Innovation - Theory, Research and Practice*. Cham, Switzerland: Springer.
- Ramstad, E. (2009). Promoting performance and the quality of working life simultaneously. *International Journal of Productivity and Performance Management*, 58, 5, 423-436.
- Ramstad, E. (2014). Can High-involvement Innovation Practices improve Productivity and the Quality of Working-life simultaneously? Management and Employee Views on Comparison. *Nordic journal of working lives studies*, 4, 4, 25-45.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
- Sanidas, E. (2005). *Organisational Innovations and Economic Growth*. Books, Edward Elgar Publishing.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behavior: The International Journal of Industrial, Occupational and Organisational Psychology and Behavior*, 25(3), 293-315.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701-716.
- Schaufeli, W., & Salanova, M. (2011). Work engagement: On how to better catch a slippery concept. *European Journal of Work and Organisational Psychology*, 20(1), 39-46.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.

- Sewell, G. (1996). 'A Japanese "cure" to a British "disease"? Cultural dimensions to the development of workplace surveillance technologies'. *Information Technology and People*, 9 (1): 12–29.
- Schuck, B., Ghosh, R., Zigarmi, D. and Nimon, K. (2012). 'The Jingle Jangle of Employee Engagement: Further Exploration of the Emerging Construct and Implications for Workplace Learning and Performance.' *Human Resource Development Review*, 12, 1, 11-35.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27: 2, 4-13.
- Soskice, D. (1999). Divergent production regimes: coordinated and uncoordinated market economies in the 1980s and 1990s. In Kitschelt, H., Lange, P., Marks, G. and Stephens, J.D. (eds) *Continuity and Change in Contemporary Capitalism*. Cambridge University Press.
- Theorell, T., Hammarstrom, A., Aronsson, G., Bendz, L. T., Grape, T., Hogstedt, C., Marteinsdottir, I., Skoog, I. and Hall, C. (2015). 'A systematic review including meta-analysis of work environment and depressive symptoms.' *BMC Public Health*, 15: 738, 1-14.
- Theorell, T., Jood, K., Jarvhom, L. S., Vingaard, E., Perk, Joep, Ostergren, P. O. and Hall, C. (2016). 'A systematic review of studies in the contributions of the work environment to ischaemic heart disease development.' *The European Journal of Public Health*, Advanced Access DOI: 10.1093/eurpub/ckw025.
- Totterdill, P., Dhondt, S. and Milsome, S. (2002). *Partners at Work? A report to Europe's policy makers and social partners.*, Nottingham, The Work Institute.
- Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review*, 7(4), 349-361.
- UK WON. (2008). How is Resilience Achieved? Hempel Case Study [Online]. Nottingham: UK Work Organisation Network. Available: http://www.UKWON.net/resilience/how_is_resilience_achieved.php [Accessed 1st January 2013].
- Valeyre, A., Lorenz, E., Cartron, D., Csizmadia, P., Gollac, M., Illéssy, M. and Makó, C. (2009). *Working conditions in the European Union: Work organisation*. Luxembourg, Office for Official Publications of the European Communities.
- Vander Elst, T., Baillien, E., De Cuyper, N., & De Witte, H. (2010). The role of organisational communication and participation in reducing job insecurity and its negative association with work-related well-being. *Economic and Industrial Democracy*, 31(2), 249-264.
- Wenger, E. (1998). *Communities of Practice : Learning, Meaning and Identity*, Cambridge, Cambridge University Press.
- Walton, R. E. (1985). From control to commitment in the workplace. *Harvard Business Review*, 63(2) : 77-84.
- Wood, S. (2010). High Involvement Management and Performance. In: A. Wilkinson, P. J. Gollan, M. Marchington and D. Lewin (eds.) *The Oxford Handbook of Participation in Organisations*. Oxford: Oxford University Press.
- Wood, S. (1999). Human resource management and performance. *International Journal of Management Reviews* 1, 4, 367-413.
- Wrzesniewski, A., & Dutton, J. E. (2001). Crafting a job: Revisioning employees as active crafters of their work. *Academy of management review*, 26(2), 179-201.

WPEF19061

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency established in 1975. Its role is to provide knowledge in the area of social, employment and work-related policies according to Regulation (EU) 2019/127.