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Sectoral Activities Department

The role of Worker Representation and Consultation in Managing Health and Safety in the Construction Industry

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PREFACE

In its document GB.298/STM/1/1, ILO's Governing Body noted the importance of workers' participation and representation for the improvement of safety and health conditions in construction. Following this, it recommended that the ILO undertake a study on the subject, based on the resolution concerning health and safety representation for construction workers adopted by the *Tripartite Meeting on the Construction Industry in the Twenty-first Century: Its Image, Employment Prospects and Skill Requirements* (2001). This Working Paper is the outcome of such a study, which has been recommended by the Governing Body for the 2008-2009 biennium.

OHS (occupational health and safety) legislation in many countries recognizes the importance of the participation of workers in different ways. Moreover, in several countries the participation of construction workers is also considered through voluntary schemes, for example, in the implementation of OHS management systems and OHS Committees at both the construction enterprise level and/or at the site level. There is a need to define from the outset what kind of participation is being considered and what are the measures used to determine its meaningfulness. Both OHS legislation and OHS voluntary schemes have been successfully implemented in a number of large construction companies and large construction projects, where the workers enjoy effective participation. In other cases, this participation has been difficult due to different factors. It would be important to explore the forms of representation/participation that would be most suited to these situations, and also to consider how workers gain access to effective means of representation.

This paper contributes to the above discussion firstly by presenting a set of definitions, followed by evidence of the effectiveness of worker representation and consultation in health and safety generally and in the construction sector in particular. It concludes with some lessons from existing research and recommendations. The study was carried out by David Walters, Professor of Work Environment & Director of the Cardiff Work Environment Research Centre (CWERC), School of Social Sciences, Cardiff University, UK. He is also the author of this paper. The work was supervised technically by Edmundo Werna and edited by Colin Smith in SECTOR.

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1. Executive Summary

1.1 Background

Construction is a dangerous industry, for two reasons: one is the intrinsically hazardous nature of the work; the other is the result of the industry's structural and organizational challenges for risk management. These combined factors have created an industry culture in which poor health and safety outcomes have long been the accepted norm. Modern approaches to regulating health and safety management have attempted to address these challenges by improving systematic OHS management and, in the particular case of the industry, by adding provisions that focus on the coordination of health and safety responsibilities in complex, multi-employer, temporary worksites and supply chains. Central to these efforts to improve health and safety management has been worker representation and consultation.

1.2 Aims and content of the report

Representation and consultation are elements of health and safety management theory but are not necessarily applied effectively in practice. To appreciate why, it is important to understand the meaning of these terms and what constitutes good practice in this regard. As is discussed in detail below, worker representation is a specific form of participation with a number of features, often defined by regulation or international standards such as the ILO Convention 155. Consultation is not merely the conveyance of information from managers to workers and it is important to review the extent of such practice, any evidence of its role in improving health and safety, and the preconditions under which it occurs and the circumstances that support its occurrence. It is equally necessary to understand the limiting factors and constraints and to evaluate how they may be overcome.

This report is primarily a review of research literature across a range of countries, but mostly restricted to English publications. The initial findings demonstrated that research literature on the construction industry is very limited (in contrast to published but unsubstantiated rhetoric and opinion). There is, however, wider research literature, including well-constructed studies, that examine these issues in other economic sectors (although almost entirely in advanced market economies), and this report has considered both the limited and broader material, focusing on (i) what it tells us about the effectiveness of worker representation and consultation in improving health and safety outcomes, and (ii) its relevance to the structural and organizational conditions found in the construction industry. This approach does betray a weakness, i.e., the scant availability of robust research examining the situation in developing countries. While it is possible to draw inferences based on research in advanced market economies that may have some application to the industry in developing countries, the extent to which this is reliable has obvious limitations and there is a clear need for further work in this field. After all, the large majority of construction workers are found in developing countries.

1.3 The extent and effectiveness of worker representation on health and safety

Research evidence demonstrates that worker representation and consultation effectively improve health and safety outcomes in relation to management practices and safety culture, as well as safety performance in terms of injury rates. There is also strong support for the view that trade unions play an important role among the determinants of the effectiveness of worker representation and consultation.

Other preconditions considered important for effectiveness include a regulatory framework of rights and facilities for representatives and the means for its enforcement; commitment of senior management to OHS; management competence in hazard/risk evaluation and control; training for representatives; and good communication between

worker representatives and their constituencies. The best practices for facilitating consultation in these areas included:

- Properly constituted joint health and safety committees at site and departmental level
- Accountability of managers to joint health and safety committees
- Engagement of health and safety representatives with health and safety practitioners
- Dialogue between local area and line managers and health and safety representatives
- Representative functions such as joint health and safety inspections, investigations of workers complaints, making representations to managers, risk assessment, etc
- Involvement of health and safety representatives in reporting on and monitoring OHS
- Access of health and safety representatives to workers
- Access to training for health and safety representatives

But these practices were either absent or limited in those instances where management commitment was weak.

The conditions mentioned above are most frequently found in large organizations with relatively stable employment practices and a strong trade union presence, but such workplaces are becoming less prevalent in the restructuring of the so-called “new economy.” There is further evidence in some countries that legally mandated and trade union-mediated forms of representation and consultation on health and safety are declining in coverage apace with this restructuring.

1.4 The challenge of construction

The large stable organizations that best support worker representation and consultation are not a significant element of the construction industry. Indeed, the industry’s structure features a predominance of small firms, forms of self employment

(genuine and disguised), as well as casual and agency labour, and the frequent and simultaneous engagement of all these forms on multi-employer and temporary worksites results in disorganized and fragmented arrangements for their management. The large presence of unskilled and semi-skilled labour and migrant workers, as well as young and inexperienced workers, presents further challenges to participative approaches to systematic health and safety management. Most significantly, the disorganization of the industry and the long-standing hostility of employers to organized labour has limited the development of trade union membership and standard industrial relations procedures. There are also indications that the presence of many of these features, endemic to the industry, is actually increasing as the industry responds to the pressures of the new economy.

These factors are, however, not unique to the industry but are apparent in other sectors. Research literature has examined both their consequences and how their challenges to worker representation and consultation may be addressed. For example, one way in which the support of organized labour has been applied to small firms and fractured employment relationships is through regional safety representatives, which are the subject of statutory provisions in several countries and voluntary schemes in others. A well-established body of evidence points to the success of this particular initiative. Other evidence demonstrates how agreements between unions and employers that allow worker representatives, usually employed by principal contractors, to gain access to workers employed by sub-contractors on the same sites can play a similar significant role in ensuring that health and safety messages are conveyed effectively.

A strong economic case can be made for autonomous worker representation when these approaches are judged in terms of the potential savings they can achieve in the prevention of injuries and ill-health, and in the efficiency gains made in well-managed workplaces in which they are applied. The real problem lies in how this economic case can be translated into a “business case” for individual firms in such a fragmented and

outsourced industry as construction. Ultimately, it is important to acknowledge that, while the findings of published studies show evidence of good practice and its challenges, they are largely located in advanced market economies. Their relevance elsewhere remains uncertain.

It is widely acknowledged that the structural and organizational characteristics of the construction industry demand more innovative approaches to worker representation and consultation. Suggestions concerning such approaches, for example, the introduction of social dialogue on health and safety into procurement and supply chain strategies in the industry, are largely untested and unevaluated. Little is therefore known about the uptake or extent of such initiatives, their impact on OHS practice, or their sustainability or transferability.

A new theorizing of regulation suggests that lessons learned from other sectors of examples in global supply chains could apply to analogous situations in the global construction industry. New actors in civil society are arguably better placed than trade unions to address the concerns of marginalized workers. There is no evidence that points to their effectiveness as a *substitute* for organized labour. However, limited evidence suggests such groups may be able to cooperate with traditional economic and regulatory actors, including trade unions, to drive improvement in labour standards by stimulating company concerns about reputational risk and stimulating developments in corporate social responsibility, as well as by monitoring the effectiveness of these developments. But here again, robust evaluations of practice are virtually non-existent.

1.5 Recommendations

Research demonstrates that worker representation and consultation on health and safety, when properly constituted and supported, is effective in improving OHS outcomes. It also demonstrates the important supportive role of both good management practices and trade unions. These should therefore be encouraged and facilitated in the

construction industry through the application of regulatory frameworks, through social dialogue to bring about greater trade union involvement in the sector, and through conventional and innovative methods.

Attention to the detail of regulatory frameworks may be necessary in some countries to ensure they meet the requirements of ILO Convention 155 and properly support the activities of health and safety representatives. The introduction of amendments to statutory arrangements to increase construction worker access to health and safety representation should be explored. At the same time, social dialogue should be encouraged to establish collective agreements on this access. Innovative access methods should take account of the possible role of social dialogue in supply-chain leverage in the industry, as well as issues of sustainability and transferability.

Supports for effective representation and consultation on health and safety, such as information, training and time off for representatives to enable them to perform their functions properly, should be better established in the industry and evidence of related good practice disseminated more widely in the sector.

Robust evaluative research is required to determine the most effective forms of representation and consultation in the industry, the supports necessary for their effectiveness, and the main barriers to their operation and how best to overcome them.

Existing studies have been conducted mostly in advanced market economies and these must now be extended to the developing countries.

Drivers for improved worker representation and consultation should be identified, and ways in which they can be used to influence business strategies explored, especially regarding the corporate social responsibility agendas of larger organizations.

Trade unions and regulators should consider this approach in conjunction with other actors in civil society. The effective accomplishment of these recommendations also

requires the development and support of a research agenda comprising both exploratory and evaluative elements.

2. The role of worker representation and consultation in managing health and safety in the construction industry

2.1 Introduction

This report represents a contribution towards the resolution adopted in 2001 by the ILO Tripartite Meeting on the Construction Industry in the Twenty First Century (ILO 2001a) which called for “a study on workers’ health and safety representatives in the construction sector, including an assessment of effective representation of workers on health and safety in construction and identifying what needs to be done to ensure that construction workers may exercise their rights to representation on health, safety and welfare.”

The report is concerned with the evidence of practice — and especially with practices that are found in, or are relevant to, the construction industry. It sets out to explore the role of worker representation and consultation and its effectiveness in contributing to improved health and safety for workers in the industry. A major challenge to achieving this aim, however, is the dearth of properly constructed studies that address this issue. Therefore the approach adopted here is to first consider the evidence on the role of worker representation and consultation across general economic sectors, before applying the lessons learned from this broad view - what works and why it works - to the particular features of the construction industry.

It is important to stress that most of the evidence reviewed in the following pages is drawn from published research findings. Less material is sourced from the so-called “grey” literature found mainly in health and safety and construction practice journals, publications of trade unions and employer organizations, and national policy discourse. Unfortunately, much of these latter sources contain unsubstantiated opinion and

rhetoric. This report deliberately avoids such material and concentrates on substantiated evidence.

The report discusses the problems of definition, the evidence for the effectiveness of worker representation and consultation in health and safety generally, and the findings in the context of the construction industry, before drawing some conclusions from lessons learned from existing research.

2.2. Background

Construction is a dangerous industry. Worldwide, the ILO has estimated that it accounts for 100,000 fatalities annually, some 30 to 40 per cent of fatal occupational injuries overall (ILO 2005). Therefore, the risk of serious injury or death at work in this sector is considerably greater than in others. Estimates further suggest that construction workers in advanced market economies are three to four times more likely to suffer a fatal accident at work than the average for other economic sectors; in developing economies, six times the average. Available evidence on the effects of work on health is cause for concern. Data from developed countries with relatively good reporting systems indicate widespread exposure in the construction industry associated with mortality from cancer, respiratory diseases and the like, as well as with substantial debilitating and reduced life-expectancy morbidity. The data indicate that these problems are considerably more serious in developing economies.

Two factors underscore the serious health and safety risks in the industry. Firstly, many construction activities are inherently hazardous: working at height; working underground; working in confined spaces and in close proximity to falling materials; handling loads manually; handling hazardous substances; using plant and equipment, often in difficult, uncontrolled and unpredictable environments. Secondly, the structure, organization and size of the industry influence the extent of the harm experienced by its workers in all countries. It employs some 180 million workers worldwide, creates around

10 per cent of global domestic product, and accounts for some 5 to 8 per cent of employment in most advanced market economies. In developing economies this percentage may be at least doubled. Despite its size and economic importance, the industry is highly fragmented. Small firms, the self-employed, casual and agency labour predominate, and their frequent simultaneous engagement on multi-employer and temporary worksites presents a major barrier to the implementation of modern preventive health and safety strategies based on risk communication, assessment and management. Moreover, while there are many skilled jobs in the industry, it has always attracted unskilled and semi-skilled labour, as well as young and inexperienced workers. In many countries it is also a source of employment for migrant labour, which presents problems of risk communication to multi-employer, temporary and constantly changing worksites where many workers do not possess an adequate command of a common language. In addition, the fragmented organizational structures and substantial presence of non-standard forms of employment conflict with the development of trade union organization and conventional workplace labour relations practices. In many countries, average trade union membership in construction is less than half of the average across economic sectors as a whole. While many of these characteristics are long-standing and embedded in the structure and organization of the industry, there are strong indications worldwide that trends in the industry are leading to increases in casualization and structural fragmentation, with corresponding decline in social dialogue and lower levels of economic and social security (ILO 2001b).

This is all, of course, an oversimplification but the essential point, rarely contested, is that construction is an inherently dangerous industry in which workers' health and safety are vulnerable to ineffective management. This presents serious challenges for traditional approaches to the protection and representation of workers' interests though the efforts of organized labour.

None of this is news. Many initiatives at international, national and sector level have addressed the problem. There are, for example, special provisions aimed at promoting safety for workers working at height, manually handling materials, working in confined spaces, working underground, etc. There are requirements for the safe design and construction of buildings, and technological solutions have been developed to meet these and others aimed at constructing safer buildings. ILO Convention 167 (1988) on safety and health in construction, and the Asbestos Convention 162 (1986) addressing specific exposures common in the industry, set standards of health and safety that could be adopted internationally. The ILO Code of Practice on Safety and Health in Construction provides further guidance on good practice.

There are broader provisions in most jurisdictions in both advanced and developing market economies that deal with the duty of care owed to workers by management in minimizing risk. Two aspects are especially relevant. The first is that they mostly entail the same shift from prescriptive to process-based approaches intended to systematize the management of health and safety at work that are now applied across all sectors in most advanced economies. The second is that in construction this approach attempts to take account of the particular features of the industry outlined above and to define responsibilities and their coordination both on worksites and within the construction supply chain. Within the EU, for example, directives such as those on temporary/mobile construction sites, and national provisions such as the UK Construction Design and Management Regulations, are typical of this latter approach. Aside from their attempt to integrate the fragmented nature of the duty of care in construction work, the essential feature of such provisions is that, like the wider regulatory framework, they too focus on achieving more systematic approaches to risk management.

Although considerably different in their detail, most national provisions start from the basis that employers share a fundamental duty of care over the health, safety and welfare of their workers. They are also responsible for any visitors to their premises,

such as customers, suppliers and the general public. To carry out this duty they are required to implement systems that assess and manage workplace risks. Conversely, workers have a right to information, consultation and representation on health and safety issues. See, for example, ILO Conventions 87 and 98 on supply chain collective bargaining and organizing, and ILO Convention 155 on good practice in representation and consultation.

It is worth looking at the history of this systematic approach. In the late 1980s the shift from prescriptive to process-based regulation already evident in Scandinavia, the UK and the Netherlands resulted in the EU Framework Directive 89/391, which required employers to manage health and safety in a systematic, informed and participative way. Similar measures were implemented around the same time in Canada, Australia and New Zealand. Employers are obliged to adopt a set of preventive principles, in conjunction with competent advice, to achieve best practice in risk evaluation and control and — importantly for our purposes — to inform and consult with workers and/or their representatives (Vogel, 1993; Walters 2002).

Additionally, at least in the EU, they require employers to manage health and safety in a holistic manner (Walters 2002). This implies, for example, that workers have a right to be represented and consulted on a range of issues that are deeply embedded in the way that work is planned and business conducted in the industry — many of which are traditionally regarded as management prerogatives.

Worker representation and consultation are therefore fundamental elements of regulatory strategies to achieve systematic management of work place risks in all sectors — including the construction industry. However, theory is not necessarily put into practice.

2.3 The meaning of worker representation and consultation in health and safety

In defining “consultation” and “participation” we must ask two questions: first, do managers relate to workers individually or collectively through their representatives; and second, are workers passive recipients of information about the practice of health and safety management or can they actively influence its direction? The answers lie in two different approaches. One has its origins in the idea of collective worker rights, the other in the idea of advancing a co-operative dialogue between workers and managers. While the former was behind campaigns that led to specific legislative measures on worker representation on health and safety in some countries¹, the latter has been dominant in their implementation.

To understand these differences it is necessary to first consider so-called “direct participation” before discussing the meaning of collective representation.

2.3.1. *Direct participation:*

This generally refers to the engagement of workers with supervisors, managers or employers on an individual basis rather than through collective representatives. It implies that they are consulted individually and encouraged to become involved in determining their work environment or work organization. Such participation usually stays well within hierarchical boundaries.

Evidence for the effectiveness of direct participation is limited. Nevertheless, there is reason to conclude that it may give workers considerable influence on OHS, provided that some special conditions apply. For example, in an early Norwegian study (Karlsen *et al*, 1975) described by Gustavsen and Hunnius (1981: 134), researchers demonstrated how workers' individual influence on OHS was conditional on the strength of their position in the labour market and labour process, and on the extent of their trade

¹ This was the case in the UK for example (see Williams 1960, Grayson and Goddard 1975 and more recently, Walters and Nichols 2007).

union organization. This implies that direct consultation is likely to have disappointing results for the individual non-unionized worker. In other words, it is unlikely to be effective in the sectors in which management often claims it to be an alternative to union representation. This is of particular concern to the construction industry, where, as already noted, organized labour in many countries is weak.

Another important aspect of direct participation concerns the extent to which workers have a reciprocal responsibility to protect themselves from harm. Again, in most countries the process-based general duties on health and safety management usually require workers to accept some degree of responsibility in protecting themselves, and to co-operate with their employers in the effective management of risk. But studies on legal measures protecting workers' individual rights to refuse dangerous work and to receive information on the hazards they face are rare. It is therefore not clear what support these measures provide. They are rarely utilized by workers within smaller enterprises where representation is most commonly absent (Walters 2001). Workers in such situations generally have been said to inhabit "structures of vulnerability" (Nichols 1997, 154-69) that are unlikely to encourage direct action to enforce their rights to a safe and healthy workplace. Recent initiatives to improve health and safety practices in the industry in some countries have focused on ways of achieving greater "worker engagement" through a range of methods that mix direct participation with behavioural change techniques and, in some cases, utilize representative participation, such as safety representatives and trade unions. In essence these initiatives seek to enhance greater engagement between construction workers and management to instil forms of safe worker behaviour and to embed them in site safety culture — which includes changing the behaviour of managers, too. Much has been made of the apparent success of such initiatives in the UK (Lunt *et al*, 2008), to which we shall return later, but for the time being it will suffice to regard them as a particular development of direct participation.

2.3.2. Representative participation:

This is either voluntary or statutorily mandated under ILO Convention 155 and international regulations such as the EU Framework Directive 89/391. They generally provide for a number of minimum legal rights for effective worker representation through:

- Selection of representatives in health and safety by workers
- Protection of representatives from victimization or discrimination as a result of their representative role
- Paid time off to be allowed to carry out the function of safety representative
- Paid time off to be trained in order to function as a safety representative
- The right to receive adequate information from the employer on current and future hazards to the health and safety of workers at the workplace
- The right to inspect the workplace
- The right to investigate complaints from workers on health and safety matters
- The right to make representations to the employer on these matters
- The right to be consulted over health and safety arrangements, including future plans
- The right to be consulted about the use of specialists in health and safety by the employer
- The right to accompany health and safety authority inspectors when they inspect the workplace and to make complaints to them when necessary

As noted earlier, there are two ways in which the operation of representative worker participation can be understood. The first is rooted in representation of workers by organized labour in and out of the workplace and linked historically to the development of collective labour rights and the institutions of socially democratic welfare societies. Examples are agreements negotiated by trade unions with employers, national labour legislation, and international provisions such as ILO Convention 155 and the EU Framework Directive, which are often the consequence of trade union political campaigns.

The second is rooted in the liberal/technical/corporatist idea that workers appoint representatives to participate in a co-operative dialogue with managers. This idea informed many of the early voluntary approaches to participative arrangements on health and safety in many countries, and also informed the thinking behind the reforms in advanced market economies from the 1970s onwards, which led to the introduction of process-based requirements such as those in EU Framework Directive 89/391.

The prevailing political climate exercises an important influence on the implementation and operation of OHS measures and it is clear that manager-controlled representation in health and safety has increasingly dominated the discussion concerning these measures in recent decades. The resulting approach, now widely in evidence, largely takes for granted assumptions of both shared interest and management control, as well as notions that health and safety are a consensus issue and different from other more conflictual aspects of employment relations. In fact, this approach is directly related to the thinking evident in the influential Robens Report (1972: para. 66) in the UK, which held: “There is no legitimate scope for ‘bargaining’ on health and safety matters.”

These distinctions are important because they affect the way in which individuals and organizations view the legitimacy and means of operation of worker representation. They are context-specific, i.e., that which may be acceptable best practice in one industry or workplace may be unacceptable in another. Despite the theoretical conflict between the two discourses, as Walters and Frick (2000) have pointed out, there is nothing to prevent representatives in the same enterprise drawing upon both in an attempt to influence health and safety outcomes. One discourse is set in a pluralist perspective of conflicting interests, where negotiated compromise is the accepted solution and the possibility of enforcement and legal sanction represents the ultimate external support for worker protection through participative collective action. The other is manager-controlled, in which representatives work from within management to improve OHS through their competence and practical experience. Here too, though, backing from legislative standards

and external inspection is important as it adds legitimacy to the status and influence of representatives, including the consensus-oriented.

2.3.3. Consultation:

This key term embraces the legislated rights of workers' health and safety representatives to undertake inspections, investigate complaints and receive training. Employers are often required to consult workers "in good time on matters relating to their health and safety". Such requirements imply that employers should provide adequate information and listen and respond to what workers and their representatives have to say on health and safety issues. However, this does not necessarily mean representatives have the power to insist on this in practice. Of course, as we have already noted, the idea of consultation in construction is also central to the broader, process-based regulatory strategies that apply in most advanced market economies as well as to the measures that implement them.

3. The evidence for effectiveness

There are essentially two kinds of evidence for the effectiveness of representation and consultation in health and safety at work, and both are relevant to the construction industry. We are primarily concerned with the first, i.e., evidence of the success or otherwise of the various forms of institutional arrangements to effect representation and consultation of workers on health and safety matters. But, if the definitions of representation and consultation discussed in the previous section are borne in mind, it is impossible to ignore the role of organized labour in the wider representation of workers' interests in health and safety. In this respect it is important to acknowledge the substantial claims trades unions can make for their effectiveness.

For example, efforts to redress problems in workers' health and safety directly through collective action are an aspect of the institutional mechanisms of industrial

relations in which trade unions are actively engaged in most countries. Political lobbying for improvements to and enforcement of health and safety regulation and formal representation through corporatist bodies are other means used by unions to represent workers' interests.

Temporary and poorly trained workers, and those forced to work too long to secure a basic income – which are common in construction - all face fatigue and consequent higher risks to their health and safety (Quinlan *et al*, 2001a; Quinlan *et al*, 2001b). Such risks are combated by trade unions in delivering better working conditions and negotiating higher wages and shorter hours (Landsbergis 2003 a; Landsbergis 2003 b). US studies on trade union involvement in programmes to reduce or prevent occupational stress indicate that “labour unions have undertaken a variety of activities to reduce or prevent the health hazards associated with occupational stress” (Landsbergis and Cahill 1994). The presence of trade unions may also affect various measures of health and safety organization. Again in the US, Ochsner and Greenberg (1998), conducted a survey of over 400 American health and safety professionals and found that they regarded formal union negotiations and “worker activism” to be the two most important determinants of an effective health and safety programme. Spokespersons for OHS management tell a similar story. For example, senior OHS staff in General Motors in the US have commented about the value of trade union involvement in reducing plant injury rates, with resulting financial savings, as well as improving the identification and remedy of health and safety problems (TUC, 2003).

There is also evidence that the presence of workplace trade union organization influences the enforcement of OHS regulation (for example, Robinson, 1991; Weil 1991; Weil, 1992). In particular, Weil has noted that implementation of the Occupational Safety and Health Act in the US was highly dependent on the presence of a union at the workplace since unionized workplaces were more likely to receive health and safety inspections, face greater scrutiny in the course of these inspections, and pay higher

penalties for not complying with health and safety standards than comparable non-union establishments.

But our main concern here is with evidence of the success or otherwise of the various forms of institutional arrangements in effecting representation and consultation of workers on health and safety matters. Because of various difficulties involved in measuring the impact of institutional arrangements in terms of trailing indicators of health and safety performance outcomes, most research has been directed at leading indicators, for example: the perceived impact of joint health and safety committees on reducing injuries; the perception that management and union representatives have of joint committee effectiveness; particular aspects of committee functioning that are supposed to benefit health and/or safety; the impact of representative worker participation on OHS management activities, such as health and safety policies and their communication to workers, provision of improved health and safety information and training, the use of health and safety practitioners, the presence of written evidence of risk assessment, the existence of health and safety audits and inspections, accident investigations, and so on.

Generally, these studies indicate that participatory workplace arrangements are associated with improved OHS management practices, which, in turn, might be expected to lead to improved OHS performance. Walters (1996) reviews a range of early studies on this. A more recent comprehensive international review can be found in Walters and Nichols (2007). They include investigations on the role of joint safety committees in the UK (Beaumont *et al.* 1982; see also Coyle and Leopold, 1981) in which improved health and safety management practices were found to be associated not only with the presence of joint health and safety committees but also with well trained committee members and the use of established channels for relations between management and workers. Early findings in other countries are broadly comparable; see, for example, Bryce and Manga (1985) for Canada; Roustang (1983); Cassou and Pissaro (1988) for France; Assennato and Navarra (1980) for Italy; and Walters *et al* (1993) for EU countries generally. A series of Australian

studies also support the positive relationship between the presence of representative participation and better health and safety management arrangements (Biggins *et al* 1991, Biggins and Phillips 1991a and b; Gaines and Biggins 1992; Biggins and Holland 1995; and Warren-Langford *et al* 1993). In Canada, a study commissioned by the Ontario Workplace Health and Safety Agency, of joint health and safety committee co-chairs in 3,000 workplaces, found that levels of compliance in non-unionized workplaces were lower than in unionized ones which had procedural requirements for joint health and safety committees, and that, in addition, worker members of joint health and safety committees who had completed core certificated training were more likely than those who had not to report improvements in a wide range of conditions (SPR 1994: 33, 56).

Studies in the UK indicate that (trained) representatives participate in and stimulate workplace OHS activity through engagement with management structures and procedures, tackling new OHS issues and “getting things done” to help resolve health and safety problems (Walters *et al*, 2001). Even in small workplaces, Swedish experience demonstrates that regional representatives stimulate “activation” of health and safety as well as engaging with employers and workers in more prescriptive aspects of their tasks, such as inspecting workplaces (Frick and Walters 1998, Walters 2002). In the UK the evaluation of the Worker Safety Advisor pilot scheme provided detailed evidence on how “the activity of Workers’ Safety Advisors can make a difference to the standards of health and safety practice at small workplaces” (Shaw and Turner, 2003). Such findings are further supported by reviews of experiences in other European countries such as Norway, Italy and Spain (Walters 2001; 2002).

Most of this research, however, does not attempt to establish a direct relationship between the role of worker representation and indicators of improved health and safety performance, such as injury or illness rates. There are, however, efforts to do so. For example, in their study of occupationally related hydrogen sulphide deaths in the United States, Fuller and Suruda (2000) show that deaths from hydrogen sulphide

poisoning were more frequent in non-unionized workplaces than unionized ones. Further examples include a comparison of health and safety outcomes for unionized and non-unionized construction workers in the US (Dedobbeleer *et al*, 1990) and in Britain and France (Grunberg 1983). Both of these studies indicate that better standards of health and safety were achieved in unionized workplaces than in non-unionized ones. Also in construction, an Irish study examined the relation between injury rates on construction sites and the perceptions of workers and managers, the risk management system in place, and OHS enforcement and the presence or otherwise of safety representatives. It found “the variable with the strongest relationship with safety compliance is the presence or absence of a safety representative” and suggested that “what is most eloquent about these results is the lack of any other significant relationships” (McDonald and Hymek 2002). A Norwegian study found that improvement in absenteeism due to illness was greatest where firms had adopted a participatory approach and where trade union representatives were active (Anderson 1994).

However, studies of joint arrangements and their relationship to OHS performance are not entirely in agreement concerning the beneficial effects of such arrangements. In the US, for example, Cooke and Gautschi (1981) researched manufacturing plants in Maine and found that joint management-union safety programmes reduced days lost and that such plant-specific arrangements were more effective than external regulation, though only amongst larger companies. On the other hand, a New York study concluded that major safety improvements were less a function of union participation in safety committees than a direct consequence of external regulations (Kochan *et al* 1977: 72). Earlier research by Boden *et al* (1984) on manufacturing plants in Massachusetts found that there was no general discernable effect of joint health and safety committees on the level of hazard in the plant (as judged by inspectors’ citations). More recently, a study of US OHS committees conducted in public sector workplaces in New Jersey found that “there was little consistent evidence for any significant effect of the simple existence of a committee on reports of illness or injury cases” but that “committees

with more involvement of non-management members, both in sheer numbers and in agenda setting, are associated with fewer reported and perhaps fewer actual illnesses and injuries” (Eaton and Nocerino, 2000: 288-89).

In Canada, Lewchuck *et al* (1996) found that where management and labour had some sympathy for the co-management of health and safety through joint committees, the shift to mandatory joint health and safety committees was associated with reduced lost-time injuries. Also in Canada, Havlovic and McShane (1997) concluded that “there was some support for the idea that structured joint health and safety committees’ activities help to reduce accident rates.” A further Canadian study by Shannon *et al* (1996) found that “participation of the workforce in health and safety decisions” was one of several factors related to lower claims rates, and an overview of Canadian work on this subject suggested that “empowerment of the workforce” was one of a number of organizational factors consistently related to lower injury rates (Shannon *et al* 1997). In an earlier study Shannon *et al* (1992) had indicated that such “empowerment” included the presence of unions and shop stewards, union support for worker members of joint health and safety committees, and general worker participation in decision-making. A later extensive Canadian review of the literature pointed to “a correlation between unionization and the effectiveness of the internal responsibility system” and concluded that joint health and safety committees were “more likely to be found in unionized workplaces and [to be] more active in those workplaces” (O’Grady 2000: 191).

It therefore seems clear that the weight of the evidence is broadly consistent with the idea that better health and safety outcomes are likely when employers do not manage OHS without worker participation through joint arrangements, trade unions and trade union representation. Even so, the studies that have been conducted in this area vary considerably in quality, consistency, reliability and relevance to the central question: what are the effects of representative participation on health and safety outcomes and specifically on injury or illness rates?

Exceptionally in the UK, it has been possible to undertake multivariate regression analyses of the relationship between various workplace employment relations structures, such as the presence of trades unions, safety representatives and safety committees, and the incidence of injury and ill-health by using data collected in the Workplace Industrial Relations Surveys (later Workplace Employment Relations Surveys) 1990 -2004. Again, what can be achieved with these methods is constrained by the range and quality of available data. Moreover, such multivariate analyses also face methodological problems. For example, the effects of trade unions on health and safety at work are difficult to disentangle because of the possibility that union presence may itself increase reporting, at least for certain types of injury, and because adverse conditions of work may bring trade unions into workplaces in the first place (Nichols 1997). In fact, as the authors of a recent review of the literature on this particular issue conclude, British studies using the WIRS/WERS data failed to establish a statistically significant relationship between the incidence of trade union membership and low industrial injuries (Davies and Elias 2000:28). These include, for example, Reilly *et al* 1995, Nichols 1997, Litwin 2000, Robinson and Smallman 2000, and Fenn and Ashby 2004. Similar studies in other countries include Currington (1986) in the United States, and Wooden (1989) and Wooden and Robertson (1997) in Australia.

Such lack of consistency prompted Walters and Nichols (see Nichols *et al* 2007; Walters and Nichols 2007: 30-40) to conduct a statistical re-analysis of 1990 WERS data as part of their larger study to investigate the effectiveness of health and safety representatives in the UK (Walters *et al* 2005). This sought to improve technically on previous multiple regression analyses.² Their results strongly suggest that, as judged by manufacturing injury rates, it is significantly better for health and safety committees to

² Briefly, as compared to Reilly *et al* 1995, this study reduced the large number of regional and industry dummies to make a more robust model; reduced the number of independent variables, some of which rested on fine and unclear distinctions; used a Poisson count method instead of a Cox zero corrected method (which entailed adding a bit to the many zero observations); and tested for endogeneity and interaction effects.

have at least some members selected by trade unions than none, which suggests that there is both a mediated trade union effect on safety and a beneficial effect from the presence of health and safety representatives. In short, these results indicate that worker participation *matters*, particularly after controls had been made for a number of variables - the percentages of male and female workers, industry and region, union density, and size of establishment (where, as in many other studies, small size was found to have a negative relation to injury rate).

While it is important to establish that worker participation has a positive role in improving health and safety outcomes, it is equally important to know why this is so and what factors either support or constrain its effectiveness. This is especially relevant to the construction industry since, as already pointed out, the structure and organization of the industry contain many features that may militate against the effective engagement of participatory approaches to improving health and safety. The following sections consider what makes worker representation and consultation effective, and discuss the implications of these findings for the construction industry.

4. What makes worker representation and consultation effective?

Several of the studies cited in the previous section provide clues. For example, the importance of training (Beaumont *et al* 1982, Coyle and Leopold 1981, Biggins and Phillips 1991a and b; Warren-Langford *et al* 1993, SPR 1994, Walters 2001). Walters demonstrated a strong correlation between the nature and level of activities in which trade union safety representatives engaged and their experience of training (Raulier and Walters 1996, Walters 1997, Walters *et al* 2001, Walters and Kirby 2002). But there are other important supports for their activities, too. In early studies Walters (1987) and Walters and Gourlay (1990) showed the importance of management commitment to participative arrangements for health and safety in supporting the actions of safety representatives, as well as the role of industrial relations factors such as trade union workplace organization.

Other researchers have provided similar evidence, including those derived from studies on the construction industry, (for examples of the latter, see Codrington and Henley 1981, Dawson *et al* 1988).

Because many of these studies are quite old and others are a partial analysis, Walters and Nichols (see also Walters *et al* 2005, Walters and Nichols 2006, Nichols *et al* 2007) conducted a new study of the implementation of arrangements for representation and consultation in two economic sectors in the UK, construction and chemicals. In addition to an extensive review of the literature and the econometric modelling referred to previously, they also conducted ten case studies to examine the detailed practices of worker representation and the factors that supported and constrained them. They identified a set of preconditions necessary for effective worker representation and consultation on health and safety:

- A strong legislative steer
- Effective external inspection and control
- Demonstrable senior management commitment to both OHS and a participative approach, and sufficient capacity to adopt and support participative OHS management
- Competent management of hazard/risk evaluation and control
- Effective autonomous worker representation at the workplace and external trade union support
- Consultation and communication between worker representatives and their constituencies

Where combinations of these preconditions were found, their study showed that worker representation and consultation made a significant contribution to improved health and safety arrangements, awareness and performance, thus confirming observations reported in earlier studies. In particular they found that management commitment to participative approaches was significant in achieving effective actions. In an earlier study Walters and Gourlay (1990) noted in a series of detailed case studies concerning the effectiveness of safety representative activity that, while there were several elements of

support provided by trade unions and workplace organization, they were all contingent on the willingness of managers to engage with participative arrangements and prioritize OHS:

“ . . . whatever the level of development of trade union organisation and worker representation on health and safety, it can never be a substitute for management organisation for health and safety. Without effective management systems for health and safety and a commitment to its continued prioritisation, the role of worker involvement is severely constrained.” (Walters and Gourlay, 1990:130)

Other researchers have pointed to the importance of senior management leadership in a joint health and safety committee. They have further identified the need for representation on the committee of sufficiently senior and appropriate levels of management to help to ensure that decisions made by the committee are understood and acted upon (see, for example, Kochan, *et al* 1977; Coyle and Leopold 1981).

Walters’ and Nichols’ case studies in the chemicals industry also found a positive association between the presence of arrangements for representation on health and safety and the views of workers on the extent to which they regarded management as effective in health and safety, and believed themselves to be trained, informed and consulted on the subject. The qualitative information obtained from managers, representatives and workers in all of the case studies corroborated these quantitative findings. In construction, however, the complexities of work sites made it impossible to obtain such clear measures of performance. The arrangements for consultation in the construction case studies were generally weak, one-sided, and minimally involved those workers who were not employed by the main contractor. The most notable feature of workers’ assessment of the effectiveness of managers on health and safety and other matters was the difference between workers who were employed by the principal contractor and those who were employed by sub-contractors or agencies. It was clear from these results that workers at the end of the chain of communication created by fragmented employment relationships on construction sites fared least well in terms of provision of

information and consultation and also rated managers as least effective at managing health and safety.

In their study of self-regulation, which included case studies from construction, Dawson *et al* (1988) pointed to the importance of management will and capacity for the success of self-regulatory strategies. Other studies of worker representation in health and safety have emphasized the considerable importance of fully engaging management in facilitating representation and consultation on health and safety if it is to operate effectively (discussed at some length by Walters and Frick 2000, for example, with reference to previous studies). This was strongly borne out in all of the cases studied by Walters and Nichols. In some, representational and consultative practices occurred on health and safety issues that worked to the satisfaction of the health and safety representatives, and the workers they represented. These same case studies also demonstrated strong evidence of a conspicuous commitment to such approaches on the part of *senior* management. Arrangements to facilitate consultation in these examples included:

- Properly constituted joint health and safety committees at site and departmental level
- Accountability of managers to the joint health and safety committee
- Engagement of health and safety representatives with the health and safety practitioners from the safety, health and environment departments
- Dialogue with local area and line managers within the establishment and with health and safety representatives
- The provision of facility time to undertake health and safety representative functions such as joint health and safety inspections, investigations of workers complaints, making representations to managers, etc
- Involvement of health and safety representatives in risk assessment
- Involvement of health and safety representatives in reporting and monitoring on OHS
- Access of health and safety representatives to workers

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- Access to training for health and safety representatives

In those case studies where management commitment to participatory approaches was poorly developed these kinds of arrangements were either absent, or were limited by both the constrained development of the consultative structures and processes themselves, and the constrained ability of health and safety representatives to find time to engage fully with these structures and processes, or to receive training to do so. Both aspects were under the control of management and dependent on its will and capacity to facilitate such participation.

In the majority of cases Walters and Nichols studied, therefore, worker representation and consultation were quite severely restricted in delivering their potential beneficial effects. Most of the preconditions, such as the commitment of senior management to health and safety and its systematic management, competent risk evaluation and control, and effective external inspection, are simply aspects of good occupational health and safety management practice that in many countries are required by law. Yet they had not been implemented.

Walters and Nichols (2007) considered these limitations of the regulatory model on which systems for representing workers on health and safety in the UK and in most advanced economies are based. They identified a number of contributory factors, primarily ineffective state regulation and poor management organization and support. In addition, they noted that changes in the structure and organization of work that have occurred since the regulatory framework for worker representation and consultation was introduced exacerbate the problems of implementation and operation. In the UK, for example, data on their impact suggest a complex situation affected by the wider influences on changes in patterns of representation and especially linked to the extent of trade union presence. Data from the two most recent WER surveys indicate that in 1998, 22 per cent of workplaces surveyed consulted over health and safety by means of joint committees, 25 per cent consulted by means of worker representatives, and 47 per cent consulted directly

(two per cent admitting to having no arrangements). In 2004, 20 per cent of workplaces in this size range consulted over health and safety by means of joint committees, 22 per cent consulted by means of worker representatives — and the majority, 57 per cent, consulted directly (Kersley *et al* 2006a: 204; Kersley *et al* 2006 b: Table 7.4; Kersley *et al* 2006a: 204). These authors suggest that “the shift to direct consultation was due to compositional change in the population of workplaces, not behavioural change in continuing establishments”. As Kersley *et al* comment further: “consultation through consultative channels – joint committees or free-standing worker representatives – has declined markedly, whereas direct consultation over health and safety has become more prevalent” (2004a: 204). This is clearly an important observation generally but it is also of great significance in the construction industry, where in many countries the level of trade union organization is limited and where recent efforts to promote worker engagement have tended to concentrate on forms of direct consultation.

5. The relevance of worker representation and consultation to improving health and safety performance in construction

In an early study of the industrial relations of health and safety in the UK construction industry, Codrington and Henley (1981) wrote:

Encouraging workers to obey safety rules and to be cautious in hazardous situations seems unlikely to alter construction workers’ priorities since it leaves unchallenged the methods of working that give rise to and encourage unsafe working practices. .. Given the interests of contractors in reducing completion time and workers in making as much money as possible out of the job, “co-operation” between the “two sides” seems likely to encourage unsafe systems of work. (quoted in Dawson *et al* 1988:127-128)

Many national and international initiatives have sought to address these challenges through efforts to persuade the industry to effect a change of culture. But any success seems open to question. As an HSE- commissioned research report noted in 2001,

there remain a number of specific issues and challenges to communication and workforce participation in health and safety in construction. These include (ENTEC 2001: v-vi):

- “transient nature of the workforce
- focus on price and competitive tendering
- one-off product where design and construction is separated
- lack of leadership and evidence of traditional management style
- risk taking culture”

Trade union density in the construction industry is low in many countries. There are several good structural reasons for this, including some of those noted above. In addition, the predominance of small firms and self-employed workers, and an embedded resistance towards organized labour among some employers, present further challenges to the establishment of proven effective arrangements for worker representation on health and safety.

Further problems arise when workers rely on management to introduce measures on consultation. In a study undertaken for the HSE at the end of the 1990s, researchers found that, while 93 per cent of employers thought they consulted directly with workers over health and safety, only 53 per cent of the workers thought that they did (Hillage *et al* 2000:49). The researchers noted (page 82) that “What appeared to be less well-established was the principle of two way consultation and the mechanisms for securing active involvement of workers in matters affecting their health and safety.”

In the case studies in construction that Walters and Nichols (2007) discuss, managers claimed they were committed to consulting their workers on health and safety matters. Indeed, in one case the industry organization to which the employer belonged had a clear statement on methods of worker consultation in its charter. Nevertheless, despite this formal commitment, there were several reasons why the consultation it engendered was limited. At the construction sites where trade unions were not recognized and safety representatives not appointed, neither were any appointed under the alternative provisions

that apply in the UK to non-union workplaces.³ At these worksites, managers claimed that they consulted with their workers through a variety of direct consultation methods such as tool-box talks, workplace tours, and briefings on work methods statements. However, as is clear from the results of the researchers' worker questionnaire surveys, the degree to which workers felt they were consulted was quite limited, especially in the case of those employed by contractors who were not the principal contractor.

Consistent with previous research, Walters and Nichols' findings indicate that, in the absence of other supports, it is only rarely in cases of direct consultation that workers feel able to marshal sufficient resources to either sustain the autonomy of their voice or achieve effective implementation of their objectives.

There are arguably several reasons for these poor outcomes. One is the confusion over the meaning of "consultation". For example, in Walters and Nichols' study many managers clearly believed that it meant simply informing workers about management requirements on health and safety practices. Other obligations implicit in the relevant legal definition of consultation, such as the notion of two-way communication, communication in good time, and the ability of workers to respond to information from managers or to give managers information, were not acknowledged. A second reason for limited consultation is the fragmented employment relationship at work sites. The management of the principal contractor may have devised strategies for disseminating information to workers, or for involving them in developing method statements, risk assessment, etc. However, as Walters and Nichols' workforce survey results consistently showed, their delivery to workers of sub-contractors was extremely limited and there were few supports in place at this level to improve this delivery — even when firms had well-

³ In the UK there are two sets of Regulations on worker representation on health and safety. The Safety Representatives and Safety Committees Regulations give trade unions rights to appoint health and safety representatives, while the Health and Safety (Consultation with Employees) Regulations 1996 apply similar rights to enable workers to elect them where there are no recognized trade unions. These latter Regulations also allow employers to claim they consult workers directly and this may be used as an alternative to the election of a safety representative. The Regulations are widely held to be unenforceable (James and Walters 1997).

defined policies on using their position in the supply chain to influence the health and safety arrangements of sub-contractors.

In contrast, at the unionized sites in Walters and Nichols' study, health and safety representatives were able to act as a conduit for communication on health and safety between the sub-contractor workforce and the management of the principal contractor. At these sites successful communication occurred across the barriers created by fragmented employment relationships, and trade union representatives played an important role in both facilitating and supporting such communication. But these were the exception rather than the rule.

It would seem that if regulatory pressure is deflected because of lack of union recognition or applied inadequately because of loopholes in its content and absence of the pressure of enforcement, employers may be influenced by levers such as supply chain pressure, by the general "culture" of practices elsewhere in the industry, or by exhortation from figures of authority and leadership in the sector. But in the end, the choice is theirs whether and to what extent to implement representational and consultative arrangements. Employers in the construction industry in the UK have been under intense pressure to improve the health and safety performance of their sector during the past decade, and increased consultation with workers has featured prominently as one means to do so. In Walters and Nichols' case studies, managers believed they had responded to this pressure and introduced appropriate measures. However, in most cases these were arrangements for direct consultation, which were applied unevenly and with little effect on those workers who were not workers of the principal contractor. Their application and operation contrasted in these respects with the measures applied in the unionized worksites included in their case studies, where, as noted above, safety representatives played an important role not only among their fellow workers of the principal contractor but also in relation to workers of other employers on the sites.

Managers may have the perception that they are consulting with their workers but this is not the same as real consultation. Additional checks and balances are required. Organized workers on unionized sites supply these but the level of union organization in construction limits the existence of such sites, and trends evident in the structure and organization of work in the industry suggest that in most countries this is unlikely to change. Indeed, with parallel trends towards smaller enterprises, more outsourcing and more fragmented forms of management, the challenges to union organization will continue.

Recognition of this situation in recent years has stimulated research into alternative forms of so-called “worker engagement” in the industry. The problem with such forms, when compared with those prescribed under legal definitions of consultation and representation, is that they are essentially manager-controlled tools to improve safety behaviour among workers on sites. At best, they probably have an application at the time and place in which they are implemented. They are likely to be successful only when subject to the close scrutiny of managers who are responsible for their operation, which suggests they are likely to be limited to workers within reach of such scrutiny. Moreover, while managers may favour them, Walters and Nichols’ research findings indicate that workers are likely to be less convinced. As with many other behaviour-based interventions, these alternative forms are likely to produce results that are dependent for success on a substantial degree of supervision, and which have limited sustainability and transferability.

Recent UK initiatives on worker engagement claim a better achievement. In the report of an initiative supported by a group of major UK contractors and the HSE (Lunt *et al* 2008) behaviour change and worker engagement (BCWE) practices were qualitatively investigated in an opportunistic sample of principal UK construction contractors and consultants. Findings were compared with previous studies of behaviour change, worker engagement and safety culture, for example, Austin *et al* (1996), Bigelow, *et al* (1997), Cameron *et al* (2006), Chinen and Cheyne (2006), Duff *et al* (1993 and 1999), Ecotec

(2005), Jaselsji *et al* (1996), Lingard (2002), Marsh *et al* (1998) and Robertson (1999). Lunt *et al* describe an overall shift in practice from examples where safety culture was least mature and emphasized installing effective safety management systems, towards an integrated approach to behaviour change, tackling the physical, social work environment and determinants of risk-taking behaviour in situations where there is a mature safety culture.

In their view, installing safety management systems is a priority before addressing safety leadership and culture, and operatives' behaviour on more mature projects. They argue that by tackling root causes of accidents the symptomatic tendency of traditional behavioural safety programs can be overcome. They further suggest that successful strategies for managing the workforce transience that characterizes the industry include managing BCWE project by project, "influencing the influencer", and including sub-contractors in BCWE training. The prescriptive nature of observation, feedback and goal-setting techniques lends itself to improving performance among transient suppliers. Finally, they suggest that an integrated BCWE framework over the industry that applies leverage "top-down" and "bottom-up" could be used to widen BCWE uptake (Lunt *et al* 2008).

While this appears sensible, its success remains heavily dependent upon a set of preconditions that include management commitment, a statutory framework and support for consultation — which were also identified previously in the case of representation and consultation. The salient difference here is the absence of any reference to the role of organized labour and its support of the autonomous nature of representation and consultation in employment relations of health and safety. Even when these preconditions are satisfied BCWE, while representing a possible means of improving overall safety behaviour on construction sites, does not address the important issue of support for the autonomy of workers' voice.

Support of organized labour has been used in relation to small firms and fractured employment relationships through the role of peripatetic union safety representatives (variously called regional safety representatives, territorial safety representatives, or roving safety representatives). Statutory provisions in countries such as Sweden, Norway, Italy and South Africa allow for such representatives. In Victoria, Australia, similar provisions allow trade unions rights of access to workers. In Spain and the UK various voluntary approaches have been applied to the same issue. In all cases they acknowledge the difficulty of effective workplace representation in small firms and in fragmented work arrangements, and achieve success by acting from outside the employment relationships there.

A well-established body of evidence points to the success of these initiatives (see Frick and Walters (1996) on Sweden; Walters (2002) on Norway and Italy; Shaw and Turner (2003) on the UK; Walters (2004) on Europe generally; Walters (1998 and 2000) on experiences in agriculture; and Johnstone *et al* (2007) on Australia). Also, as Walters and Nichols (2007) showed in their case studies on construction, safety representatives well-supported by management of the principal contractor on major construction sites can play a similar significant role in ensuring that health and safety messages reach workers of the sub-contractors on such sites.

In evaluations of the effectiveness of schemes to support and sustain regional health and safety representatives, several features stand out, notably the importance of a legislative framework, sufficiently trained and experienced representatives, and adequate resourcing and support. All three are problematic, poorly developed or entirely missing in the construction industry in most countries. Nevertheless, this form of representation shows great promise for advancing representation and consultation on health and safety in the industry, and merits further investigation.

6. Conclusions

The published research literature in English demonstrates a strong link between arrangements for worker representation and consultation and improved health and safety outcomes. It supports the idea that worker representation and consultation are effective, in terms of their contribution to good practice in health and safety management and to improved health and safety outcomes, such as the reduction of occupational injuries and fatalities. However, it also demonstrates that effective representation and consultation must satisfy a set of preconditions, including a strong legislative steer, senior management commitment to both OHS and a participative approach, and sufficient facilities, information and training to enable health and safety representatives to function autonomously and effectively.

Studies also demonstrate that these preconditions are rarely present in their entirety and that a number of factors militate against them. These include structural issues, such as workplace size and trade union density; employment arrangements, such as the extent to which the workforce is full-time or part-time, secure, temporary, or self-employed; and the degree to which management of work is fragmented on the same work-sites. They also include process-based issues, such as the nature of employment relations at work-sites, employer attitudes towards trade unions, and the extent to which good health and safety practice is considered a business objective.

Evidence suggests that there has been an overall decline in the development of arrangements for representation and consultation on health and safety in advanced market economies in recent decades. To a large extent, this decline has followed the same patterns of structural change that account for decline in arrangements for representation generally. Thus, decreasing workplace size, greater outsourcing, shifts from heavy industries and manufacturing to services, have all contributed.

These findings have important implications for the practice of worker representation and consultation in the construction industry, where many of the structural and organizational factors concerned are well-established and are therefore likely to militate against the implementation and operation of robust arrangements for representative participation in occupational health and safety. Evidence from a number of studies that have specifically focused on the industry in advanced market economies supports this conclusion.

Policy makers generally acknowledge the potential benefits of the role of greater worker participation in improving health and safety management outcomes. At the same time they are aware of the challenges to representative participation presented by the structure and organization of the industry. To achieve the benefits of worker participation under such circumstances, a number of recent initiatives to stimulate and support direct participation have been implemented. However, weaknesses in and limitations to the sustainability of these approaches are explained by the same institutional limitations inherent in their application in construction as apply in the case of representative participation. This report argues that research evidence shows that to be effective and sustainable to the degree implied by the definition of terms such as “worker consultation and representation”, such schemes require similar levels of support as those necessary to support representational participation. Even then, schemes to improve “worker engagement” are unable to ensure the degree of autonomous participation afforded by arrangements for worker representation in health and safety that are embedded in the structures and procedures of good industrial relations.

To summarize, a pessimistic view suggests that, under current industry conditions, the role of participative arrangements in effectively improving health and safety is likely to be limited to large sites on which trade unions are recognized, where both they and management regard such arrangements to be mutually advantageous. Other schemes, driven by industry or regulator initiative, could be introduced on sites where

trade unions are absent, but their success will likely require substantial support and they are also probably restricted to a limited number of larger sites.

However, this view may be over-pessimistic. Evidence of effectiveness reviewed in this report suggests that, while there are many structural, organizational and cultural barriers to achieving effective arrangements for worker representation and consultation by conventional means in the industry, there are nevertheless two particular examples of good practice, i.e., the successful use of peripatetic representatives in Sweden, Norway and Italy (regional or territorial representatives), and agreements between unions and employers on single sites allowing worker representatives, usually employed by principal contractors, time and facilities to access workers employed by other contractors on the same sites. Such arrangements are not the norm, but are found occasionally on sites across a range of countries and their evaluation has proved them to be effective.

Arrangements in which trade union representatives of principal contractor workers gain greater access to workers of subcontractors appear increasingly useful to employers, regulators and trade unions alike. Set alongside other means of using the supply chain to boost support for a commitment to consultation and involvement of trade unions across a range of economic interests, these arrangements offer means of extending autonomous worker representation on health and safety. All these schemes are not without resource implications, but overall there is a strong economic case in their favour judged in terms of the potential savings achieved in the prevention of injuries and ill-health, and in the efficiency gains made in the well-managed workplaces with which they are associated. The real problem lies in how this economic case can be translated into a “business case” for individual firms in such a fragmented and outsourced industry. There is virtually no published information on useful experiences here.

Finally, several examples illustrate the importance of acknowledging the lessons to be learned from what is *not* found in the research literature as much as acknowledging the need to learn from what is. Firstly, research on the role of conventional

approaches to worker representation in construction demonstrates the likely limitations of these approaches in the context of the structure and organization of large parts of the construction industry internationally. Literature on the success or otherwise of alternative approaches is, however, scarce. Secondly, while the findings of the former studies also show evidence of good practice, the extent to which such practice is transferable elsewhere in the world remains unclear since there are hardly any robust studies of the effectiveness of worker representation on health and safety beyond those conducted in advanced market economies. Thirdly, it is widely acknowledged that structural and organizational characteristics of the industry militate against conventional approaches to achieving effective worker representation, and more innovative approaches to sustainability are necessary. Suggestions concerning such approaches, such as, for example, the introduction of social dialogue on health and safety into procurement and supply chain strategies in the industry, are largely untested and unevaluated in the industry internationally (at least in terms of robust published findings).⁴ Trade union suggestions concerning procurement, such as those of Building and Woodworkers International, include agreements on contractor selection criteria in which formal responsibilities are assumed by contractors to ensure employment and health and safety standards for their workers (Murie 2005). While advocating their potential, these organizations also acknowledge a considerable need for capacity building to operate such practices effectively. Currently, little is known concerning the uptake or extent of such initiatives, their impact on OHS practice, or their sustainability or transferability.

Likewise, the potential impact of initiatives to promote social dialogue on health and safety in global supply chains in the industry is unevaluated. Findings from limited scrutiny of global supply chains in other economic sectors, such as the food and garment industries, lend some limited support to the idea that there are innovative means

⁴ Such suggestions include those made by the ILO (see, for example, ILO 2009:10-11) and by the BWI (Murie 2005:7-9)

with which trade unions can operate at international level to ensure the application of labour standards and representative rights in downstream labour supply situations. There may be lessons to be learned from these examples that could apply to analogous situations for health and safety and representation in the global construction industry, but there are no published studies of such initiatives.

A product of this global supply chain scrutiny has been the emergence of a new theorizing of regulation (see, for example, the work of Jessop (2002), Braithwaite and Drahos (2000), O'Rourke, Weil and Mallo (2007), and others). Acknowledging the failure of both public and market-based regulatory approaches, this thinking highlights the role of emerging alliances of new players within civil society that have the potential to operate alongside traditional actors as drivers of supply chain initiatives on labour standards (Arup *et al* 2006, Heckscher 2006, Rodriguez-Garavito 2003). New actors include groups representing the interests of environmental campaigners, consumers, accident victims, women, migrants, etc. They are often in a better position than trade unions to access the concerns of marginalized workers such as many of those engaged in construction. In some sectors there is limited evidence of the ability of such groups to cooperate with traditional economic and regulatory actors, including trade unions, to drive improvement in labour standards by stimulating company concerns about reputational risk and stimulating developments in corporate social responsibility, as well as by monitoring the effectiveness of these developments.

There appear to be grounds for trade unions and regulators to examine the potential leverage effects of exploring such initiatives in the construction industry on representational rights and on health and safety. Support for this can be found, for example, in the experience of negotiating health and safety management arrangements on large high-profile construction sites, such as sports stadia and airports. Here, trade unions have succeeded, through alliances with others, in ensuring representative rights and good health and safety management standards, largely because the reputational risks to the major

companies involved have impelled them to make extra efforts to achieve effective arrangements for managing health and safety. These arrangements have enabled increased involvement of trade unions and their representatives at the worksite level (Ewing, 2006, Webb 2001).

However, apart from this example and some general theorizing, no evidence seems to have been published on the actual or potential effects of approaches that utilize the same strategies more widely in the construction industry.

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