

The report of the Steering Group overseeing an independent evaluation of measures taken to strengthen director leadership of health and safety

June 2010

Note to Judith Hackitt, HSE Chair

Dear Judith

As you know, at the HSE Board's request, I chaired a steering group to oversee an independent evaluation of the measures taken to strengthen director leadership of health and safety. The steering group has now concluded its work and I am pleased to attach our report.

Five of the six independent members of the group have agreed to the content of the summary report. Jim Kennedy of UCATT felt unable to do so.

I wish to express my gratitude to all of the members of the steering group and the two expert advisers for the time and effort that they spent on this summary of the evidence and the significant amount of work that lay behind it. I would also like to thank those bodies that offered the group material for consideration.

Patrick McDonald, Chief Scientist, HSE

Independent members of Steering Group:

Hope Daley, UNISON Pamela Donnelly, Colchester Borough Council Sara Higham, Federation of Small Businesses Bud Hudspith, UNITE Jim Kennedy, UCATT Keith Sexton, Amey PLC (for Confederation of British Industry)

Expert advisers:

Dr Philip Davies PhD, Oxford Evidentia Sue Duncan, Independent Consultant (former Chief Government Social Researcher)

Contributors of material for the Group to consider:

BSC - British Safety Council CBI - Confederation of British Industry EEF - Engineering Employers Federation IoD - Institute of Directors LGE - Local Government Employers UCATT - Union of construction, allied trades and technicians

DIRECTOR LEADERSHIP ON HEALTH AND SAFETY: SUMMARY OF EVIDENCE CONSIDERED BY THE STEERING GROUP

Background	5
Evidence overview	5
Criteria for success	
Summary of findings	7
I: Baseline quantitative survey of directors and their equivalents in organisations v	vith five or more
employees (2008).	7
II: Follow-up survey of directors (2009)	9
III: Qualitative research with directors (2008)	12
IV: Review of existing evidence on the circumstances under which Government gui	dance impacts
on the directors of corporate bodies	
V: Review of supplementary evidence by two independent advisors	15
ANNEX 1: COMBINED SUMMARY OF REVIEWS BY INDEPENDENT ADVISORS OF TH	E
SUPPLEMENTARY EVIDENCE CONSIDERED BY THE STEERING GROUP	16
The evidence	
The review process	16
The submissions	16
Robustness and generalisability	17
What the submissions tell us	
The individual submissions	17

Background

1. This is the report of the HSE Chief Scientist-led Steering Group asked to oversee an independent evaluation of measures taken to strengthen director leadership of health and safety. It follows the then Health and Safety Commission's (HSC) agreement in September 2007 to:

- publication of the HSE-IoD leadership guidance: "Leading health and safety at work: leadership actions for directors and board members" and
- plans for an evaluation of the effect of this guidance, alongside other recent measures, in changing directors' etc. behaviour.

2. The Steering Group was created later, to ensure the evaluation was both independent and transparent, the Terms of Reference asked the group to:

- act as the commissioning body for independent research to gather:
 - quantitative evidence of the change/trends in directors' (and equivalents) behaviour;
 - qualitative evidence to understand the motivation of those responding positively, and negatively, to the measures taken to strengthen leadership.
- advise the HSE Board (successor to HSC) on the significance of the findings of any other, related research/analysis undertaken by HSE or its stakeholders.
- propose, to the HSE Board, criteria for judging the success, or otherwise, of the measures taken to strengthen director leadership on health and safety.
- 3. The Steering Group's members comprised:
 - HSE's Chief Scientist (Chair).

nominees from:

- employers: CBI, FSB and the Local Government Association
- trade unions: UCATT, UNISON and UNITE

plus

• two independent social scientists as external advisers

Evidence overview

4. The Steering Group commissioned and considered five new items of evidence to inform an assessment of the impact of the joint HSE-IoD guidance on director leadership on health and safety. Those most directly relevant were two surveys of directors: one between July-September 2008, around nine months after publication of the guidance, and a second, a follow-up survey between September-November 2009. Because the HSE-IoD guidance is aimed at organisations with five or more employees, organisations below this size were excluded from the surveys. UCATT have noted throughout that this does not mirror the set-up of the construction industry, because the vast majority of construction companies have fewer than five employees. The other new strands of evidence were:

- qualitative research with a sample of directors who had taken part in the first survey,
- a review of the published material, mainly from the UK, on the circumstances under which Government guidance impacts on the directors of corporate bodies and
- a review by two independent advisors of supplementary evidence submitted to the Steering Group.

5. The percentages of organisations in which directors were aware of the guidance, had read it and subsequently taken some action were higher, statistically significantly so, in the second survey than in the first. Awareness, which means that a director (which includes equivalents) had heard about the document, increased from 25% of directors to 36%; readership, which means that a director has read all or parts of the document, increased from 13% to 19%; and the percentage of directors taking action following reading the guidance increased from 6% to 9%. There are several possible reasons for the increase in awareness of the guidance among directors between autumn 2008 and autumn 2009. Apart from activity to promote further the guidance itself, the period in question also saw publicity surrounding the introduction of the Corporate Manslaughter and Corporate Homicide Act 2007, as well as media coverage of Rita Donaghy's report to the Secretary of State for Work and Pensions: One Death is too Many, which followed the Inquiry into the Underlying Causes of Construction Fatal Accidents.

6. While the evidence shows that the guidance had reached more directors by the time of the second survey, there was no evidence that directors who were aware of the guidance and who had read it were more likely to take action subsequently. The percentage of directors who were aware of the guidance that had read it was similar in both surveys (at 52% and 53%, respectively). Likewise, the percentage of directors that had read the guidance who said they had subsequently taken action in line with the guidance was broadly the same in the first and second surveys (46% and 47%, respectively). The second survey showed that 73% of directors who had read the guidance and did not subsequently take action, did not do so because they were satisfied that their organisation was already complying with the advice in the guidance.

7. According to directors interviewed, most of the organisations practising the leadership behaviours recommended in the guidance were already doing so before the guidance was issued, and there was generally little change between the two surveys in the leadership behaviours in place in the organisations surveyed.

8. The main findings from the other evidence considered by the Steering Group were less relevant to the issue of possible changes in director behaviour. The qualitative research with directors highlighted a number of points that informed the interpretation of the findings from the initial survey and the development of additional questions for the follow-up survey. The review of material about Government guidance more generally fell short of providing data on the impact of other Government guidance but did identify several considerations with the potential to influence the impact of guidance.

9. The independent review by the social scientist advisors of supplementary evidence also included the report of the Donaghy inquiry into construction fatal accidents. Among the recommendations in the report are: there should be positive duties on directors to ensure good health and safety management through a framework of planning, delivering,

monitoring and reviewing; HSE should encourage its inspectors to promote the principles of the joint Institute of Directors / Health and Safety Commission guidance for directors and leaders of companies by the use of more easily absorbable presentation material. The reviewers report, "An important message from the Donaghy report is that the IoD/HSE guidance Leading Health and Safety at Work should be made more accessible to directors and leaders of companies of all sizes, pending a possible decision on positive legal duties on directors." Overall, the reviewers conclude, "notwithstanding the methodological weaknesses, in aggregate, the survey evidence from the reports under review suggests that only a minority of directors and senior managers are aware of the HSE/IoD guidance *Leading Health and Safety at Work* and not all who are aware of it have read it".

- 10. In sum, the evidence reviewed by the Steering Group suggests that:
 - the numbers of organisations in which directors were aware of the guidance, had read it and subsequently taken action were significantly higher in autumn 2009 than in autumn 2008
 - the transition from awareness to readership and subsequent action was broadly the same in the two surveys. For example, in the baseline study, about 1 in 4 directors was aware of the guidance. About half of the directors who were aware of the guidance read all or parts of it. Again about half (48%) took some action after reading (some or all of) the document. This means that in the baseline study about 6% of all directors said they had taken some action after reading the guidance. It is not possible to ascertain a causal relationship between reading the guidance and taking action
 - given that the interval between the two surveys coincided with publicity and media coverage of other issues relevant to director responsibilities for health and safety, it is not possible to link any of the changes observed to the issuing of the guidance specifically.

Criteria for success

11. The Terms of Reference for the Steering Group require it to "propose, to the HSE Board, criteria for judging the success, or otherwise, of the measures taken to strengthen director leadership on health and safety". By "measures taken", the Terms of Reference are taken to include the joint HSE-IoD guidance plus a raft of other measures including legislative changes and other events (such as media coverage of the issues). While imperfect, the main criterion for judging the success of the measures should reflect the extent of changes in directors' awareness, readership and responses to the guidance as evidenced by the two director surveys. However, any impacts of the guidance cannot be disentangled from those of other events taking place in the interval between the two surveys.

Summary of findings

I: Baseline quantitative survey of directors and their equivalents in organisations with five or more employees (2008).

12. Databuild (an independent research organisation) carried out an initial telephone survey of directors' awareness of the HSE - IoD guidance and their leadership behaviours

between July and September 2008. (Because it was made clear to directors that the research was being carried out for the HSE, there may have been a degree of over claiming of leadership behaviours per se and in their response to the guidance itself. As a result, the findings as with other surveys of this kind may paint a more favourable picture than is really the case). In all, 1600 directors took part in the survey, which focused on:

- Awareness of the guidance among directors and board members of organisations with five or more employees in GB
- How they had heard about and accessed the guidance
- Whether they had seen the guidance and, if so, whether they had read it
- Whether the guidance was considered relevant or influential
- Whether action had been taken (or planned) as a result of the guidance
- Awareness of recent changes to the legislative framework (the Corporate Manslaughter and Corporate Homicide Act 2007 and the Companies Act 2006)

The key findings were:

- 13. Awareness of the guidance
 - Overall, 25% of directors interviewed were aware of the guidance (38% in the public sector, 27% in the voluntary sector and 24% in the private sector). Highest levels of awareness were noted for large (250+ employees) organisations, especially those in the public sector (59% aware).
 - Directors most often became aware of the guidance from a colleague, typically a member of their organisation with health and safety responsibilities and the guidance was most often read as hard copy.
- 14. Views about the guidance
 - 13% of directors interviewed indicated that they had read some or all of the guidance. Thus, about half of the directors who were aware of the guidance also said they had read it. Readership levels were three times higher in larger organisations (33%) than in smaller organisations (12%). Of directors who had read the guidance, 87% agreed that it had improved their understanding of their responsibilities for health and safety.
 - Sixty percent of the directors that had read the guidance had positive views about the guidance. A minority of directors (3%) were negative about the guidance, while 37% were neither positive nor negative. In addition, 45% of directors agreed with the statement that the guidance had changed the way they will approach health and safety in their organisation.
- 15. Response to the guidance
 - Forty-eight percent of the 13% of directors who had read some or all of the guidance indicated that they had subsequently taken some action in relation to health and safety, with a further 2% planning to do so. This equates to 7% of directors interviewed.

- The likelihood of directors taking action after reading the guidance was highest in public sector organisations and in large organisations. There were also some marked sector differences.
- 16. Leadership behaviours
 - Directors were asked about their current practice in relation to eight of the leadership behaviours recommended in the guidance. For those that were claimed, the survey checked whether the practice was initiated before or after the issuing of the guidance in October 2007.
 - The Board monitors sickness absence and workplace health 88% (84% pre-Oct '07 and 4% post-Oct '07)
 - The Board has health and safety standards for procuring goods and services 78% (74% pre-Oct '07 and 4% post-Oct '07)
 - Health and safety appears on the Board agenda 65% (61% pre-Oct '07 and 4% post-Oct '07)
 - The Board assesses the health and safety arrangements of partners, suppliers and contractors 61% (57% pre-Oct '07 and 4% post-Oct '07)
 - The Board has nominated a member to champion health and safety 58% (53% pre-Oct '07 and 5% post-Oct '07)
 - The Board sets targets for health and safety 31% (28% pre-Oct '07 and 3% post-Oct '07)
 - The Board benchmarks the organisation's health and safety performance 10% (9% pre-Oct '07 and 1% post-Oct '07)
 - The organisation publicly reports its health and safety performance 9% (8% pre-Oct '07 and 1% post-Oct '07)

17. The incidence of the behaviours recommended in the guidance was generally higher in the public sector and among larger organisations and lower in smaller, private sector organisations.

- 18. Awareness of legislative changes
 - Prior to the 2008 survey, there were two particular changes to the legislative framework relevant to directors' responsibilities for health and safety. These were the Corporate Manslaughter and Corporate Homicide Act 2007 and changes in the Companies Act 2006. Overall, 54% said they were aware of legislative changes but 65% of these directors could not recall the name of the legislation. Of those who were aware, 33% mentioned the Corporate Manslaughter and Corporate Homicide Act. Consistent with other evidence from the survey, awareness levels were higher among larger organisations compared with smaller organisations.

II: Follow-up survey of directors (2009)

19. The baseline survey of directors carried out in 2008 was repeated with a new sample of directors in 2009. 1621 directors and their equivalents were interviewed in the survey based on a representative sample of organisations with five or more employees in GB. The focus of the follow-up survey was to assess the extent of change from the

baseline in relation to awareness and readership of the guidance and levels of leadership behaviours.

- 20. Additional questions in the follow-up survey explored:
 - What directors mean when they say they are implementing the recommended leadership behaviours
 - Directors' awareness of the current legislative arrangements and under what circumstances do they think they are at risk of prosecution and / or imprisonment
 - Directors' confidence in their organisations' compliance with health and safety regulations
 - What directors say would have most effect on them personally in improving their organisations' health and safety performance
 - The sources directors use for advice on health and safety matters

The key findings were:

- 21. Awareness of the guidance
 - Awareness and readership of the guidance among the target audience of directors increased to a statistically significant extent. Awareness of the guidance increased from 25% to 36% of directors interviewed. Consistent with the baseline study, directors of large organisations and those in the public sector have greater levels of awareness than those in medium and small organisations and in the private sector.
 - Readership increased from 13% to 19%. Readership is considerably greater in large organisations than in small or medium sized organisations. Use was highest among public sector organisations.
- 22. Response to the guidance
 - The proportion of directors reading the guidance and subsequently taking action is broadly the same as in the baseline study.
 - The proportion of organisations led by directors implementing each of the leadership behaviours recommended in the guidance is broadly the same as in the baseline study.
 - Directors are generally confident that they are compliant with health and safety legislation.
 - Some think that they are at greater risk of prosecution and that penalties are more severe than the reality.
 - Directors of smaller organisations that had read the guidance were less positive about the guidance compared with directors of larger organisations.
- 23. Leadership behaviours

As at the baseline, the survey asked directors about their current practice in relation to eight of the leadership behaviours recommended in the guidance. (For ease of reference, the second number is the percentage of directors in the earlier baseline survey reporting that their organisation practised the behaviour). The number of

organisations in each survey in which directors reported each of the leadership behaviours was broadly similar, with all bar the second listed below showing no statistically significant changes.

- The Board monitors sickness absence and workplace health 92% (88%)
- The Board has health and safety standards for procuring goods and services 68% (78%)
- The Board assesses the health and safety arrangements of partners, suppliers and contractors 60% (61%)
- Health and safety appears on the Board agenda 65% (65%)
- The Board has nominated a member to champion health and safety 61% (58%)
- The Board sets targets for health and safety 27% (31%)
- The Board benchmarks the organisation's health and safety performance 12% (10%)
- The organisation publicly reports its health and safety performance 10% (9%)

24. The number of leadership behaviours practised by directors increased in line with the size of their organisations. In larger firms (over 250 employees), 59% of organisations were demonstrating between 6 and 8 of the recommended leadership behaviours, compared with 18% of smaller organisations, those employing fewer than 50 workers.

25. For each of the leadership behaviours mentioned by directors, further questions probed the extent (on a 3-point scale from low, through moderate to high) to which each was practised. This was an attempt to quantify the variability in what directors meant when reporting leadership behaviours. Overall, 60% of behaviours were judged to represent moderate extent or high extent examples of the recommended practice rather than low extent, superficial examples. Similarly, directors in large organisations were assessed as having implemented the recommended individual leadership behaviours to a greater extent than in small organisations.

- 26. Awareness of legislative changes
 - Directors' awareness of changes in the current legislative arrangements for health and safety was similar in the follow-up survey compared with the baseline and no significant differences were observed. In terms of specific legislation, awareness was generally confined to the Corporate Manslaughter and Corporate Homicide Act 2007 (15% in the follow-up compared with 18% in the baseline survey). However, more than half in both surveys indicated they were aware of some recent changes, even if they were unable to recall its name (57% in the follow-up survey and 54% in the baseline). Awareness was higher in larger organisations and in the NHS.
- 27. Directors' understanding of prosecution risks
 - The accuracy of directors' assessments of the likelihood that they personally and or their organisation faced the risk of prosecution was tested in relation to six hypothetical scenarios. The findings suggest that directors tend to over-estimate

their risk of prosecution following an incident when the probable risk is low and to under-estimate, albeit to a lesser extent, their risk when the probable risk is high.

- 28. Directors' confidence in their organisations' compliance
 - There was some variability in directors' confidence in their organisations' compliance with all the relevant health and safety legislation across the different sectors and was highest (at 50% "completely confident") in the wholesale and retail sectors and lowest (at 16% "completely confident" in the agriculture sector).
- 29. Directors' effort on health and safety
 - When asked to assess the extent to which they personally devoted effort and attention to health and safety, the majority of directors considered themselves to be devoting either a "moderate amount" (42%) or "substantial amount" (34%).
- 30. Directors' views about what would increase their attention on health and safety
 - Directors were asked to rate each of three possible measures in terms of the difference that the measures would make in terms of increasing the amount of effort and attention they personally gave to ensuring health and safety. Most effect (adding responses of "a moderate difference" and "a significant difference") was found for more guidance (65%) followed by greater penalties for directors (51%) and new legislation (48%). The majority of directors believed that each of the measures would increase the amount of effort and attention that they devote to health and safety. In general, however, there was not a significant difference between the measures in this respect. Directors of large organisations were more likely to indicate that new legislation would make a significant difference in this respect than those of small organisations (34% against 20%).
- 31. Sources of advice and guidance used by directors
 - The sources of advice used by directors and others in their organisations for advice on health and safety matters were varied. Written guidance (mentioned by 61%) and web-based information (58%) were the primary sources, telephone help lines (17%) were the least used of the six options (which also included external consultants, in-house experts and network of contacts).

III: Qualitative research with directors (2008)

32. Databuild re-contacted a sample of directors that had been interviewed in 2008 to explore in more depth a number of issues raised by the baseline survey of directors. The role of the qualitative research was to help interpret findings from the baseline survey and to inform the development of questions in the follow-up survey, rather than providing statistically robust findings. Additional discussions were conducted with health and safety managers and a shop floor representative where applicable. The research is based on 75 face-to-face interviews with directors and other staff from 30 organisations.

33. Specifically, the research assessed:

- What directors understand about the current legislative framework for health and safety.
- What directors and board members mean when they say they have taken the action recommended in the guidance as examples of leadership behaviours.
- Whether (and how) board level actions translate into action on the shop floor and lead to improvements in health and safety performance.
- Whether there are (further) opportunities to influence directors' health and safety leadership.
- 34. The key findings were:
 - The study showed that directors have a broad understanding that they are liable for health and safety failures and consequently they treat it as a serious issue, particularly in relatively high risk sectors where health and safety is an integral part of their activities.
 - Recent changes in legislation have led directors to check compliance but have not had a major impact on their day-to-day activities as most feel they are already compliant.
 - Adherence to regulations was not the main motivator for having good health and safety practice.
 - Most directors were inclined to focus on safety risks rather than health risks.
 - What directors mean when they say they are practising leadership behaviours varies considerably.
 - The impact of directors' behaviour [on health and safety performance] is difficult to measure but made a difference to staff feeling that directors care about their wellbeing.

More detailed findings were:

- 35. Directors' understanding:
 - Most were confident they were aware of the current legislative framework and of the (then) recent changes and most believed they knew what their own responsibilities were.
 - Directors generally felt that the legislative changes did not impact on their responsibilities and that these changes did not require any changes to health and safety practice in their organisations.
 - A few directors commented that their understanding of the recent legislation could be improved in the light of related prosecutions.
- 36. What health and safety leadership behaviours mean to directors:
 - Most directors viewed health and safety as a compliance issue for their organisation, though a few regarded health and safety as an integral part of good business and staff management. Safety was more often mentioned than health.
 - Smaller organisations generally felt that going beyond basic compliance would be too costly.

- When directors were probed in more detail about the leadership behaviours claimed in the baseline survey, some appeared to represent superficial rather than whole-hearted practice. For example, demonstrating a visible commitment to health and safety could consist of simply displaying a statement of their organisation's health and safety policy on the company notice board.
- 37. Impact of director behaviour on health and safety performance
 - Many directors felt that the impact of leadership was intangible.
 - Many directors felt that it was difficult to measure health and safety performance in general.
 - Visible leadership behaviour from directors was generally associated with shop floor workers feeling more cared for. It also encouraged employees to pay more attention to health and safety risks.
- 38. Options for the HSE to increase its influence on director leadership behaviour
 - Some directors said that the HSE could improve the quality of its communication with business, for example, by tailoring advice to their particular organisation.
 - Many respondents felt that the HSE needed to change the general perception of health and safety in the UK so that it is seen as a positive, rather than a negative topic.

IV: Review of existing evidence on the circumstances under which Government guidance impacts on the directors of corporate bodies

39. The Rapid Evidence Assessment covered a review of 142 potentially relevant studies available from electronic databases and websites of organisations. From these, seventeen studies met the scope of the review. The report describes evidence on impacts of guidance on organisational change through a model of the process by which guidance is received, implemented and established within organisations. The report presents evidence on successful implementation of guidance in terms of four key stages: responsibility to take forward, factors associated with successful implementation, factors responsible for compliance and outcomes associated with guidance. For each stage of the process, the model helps to identify factors that may act as barriers or facilitators to the implementation of guidance.

40. The key finding was that:

• The studies included in the review were mainly from the UK, with only limited data coming from non-UK studies. Most of the data uncovered was 'process' data concerning perceptions of factors likely to affect the implementation of guidance, rather than data on the outcomes of guidance. The review identified several implications for bodies wanting to maximise the impact of guidance. They include the potential benefits that could accrue to: tailoring guidance to suit specific sectors and types of organisations; considering ways of supporting effective implementation; and consulting with key stakeholders including trade unions and representative bodies.

V: Review of supplementary evidence by two independent advisors

41. Towards the end of 2009, the Steering Group invited the submission of other existing evidence that stakeholders felt could assist the Group in its discussions. Six reports were received:

- the Union of Construction and Allied Trades and Technicians (UCATT)
- the Local Government Association,
- Engineering Employers Federation (EEF)
- the Confederation of British Industry (CBI)
- the Institute of Directors (IoD), and
- the British Safety Council.

In addition, the Donaghy Inquiry report was included, at the request of the Steering Group.

42. Each report was assessed separately by the two independent researchers appointed to advise the Group on research matters. (See Annex 1 for a combined summary of the review reports). Of this supplementary evidence, the reviewers conclude, "the methodological flaws described ... mean that it is not possible to speak with confidence about awareness or use of the IoD/HSE guidance *Leading Health and Safety at Work* in most of the groups studied, nor is it possible to make reliable statements about levels of awareness or use of the guidance in industry as a whole. Notwithstanding the methodological weaknesses, in aggregate, the survey evidence from the reports under review suggests that only a minority of directors and senior managers are aware of the IoD/HSE guidance *Leading Health and Safety at Work*, and not all of those who are aware of it, have read it."

ANNEX 1: COMBINED SUMMARY OF REVIEWS BY INDEPENDENT ADVISORS OF THE SUPPLEMENTARY EVIDENCE CONSIDERED BY THE STEERING GROUP

The evidence

A1. Evidence was submitted by UCATT, the Local Government Association, EEF, the CBI, the Institute of Directors and the British Safety Council. In addition, the Donaghy Inquiry report was included, at the request of the steering group. A summary of reviewers' comments is in sections A8-A18.

The review process

A2. The quality of research depends on many things and a number of key principles underpin any assessment of quality. These include 'relevance', or whether the research adds to knowledge; 'feasibility', whether the research objectives are realistic and achievable; 'scope', including whether the breadth and depth of the research is appropriate to the research question and whether relevant perspectives are included; 'transparency' including whether methods are documented and research assumptions and limitations are clear; 'robustness', which is to do with scientific rigour and covers whether the research is fit for purpose and whether the methods, sampling, analysis etc are rigorous; 'integrity' or whether analysis is balanced and whether interpretations and conclusions are clearly supported by evidence; 'validity', including whether the data are used appropriately and 'usability' or whether the findings are contextualised and relevant to the intended user(s).

A3. These principles have guided the evaluation of evidence. Though, in many cases, full information to enable a judgement on all elements was not available, we obtained sufficient information to make an overall judgement. Our task as reviewers was to establish how far the submitted pieces of research could reliably inform the steering group's deliberations. We focussed on judging the robustness of the research – did the sample reflect the population under study? Were the methods appropriate to the research question? Was the analysis sound and were the conclusions firmly grounded in the research evidence? In addition, we judged the generalisability of the research findings; in other words, did the findings of the individual studies inform the issues being investigated by the steering group? The two issues are separate but related: a piece of research can be robust in terms of the research question set and of the population under study, but be too narrow in focus to inform wider debate on a topic. Each reviewer evaluated the pieces of research independently; this summary brings together the key observations of both reviewers.

The submissions

A4. The evidence was of different types. Some consisted of reports of primary data collection exercises (usually surveys); some were re-analyses of existing data; some reviewed or commented on other pieces of research and some were a combination of these. One report, Rita Donaghy's Inquiry into the Underlying Causes of Construction

Fatal Accidents (2009), was an extensive consultative exercise, involving 55 organisations in and around the construction industry and other interested parties. Substantial documentary evidence was also examined by the Donaghy Inquiry. Most of the reports examined by the reviewers had quite a narrow scope, usually focussing on a particular element of industry. Much of the research submitted was designed to address the specific information needs of particular organisations, and this sometimes limited its value to meet the rather different needs of the steering group. In coming to conclusions about the submissions, we have taken account of their different nature and purposes.

Robustness and generalisability

A5. The quality of primary data collection or re-analysis, on which many of the reports were based, was often poor. There were a number of weaknesses, including poor sample construction; low response rates (in a number of cases, less than a third) and/or lack of information about refusals and non-response; in combination, these set serious limitations on the representativeness of the data. There were also a number of flaws in questionnaire design, such as biased question wording and questions which stretched the respondents' power of recall; this meant that responses to some questions were unreliable. Analysis was generally quite basic, consisting of frequency counts or simple two-way cross tabulations; this in itself is not a problem, but the absence of any statistical significance testing was a concern and there were many examples where analysis was based on very small samples or sub-samples.

A6. The factors discussed above have a significant impact on the intrinsic validity of the findings. Even where findings were reasonably robust, they tended to look at particular 'populations' or sectors. For the steering group's purposes, this means the findings must be used cautiously in drawing general conclusions. Robust studies of specific groups can provide useful insights into wider issues, but there are risks in attempting to generalise more widely.

What the submissions tell us

A7. The methodological flaws described above mean that it is not possible to speak with confidence about awareness or use of the IoD/HSE guidance *Leading Health and Safety at Work* in most of the groups studied, nor is it possible to make reliable statements about levels of awareness or use of the guidance in industry as a whole. Notwithstanding the methodological weaknesses, in aggregate, the survey evidence from the reports under review suggests that only a minority of directors and senior managers are aware of the IoD/HSE guidance *Leading Health and Safety at Work*, and not all of those who are aware of it, have read it.

The individual submissions

A8. The **UCATT¹** report Small Isn't Beautiful is a well presented audit of deaths in the construction industry in 2007/08, and a graphic picture, of occupational mortality in this sector. There are some acknowledged weaknesses in the data, but it nevertheless highlights some of the problems and issues and suggests that mortality is a particular problem among smaller sized companies.

¹ See: http://www.ucatt.org.uk

A9. The **Local Government Association's²** Leading Health and Safety at Work, reports on a telephone survey. The findings are limited by the skewed sample (under-representation of London boroughs, in particular) and low response rate (16%) and the consequent uncertain representativeness of its findings. The findings suggest low levels of awareness and perceived relevance (less than 50% in both cases).

A10. **EEF's**³ National Health and Safety Survey 2008 Leading the Way reports on a postal survey of named Health and Safety contacts. Given the low response rate (28%) and problems and uncertainties about sample design and non-response, considerable caution is required in interpreting the findings of this report. It is not clear whether the survey findings reliably represent the organisational membership of the EEF, (though it is most unlikely), and it is not possible to generalise to a wider population of senior management with responsibility for health and safety.

A11. The **CBI** Health and Safety Leadership Survey 2009 covered both CBI members and non-members and the sample selection criteria are unclear. Taken with the low response rate (21%), there is a high likelihood of selection bias, possibly overrepresenting those organisations that have been more actively involved in improving board level and senior management health and safety activities. These findings cannot therefore be taken as representative of improvement across the entire membership of the CBI. Generalising the findings to a wider population of senior management, with responsibility for health and safety, is not possible.

A12. The report of the **Institute of Directors** Business and Opinion Survey lacks details about the methodology, though information from IOD indicates that the data are weighted to reflect IOD membership. There is no narrative explaining the purpose of the opinion survey, or discussing the findings and their implications for directors' responsibilities for health and safety. The tables presented also suggest some weaknesses in question wording. Though the data may reflect IOD membership, the findings are not generaliseable to industry as a whole.

A13. The information on distribution of the IoD/HSE guidance Leading Health and Safety at Work indicates quite extensive activity. However, the evidence on awareness of the guidance (42% of IoD members nationally), and on the proportion of those who are aware and who claim to have read it (around a third), gives a less encouraging picture.⁴

A14. The **British Safety Council**⁵, Safety in the Workplace (Employees) March 2009, reports on a telephone survey of 1000 employees identified from a commercial telephone list. The response rate was 63%, but the sample is structured to reflect regional distribution of the general population, so is not representative of industry. The report also compares between the 2007 and 2009 surveys; there are risks in doing this, given the different sample structures in the two years (businesses of under 5 employees were added in 2009). Some of the questions are poorly phrased and are likely to have generated unreliable responses. No significance testing of the analysis was conducted,

² See: http://www.lga.gov.uk/lga/core/page.do?pageId=7130435

³ See: http://www.eef.org.uk/publications/surveys/EEFs_First_National_Health_and_Safety_Survey_.htm

⁴ Inconsistency between the bases for these two tables makes it difficult to quote a precise percentage.

⁵ See: http://www.britsafe.org/download/reports/BSCSurvey%20report%202009.pdf

and it is likely that some of the results are based on too small a sub-sample to give reliable data. Given these limitations, caution is necessary in terms of generalising the findings of this survey to the wider population of employees. The findings do suggest a low level of employee health and safety training, though this cannot be quantified with any certainty.

A15. The companion **British Safety Council** survey, Safety in the Workplace (Bosses), March 2009 is based on a small sample (254) bosses, drawn from various business directories and lists and a response rate of around 10%. There are similar caveats to those raised about the employee survey, above. In particular, comparisons between data from the bosses and employee surveys should be viewed with caution, since there are important differences in the sample construction in terms of sector and enterprise size. The findings suggest that less than half of bosses interviewed were aware of the IOD/HSE guidance, but, for the reasons given above, the proportion cannot be reliably quantified. Similarly, caution is necessary in terms of generalising the findings of this survey to industry as a whole.

A16. The evidence provided by **UCATT** in Bringing Justice to the Boardroom attempts to challenge how some of the research evidence has been used by HSE, rather than to present new primary evidence. Given the problems with much of the evidence, this is a difficult task, but there are places where questionable assumptions are made and some quoting out of context. This is an area where some of the evidence is equivocal and it is risky to ignore caveats. The report does, however, raise valid questions about the efficacy of a voluntary approach to directors' duties for health and safety. Despite a strongly argued critique of the IoD/HSE guidance document Leading Health and Safety at Work, it is not possible to conclude from this report alone that the voluntary approach to directors' responsibilities for health and safety has failed. This is because of the possible selective use of survey data, the fact that much of this data is five or more years old, and the assumptions made by the UCATT report may not be sustainable. On the basis of the available data, the impact of director's responsibilities on accidents, injuries and deaths at work and the balance of evidence on whether or not the costs of legislative changes to directors' responsibilities exceed the benefits, remain unclear.

A17. The most extensive, systematic and rigorous piece of evidence, included in the review, is the **Rita Donaghy report**⁶, One Death Is Too Many: Inquiry into the Underlying Causes of Construction Fatal Accidents. The report is based on an extensive consultation process and a review of available documentary evidence. It also includes an innovative study of 25 fatal accidents. The main report summarises key findings and makes recommendations, and is supported by a number of supplementary reports, all of which have been thoroughly reviewed; this lends authority to the main report's findings. Although the main focus is on the construction industry, its findings may have wider implications for directors' duties and responsibilities with respect to health and safety at work. The quality of the work that has gone into the Donaghy Report makes it impossible to dismiss it or to take it lightly. In particular, the modelling conducted to identify factors which were repeatedly deficient and where failures were causal in fatality, provides a useful framework which might be adapted to analyse fatalities in other industries.

⁶ See http://www.dwp.gov.uk/publications/policy-publications/fatal-accidents-inquiry.shtml

A18. An important message from the **Donaghy** report is that the IoD/HSE guidance Leading Health and Safety at Work should be made more accessible to directors and leaders of companies of all sizes, pending a possible decision on positive legal duties on directors. In light of the suggestive evidence submitted to this review, (for example that only 42% of IoD members were aware of the IoD/HSE guidance on Leading Health and Safety at Work), this may present a major challenge.