Organisational dynamics and safety culture in UK train operating companies

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This research follows up recommendations contained in recent public inquiry reports into the major accident at Ladbroke Grove, and railway safety more generally, by investigating the nature of safety culture within Train Operating Companies (TOCs) in Great Britain. Specific objectives of the research were: to map the range and nature of internal and external factors impacting upon the priorities, safety attitudes, behaviour and decision making of operational staff within TOCs; and to provide a detailed insight into the ways in which staff interpret and react to the systems of reward and sanctions prevailing within the privatised railway sector.

A qualitative research strategy was adopted throughout the empirical research, with primary data being collected between May 2003 and April 2004. The work comprised two main phases. Firstly, 36 Top Tier interviews with senior representatives of stakeholder groups within the UK railway sector. Secondly, interviews and discussion groups with over 500 staff at all levels drawn from a sample of 4 different TOCs.

The research has produced a complex set of findings and insights regarding TOC safety culture, which are discussed in detail. The findings of the work will be of use for regulators and businesses across the rail sector as a whole.

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EXECUTIVE SUMMARY

This research addresses recommendations relating to issues of safety culture and climate contained in recent public inquiry reports into the major accident at Ladbroke Grove (Cullen, 2001) and railway safety more generally (Uff & Cullen, 2000). The project explores the range and nature of variables impacting upon safety culture within Train Operating Companies (TOCs) in Great Britain. Prior to this work there had been no formal mapping of the corporate motivations engendered by the contractual and structural arrangements that have accompanied the railway privatisation process begun in 1993, or how these arrangements might impact upon the behaviour and safety culture of railway sector business and their staff. Safety culture has been variously defined in the literature, but very broadly involves the norms, beliefs, roles, and practices for handling hazards and risks' (Pidgeon, 1991). The research was designed to provide a detailed insight into this highly complex issue.

Specific aims of the research were.

- To map the range and nature of factors, such as performance targets and contractual arrangements, impacting upon TOC priorities and the safety attitudes, behaviour, decision making and motivations of operational staff.

- Provide a detailed insight into the ways in which operational staff interpret and react to the systems of reward and sanctions prevailing within the privatised railway sector, paying particular attention to how these understandings might impact safety decision making and behaviour.

- Provide recommendations regarding the range and nature of variables considered to impact upon safety climate / culture within the railway sector.

A qualitative research strategy was adopted throughout the project because the research team viewed the existing generic quantitative measures of safety climate / culture as being of limited value for a sector as complex, changing, and in many respects unique as is the UK railway industry today. At the root of this uniqueness lie: the externally imposed rules of engagement between stakeholders; the associated performance regime; the legacy of historical precedent; and the intense media, political and regulatory attention over the period following privatisation. Therefore, we judged that in order to access a proper contextual insight at the necessary level of depth and detail a flexible and more probing qualitative approach to the research was needed.

The empirical work comprised of two main phases.

**Phase 1: Top Tier Interviews.** Comprising interviews with 38 senior representatives of the primary stakeholder groups within the UK railway sector, conducted in the summer of 2003.

**Phase 2: Train Operating Company (TOC) Case Studies.** Comprising interviews and discussion groups with a total of over 500 staff at all levels within a sample of 4 different TOCs, conducted between September 2003 and April 2004.
The research has identified a complex set of findings, with a number of interactions between factors observed. However, we believe that the key messages to arise from the research are:

**Impacts of the post-privatisation industry structure**
The period following the privatisation process that began in 1993 is now viewed, by those in the industry, as comprising two eras. The initial era (until about 1999) was characterised by difficult and highly adversarial relationships within the industry. The latter or second period is currently viewed as more mature, with increased cooperation between stakeholders and businesses. In particular, the development and enhancement of various cross sector working groups, as well as the Group Standards system, are viewed as engendering a more homogenous approach to risk management across the sector.

**Senior management commitment to safety**
A key facet of any effective safety culture is a high level of senior management commitment. We found a widespread recognition amongst senior TOC staff of the need for high levels of senior management commitment to safety. In addition, TOCs devote significant resources to and place significant emphasis upon maintaining high safety standards, and this is widely recognised by their staff. However, some variability was reported with regard to the visible, active, involvement of senior managers, and the extent to which this commitment is perceived as genuine by frontline staff.

**Performance pressures and loss avoidance**
A primary implication of the current performance regime appears to be a strong focus upon loss avoidance, something that features prominently in the discourse of staff of all grades within TOCs. It also leads to a high level of managerial emphasis being placed upon rail staff accounting for delays to services. Where present, the potential for tensions and trade-offs in day-to-day decision making over safety and performance is widely recognised as becoming manifested within middle management operational roles, and is likely to reflect externally imposed conflicting agendas, and the likelihood of sanctions associated with failure to meet immediate performance targets.

**Blame culture and risk aversion**
The attribution of blame and culpability is a dominant characteristic of the rail sector, extending well beyond the safety and risk management arenas. Blame within the industry is exacerbated by the prevailing contractual arrangements, and in particular by the operation of the performance regime. Blame is also amplified by recent major accident investigations, fears of litigation, and an increased sense of personal and organisational vulnerability. Some of our interviewees also claim this has fostered an increasingly risk averse approach to safety decision making.

**Compliance and rule following**
Perceptions of an increased focus on blame appear to have resulted in a more prescriptive approach to operating practice (a so-called ‘compliance culture’). Potential positive effects relate to a reduction in ambiguity over interpretations of statutory rules. Possible negative effects relate to the risk of inflexibility in operating procedures, and questions over issues of workability and non-compliance. We also encountered beliefs that the sector is increasingly characterised by a proceduralised, or ‘programmed’, approach to operating procedures and staff training.
Rolling stock maintenance
The quality of non-safety critical rolling stock maintenance can become diminished in instances where limited capacity, coupled with strong contractual influences, leads to strong pressures to minimise service cancellations. Although not necessarily directly safety-related, consequent knock-on effects on TOC staff morale (through customer complaints) do have potential health and safety consequences for the industry.

Organisational learning
The strong focus on blame found within TOCs and other rail sector businesses has the potential to reduce employee preparedness to report near-miss incidents, and to lead to a focus on immediate rather than underlying causes in incident investigations. This is likely to be to the detriment of corporate and sector-wide learning in risk management. Despite some criticism regarding the national operation of the Confidential Incident Reporting and Analysis System (CIRAS), there is an almost universal belief amongst operational staff in the need to maintain such a system within the current railway sector.

The findings from this work will be of direct relevance to regulators, businesses in the rail sector as a whole, and to the TOC community in particular. At the end of the report are a set of key findings from the research. The evidence collected here provides a robust empirical platform for future quantification of measures for safety climate tools customised to the needs of the UK railway sector.
CHAPTER 1: INTRODUCTION

1.1 Background

This report presents the main findings of a research project investigating issues of safety culture and practice in UK Train Operating Companies (TOCs). Prior to commencement of this study, a number of serious accidents and incidents over the period 1998-2002 had raised concerns amongst a number of stakeholders over rail safety standards across the UK railway network. These included the accident at Southall in September 1997, the Ladbroke Grove collision of October 1999, as well as the serious derailments at Hatfield in October 2000 and Potter’s Bar in May 2002. The occurrence of these events in the period following the privatisation process, which had been initiated in the 1993 Railways Act, has led to speculation of an association between some incidents and attributes of the post-privatisation industry structure. In particular, questions were raised over the potential for conflict between competing organisational goals and specifically tensions relating to trade-offs between the profit motive (including minimisation of losses), performance targets and the maintenance of safety standards. Accordingly, a core aim of the research has been to assemble detailed empirical evidence and insight into the potential for such tensions to develop in rail operations and within TOCs in particular.

The work draws throughout upon contemporary academic research on the organisational drivers of safety in a range of high-hazard industries, and in particular the important concepts of ‘safety culture’ and ‘safety climate’. The idea that failures in high-hazard industries have cultural and organisational causes was first developed by the British sociologist Barry Turner (1976; 1978) in his classic work of the 1970’s on ‘man-made disasters’. Subsequently, a number of high profile accidents in the 1980’s, such as the sinking of the Herald of Free Enterprise, the Chernobyl explosion and the Challenger Space Shuttle accident served to confirm Turner’s systems view, leading to the conceptualisation of the ‘organisational accident’ (Reason, 1997). This emphasised that organisational structures, culture, policies and management procedures all play a role in the development of industrial accidents and incidents.

Widespread use of the term ‘safety culture’ can be traced to the accident at Chernobyl and the response of the Western nuclear industries to the human preconditions to that event (Pidgeon, 1991). The term can be understood in a variety of ways and it has been given the following working definitions by researchers: “the norms, beliefs, roles, and practices for handling hazards and risks” (Pidgeon, 1991); “the attitudes, beliefs, perceptions and values that employees share in relation to safety” (Cox & Cox, 1991); and “the underlying beliefs and assumptions in the organisation or among a subgroup about risk, danger and safety. It will include the way these issues are viewed and the priority attached to them in determining day-to-day behaviour” (Guest et al., 1994); or perhaps more succinctly, “the way we do things around here” (ACSNI, 1993).

These definitions indicate 3 key elements of a safety culture: that it is underpinned by the beliefs and attitudes of individual employees; that these underlying beliefs are

1 A number of these concerns were reflected in the findings of Professor Uff (2000) and Lord Cullen’s (2001) Inquiry reports.
2 See Uff and Cullen (2000), Recommendation 34.
shared; and that it is expressed in the normative processes and day-to-day practices of employees (Clarke, 1998).

For the UK railways, it was the Clapham Junction disaster in 1988, which raised questions about the prevailing safety culture in the then nationalised industry and in particular the efficacy of BR’s systems for managing safety. Since then some academic-based research has been undertaken on this issue within the UK rail sector. Such research has typically focused on discrete topics or themes (see, for example, Buck, 1963; Clarke, 1998; 1999; Guest et al, 1994; Baldry & Ellison, 2000; Hutter, 2001), although most of the fieldwork for these previous studies was collected during the pre- or very early privatisation eras.

**Figure 1** Organisational and contractual structures surrounding Train Operating Companies (at the time of fieldwork, 2003-4)

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3 Source: Adapted from the SRA web site [http://www.sra.gov.uk; accessed 2003]
Following the proposals set out in the 1992 White Paper *New Opportunities for the Railways* (Department for Transport / DfT, 1992) the 1993 *Railways Act* formally established the basis for the privatisation of British Rail (BR). This was an industry which, since 1948, had been unified and nationalised. Privatisation was accompanied by a complex new regulatory structure, much of which was concerned with the commercial aspects of the business and the protection of passenger interests. For the first time in the history of UK railways, the new structure separated the operation and maintenance of the infrastructure from the operation of train services.

Figure 1 provides a semantic representation of regulatory structures, legal requirements, and contractual arrangements between key rail sector stakeholders, referenced to the role and remit of TOCs, in place when the fieldwork was undertaken. Institutionally, privatisation replaced what was essentially a unified vertical command structure (with notable regional autonomy) with a more complex structure of some 60 independent, yet still interdependent, businesses. At the time of writing the number of rail sector organisations has grown to more than 100. Behind this lies a complex web of local and statutory contractual arrangements and obligations. This fragmentation of the industry has led some to suggest that competition rather than co-operation has become the prevailing ethos of the industry (Wolmar, 1996).

Notable variability exists between TOC franchise arrangements and associated responsibilities. However, in broad terms these can be characterised as constituting differences between larger and small operators. Typically, larger operators have responsibility for the staff and management of aspects of station infrastructure, passenger related train movements such as shunting and rolling stock maintenance. Smaller operators' responsibilities, by contrast, tend to be focused on train operation and service provision. These businesses have contractual arrangements, largely overseen by and agreed with the SRA both with other TOC businesses and the infrastructure provider, as well as contracts with ROSCOs and rolling stock maintenance providers. These relationships have in many instances resulted in a complex range of contracts between the TOCs and other sector organisations. Some of these relationships are defined and overseen by the SRA (including costs imposed on others) while others have emerged spontaneously between the various businesses. The effects contractual arrangements have on priorities in decision making and the day to day functioning and culture within TOCs is of primary interest to the current project.

Recent consultancy-based research has addressed the post-privatisation structure and situation, albeit from a more broad-brush perspective. Findings from an unpublished study commissioned by Railway Safety, *Strengthening Safety Culture Across the UK Railway Industry* (A.D. Little, 2001), identified 4 primary characteristics underlying perceptions of the prevailing safety culture within the railway sector: **Short-Termism and Self-Interest**; **Weak Regulatory Co-operation**; **Blame and Lack of Trust** and **Loss of Competence**. However, this study offers only limited elaboration as to why and in what ways these variables are important, and is based upon a relatively small sample of 33 senior managers across the industry.

Arguably more illuminating are the findings of a Department for Transport, Local Authorities and the Regions funded study *The GB Rail Industry: In Its Own Words (Problems and Solutions)* by Mercer Management Consulting (Mercer, 2002). Here, workshops involving representatives of primary stakeholder groups (n = 50), conducted between November 2001 and April 2002, highlighted 4 fundamental structural weaknesses within the rail sector (see Table 1). A global conclusion of this study was
that there exists a widely held belief that fragmentation of the industry following privatisation had made working relationships more difficult and inefficient.

Table 1 Main findings of Mercer study (2002)

<table>
<thead>
<tr>
<th>Identified structural weakness</th>
<th>Manifestation / implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Clear Industry Leadership</td>
<td>Leading to confused and conflicting priorities and a failure to adequately maintain and renew the rail network.</td>
</tr>
<tr>
<td>Failings of the Infrastructure Manager(^4)</td>
<td>Resulting in poor long term investment planning and strategy.</td>
</tr>
<tr>
<td>Little Consideration of Value for Money</td>
<td>Discussed in relation to sub-optimal utilisation of capacity (e.g. a congested network).</td>
</tr>
<tr>
<td>Poor Relationships between Industry Participants</td>
<td>Leading to an onerous and bureaucratic safety regime</td>
</tr>
</tbody>
</table>

The lack of a systematic study of safety culture across all staff grades within the privatised UK railway industry will be addressed by the current project, jointly undertaken by the Health and Safety Laboratory (HSL) and the University of East Anglia (UEA). Through analysis of detailed empirical evidence this study is designed to:

- Draw up a detailed mapping of the corporate and operational motivations that might arise from the current industry structure and its contractual arrangements.

- Explore / evaluate how the industry structure and its contractual arrangements might hold the potential for tensions which impact upon the activity and culture of companies and their staff.

It is also envisaged that the empirical nature and industry-wide basis of this new strand of research will provide a necessary, and detailed, qualitative platform for subsequent work on formal quantification of the prevailing safety climate / culture(s) within the UK railway sector.

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\(^4\) The infrastructure manager present at the time of the Mercer fieldwork was Railtrack. After a protracted period in administration, it has now been replaced by the ‘not-for-profit’ company Network Rail.
CHAPTER 2: PHASE 1 – TOP TIER INTERVIEWS

2.1 AIMS AND METHODS

The core aim of the initial phase of empirical research was to explore the opinions of senior (or ‘Top Tier’) representatives of the principal stakeholder organisations on issues of safety culture and risk management within the UK railways. In particular it sought to explore the working and contractual arrangements and relationships that exist between rail sector business and regulatory stakeholders. The premise here was that in order to explore issues of safety culture within TOCs in Phase 2 of the research it was necessary to first understand the business and regulatory environment in which TOCs operate and the range of broader influences on their organisational culture. We were particularly keen in the Top Tier phase (Phase 1) to explore the impact of external contingences on the setting of priorities and operational decision making within TOCs because these are potentially key sources of tensions between safety and performance.

In Phase 1 Top Tier participants representing each of the primary rail sector stakeholder organisations took part in a series of interviews and 1 group discussion. A breakdown of the distribution of participants, by stakeholder organisation, is provided in Appendix 1. With 1 or 2 exceptions, all participants were at director level, or their public sector or trades union equivalent. The rationale for engaging a range of stakeholders was to promote reflection upon relevant issues from a variety of perspectives; particularly an appreciation of the subtleties of role with respect to the regulatory bodies and the quality of relationships between the various stakeholders.

The format adopted during the Top Tier interviews (and group discussion) was essentially semi-structured, the objective being to prompt wide-ranging discussion of salient issues. The main emphasis was upon exploring issues of safety culture and climate relevant to TOCs in general, (including the complexities of the regulatory and other contractual arrangements) and how these arrangements and relationships have evolved over the period following privatisation. The main research strands emphasised being the formal roles and responsibilities of TOCs, how these have evolved, the extent to which they operate in the manner in which they were originally envisaged, the types of corporate coping strategies adopted by TOCs to meet their operating obligations, particularly in relation to the performance regimes, and the broader socio-economic influences on TOC business activities.

The findings of Mercer (2002) and A.D. Little (2001) reported above (see pages 3, 4) combined with insights from earlier railway safety culture work and a review of the wider literature on safety culture / climate (see Jeffcott et al, 2005) were used to design the core interview protocol. In order to take account of differences in role and remit of specific interviewees a number of dedicated questions were added to the core set of questions common to each interview. As previously noted, the interviews were designed primarily to explore industry working and contractual arrangements and relationships, with a particular focus on the external contingences which impact upon TOCs. The core interview protocol is shown in Appendix 2.

All interviews, and the group discussion, were recorded and fully transcribed before being subject to detailed thematic analysis. For purposes of data analysis, the main issues raised by the Top Tier interviewees were themed in terms of 6 broad categories.
These categories, discussed in the following sub-sections in turn, were: Industry Structure and Stakeholder Relationships (2.2); Management Commitment to Safety (2.3); Expertise, Rules and Compliance (2.4); Safety Communication and the Role of Middle Management (2.5); Organisational Learning (2.6); and The Performance Regime (2.7). The analysis is supplemented by direct quotations - attributed to the organisation to which an interviewee belonged - in both the text or as accompanying evidence boxes.

2.2 INDUSTRY STRUCTURE AND STAKEHOLDER RELATIONSHIPS

The starting point for the current research is that industry structure and relationships are likely to be key drivers of prevailing safety culture. As discussed in the Introduction, there has been considerable speculation of an association between some incidents and the complexity and attributes of the prevailing industry structure, as exemplified in Figure 1. Amongst our interviewees there was almost universal agreement that the major structural changes associated with the privatisation of British Rail (BR) had indeed had a significant impact upon the culture and relationships within the rail sector. However, Wolmar’s (2001) contention, that the privatised structure should be viewed as entirely dysfunctional, was not supported by our interviewees. While there was a limited affinity with the nationalised arrangements under BR, and misgivings over details of the privatised structure, the majority of our respondents appeared generally optimistic about the progress that had been made following privatisation. Indeed, in describing both the industry structure and its relationships, it was common for respondents to distinguish between an initial era of privatisation (from the mid to late 1990s on) and a current second or more ‘mature era’ (from about 1999 through to the present).

2.2.1 The Two Eras of the Post-Privatised Railway Industry

The initial era following privatisation was widely referred to in terms of general upheaval, uncertainty and confusion, particularly with respect to roles and responsibilities. It was also seen as a period in which organisational fragmentation and the imposed performance regime in particular had fostered the development of adversarial relationships to a degree previously unknown within the post-war UK railway sector. By contrast, what we define here as the mature period, while still experiencing organisational change, was generally felt to be characterised by greater stability, cooperation and cohesion, with less uncertainty. Representative quotes referring to this gradual shift in emphasis are shown in Box 1.

For many, the collision at Ladbroke Grove in 1999 and subsequent Public Inquiry were perceived to be a key watershed. Whilst a notable proportion of respondents, representing a range of stakeholder perspectives, were ready to articulate misgivings over a number of, and the number of, recommendations arising from Lord Cullen’s Inquiry (2001), this still seemed for many to be a point of positive change and improvement.
“Back to sort of 96 when I was with [a TOC]... it started as you might expect, to get very adversarial, and a great deal of energy was expended on trying to get rid of delays, blame each other for this and that and the other, simply because there were large sums of money involved and it was, Railtrack were immature, TOCs were immature, and I think that was a characteristic of that situation.” (ATOC)

“[Immediately following privatisation the industry] became much more adversarial, it became a lot more, ‘not my job pal, it’s down to you’ and arguing about contracts...” (ORR / SRA)

“Gradually, gradually there has now been, I suppose in the last 5 years or so, there has been this realisation that ‘hey we’ve got to work together again’... [but I] still believe that we’re not one railway.” (Unions)

“I think subsequent to Ladbroke Grove and what are we now...three and a half years downstream from that now? And certainly after the Cullen Inquiry I think there’s been an obvious effort to improve how parties are perceived and work together.” (ORR / SRA)

**Box 1 Industry relationships during the initial (1993-99) and second (1999- onwards) eras of privatisation**

Despite the fact that the industry structure and performance regime essentially remains unaltered, there was a widespread belief that the mature railway sector exhibits a ‘new understanding of the complexities of the industry’ (Her Majesty’s Railways Inspectorate / HMRI) with associated changes in culture. A key element would appear to be the emergence of greater cooperation and less confrontational interactions.

“Well it is changing and there is a lot of work going on at the moment at a very senior level amongst the SRA, the ORR the HMRI, the HSC [Health and Safety Commission] even, ‘C’ as opposed to ‘E’, and Network Rail, RSSB and ATOC plus the contractors to try and get a joint view of where the industry should be heading.” (NWR)

“If the industry has an issue now, like the National SPAD [signals passed at danger] focus group or something like that, or when they get together in a group there is a lot of co-operation even though they come from different companies to work on safety issues and I think that’s more of a result of the accidents than it was of privatisation.” (Unions)

Respondents cited what they believed to be positive effects in terms of both cross-sector communication and cooperation, sometimes through joint working initiatives such as between the regulators and TOCs regarding driver training for competence. It was also suggested that these changes might have moved the industry toward more cohesion and ‘joined-up thinking’ and have resulted in an increasingly unified approach to safety standards. However, this was tempered by the view that there remained a considerable way to go to achieve the desired level of integration, and especially leadership, as no single body in practice held a strategic overview of safety.
2.2.2 Robustness of the Privatised Structure

Despite relative optimism over greater interorganisational cooperation, many considered that the current sector structure retained fundamental deficiencies which made some safety management tasks more difficult than they might have been (compared to the situation under the old BR structure). Two key weaknesses were highlighted. The first, and most widely articulated key weakness, was that the separation of service provision and infrastructure (wheel and rail) constituted a fundamental barrier to joined-up thinking in operational and risk management terms. Particular problem areas related to a blurring of responsibilities, something which is known from past research on major accidents to hold the potential for both interorganisational communication problems as well as lack of priority being given to safety (for example, Turner & Pidgeon, 1997). For example, a notable cause of friction was said to exist between TOCs and NWR with respect to responsibility for maintenance at stations and other infrastructure elements leased from NWR.

“...there are many instances where this lack of clarity affects safety issues at stations. One example I can think of is where there might be a hole in the platform and [HM] RI tell the TOC concerned to fix it but they come back and say ‘It’s not our responsibility, its Network Rail’s.’ So the combination of a reluctance of TOCs to accept responsibility and Network Rail’s failure to act to fix problems either, means that that hole may sit on that platform for a considerably longer time than it should.” (HMRI)

The second key weakness cited centred around the way in which the performance regime tended to induce sector businesses to focus on partisan interests which acted to the detriment of the integrated operation of the network (see section 2.7 The Performance Regime). Moreover, the focus on performance and attribution of blame for underperformance was widely considered to run counter to the establishment of harmonious relationships between rail sector businesses, in particular between TOCs and NWR. The separation of wheel and rail was also widely cited as contributing to the common inter-organisational friction over delay attribution; with tensions greatest between NWR and TOCs, rather than between TOCs and other TOCs.

“My personal experience is that it [the privatised structure] challenges companies in that they’re all fixated on their own bottom line ... and from a very, I guess, top level the way the industry is set up, when there is a delay and inevitably someone wants to have compensation and this causes frictions ... I don’t think things can run smoothly or people can work as well together because they’re having to watch their companies’ backs, help their own companies.” (Unions)

However, there was an almost unanimous acknowledgment amongst Top Tier interviewees that the fundamental structural difficulties of relationships within the change to a privatised structure are not insurmountable. There appeared to be notable levels of optimism that the sector was gradually developing a range of coordination and other coping strategies to ameliorate these perceived structural deficiencies.
2.2.3 Regulatory roles and responsibilities

The period following privatisation has witnessed notable change in the regulatory structures (for example, the establishment and subsequent abolishment of SRA) both in their terms of engagement as well as the operating status of Railtrack / NWR as provider / manager. Mixed opinions were encountered over the extent to which these changes in regulatory roles and responsibilities had attenuated or amplified the clarity of regulatory roles. One perspective held that role ambiguity remained with the fragmentation of the sector and that the associated contractual regime contributed to this. However, a competing minority view encountered was that the privatisation process has contributed to increased clarity over roles and responsibilities, and particularly through the introduction of safety cases.

“... the other strength would be accountability, because it’s more transparent who’s responsible for different bits of things, which has thrown up areas where there needed to be improvements, whereas before it was all a bit hidden.” (RSSB)

The development of concordats between the 3 rail regulators did help to reduce ambiguities over responsibilities. Key individuals, within each of the 3 different organisations (ORR, SRA and HSE), developing personal relationships may have had the greater impact on inter-organisational communication. These personal relationships were said by interviewees to have fostered a range of successful informal arrangements that have proved conducive to co-operative working and led to increased openness and information exchange.

We conclude here that the culture of safety in the current post-privatised industry, in common with other operational aspects, has the potential to be assisted by the promotion of greater co-operation and the forging of closer links between stakeholder organisations particularly between the regulatory bodies. Our interviewees concurred with this conclusion, pointing to the benefits of a more coherent approach through closer association between the 3 regulatory bodies, particularly at a senior level.

2.2.4 Perceptions of NWR, HMRI and the SRA

A range of views were expressed of the 3 principal organisations that TOCs interact with: Network Rail (NWR, previously Railtrack), HMRI and the SRA respectively.

Regarding Railtrack, the studies of A.D. Little (2001) and Mercer (2002) had suggested that there existed a widespread perception that this was, and remained under NWR, a profit-oriented rather than a service-provision oriented organisation lacking in engineering expertise. Our interviewees’ comments, particularly regarding the initial era of privatisation, revealed a similar view. For example:

“... the problem with Railtrack was that they thought themselves a property company that managed engineering, when in fact they were an engineering company that managed property. Now they are starting to change. Now they are trying to get back some of the ownership that they had given over to the contractors.” (Unions)
However, we encountered divided opinions over the extent to which the change to NWR would lead to a qualitative improvement in relationships between the infrastructure provider and train operators.

In common with Railtrack, perceptions of HMRI throughout the initial era of privatisation were distinctly negative. HMRI (and HSE more widely) tended to be characterised as dictating to, rather than consulting with the sector on safety issues (see Box 2). However, this view of HMRI does appear to have attenuated, in some degree, during the second era following privatisation. Interviewees attributed this to HMRI's increasing participation in joint industry projects, which reflects part of the second era's general shift to more cohesive intra-organisational relationships. A number of interviewees also acknowledged that the job of the industry safety regulator is fraught with difficulties, particularly in an environment where other stakeholders are wary of potential repercussions and 'blame' (see discussion of blame in section 2.6 Organisational Learning). Some respondents even questioned what they saw as a common industry perception that HMRI has a tendency to 'over-prescribe on safety', as exemplified in the final quotation in Box 2 regarding safety improvements to carriage windows.

“By 1995 you rarely saw from an inspector or heard from him unless you’d done something wrong. So the whole emphasis changed [following privatisation] from being an advice and a mutual improvement type approach, to you only got involvement when things went wrong ... That's how I perceived it as a [TOC] manager at that time.” (ORR / SRA)

“So HSE and the HMRI have become much more involved in lots of things...involvement in industry working groups. They’ve been engaged as observers in the ERTMS [European Train Management System] programme board, TPWS [Train Protection Warning System] and umpteen other things. I think there’s been ... the industry perceives that having sat in a bunker they are now coming out of the bunker and saying I’ll sit here with my tin hat on and actually be part of what’s going on, so I think there’s been some active moves there.” (ORR / SRA)

“HMRI is perceived as [sic] by the industry as screaming blue murder and highlighting it [safety] to high heaven, but then it is their job to look after railway safety so they wouldn’t they? Railway Safety and RSSB keep their heads down.” (DfT)

“... a lot of the things they [TOCs] are complaining about are the things that they invented in the first place and don't actually emerge from HSE [HMRI] or anywhere else. It's stuff they have invented. But we've [DfT] only now tried to unpick some of that, so every time they say it's this great safety burden, and it has all of this cost, and you start saying 'well hang on give us some examples', which they never ever do, and you work them through, and you think 'well hang on this didn't actually emerge from anywhere, you seem to have invented this ...'. [A TOC] complained really heavily to one of our ministers recently about how HSE had forced them to fit bars on the windows of their trains, at some cost. It was slam door trains, because somebody had learnt out, banged their head against a wall, and done something. And wasn't it outrageous they now had to fit these bars to it, and the minister came back in and said to find out what it was all about ... and so it turned out all the Health and Safety Executive had said was 'as you've still got lots of these trains with these sorts of windows on, all you need to do is review what, whether you actually do need to do anything more, or not', and it was [the TOC] who then decided the way to do this was to fit bars on the windows ... But the urban myth has become, it's HSE who forced them into doing this, and you just sort of think, hang on, everybody at a lower level seemed to blame HSE or somebody for what they were actually doing, and there seemed lots of back-covering, sort of 'we're not doing it' whatever.” (DfT)

Box 2 Perceptions of HMRI / HSE as a safety regulator
Turning to the SRA, which was formed in 2001 with the remit of enhancing cohesion and coherence across the industry, perceptions of its progress towards realising this objective were generally mixed. The dominant view focused on a perceived lack of a comprehensible or transparent strategy, the provision of which was presumed by interviewees to constitute a core element of the SRA remit combined with questioning of its technical competence and understanding of train service provision. What was described as the ‘lurching franchise policy’ [DfT] was widely cited by respondents as illustrative of the SRA's failure to provide TOC businesses with desired stability:

“...the constant uncertainty about franchises, failure to close contracts on franchises, has not given any confidence in the ability of the SRA to provide a leadership role, let alone anything coherent.” (HMRI)

A core focus for the SRA is inevitably on service providers delivering performance objectives, referenced to relevant franchise agreements. This emphasis has led a number of commentators to question the degree to which the SRA's focus on service provision objectives underplays, and in some instances leads to tensions with safety considerations, when drawing up franchise agreements. In overall summary, the SRA was characterised in our interviews as ‘expecting others to handle safety, for all intents and purposes’ (RSSB). With regard to SRA’s intended role in enhancing cohesion and co-ordination, this was viewed as reflecting constraints and fundamental barriers imposed by the current structure and the industry.

2.3 MANAGEMENT COMMITMENT TO SAFETY

Recognition of the central role played by senior staff in influencing the cultural profile of health and safety, relative to other operational considerations, reflects established theory and research findings (Pidgeon & O'Leary, 1994; Jeffcott et al, 2005). In empirical work management attitudes and actions have been found as defining influences on workplace safety culture (see Zohar, 1980; Brown & Holmes, 1986; Dedobbeleer & Beland, 1991; Flin et al., 2000). Cox and Flin (1998) summarise the widely identified finding that employees' safety commitment reflects perceived 'managerial concern for safety'. Similarly, the HSE sees a positive safety culture as being predicated upon the active involvement of directors and senior managers, made apparent to staff 'by the amount of time, resource and support that health and safety is afforded' (HSE 1999).

Offshore industry insights highlight the practical difficulties of initiatives aimed at enhancing perceptions of managerial commitment. For example, O'dea and Flin (1998) cite instances where offshore managers felt so overburdened with the administration of safety that levels of visible managerial commitment were y considered to have diminished. Similarly, Collinson (1999) highlights how senior managers can be hierarchically, geographically and culturally distanced from the realities of the workplace, such that they may display overconfidence in the safety culture of their organisations. Intuitively, such findings are likely to generalise to other contexts, particularly in relatively large geographically diffuse originations such as TOCs.

2.3.1 Commitment to safety: rhetoric and reality

Interviewees regularly expressed a belief that leadership style was a core influence on the prevailing culture and safety standards within TOCs, and throughout the rail
industry more generally. Interviewees suggested that leadership values, visible also to others through managerial methods and behaviours, would be reflected in frontline safety attitudes and are potentially more influential in shaping safety culture than official documents and statutory rules. That is, visible behaviours of leaders, or equally sometimes lack of behaviour, with regard to safety issues has the potential to influence staff values and perceptions of the safety commitment within the organisation. Visible behaviour may be more important than the actual or espoused corporate/managerial discourses regarding such commitment.5

There is a critical distinction in safety culture between strategic policy and procedures that support the safety management system – the ‘rhetoric’ – and action in interacting with frontline staff on issues of safety – the ‘reality’ - of management commitment (a number of illustrative comments are shown in Box 3). Some theoretical and empirical evidence links frontline perceptions of management commitment with a positive safety culture and safety performance (Cox & Flin, 1998). However, the literature gives little consideration to the distinction between safety ‘rhetoric’ and ‘reality’ and how this may affect the way a manager’s commitment to safety is perceived by frontline staff. Focusing TOC managers’ minds on how to meet operational performance objectives begs the question of whether and when performance may take priority over safety, and the extent to which any mismatch between safety ‘rhetoric’ and ‘reality’ has a corrosive effect on safety culture more generally within the organisation (see section 2.7 The Performance Regime). Interviewees provided a number of examples of how industry pressures, in conjunction with the complex contractual matrix, lead to a disproportionate focus on performance in TOCs. Somewhat pessimistically, they related this directly to a reduced level of ‘real’ commitment to safety by managers in these businesses.

Reality:
“A lot of the time in the TOCs I think it [safety culture] depends on personalities. Personnel and people who are in the protection- production continuum. There are some people at one end, as the safety people are at the safety end, and some of the managing directors are at that end, and some of them are in the middle, and a lot depends on those relationships, you know the way people think and behave on the ground.” (ATOC)

Reality:
“... and in fact [safety] culture for me, the achievement of a positive culture is the by-product of the leadership values ... what has meaning for me in this context is that ‘the standard you walk past is your standard’ so if you walk past a manhole cover which is left open and with no surround that’s your standard. And that’s exactly what leadership is about. If you, as a leader, are prepared to accept that, that’s your standard. And people will understand that’s your standard, because you have just walked past it, therefore it must be acceptable to you. And it’s getting across these simple messages to people rather than trying to hit them with very complex long-winded wordy statements about beliefs and values which is very important.” (NWR)

Rhetoric:
“... I am sure that anyone that put the regime in place would say, ah but inherent in the railway network is, you must have safety. You know, you can’t have the performance without the safety. But of course if the only thing that people are being asked about is minute delays and performance, then it may be that it doesn’t get seen as being as important.” (RSSB)

Rhetoric:
“... they [TOCs] run a tight ship. They have to run a tight ship, because they are...there's not a lot of profit in running the railway. So, I think they have pressures on them, and I can understand why perhaps their focus is not so much on culture and good safety, health and environment performance, when all these other things are pulling them.” (NWR)

Box 3 Views on the ‘rhetoric’ and ‘reality’ of management commitment
2.3.2 Amplified Risk Aversion

A recurrent theme in the interviews was the extent to which management decision making across the sector as a whole, and the various stakeholder organisations and individuals within it, had become increasingly cautious and risk averse in the period since privatisation. Some respondents viewed this as simply reflecting safety’s rightful place at the top of the agenda of TOC businesses in the more mature second era following privatisation. For others risk aversion was a significant concern permeating all layers within TOCs.

A primary driver of risk aversion was thought to be the organisational and personal consequences of the recent major railway accidents (combined with media, regulatory and public pressure on the industry), and in particular the calls for attribution of individual and organisational culpability and blame. Many felt that such fears had resulted in a disproportionate emphasis on safety issues not only within rail sector businesses but in influencing the role adopted by the safety regulator also. Some respondents also commented that a by-product of an overcautious approach was that this not only stifled innovation and free-thinking but had the potential to subvert a more objective approach to risk management. This was said to have lead to an over-concentration on minor rather than major hazards. Box 4 illustrates some of the comments offered with regard to risk aversion.

“...an issue which is banded round a lot is what is called risk aversion. And this is what the industry would see, some within the industry would see as being an overcautious approach to risk taking, and shop floor workers would see it as management getting silly over safety, over the top ...” (HMRI)

“We talk about risk aversion as though it’s a bad thing ... Now, whether risk aversion when you are talking about managing safety is a bad thing, well I think it probably isn’t is it? Risk aversion is entirely what you expect me to do isn’t it? Risk aversion is entirely what you would expect me to do isn’t it with one of my trains, it’s what you’d rather hope isn’t it?” (ATOC)

“... everything is treated like a ticking time-bomb, which has of course forced us to raise our game in some cases, but generally results in blanket solutions, similar priority for a range of very different risks with hugely different impacts.” (RSSB)

“The victimisation, what I’d call the victimisation, of our [rail] industry by the media in recent years makes this [risk averse] situation worse.” (Unions)

**Box 4 Perceptions of increasing risk aversion**

Interviewees commented that a risk averse culture held the potential to lead to impractical and in some circumstances unworkable safety rules to the extent that the cultural legitimacy of rules and procedures more generally is undermined. The tendency towards risk aversion can also be interpreted as evidence of the presence of a blame culture; which held to have a long history within the railway sector (for example, Rolt, 1955). Our respondents, however, portrayed a proliferation of blame during the 1990s (see section 2.6 Organisational Learning). Moreover, there were
suggestions that a culture of risk aversion and blame extends beyond the health and safety arena.

A linked perception was what was seen as a widespread and ‘irrational’ victimisation and vilification by the media, some politicians and the legal process. This was further reflected in the seemingly widespread beliefs, which extended beyond operational businesses, that a significant number of the recommendations arising from Lord Cullen’s inquiry were unreasonable and unrealistic. Indeed, a significant proportion of interviewees believed it was the recent Public Inquiries into major accidents in the sector which had played a significant role in engendering a risk averse attitude to safety management and decision making.

Clearly, the extent to which risk aversion does drive both management decision making and other behaviour is an important issue for Phase 2 of the current research.

2.4 EXPERTISE, RULES AND COMPLIANCE

A number of commentators have highlighted an exodus of employees as being an unintended consequence of the privatisation process. Our own respondents corroborated this view also pointing out an inequitable distribution of experience and expertise across sector businesses; raising questions over issues of knowledge management and on erosion of core technical and operational competence, (for example, Mercer, 2002).

2.4.1 Loss of expertise

We were primarily interested in eliciting views on the general impacts a loss of expertise might have had on the industry and the coping strategies adopted, and, the associated / corresponding implications for the future of operational and safety management. A notable cultural change relates not only to the loss of established corporate memory, but the fact that the long-established BR culture of a ‘job for life’ must be set now against a reportedly unprecedented turnover of staff today. The privatised sector was also reported to be experiencing an unprecedented influx of staff from other commercial non-railway backgrounds. Our respondents with a career history in the railway sector perceived issues of knowledge management and loss of expertise as weaknesses of the process of change.

Some interviewees went on to express concern that a full appreciation of the impact of this shift, and the loss of long-standing ‘career railwaymen’, has not been sufficiently recognised. As a consequence, the industry was ill-prepared for the future and faced the very real risk of skill shortages. The part of the sector over which such concerns were most strongly expressed related to infrastructure maintenance; there were notable suspicions amongst interviewees regarding the outsourcing of railway maintenance activity.
“We lost a lot of experience [at privatisation]... a whole swathe of corporate knowledge and experience in one go ... we lost a huge amount of experience and ran a huge risk immediately post privatisation.” (Unions)

“If you read the HSE contractorisation report that came out the other week, there is lots in there showing that neither Jarvis or Railtrack ever understood that particular set of points [at Potters Bar] and that is part of the problem, that between them they were maintaining what they thought they were doing was okay, but never really understood, well, neither of them fully understood what the hell they were doing, and so I think under BR some bloke would have known, sort of ‘this is my set of points and I know, I’m certain, if I tighten that you have to untighten that bit at the same time and so on ...” (DIT)

“... asking people to work more overtime and rest days, although each company will have a policy which says in theory that staff should not work rest days ... There has also been more poaching of staff between companies these days and this has left some operators having lost key staff members, which less experienced members may have to fill in for until someone new is recruited. And of course this may have safety implications depending on how safety-critical the role is. Pay differences between different TOCs is also potentially a problem as you may, there will be the potential for resentments as some drivers get paid less for doing essentially the same job as their counterparts in other companies.” (ATOC)

**Box 5 Loss of Expertise**

A general shortage of staff in the industry was another problem raised with immediate consequences claimed to be a ‘long hours culture’.

### 2.4.2 Compliance culture

Loss of expertise against a backdrop of high blame was linked, in several of our Top Tier interviews, to the view that a ‘compliance culture’ now proliferates within the railway industry. The term ‘compliance culture’ was used to refer to a tendency for staff at all grades to interpret statutory rules and procedures in a conservative manner. The term also describes what interviewees saw as an increasingly prescriptive approach to the interpretation of statutory rules: to the extent that there was said to have been a mushrooming of written procedures in rail sector businesses in recent years. This was seen as being in contrast to a history under BR of a more innovative interpretation of rules. It is, perhaps, of note that some respondents also expressed the sentiment that within BR there was also a tendency towards ‘over-interpretation’ of rules and procedures in railway operation.

The basis for this growth in compliance was again widely cited as being attributable (as with the issue of risk aversion discussed in 2.3 Management Commitment) to fears of blame and culpability in the event of an accident or other incident (see also 2.6 Organisational Learning). Particularly in the case of senior and middle managers, it was suggested that a documented prescriptive approach was viewed as a means of self-protection against prosecution and other forms of culpability. Within a highly proceduralised, highly regulated safety-critical industry like the railways, rule compliance is clearly essential. The point at issue relates to the level of conceptual interpretation placed upon compliance at an operational level, as well as the appropriateness of the existing rules for all situations.
Respondents also cited what they believed to be other negative effects associated with the development of a compliance culture; firstly, that this may have stifled innovation within the sector; secondly, that an increased emphasis on compliance gives rise to a less flexible and more ‘programmed’, rather than a conceptual, approach amongst operational staff.

Respondents also tended to link notions of a compliance culture with a change in emphasis over liability for accidents and other unintended events, specifically a shift from the individual on the frontline to the managerial or organisational level. That is to say, moving the focus from immediate causes - such as finding fault with the operator and his/her actions - to root causes finding fault with the manager and management processes. While a desirable outcome of a more systems-based approach to the issue of ‘human error’ (see Reason, 1990; 1997) has undoubtedly raised concerns amongst senior and middle level managers within railway businesses that their organisations might be subject to corporate prosecution. This may, in turn, manifest in the form of increased management expectation and/or pressure on their staff to employ a stricter application of the rules, specifically to guard against the possibility of subsequent prosecution. A general concern was also expressed that the years following privatisation have witnessed the growth of an overly convoluted matrix of rules, standards and procedures – or ‘group standards mayhem’ –something which was reported to have created an atmosphere of confusion amongst operational staff.
“... people are really rule-bound, so that's a change from privatisation ... in BR days this was the rule book, but you used your experience to vary it, use your judgement and whatever, but now, because of risk aversion threat of prosecution you actually say ... the rule book says I must do X therefore I will do X. I will not do this better or worse or whatever, I will do exactly what this says, even though I think it's actually not justified or whatever ...” (DfT)

“[There is] ... a slightly greater emphasis on doing it by the book, rather than we've got a problem, look we can get out of it. ... It has changed to an even tighter default to the regulations. Now, if the regulations are right, that is no bad thing. It's a very good one, but it does rely on the regulations being right, and it can take away the potential for a certain amount of, I think initiative is probably the right word, from people who do seriously know what they are doing.” (HMRI)

“You know, if it's not in the rule book, you don't do it. Well surely we ought to be training people, you know, that's the training manual, you have rules of the principles, and then you train people to work within those principles.” (RSSB)

“What we have lost with this rule fascination is that the instinctive aspects of safety culture have gotten taken out. Because before the culture was there, and you would gradually become part of it, and as it would build it up, do it quite unconsciously ...” (NWR)

“... every time there’s an accident, you stick another half a dozen things in there [the Rule Book].” (Unions)

“They [TOC staff] know that many of the rules are written to protect other people’s backsides and not their own.” (ATOC)

“As far as we know there are more rules, more procedures in all sorts of different levels. When you get group standards, company standards, and all the rest of it, than any other industry going, and RSSB’s prime task... is [to] reduce and simplify the rule book.” (DfT)

Box 6 Rules, proceduralisation and compliance culture

2.5 SAFETY COMMUNICATION AND THE ROLE OF MIDDLE MANAGEMENT

Academic research has previously highlighted that it tends to be at the middle management or supervisor level that the tensions between performance objectives and safety objectives frequently manifest themselves in high-hazard industries (see, for example, Ostberg, 1980; Hale & Glendon, 1987; Cox & Flin, 1998; Jeffcott et al, 2005). Our Top Tier respondents devoted considerable time to discussing the role of middle managers, justified by the belief that this group have a major influence on the perceptions and behaviour of frontline staff. In particular, the middle manager role involves informal day-to-day interactions with frontline staff, as well as more formal competency and rules assessments. When considering issues of internal communication within rail sector businesses, respondents highlighted what was termed as a ‘blockage’ at the middle management level. Specifically, it was held that levels of safety commitment were generally high, but that the emphasis on this as a priority was lost, or diluted, by intermediate management levels as it passed down though the
organisational hierarchy and came into conflict with other (for example, performance-based) aspects of the individual’s role.

"The [safety] message gets diluted on its way down, it gets diluted by other concerns and the brunt of these fall to your driver managers and so forth, those in the middle ... and that’s why I said, when you said about managers being seen to be risk averse, maybe at the top, but by the time it comes down into the middle, there are other pressures, and those pressures are basically performance pressures, and therefore the safety unfortunately gets diluted somewhat.” (Unions)

“People at the middle layers feel tension the most because you will probably find that it’s that sort of level at which people have got the objectives against which they are going to be assessed at the annual appraisal for example. ... the man, the woman, on the platform has got the rule book to fall back on ... it’s when you go up that one level that you have got these sorts of tensions existing, because of the performance regime.” (HMRI)

“... advising drivers that driving too cautiously was ... was worse than driving not cautiously at all. That if you did that, you delayed the train behind you creating red lights, which is perfectly correct as far as it goes but sent the wrong message to some drivers. It was not an implicit message that you would really choose; it was the right message really, just badly expressed.” (HMRI)

**Box 7 Middle management and ‘mixed messages’**

If middle managers demonstrate a preoccupation with meeting performance objectives this is perhaps unsurprising given their role within TOCs. In particular, members of this middle management group are frequently responsible for accounting for delays and cancellations of services. In many contexts it seems that their own competence is judged primarily in terms of such achievement. It is significant that the high visibility of failure to meet performance objectives stands in stark contrast to decisions regarding the compromise of safety standards which only rarely manifest themselves in an observable incident or impacts.

The general consensus from our interviewees was that middle managers frequently face a very difficult task in terms of trying to balance performance and safety, and that the competing priorities sometimes lead to ‘mixed messages’ being communicated to frontline staff. It is perhaps of note that the decision environment has also been widely defined as one in which there is a history of pride and status ascribed to ‘getting the job done’ and keep train services running to time. Respondents also noted how contradictory objectives of middle managers might impact upon the priorities and behaviour of front line staff.

### 2.6 ORGANISATIONAL LEARNING

The issue of the ways in which organisations learn from incidents and other events is a critical one within the safety culture literature (for example, Pidgeon and O'Leary, 1994; Pidgeon 1997). Indeed, the capacity to continually learn from and adjust to circumstances in an ‘intelligent’ way is a defining feature of many so-called high-
reliability organisations (see Pidgeon & O'Leary, 2000; Weick & Sutcliffe, 2001; Rijpma, 2003).

2.6.1 Blame and culpability

As the quote from the Cullen inquiry in Box 8 illustrates, and as has also been observed in other high-hazard contexts (see, for example, Vaughan, 1996; Pidgeon 1997; Cox & Flin, 1998), debates surrounding the existence of a blame culture and its impact upon learning lessons proliferate within the railway sector. In exploring this issue with our Top Tier respondents we attempted to probe the range of ways in which blame manifests itself and the socio-cultural and organisational factors which underlie it. One element explored related to the effects of blame and culpability on organisational learning, in particular learning from accidents and near-miss incidents. A further issue explored was whether notions of blame and culpability had changed within the sector over time. As the Cullen Inquiry quote suggests, there is a view within the industry that blame has been amplified by the arrangements under the privatised network.

A number of our respondents were of the view that a blame culture had a long history within the railway sector and were keen to point out that this pre-dated privatisation. However, respondents also suggested that notions of blame and culpability had indeed become amplified following privatisation. As the quotes in Box 8 illustrate, this was widely attributed to the increase in the number of interfaces, pecuniary contracts, and their impact on intra-industry relationships.

"Privatisation has created a big cultural change. There is now little inter-linking of culture from one company to another. There has been a loss of comradeship between drivers, signalmen, cleaners etc. There is no longer a sense of working together. Questions of delays and attribution of blame strengthen the divide. This has led to a lack of confidence in others. No one is encouraged to discuss someone else’s problem, or volunteer, or shares information. There has been a loss of learning and this leads to poor communication.” (Report to Ladbroke Grove Inquiry, 2000)

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“I feel that the blame culture has always been around in the industry to some extent, at least people have talked about it, known what it meant but recently it’s magnified considerably ... Having separate businesses will tend to magnify rather than contract it. Because you have produced the situation where every interface becomes a contractual one, and given the way that our adversarial legal system, that we generally operate ... [or] with letters between companies ‘you should have done that, we were right, you were not.” (HMRI)

“Ladbroke Grove, Hatfield, Potters Bar, it’s all perceived risk - I’m going to be prosecuted either by HSE or by the British Transport Police [BTP], you know, particularly the attitude of BTP, I think really turns people off and that’s why you get the blame culture...after Ladbroke Grove, for instance, there were people from the insurance company who turned up, there were lawyers who turned up ... they hired a public relations firm and I can say that never before in my railway career I’ve never seen lawyers, public relations guys, or insurance guys tagging along with us ... If you had to answer a question they would sort of have a get together to see if whether that was a definitive answer or not, and then you have lawyers present when you have HSE or BTP and the blame culture just snowballs.” (ORR / SRA)

Box 8 Reasons for blame culture
We encountered almost universal agreement amongst respondents that the major incidents at Southall, Ladbroke Grove, Hatfield and Potters Bar, together with subsequent inquiries and legal actions, constituted a major influence in amplifying perceptions of a blame culture within the sector. It was apparent that many of our respondents felt that they were not only ‘under siege’ in this context, but were personally vulnerable to attributions of blame and culpability. The high profile (and potentially high personal consequences) of charges of corporate manslaughter was considered to have made personnel within the sector acutely aware of their personal accountability. Blame and culpability were felt to percolate down through individual rail sector businesses impacting upon risk management and management style more generally. A consequence of this was said to be that the management chain tends to become risk averse. Moreover, others cited the proliferation of blame as having the effect of suppressing and obscuring the potential for railway sector learning from accidents and incidents. When considering calls for a no-blame culture (for example, van der Schaff, Lucas and Hale, 1991; Pidgeon 1991; Reason, 1997), the general view was that this was unrealistic, if not unworkable, within the current social climate, as the quotes in Box 9 illustrate.

“A no blame culture is a wonderful idea but when an accident happens people want to shoot somebody down, particularly with a large accident and that pressure comes from both inside and outside of the industry.” (HMRI).

“So practicing a no-blame culture is absolute piffle, and runs against the values which society holds so for God’s sake help to drive back this rubbish that people try to sell a blame culture. It doesn’t work. Just culture yes. No blame, forget it.” (NWR)

“I think it’s [blame culture] very much ingrained. And I think it’s ... I mean it starts from the top doesn’t it? ... all the time you have got that sort of political pressure from you know scalps and people being held accountable, and the corporate manslaughter debates and all of this sort of thing. I mean to be honest we try and talk about making distinctions between errors and violation and all of this sort of thing, but it is an uphill struggle, because all the time you have got that kind of pressure I mean that tends to permeate through, and it makes people terribly risk averse. I mean I think it has that affect on me. I can see myself when I am aware of a situation somewhere, ringing up and saying ‘what the hell are you doing about this bloke?” (ATOC)

Box 9 Attitudes towards ‘no-blame’ cultures

The competitive culture arising from the performance regime was also clearly linked with notions of blame within the minds of our respondents (such that issues of blame and culpability extend to contexts beyond the safety and risk arenas). Overall, the discussions in relation to blame culture all echoed Cullen’s concern, and the findings of the A.D. Little (2001) study. That is to say an industry-wide atmosphere of blame and retribution in the aftermath of accidents was detrimental to organisational learning objectives and the future prevention of untoward consequences on the railways.
2.6.2 Incident reporting

Our respondents indicated that front-line staff may make a distinction between errors and violations, and that this distinction tends to impact upon what is and is not reported to their superiors. The picture portrayed was one in which innocuous errors and mistakes may be reported but very few reports implicated individuals, particularly where those individuals were colleagues. Confidence in levels of reporting, particularly of near-miss incidents, was generally low amongst our respondents. Many appeared adamant that the culture of blame was creating an atmosphere where frontline staff were reluctant to report adverse events to superiors.

Finally, opinions were offered by some of our participants in relation to CIRAS. This system went nation-wide in 2000 and has since received over several thousand reports. Incident reporting rates are indirectly related to safety culture: that is, the more open, and effective a safety culture is then the higher should be the rate of reported incidents and near misses, all other things being equal (O’Leary & Pidgeon, 1995; HSL, 2002). However, what is rarely observed is the relationship between attitudes of key stakeholders toward both intra and supra-organisational incident reporting systems and reporting rates. At this Top Tier level, the major theme that came out of discussions of CIRAS was the belief that it functioned to circumvent internal systems and that it might in this way interfere with the quality of safety information shared between frontline and management levels within TOCs on a day-to-day basis. For example:

“[CIRAS is] not much loved. Interestingly it was much loved in Scotrail, which is where it was piloted, you know at the University of Strathclyde all those years ago. Scotrail’s view interestingly is that it has lost credibility because it has changed the way it is used and rolled out nationally it has changed and it is rather seen I think you’ll find, as a tool simply for grizzling and griping round the back door rather than going through the normal management channels.” (ATOC)

Nevertheless, a few respondents saw such attributions as reflecting unease amongst businesses who might have to ‘wash their dirty laundry in public’.

2.7 THE PERFORMANCE REGIME

A number of authors have highlighted linkages between performance pressure and time pressure in the workplace more generally, and a predisposition towards the adoption of non-standard working practices and / or risk taking (for example, Wrench & Lee, 1975; Wright, 1986; Hale & Gelendon, 1987; Weyman, Clarke & Cox, 2003). As Wright notes, actual or perceived performance pressure can lead workers to believe that engaging in short cuts [risks] is an expected, or even required, part of the job. Workers who perceive or experience a high degree of performance pressure may come to focus their attention on completing the work and focus less on the safety of their work procedures.

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6 For more on the background, objectives and human factors analysis behind the CIRAS system, please refer to the official web site found at: http://www.ciras.org.uk (accessed 19th May 2004).
2.7.1 Profit maximisation or loss avoidance?

A widely held view in our interviews was that the primary emphasis since privatisation had been upon realising the objectives of the performance regime. Some respondents suggested that the pressure for this emanated from central government, whose rhetorical emphasis during the late 1990’s was very much upon performance and reliability issues on the railway, rather than safety. However, respondents were generally of the option that the emphasis had changed significantly in the wake of the Ladbroke Grove accident and Inquiry.

“... in TOCs they know that they have to push for good performance or they will go out of business because the SRA will pull the plug.” (HMRI)

“So any tension which arises, which will arise in TOCs may be because the SRA are saying ‘we want you to save 20% of your budget by tomorrow’ or ‘we want you to put on 44 trains’ or ‘we want you to do this that and the other’, which will not necessarily have but which may have safety implications ... so you do have some sort of tension over that because they [the SRA] hold the purse strings. That creates tension at [TOC] level, yes it does.” (ATOC)

“How is pressure felt in TOCs? Well it tends to manifest itself as internal tension brought about by external demands, pressure to meet their KPIs [Key Performance Indicators]. And that’s become the way of life for TOCs now.” (RSSB)

“The impression I get is that it is far easier for them [TOC managers] to lose money by way of penalties than to bring in extra revenue, which is why the focus, which is why the graphs on the offices are on the punctuality and performance issues. I mean it’s an area where they have greater ability to influence as well.” (HMRI)

Box 10 Financial pressures and performance

The belief that the performance agenda provides the primary criterion impacting upon priorities and decision making within TOCs today received widespread support amongst our participants. That is, the view that TOC decision making remains primarily focused on meeting SRA set performance objectives (Key Performance Indicators - KPIs). The view was expressed that operational performance also holds centre stage because franchises are won and lost upon the basis of achievement of KPIs rather than a TOC’s safety record per se. While the SRA clearly has a direct influence on TOCs, other aspects of the performance regime have a more indirect impact on TOC activity. The KPIs of NWR will impact upon its own operational priorities, for example, with respect to the criteria it applies in the prioritisation of train services.

A number of participants suggested that, while it was possible to increase financial surplus value as a train operator, in many respects much of TOC activity could be characterised as being motivated by loss avoidance rather than profit maximisation per se. In particular, the current regime was widely believed to have made TOCs very cost conscious and cost focused. This created a ‘revenue culture’ whereby TOC emphasis is on minimising losses. While there is an almost inevitable tension between the realisation of performance and safety objectives, some interviewees even went so far
as to question the widely encountered rhetoric that ‘safety is the number one priority on railways’. These respondents felt that this was a rather hollow and unrealistic statement and one which risked being perceived as such by staff.

2.7.2 Timetabling

A number of respondents commented that the degree of motivation created by loss aversion can manifest itself as time pressure at an operational level. In considering time pressure, our respondents concentrated upon issues associated with train movements, train despatch and SPAD risks in particular.

“If a train is running late, the pressure is on you to get the train out of the station ...So therefore, are you therefore going to pay as much attention to ensuring the doors are shut and everything else, as perhaps you ought to? ... You know, it’s not a deliberate thing, it’s just that’s where your mind is focussed, and that’s a very simple type of situation, where people’s minds are focussed more on performance, than it is perhaps on the safety.” (Unions)

“I think the timetable has a lot to answer for in terms of some of the performance pressure that frontliners potentially feel, are subjected to, I mean I’m talking about in terms of really tight turn-around times and potential pressure to miss their PNBs [Personal Needs Breaks] and so on. As an industry we haven’t ever comprehensively investigated how the timetable does, or doesn’t affect both train running performance, plainly, but also safe performance ...” (ATOC)

“... we have done reviews of timetables on the basis that they are clearly not robust because there are too many trains on the track, there is insufficient turnaround time at terminal stations, there are other operational risks where they have got conflicting routes ...” (ORR / SRA)

“... if he [a driver] is trying to make up time, and that’s not just a performance regime driven thing incidentally, because the working timetable always used to say, in BR days, going back since I started, that drivers should try and make up time without breaking the rules, so there was always a push to keep on time associated with the timetables.” (ORR / SRA)

Box 11 Timetabling and time pressures

Interviewees also commented on the extent to which time pressure, for example that attributable to the performance regime, might impact upon the risk decision making of front line staff. These reservations were couched within a wider perception, suggesting that the SRA in particular lacks sufficient insight into the realities of train operation. In short, what were seen as unrealistic timetable objectives (for example, relatively brief turn-around times at terminus stations) were felt to add to the pressures experienced by front line staff, to the extent that they might induce corner cutting. One interviewee also noted that compliance with the principles of safe driving emphasised in the ‘defensive driving initiative’ might be countered by the strong emphasis on running to time, and its corollary in making up lost time.
“A good example for me is the case of defensive driving. Defensive driving was brought about to stop drivers going past red lights and having SPADs, which are obviously undesirable on the network. However, with defensive driving regimes in place, drivers can’t meet their timetables and so at a TOC level this [defensive driving] is perceived as a burden on operational performance and a drag on time and resource.” (DfT)

However, as a number of respondents also pointed out, other cultural aspects, in particular those relating to pride in and basic operating principles of running to time, quite likely also play a role in running to time.

2.7.3 Maintenance issues

While performance pressure may well be felt by drivers, our Top Tier participants saw depot-based rolling stock maintenance staff as experiencing the most pressure (as illustrated in Box 12). Particular pressures were felt to fall upon maintenance staff when working to complete overnight tasks in order to ready stock for the following day (particularly in a situation were there may be little spare capacity in stock). This focus upon rolling stock maintenance issues was an unexpected finding for the research team, and one which is further explored in the TOC level interviews.

“... there are a number of serious problems centred around maintenance regimes like, in some cases, failure to qualify any of the suppliers properly which could lead to any number of things, most likely failure to carry out maintenance to the required schedule. Changing schedules without getting appropriate authorisation and competence of people carrying out safety-critical work is a big one [problem]. And just generally having too much to do in too little time means things get missed and then that puts pressure on further down the line, and you [don’t tend to] hear about it because we do tend to focus our attention on driver issues in this industry.” (ATOC)

“Often maintenance is very hectic at night which is when most of them [the TOCs], when most of the work gets done. Some of them are very tough, some of them have got a lot on their plates, some of them have got a fairly relaxed schedule. I mean it sort of depends where you go to be honest, I would suggest that there is quite a lot of variability in terms of maintenance within TOCs.” (ATOC)

Box 12 Performance pressures and rolling-stock maintenance

2.8 TOP TIER INTERVIEWS: THE OVERALL PICTURE

The Top Tier interviews presented a highly complex picture of both the major external drivers of safety culture within TOCs, as well as some of the manifestations and consequences at a day-to-day level for these organisations. Figure 2 summarises some of the most critical factors that we encountered.

It is clear that the privatisation process, and with it the current industry structure, is only 1 of 4 key drivers underlying the current cultural profile of safety within the industry more generally, and TOCs in particular. The others are the major accidents, and with
them their associated inquiries and legal action, that have occurred both before (Clapham Junction, King’s Cross in the late 1980s) and since privatisation (Southall / Ladbroke Grove in the late 1990s, and latterly Hatfield and Potters Bar); a strong sense of blame culture within the industry, which pre-existed but was amplified by the privatisation processes; and, finally, a range of financial pressures manifest in both the franchising process and the day-to-day operation of the performance regime. However, it is not possible to divorce these other drivers entirely from the move to privatisation as the process, for example, also impacted on the general approach taken at the accident inquiries. Taken together, these 4 external contingencies account for many of the prevailing constraints and industry influences said to impact upon TOCs and their behaviour, as illustrated in the top half of Figure 2. Such constraints include: the performance regime; a fragmented organisation structure; degraded infrastructure / stock and loss of expertise; a lack of strategic leadership; intense media and public scrutiny; and an amplified blame culture.

We should stress that many of our interviewees indicated that while the initial era of privatisation (~1993-9) was indeed characterised by difficult and adversarial relationships, and in particular a distinct lack of cooperation between stakeholders, there was much that was seen as currently positive, and changing, within the more ‘mature’ second era of the privatised rail industry. Nevertheless, problems were thought to remain. At the level of TOCs our Top Tier interviewees indicated that a range of impacts and consequences existed, shown in the bottom half of Figure 2. These include, principally: a tendency for aversion to losses in relation to performance, and aversion to risk in relation to safety; a compliance culture leading to increased bureaucratisation of procedures; the continued existence of partisan interests (and in particular what was seen as an undesirable separation of ‘wheel and rail’); and particular tensions at middle management level regarding safety versus performance objectives.

While perceptions of tensions between TOCs and the infrastructure manager had been expected at the outset of the research, an unanticipated finding was the strong emphasis placed by some interviewees upon the difficult relationships that TOCs sometimes face with their maintenance providers. Rolling stock maintenance is a theme we return to in greater detail in the second, TOC-based Phase 2 of the research.

The Top Tier interviews clearly provide only a partial view, specifically that from the perspective of leading stakeholders within the industry as a whole, rather than staff at the frontline of safety and risk management within TOCs. In the following chapter we go on to describe how some of these issues are manifest for TOC staff in their day-to-day activities.
Partisan Interests

“Mixed Compliance

Loss of Expertise

Lack of Strategic Leadership

Media & Public Scrutiny

Amplified Blame Culture

Degraded Infrastructure Stock

Performanc e Regime

Fragmented Structure

Maintenance Concerns

Partisan Interests

“Mixed Messages”

Compliance Culture

Risk Aversion

Separation of Wheel & Rail

Loss Aversion

Organisational Learning

Figure 2 TOC safety culture: drivers, impacts and consequences
CHAPTER 3: PHASE 2 – TRAIN OPERATING COMPANY (TOC) 
CASE STUDIES

3.1 AIMS AND METHOD

The Top Tier interviews provided valuable insight into issues of safety climate and played a key role in framing the issues addressed in our subsequent interactions with TOCs and their staff.

The core aim of the second and principal phase of the project was to derive detailed empirical data and insight into variables impacting upon the prevailing safety climate / culture and associated risk management processes within UK TOCs. This second phase of the research involved face-to-face engagement with a cross section of staff from a sample of 4 TOCs. The purpose of engaging with such a range of staff was to explore relevant issues from different perspectives. Methodologically, this approach added strength in providing a detailed insight into both the degree of variability in views present, as well as offering corroborative evidence (across grades and roles) of identified issues and variables identified.

As with the Top Tier research, the exploratory nature of the study and level of detail required, was best approached through an in-depth case study approach. Four organisations were selected as case studies representing a range of contemporary TOC operational activity, with each TOC comprising a single case study. Participating TOCs were selected to represent the range of primary divisions of TOC operational activity, whose core commercial activity could be characterised as ‘inter-city’; ‘town-to-town / regional’; and ‘local commuter’ service types. In the event the TOCs were also drawn from three different corporate groupings. In order to maintain the anonymity of participating businesses, hereafter, each is referred to by the designation A, B, C, or D (see Table 2)

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOC A</td>
<td>Local commuter operator</td>
</tr>
<tr>
<td>TOC B</td>
<td>Intercity operator</td>
</tr>
<tr>
<td>TOC C</td>
<td>Town-to-town operator</td>
</tr>
<tr>
<td>TOC D</td>
<td>Mixed town to town and commuter regional operator</td>
</tr>
</tbody>
</table>

3.1.1 Data gathering

Data gathering during this second phase of the research involved semi-structured individual and focused group discussions, conducted between September 2003 and April 2004. Focus groups involve informal, facilitated, group discussions. Initially developed in commercial market research, they are now regarded as an important method of organisational and other social science research (Barbour & Kitzinger, 1999;
Bloor, 2001). Focus group based investigation does not aim to be ‘representative’ in the manner of quantitative survey research. Rather, the aim is to explore shared ways of making sense of critical issues. This methodology was deemed necessary to capture the complexity of beliefs about safety culture within TOCs, as experienced and perceived by staff.

3.1.2 Sampling

The adoption of a cross sectional sampling strategy within each business brought an element of ‘triangulation’ to data interpretation. Gathering information in this way permitted an exploration of the range of variables which individuals and groups consider important, and their potential impact on decision making from a range of perspectives. The understandings of frontline staff were viewed as being of particular importance, especially with respect to their interpretation of organisational priorities. Attention was also paid to the extent to which these interpretations extended beyond understandings of the organisation itself to encompass broader perceptions of the railway sector.

In each participating TOC, interviews and group discussions were conducted with a matched cross sectional slice of staff by function; spanning the range from managing director, through senior management and middle (supervisory) management, to frontline professional groups including train drivers, guards, train crew, despatch staff and other station staff. A breakdown of the full sample by grade is provided in Appendix 3.

Engagement with senior TOC staff comprised a mixture of individual and small group discussions, with a preponderance of the former. The group discussion format was used exclusively for representatives of all other grades, each typically comprising between three and eight participants. In some groups staff were of a common grade / function, in other instances group composition represented a range of grades of functionally related staff.

3.1.3 Interview protocols

The interview protocols were designed to address a set of core common issues plus supplementary role-specific questions. Three types of protocol were developed, one for each of the three primary staff grades: (i) senior managers / directors and company board members; (ii) middle / line management such as operational managers, driving standards managers and rolling stock maintenance managers; (iii) frontline staff, principally drivers and guards, other train crew, rolling stock maintenance personnel, train dispatchers and other station staff. Copies of the interview and group protocols are provided at Appendix 4: a), b) and c).

Specific issues explored in the interviews / groups were as follows:

1. **Safety Culture (general perceptions)**
   - Railway safety culture(s) in particular the perceptions of others and the quality of relationships.

2. **Management Commitment and Stakeholder Relationships**
   - Corporate and managerial commitment to safety.
• The nature and quality of contractual arrangements and working relationships between TOCs, the regulatory bodies and the rail sector businesses TOCs interact with.

3. Risk Management Issues
• Strengths and weaknesses in safety and risk management within TOCs.
• Variables impacting upon the setting of priorities within TOCs and how these mesh with the priorities of other rail sector stakeholder organisations.
• The extent to which barriers to effective safety management exist within the current privatised railway sector.
• The degree of workforce involvement in risk management.

4. Decision Making, Rules and Procedures
• Cultural legitimacy of statutory rules, 'local' (i.e. company-based) rules and operating procedures.
• Variables impacting upon risk decision making, risk taking, including sources of tension and trade-off referenced to the activity of operational railway staff.
• The potential for conflict between competing objectives and their potential to establish 'perverse motivations', both at a corporate and an operational level.

5. Learning and Communication
• Organisational learning, the effectiveness of incident reporting systems, and issues of blame and culpability.
• The effectiveness of inter- and intra-organisational communication systems.

6. Resources and Morale
• The availability of resources, including issues of skill; expertise; corporate memory and factors impacting upon investment decisions.
• Aspects relating to workforce morale.

3.1.4 Data Analysis

All interviews and group discussions were audio recorded, proceedings transcribed and entered into the qualitative data analysis software package (NVivo). This provided a data set of over 60 highly detailed transcripts.

Data analysis commenced with independent appraisal of a sample of transcripts, and discussion of core constituent components, by members of the research team. The final coding frame was developed through further appraisal and discussion of the meanings and boundaries for each of the coding category definitions, paying particular attention to the presence of key differences between concepts (or 'codes'). This process permitted the definition of identified themes, and a mapping of the constituent facets of each (see Appendix 5 for the main coding categories developed).

In view of the substantial volume of transcribed material, in addition to the primary assessment of content, a sub-sample of transcripts was selected for fine-grained coding and analysis. For this, approximately 50% of transcripts were randomly
selected representing the range of staff grades interacted within each participating TOC.

The exploration of the obtained themes from a range of stakeholder perspectives (as well as comparison of the TOC findings with the earlier Top Tier results) brought both robustness and triangulation to the study, thereby increasing confidence in the reliability of results. This is considered to be an essential strength and uniqueness of the approach adopted here, in so far as it allows greater account to be taken of potentially important socio-political and cultural sources beliefs, something generally ignored or underplayed in previous studies of safety culture within the UK railways sector, and the broader safety culture / climate field.

Although the study is fundamentally a qualitative one, and as such seeks to present the detailed patterns of responses offered by participants, as the data set is relatively extensive we have also applied an approximate scale where possible to indicate the strength of evidence behind some of the claims made (see Table 3).

<table>
<thead>
<tr>
<th>Semantic Applied</th>
<th>Evidence Base</th>
<th>As Proportion of Total No. of Focus Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Few</td>
<td>Sparse</td>
<td>Individual comments</td>
</tr>
<tr>
<td>Few</td>
<td>Limited</td>
<td>Between 5 &amp; 10</td>
</tr>
<tr>
<td>Some/Several</td>
<td>Moderate</td>
<td>Between 10 &amp; 20</td>
</tr>
<tr>
<td>Many/Frequent</td>
<td>Widespread</td>
<td>More than half (n&gt;29)</td>
</tr>
<tr>
<td>All</td>
<td>Universal</td>
<td>Found in all groups</td>
</tr>
</tbody>
</table>

Table 3 Strength of evidence

For purposes of data analysis, the main issues identified in the transcripts were themed in terms of nine broad categories. These categories, together with their associated facets, are summarised in Table 4.

7 In the TOC level research there were a total of 50 group sessions with staff, and also some 30 senior management interviews, across the 4 TOCs collaborating. For analysis purposes, the ~30 senior management interviews, although typically conducted one-to-one, are segregated into 8 key ‘groups’. These included Directors of Finance, Safety, Retail, Operations, Planning & Performance, Engineering, Managing Directors, and Other. This means that the total n for the number of focus group sessions tallied within phase two is 58. Where evidence is referenced to a particular sub-group (e.g. ‘the view amongst driver groups was widespread’) the base n is proportionally lower.
Table 4 Text coding themes and constituent facets

<table>
<thead>
<tr>
<th>Thematic category</th>
<th>Key facets (where appropriate)</th>
</tr>
</thead>
</table>
| Stakeholder Relationships (see report section 3.2) | Improving relationships (see report sub-section 3.2.1)  
|                                          | The regulatory regime (3.2.2)  
|                                          | With the infrastructure manager (3.2.3)  
|                                          | With rolling stock maintenance companies (3.2.4)                                               |
| Management Commitment (3.3)             | Holding company commitment to safety (3.3.1)  
|                                          | Senior management commitment to safety (3.3.2)  
|                                          | Middle management commitment to safety (3.3.3)  
|                                          | Communication about safety (3.3.4)                                                             |
| The Performance Regime (3.4)            | Perverse motivations (3.4.1)  
|                                          | Middle management, ‘mixed messages’ and tensions between safety and performance (3.4.2)     |
| Blame and Culpability (3.5)             | Risk aversion and fear of prosecution (3.5.1)  
|                                          | Blame, proceduralisation and ‘compliance culture’ (3.5.2)  
|                                          | Blame and regulatory influences (3.5.3)  
|                                          | Blame and the performance regime (3.5.4)                                                       |
| Knowledge Management (3.6)              | Training regimes (3.6.1)  
|                                          | Loss of expertise and ‘programmed working’ (3.6.2)  
|                                          | Management style (3.6.3)  
|                                          | Maintaining core competencies (3.6.4)  
|                                          | Compliance with rules and procedures (3.6.5)                                                   |
| Organisational Learning (3.7)           | Incident reporting (3.7.1)  
|                                          | CIRAS (3.7.2)                                                                                   |
| Resources (3.8)                         | Investment (3.8.1)  
|                                          | People (3.8.2)  
|                                          | Capacity / redundancy of rolling stock (3.8.3)                                                  |
| Morale (3.9)                            |                                                                                               |
| Homogeneity of Culture (3.10)           |                                                                                               |

The analysis is supplemented by direct quotations - in both the text or as accompanying evidence boxes. These are attributed either to management level (Senior or Middle/Line)\(^8\) or in the case of frontline staff more usually the role an individual held (such as, Driver, Station Staff etc).

3.2 STAKEHOLDER RELATIONSHIPS

The research by A.D. Little (2001) and Mercer (2002) had characterised relationships between stakeholders of the privatised railway as being fundamentally adversarial,

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\(^8\) In this context the terms middle management and line management are used to collectively refer to those staff engaged in managing front line operational staff. Relevant job titles and grades include Driver Standards Manager; Station Manager; Train Manager; Maintenance Charge-hands. This classification is based upon role within the management function, and should not be interpreted as suggesting that these personnel are necessarily of equivalent seniority and status within the organisational hierarchy within the rail sector.
something which is likely to impact upon levels of empathy, trust and confidence in others. An exploration of these aspects within our own investigation revealed varying levels of trust and confidence in the various stakeholder bodies. In addition, findings from our Top Tier interviews (see Chapter 2), which were conducted at a later date than these other studies, highlight the important distinction between what we have termed the initial and second (more mature) era of privatisation.

3.2.1 Improving relationships

Many of our TOC respondents reinforced the view that relations between TOCs and Railtrack were fundamentally adversarial during the initial post-privatisation period. However, respondents also confirmed that maturation of the sector provided the opportunity for relationships, linkages and coping strategies to establish / re-establish themselves, particularly between TOCs and NWR. A number of the established, and some newly introduced, cross-organisational interest groups appear to play a role in eroding some of the widely reported tribal tendencies said to proliferate between the various organisations and professional groupings within the sector. For example, the Association of Train Operating Companies (ATOC) was widely seen as contributing to improved cross-sector communication, engendering a sharing of technical expertise and playing a role in enhancing cohesiveness within the TOC community.

“... we tend to use ATOC in reviewing things such as, just on the operability side certainly there is the Engineering Group, the working group, it brings people from other companies as well so you’re not thinking on your own about how to solve problems, you’re actually thinking more broadly which is what’s needed and it has more impact because you’re not saying, ‘Well this is what I want.’ And somebody else saying, ‘This is what I want.’ You’re saying, you know, 25 of you, this is what we want. It helps us to find common ground and find out about different, maybe better ways of solving the same problem.” (Senior Manager)

Notably, our respondents alluded to the development of greater interest and engagement with safety issues within ATOC, this being considered to contrast with its historical focus on engineering and operational aspects alone. It seems likely that, in some degree, this broadening of interest reflects the intense spotlight on safety issues experienced by the sector during the second era of privatisation.

The change in the operating status of NWR, which occurred shortly before our investigation commenced, was generally perceived as having had, at best, a modest immediate impact on the quality of relationships. A more fundamental influence appears to have been the gradual maturation of the relationship and associated coping strategies throughout the sector, for which we found moderate evidence in our TOC level interviews and groups. For example:

“There’s always the tension that you’re dealing with a monopoly supplier so you’re bound to get some frustration when in actual fact we’ve gone through the period where you are told as an ex BR person, told you’ve got to be tough, you’ve got to be out there negotiating. You go through the period where you’re continually at war with them and for the last 3 or 4 years we’ve been actually working in partnership with them, understanding that in the more mature relationship unless you work together you’re not going to get anywhere very fast.” (Middle Manager)
A commonly encountered sentiment voiced by many TOC respondents, irrespective of grade or employer, related to a perceived need for vertical integration of the sector: in other words, a unification of ‘wheel and rail’. This reflects the view also encountered in the Top Tier interviews. Vertical integration was widely considered to be an effective means of overcoming many of the organisational conflicts felt to be imposed by the current industry structure and contractual arrangements (for example, delay attribution and other disputes between TOCs and NWR; see section 3.2.3 The Infrastructure Manager). However, calls to renationalise the sector were rarely encountered, with a growing acceptance that a privatised structure was here to stay. Views on this topic tended to surround ways and means of improving the current structure, rather than seeking to revert to the pre-privatisation arrangements.

3.2.2 The regulatory regime

Our respondents’ perceptions of regulators varied, predictably, by staff grade. While many senior staff were aware of the role played by the SRA, not surprisingly, perceptions and general awareness of the function of this body became hazier as we moved down the hierarchy. Senior staff perceptions of the SRA were also found to vary by company. For some operators the impression was given that the franchise negotiation process was a relatively straightforward, if resource intensive, exercise. Others, however, pointed to ‘unreasonable performance demands’, in some cases highlighting what they saw as a lack of insight into the realities of train service operation on the part of the SRA. For example, several senior TOC staff claimed that timetable objectives, in certain instances, reflect ‘best-case’ approximating to optimal operating conditions, rather than normal operating conditions.

Knowledge of HMRI and HSE on the other hand was more widespread amongst our sample of staff grades. This is understandable, given the greater potential for direct contact, knowledge and insight into its activity and priorities. The HSE’s approach to railway safety regulation was felt, particularly by senior managers / directors, to have altered in recent years. Our Top Tier interviews had suggested greater cooperation between regulators (including HMRI) and the industry in the past 4-5 years. By contrast, in the TOC level research it was suggested that the series of incidents over the last 7 or 8 years, and more specifically the public questioning of the effectiveness of HMRI at Lord Cullen’s Inquiry (2000), had led to the adoption of a notably harder line with TOC sector businesses. Many respondents saw this as largely a product of HMRI finding itself in the spotlight and seeking to demonstrate its tough line on an industry seen, by outsiders at least, as unreasonably accident-prone. This difference may of course also reflect the specific recent experiences of TOC businesses, in that many of the recommendations from Cullen focus upon issues of driver training and standards. What was less clear from the interviews was the influence this has had upon TOC safety culture in the past 5 years.

Questions were also raised across all staff grades about the competence of some HMRI inspectors. The general contention here was that recruitment drives, particularly in the wake of the Ladbroke Grove collision, had led to an influx of workplace inspectors lacking a professional background in the railway industry. In many respects, the sentiments expressed here were analogous to those expressed regarding the more general influx of non-railway personnel into the sector over recent years. While this view was widely held, it was in some degree countered by the perception that, historically, HMRI had become too close to the industry it was designed to regulate. Some senior management groups even felt that HMRI have contributed to the
increasingly proceduralised approach to risk management within the sector. For example:

“I think where, an example might be, it might be the HMRI, who have a role to perform in relation to rail safety but as they’ve grown, they’ve become another auditor on a day to day job. So, not only have we audited ourselves, different departments in the company have had to audit us because HMRI have said so. The HMRI have audited us over some very minor things, they feel pressured to cover all the issues and the result is, in terms of us running a safe railway, we’ve been bogged down by audit rather than delivering the job.” (Senior Manager)

This reported burgeoning of documented procedures and prescriptive practice more generally, referred to here as the ‘bureaucratisation of safety’, is discussed in detail within section 3.6.5 Compliance with Rules and Procedures.

3.2.3 Relationships with the infrastructure manager (Railtrack / NWR)

It was clear from our discussions with staff at all grades that confidence in the ability of Railtrack / NWR to effectively maintain the infrastructure had been significantly eroded over the period following privatisation. A key factor in this was the spate of serious incidents, notably the derailment at Hatfield (17 October 2000) and, to a lesser degree, Potters Bar (10 May 2002). In particular, train drivers expressed reservations regarding the competence of infrastructure maintenance contractors and the quality of their personnel. Examples of inappropriate and unsafe behaviour on the part of trackside workers were cited across all TOCs. There was universal belief, across all the TOCs and staff grades we researched, that the level of deviation from good practice by those engaged in maintenance activity had increased following privatisation.

While it was not always possible to differentiate between instances cited on the basis of direct experience, upon shared (cultural) understandings, or upon the reporting of the issues by the news media, the fundamental issue for many was a mistrust in the ability of sub-contractors to carry out their work safely given the perceived need for such firms to ‘cut corners’ in order to remain competitive. At the crux of train drivers’ concerns in particular, were issues relating to levels of competence and understanding of railway rules and procedures. Whether justified or not, a strongly held view was that trackside workers were being recruited from the construction industry and hence lacked the necessary skills and conceptual knowledge to work on the railway in a safe manner. This might be jeopardising the safety of TOC employees and the travelling public at large.

Widespread comment was also made, in all TOCs and by all grades of personnel, with regard to a general lack of trust in the competence of other NWR employees, although the issue of poor management of permanent-way workers subcontracted by the infrastructure manager to perform track maintenance and renewal persisted throughout this research. Several reports were, however, qualified with a degree of optimism that this situation was being, or had been, rectified in more recent years (and with the advent of NWR and new in-house arrangements). Box 13 contains quotes relating to lack of confidence in both track and temporary signalling staff. By way of contrast, many of our driver respondents felt that the focus on drivers, driving standards, driver training and competence and automated train protection systems, in the wake of the Southall and Ladbroke Grove accidents, was at odds with what they saw as the
relatively limited attention to other safety critical aspects, particularly those relating to infrastructure maintenance.

“There’s another thing with the Hatfield shunt, the real incident there was that Railtrack weren’t in control of safety, it had all been fragmented. All the subcontractors, and it’s very hard to pin down who the responsibility lay with, because there was no one person saying that organisation is responsible for all of the sector. And if they’re subcontracted out safety seemed to be subcontracted out as well.” (Train Crew)

“From a drivers point of view is there are so many sub-contractors out there now undertaking the various infrastructure work [but] there isn’t a common standard ... and an awful lot of work has been taken back in house to try and rebuild the confidence in the process but there’s so many diverse organisations now out there doing little bits and pieces on the railway who are talking to different groups and different contractors and different organisations continually and its much more harder then to have a global view of where you are with safety.” (Senior Manager)

“When you get down to the subcontractors level they are fundamental to the industry’s safety standards, how they are monitored, what belief the contractor has in prioritising safety over commercial concerns and all that sort of thing, that’s where the real focus should be, not on TOCs.” (Middle Manager)

“… 2 years ago when I was at [location removed] and a chap was standing under the signal, and the impression he gave me was the signalman was absent. And there was some engineering works and he’d got protection down, red flag and detonators down. And I saw him take one of the detonators, put the red flag away and came over to me and said, right, you’re okay to go - just like that! The signal was against and because of my experience I didn’t actually take his word for it, I thought well I’ve got no signal, and he’s not spoken to the signalman, even ... But a driver who’d just come into the job he could have taken that man’s word and just gone, then he would have been in serious trouble if he’d gone on to have a SPAD or something ...” (Driver)

“… there’s an awful lot [of problems] to do with the way the subcontractors work within the NWR structure, things like er, when they lay out speed restrictions not actually putting the speed boards out for us or not putting the correct locations. Or when they lay out possessions they, we’ve had probably 2 or 3 times a year you get, where they put the detonators on the wrong line so the driver will drive over the detonators ... Or on both lines because they’re not sure which one to put it on and then the driver will go belting through it. They’re almost waiting for the train to come through so that they can confirm where the block should be, unbelievable really ...” (Driver Manager)

“There’s a definite worry I think for drivers that the contractors are less than professional, competent or professional. Hand signals is another one, I mean a driver will be very wary of trusting the hand signalman, because the last thing that he wants is to have a misunderstanding with the signalman and end up with a SPAD on his record, is it? There’s a distinct lack of trust of some of the NWR contractors, isn’t there?” (Driver Manager)

Box 13 Adverse impacts of Railtrack / NWR sub-contractorisation processes
Other concerns were raised about the role of NWR, and in particular a perceived lack of sharing of industry objectives.

“They [NWR] are financially and emotionally divorced from the end user and I think as a consequence they make decisions which are not very often the right industry decision. I mean, the truth is that our relationship with NWR centres entirely on delay attribution and arguing the toss instead of working as a cohesive unit to solve the problem. We would be better off managing ourselves at stations and being in control of our own destiny more I think.” (Senior Manager)

Respondents also highlighted a number of areas where they believed the current industry structure gave rise to perverse motivations, or lead to animosity and conflict over responsibilities (see Section 3.4 The Performance Regime). A moderate level of evidence came from train drivers, for example, who cited instances where current line occupancy decisions conflicted with historical precedence. Notwithstanding historical rivalry and tensions between train drivers and signallers, a widely cited example related to decisions over line occupancy priorities and late running. Track occupancy priorities are, it was claimed, now dictated by a motivation on the part of signallers to avoid penalties associated with train delays, rather than being based upon the principles of service provision. For example, where a goods train running to time may be ascribed track access priority over and above a late running passenger express service. Evidence for this varied between TOCs, but was generally moderate.

Other more widely reported sources of ambiguity and tension were said to exist over safety and other responsibilities at stations and platforms. For example:

“... people do sometimes have trouble accepting accountability and responsibility, which is a symptom of privatisation...you could have a situation where it’s not always clear who is accountable, therefore are you sure that if something goes wrong it’s your fault or you need to address that issue? ... I’ll give you an example, a leaking canopy roof, where water leaks onto the concourse. Now we can put yellow men up, the old erm thing to say, warning slippery etc. etc. But if we aren’t smart enough when it rains or frost or damp comes through the roof and a slippery floor and then put the yellow man out, then ... is he accountable for that? Well the trouble is, he’s got no budget to do that, it’s not his responsibility, it’s NWR’s and it gets a bit blurred. So, getting people to hold their hands up and say ‘Well actually it is mine’ is quite, is probably a barrier with people accepting accountability or responsibility and that is, that is, well partly a result of privatisation but quite heavily because of privatisation.” (Senior Manager)

Here the responsibilities of landlord (NWR) and tenant (TOC) were perceived to be less than optimally defined, particularly by station managers. This was said to lead to disputes and delays in addressing operational issues, including safety related aspects. Reports of tensions over hazard and risk management typically focused upon responsibilities for the repair of roofs and platforms. TOCs that operated stations tended to be concerned about where responsibility lay should a member of the public or employee sustain an injury attributable to some shortcoming of the station infrastructure.
3.2.4 Relationships with rolling stock maintenance companies

For TOCs to succeed in meeting their operational and performance objectives they are highly dependent upon the quality of their rolling stock. Rolling stock maintenance is clearly critical, not only in safety terms, but with regard to issues of operational reliability. While the focus of risk management tends to be upon safety critical aspects, such as braking and communication systems, it should be borne in mind that the maintenance function extends to non-safety critical aspects of rolling stock performance, including sanitation, passenger comfort and related provision. Failings here can give rise to safety issues, where staff’s inability to alleviate these problems in-transit leads to passenger dissatisfaction, which then has the potential to result in increased confrontation between the travelling public and rail staff.

Notable variability was apparent between our sample of TOC businesses with regard to the quality and effectiveness of relationships with their rolling stock maintenance providers. Rolling stock maintenance can be undertaken ‘in-house’, by a business within the same corporate group, or by wholly separate businesses. Our respondents indicated that some of the contractual arrangements in place are more effective than others in maintaining rolling stock to an appropriate standard. In instances where TOCs outsource (including internal corporate markets) their maintenance function, it seems that there is greater potential for the underpinning contractual arrangements to have significant detrimental effects on reliability and performance. Of relevance here are the performance / profit and loss regimes associated with maintenance agreements. In such contexts it is foreseeable, in instances where time and / or resources are limited, that maintenance businesses will be motivated to minimise losses (financial forfeits) where differential rates / forfeits persist between the different TOCs they serve. They will tend to focus the maintenance function at a basic level when work falls behind schedule. External contingencies, in particular train delays related to infrastructure, could also lead to a tendency for maintenance regimes to focus primarily on safety critical aspects primarily, thereby risking neglect of other more routine maintenance tasks. One consequence is a greater potential for rolling stock unreliability, and eroded quality standards, particularly, it seems, with regard to hospitality aspects. However, we encountered very few reports of such effects leading to an erosion of safety critical elements.

“… I mean we’re quite a small operator. We don’t have some of the complicated facets that others have. We do our own maintenance, I mean what appears to be a potential problem for some operators is actually keeping an overview on the maintenance which they do, but that’s not a problem because except for the [train type deleted], we maintain all our trains here and that gives us greater control as well. So I suppose that’s one issue where there is quite a lot of variability between TOCs …we’re aware it causes other operators problems.” (Middle Manager)

“[There are instances where] availability [of rolling stock] is good but reliability is poor and the reason why they [rolling stock maintenance contractor] probably deliver that [availability] so well is because they do send stuff out that’s probably not fit for performance but alright on the safety side, do you know what I mean? There’s performance issues rather than safety related failure that would probably let us down sometimes where they are saying yes we will try and deliver 9 out of 10 of these but there’s some of them go out on a bit of a wing and a prayer and we’re not sort of like pulling them back on it. It comes down to money for them and we have to be careful that we distance ourselves from the wing and a prayer stuff because our staff can become very difficult, but its financially motivated and we understand that concern for them [maintenance company name removed].” (Middle Manager)

Box 14 Variability of rolling stock maintenance arrangements
Although rarely encountered in this research a very small number of reports, principally from drivers, did allude to instances where rolling stock had been released into service with non-functioning safety critical equipment. A specific example cited related to malfunctions in the in-cab radio system. By contrast, widespread reference was made to non-safety critical maintenance tasks, in some cases routinely being neglected. Not surprisingly, this appears to have a negative influence on staff morale and levels of trust (see Box 15; also Section 3.9 Morale).

“I’m fed up of having wrecked trains, I’m fed up of having coach letters that aren’t in the right order. I’m fed up of people saying to me, ‘why haven’t I got the seat reservations put on right.’ I’m sick of being cold and having toilets locked out, all the stuff … I can’t provide a service if things aren’t right in the first place … I’m fed up with bearing the brunt of it with customers and it’s not my damn fault!” (Train crew)

“... the whole focus is just to chuck the train out in the morning to get it into traffic in the absolute bare minimum state that they can get it off depot and be legal. The fact that half the stuff doesn’t work and then drops to bits during the day is somebody else’s problem, my problem ... and that’s how it’s been for 3 years, 4 years maybe.” (Driver)

“One of the things that’s most controversial for our guys of course is the relationship with our train provider ... one of my favourite subjects. I mean the guys are frustrated about the state of the trains and the things that they think that should be repaired that aren’t. I mean it’s a lot of cosmetic ... what you might call cosmetic equipment I suppose, and whether it be kitchen equipment and boilers and this and that and the other. But I guess at the back of your mind it does make you think, well these same people that can’t fix the boiler also fix the brakes. There’s probably quite a bit of distrust.” (Middle Manager)

“Well I think if you get in a like a train that’s not been prepped up right or it’s not clean or it’s services right then how can you start a service in the first place, and how can you do it safely? If you’ve like got door catches that aren’t working or something, or the locks aren’t working and you have to lock a door out, and you’ve got no lock on the outside to lock your door anyway, you can’t do it. You just say, well that’s it, ‘if you can’t fix it we’re not taking it, take it back, we’ll cancel the train.’ But then cancellations cost money and people get inconvenienced then, so that’s why they should really think about it in the first place. That’s what gets my back up.” (Train crew)

Box 15 Impacts of train reliability on frontline staff

Decisions over the rectification of non-safety critical systems and equipment were clearly influenced by the need to keep rolling stock in service. While the forfeits associated with service cancellation under the performance regime may play a role, many of our respondents indicated that, in this respect, standards were little different than those that existed within British Rail. Indeed, some middle management participants suggested that the list of non-safety critical criteria that could result in the withdrawal of rolling stock from service had grown considerably under privatisation. Rolling stock with malfunctions potentially places drivers, guards and train crew in difficult situations regarding the decision to run services. Importantly, such decisions have to be made in an environment where there is clear evidence of a strong emphasis
on avoiding financial forfeits associated with a failure to run train services, as we go on to describe in later sections.

3.3 MANAGEMENT COMMITMENT

The Top Tier interviews indicated a widely-held perception, amongst the stakeholder representatives that we interviewed, that TOC management was highly committed to safety, a feature that was common across the entire railway industry. However, as also noted in the previous chapter, some doubts were voiced over the extent to which the ‘rhetoric’ of such commitment matched the ‘reality’ as perceived by TOC staff. In addition, and as Top Tier participants also commented, whatever the espoused corporate commitment to safety, tensions between performance and safety were likely to exist at the level of middle management in particular. The TOC level data gives further insight into these 2 important issues.

3.3.1 Holding company commitment to safety

In contrast to the majority of studies in this area, we sought to broaden our perspective on ‘managerial commitment’ to the holding company level. This is based upon the premise that corporate priorities provide the backdrop to senior management priorities, in much the same manner as senior management impact upon the priorities of line managers and supervisors. We explored the extent to which the culture of TOC holding companies penetrated and impacted upon the management style adopted in individual train operators within their respective group. Overall, there was moderate evidence to suggest that TOCs enjoy considerable autonomy over the day-to-day running of their businesses, including health and safety aspects. However, we did encounter a few reports of more interventionist approaches within businesses not represented in our sample:

“From my point of view, there are differences [between the activity of holding bodies with regard to TOCs] going on what some of my counterparts who work, who come from different operators, what my equivalents say, and we certainly don’t, don’t seem to have suffered from the same sorts of changes and amount of contact [from holding bodies], you know. Yes there is, they keep their eye on you, and yes we’ve got to produce reports for them, but as far as how we operate, we do that uninterrupted. There’s very little interference from them.” (Senior Manager)

Equally, a few of our frontline interviewees articulated perceived differences in the cultural status and reputations of the different holding companies. For the majority, such impressions were clearly derived from secondary sources, although a limited number of respondents were able to draw upon direct experience of working for a number of different TOCs. However, these reported differences were, for the most part, focused on employment terms and conditions, rather than the degree of priority ascribed to safety.

3.3.2 Senior management commitment to safety

Employee perceptions of senior management (as well as, not surprisingly, perceptions by senior management themselves) suggested that the espoused commitment to safety was high in each of our participating TOCs. This was evidenced by expressed
opinions, or frontline staff rarely questioning this when asked. However, despite this there was some limited evidence of frontline staff questioning the delivery on that commitment. As suggested in our Top Tier interviews corporate safety rhetoric may not always be matched by the ‘reality’ as perceived by some frontline staff. The quotes in Box 16 illustrate the typical responses of middle managers and frontline staff respectively to this question, with the latter clearly more qualified about this issue.

[Interviewer] “So do you think in general do you feel the senior management are committed with regards safety?”
[Respondent] “Yes, I don’t think there’s any doubt we’re totally committed to safety in all angles.” (Middle Manager)

“We’re always supported with safety or anything like that.” (Middle Manager)

“I think they try to give the impression it’s very much to the fore, but very often when you get it it’s not. Management and TOCs tend to... they try to say, ‘yes we are safety conscious’, but when you’re actually out there working you start wondering, well is it that safe?” (Driver)

“The driver managers here ... the ground level managers are great, they’re very supportive, but it’s like senior management, there’s always a ... I know you get it in every industry, but it’s ... I don’t know really, it’s we’re just the little men and they’re the big men and that’s how they see it. But the managers here at [name removed] station are great” (Driver)

Box 16 Workforce perceptions of management commitment

Several frontline employee accounts also indicated notable variability between participating TOCs in the degree of direct interaction between senior management and shop floor representatives. This variability appeared to reflect differences in management style, rather than any uniqueness in their respective approach to safety management. In a number of instances it was also apparent that senior management initiatives, aimed at increasing insight and empathy with operational staff, were viewed by some as token and lacking in insight into the realities of train operation. Other sentiments encountered raised questions regarding the degree of direct engagement between senior managers and their staff in certain TOCs.

“They ride with us in the cab once in a blue moon and you tell me that’s enough for them to really step into my world, see what I do and understand the issues I face, things I cope with day in, day out? You’v got to be bloody joking! Frankly, I find it patronising. It’s just a token gesture, like they really have no idea of the complexity of what I do if they think they’re gonna get it all by a ride out once or twice a year! We know they are busy but we should be a priority.” (Driver)

“People [drivers] say to me [driver instructor] who’s that that’s just gone past, and I will say, that’s your boss. Oh I’ve never seen him before ... because they don’t make that communication with the staff. Driver managers are okay because they deal with drivers, but like on your next line, I doubt very much ... I’ve never seen them in the mess room. They’re [senior managers] never around.” (Middle Manager)

Box 17 Management commitment – negative sentiments
While it is possible that the revealed variability may, in some part, reflect differences in size of business, this did not seem to be the sole defining influence. However, good practice was also encountered. For example, we witnessed first hand, and received several reports of, senior managers up to and including Company Directors playing an active role in safety briefings / meetings with staff safety representatives.

In overall terms, most respondents indicated that contemporary levels of senior management commitment, direct involvement and safety prioritisation, differ little from the pre-privatisation era. Nonetheless, although very few concrete examples were cited, the view prevailed amongst operational staff that senior managers were under significant pressure to meet operational objectives associated with the performance regime. Many saw this pressure reflected in the performance oriented priorities of middle and line managers when interacting with frontline staff. In common with findings from other sectors, and the Phase 1 Top Tier interviews, our frontline respondents tended to perceive their senior managers as highly committed to safety, but also saw a potential for conflict between safety and performance. Such conflict was considered to manifest itself in the attitudes and approach adopted by middle and line managers.

3.3.3 Middle management commitment to safety

The pivotal role of line managers in safety management is well documented (see, Hale & Glendon, 1987; Cox & Flin, 1998; Zohar, 2002; O’dea & Flin, 2003). The tendency for tensions to manifest themselves at the middle management level is also widely recognised (see, Ostberg, 1980; De Joy, 1994; Cox & Flin, 1998; Weyman & Clarke, 2003). There was widespread recognition of this phenomenon amongst our Top Tier and TOC respondents, at all staff grades. Examples are shown in Box 18 below. The line management function effectively defines the boundaries of what is culturally considered ‘acceptable’ and ‘unacceptable’ behaviour, on the part of frontline staff. Where safety is concerned it is also at this level that operational rules and procedures are either enforced, or underplayed. Middle managers are also most influenced by conflicting, often potentially stronger drivers relating to productivity and performance. This can engender decision conflicts over priorities and inconsistency of approach in the degree to which safety is emphasised relative to other priorities (Ostberg, 1980; Hale & Glendon, 1987; Peterson, 1993). Such pressure was recognised by senior TOC managers and directors, in the same way as it was by our Top Tier interviewees.

Some reports from frontline staff also highlighted a perceived lack of engagement and support from their line managers across all TOCs sampled (moderate evidence). This typically emanated from longer serving frontline staff and reflected a perception that their direct managers were distracted by commercial concerns more so than had been the case under BR. Consequently, they were felt to be less visible at the ‘coal face.’ These attributions generalised to a range of issues, including safety-related aspects. Broadly equivalent sentiments were expressed across all participating TOCs and by a range of frontline professional groups.

Finally, some senior TOC staff also recognised that messages over priorities (safety and operational) have a tendency to become diluted and / or distorted, as a function of the organisational process. The extent of this effect, inevitably, varied depending on the size of TOC. As a number of safety researchers have previously noted, frontline understandings and interpretations of managerial priorities frequently become modified and distorted as a function of the communication process, particularly where this is indirect and involves intermediary grades (Hale & Glendon, 1987; De Joy, 1994).
Moreover, it is important to remember that safety and other communications will be referenced to a variety of broader values, preconceptions and inferences. Thus, interpretations that are made have the potential to extend beyond the message content itself, serving to (more commonly) reinforce or challenge prior conceptions.

“Yeah they [middle managers] have quite a bit of pressure on them both upwards and downwards I would think, you know they probably feel that, you know they’ve got to sort out the issues that come up on the frontline and you know they’ve also got us saying to them, ‘You there, get the trains out quicker, get the stations a bit more tidy and get your accidents down’ all those service and performance sort of things, so that goes on but that’s pretty much common isn’t it that sort of position. I mean I guess the important thing is whether they feel like they’re being put upon and that they’re not transmitting a deprived value set to operational staff. But there’s no guarantee of that…” (Senior Manager)

“All the managers on the station day-to-day are never there when you need them. I swear to god there’s bloody foxholes all over [name removed] station. They scarper at the first sign of trouble … and then the best bit is they come back and beat you up for handling the situation the wrong way, ‘Well where were you mate when I needed ya?!’ It’s priceless, no support and then they slap you on the wrist.” (Station Staff)

“… the message I think sometimes can get diluted from the top to the bottom inevitably through the sheer size of the company. And when you’re telling people different things you're bound to get slight confusion.” (Senior Manager)

“You will see a different level of [safety] awareness, you’ll see a slightly different attitude of approach … As you go down the organisation, depending on which way you look at an organisation, you would get less and less awareness as you go to the bottom and then eventually you get the shop floor as it were and the person will say ‘Yes I do x, y and z’ and you say yes but why do you do it? And they go well I don’t want the trains to be late and there won’t be a true understanding of what the rationale is. So I always say to my people the objective is the reason why. If you can make the person doing the job understand why they’re doing it there’s a quantum leap in terms of understanding it. Whether that’s safety, performance or marketing or customer service or whatever but there will be a difference.” (Senior Manager)

“… there is a definite conflict of interests between the partners [in this TOC], because we have [a] retail department and their only interest in life is running trains on time and everything being on time and punctual and getting trains away from stations and everything like that. That’s all they’re interested in. Whereas ourselves are interested in the standards and in safety issues and around driver competencies and thing like that, that’s all within our remit. But … we’ve got conflicting sides, we say well we want you to drive defensively but we still want you to make up time. If you leave late we still want you to make up time. The two don’t go hand in hand. The retail people don’t have that conflict, they don’t bother about it because all they’re interested in is things being on time. So we end up being pulled in two directions, and sometimes that is difficult. And I find that quite difficult to manage really.” (Middle Manager)

Box 18 Perceptions of middle management commitment and conflicts
It was clear then that, in common with other industries, the potential for tensions between safety and performance do indeed come sharply into focus within the middle / operational management function within TOCs. However, in marked contrast to studies from other industries (Hale & Glendon, 1987; De Joy, 1994; Cox & Flin, 1998), accounts of explicit condoning by managers of rule infringement and / or risk taking by frontline staff were rare in the current data. We did encounter a limited number of accounts alluding to implicit condoning of deviations (i.e. turning a blind eye) from rules and procedures between drivers and driver managers across all TOCs. For example:

“That’s why if you get caught breaching safety procedures you get done, if you don’t get caught you get away with stuff. As long as you’re getting the job done, and getting the trains in on time they [line managers] are happy ’cause they’re meeting their targets.” (Driver)

Other tensions cited related to the competing objectives of different departments and functional groupings (for example, the final quote in Box 18 above). Conceptualising TOC organisational structure as one of ‘silos’ representing functionally discrete agendas (Hopkins, 2005) would appear to bring with it the inference, encountered elsewhere in our interactions with TOC personnel, that a focus on safety considerations may be more firmly embedded within operational than within commercial spheres. For some, principally those from more traditional railway backgrounds, tensions were reported here. Specifically, between what were seen as the fundamentals of good practice in train operation and service provision on the one hand and the financial implications of performance and loss avoidance on the other. Sentiments of this nature were encountered within all participating TOCs.

3.3.4 Communication about safety

Respondents indicated that the success of interventions at middle management level, reportedly designed to raise the profile of the ‘safety agenda’, and increase the level of involvement of frontline staff in safety management (for example, by incorporating frontline staff in developing risk assessments and other safety planning processes) were mixed. Many middle managers we talked with did not always feel well equipped to take forward such initiatives, expressing the need for more interpersonal development training. These comments were supported by widespread senior management awareness of, and in some TOCs considerable development in, leadership and communication training. For the most part, middle managers appeared to view their role as a conduit for passing safety information to the front line and several expressed insecurity about doing so effectively.

The smooth transfer of safety information appeared to constitute a primary function of safety briefings, with some line managers, particularly those engaged in support activities (for example, with train crew and platform staff) apparently feeling ill-equipped to justify or expand upon the content of safety briefings. Moreover, it was apparent that many frontline staff groups were less than confident that any safety concerns that they raised would be effectively relayed to more senior staff. It appeared that such effects were most marked in those safety briefings involving non-safety critical staff. Other views suggested that the perceived conservative interpretations of statutory operating rules, and associated proliferation of documented operating procedures (see also section 3.5.2 Blame, Proceduralisation and Compliance Culture), holds the potential for information overload.
“If we’re [middle managers] honest, and it’s not just in the safety forum but the one area that we’re not very good at is communicating with the frontline staff outside of the structured process … It’s not an area that we’re particularly good at, communication. And it is one that we really do need to get better at ...” (Middle Manager)

“Safety’s an issue for them [line managers] ... it’s been drilled into the management that they’ve got to drill the safety into us. But sometimes the feedback that we give them is ignored. We have these updates every now and again, you know, we have these seminars where they have, you know they’re all trying to instil into us this issue of safety. And if we try and say to them what we think, it falls on deaf ears sometimes. You just get the impression that they’re not really interested.” (Frontline Staff)

“I think we’ve got too much communication in some sense in terms of what we give out. Sometimes you feel that you’re constantly putting up notices and newsletters and so on. There is so much information that the guards get but they tell you the opposite, they tell you they don’t get any information. I think sometimes there’s an information overload.” (Middle Manager)

“We can understand the management thinking behind it [a particular safety-related scheme within one of our TOCs]. But people who work there day in and out were not consulted in this. We don’t want a generic risk assessment across all our stations ... You need to assess each individual station as to the needs and specific risks of each station.” (Frontline Staff)

**Box 19 Views on safety communication**

Our direct observation of a sample of safety briefings during the course of the TOC research (~10) revealed that the communication process between frontline staff and their line / middle managers tended to be unidirectional. While discussion and 2-way communication was not entirely absent, the process in some instances amounted to a listing of incidents and issues and associated necessary changes in company policy and practice. Where issues were more contentious, the degree of frontline staff interest and engagement was greater. This was especially true for drivers, who have traditionally been characterised as a comparatively vocal and highly unionised grouping (Hutter, 2001). The potential benefits of including frontline staff in the development of rules and operating procedures is well documented, but, it seems, engagement at this level may be limited in the railway sector, as often is the case in other contexts.

It was further apparent that line managers chairing these meetings tended to be disadvantaged, in so far as they often had little insight into the basis for changes in procedures, or the reasons underpinning such changes. Also, we commonly encountered line managers across all TOCs, and particularly at Driving Standards Manager (DSM) level, emphasising the personal accountability and responsibilities of frontline staff. This tendency, of middle managers to distance themselves from the actions of supervised staff in this manner, is something routinely encountered in workplace settings (De Joy, 1994). This can become a way in which perceived shortcomings of safety culture can be externalised and viewed as a problem at the level of ‘attitude’ amongst front line groups.
3.4 THE PERFORMANCE REGIME

Issues surrounding the performance regime and its potential to engender tensions and trade-offs between the realisation of safety and operational objectives have been widely debated. In many respects performance issues are probably most appropriately conceptualised with reference to loss avoidance, rather than profit maximisation per se. Indeed, A. D. Little (2001) suggests that loss avoidance constitutes a defining characteristic of TOC activity, as did some of our Top Tier interviewees. While profit and loss accounting, and related concerns, fall within the remit of TOC senior management, our focus was upon how such issues might permeate through the organisational structure and impact upon the attitudes and behaviour of middle managers, and through them, operational staff.

Studies of non-railway populations have highlighted the potential for tensions between adherence to safe practice and strong motivations to realise performance or output objectives. In many cases this revolves around the issue of time pressure. This can be either self-imposed, externally imposed, or some combination of both. The tension with safety occurs where a time penalty is imposed, or perceived to be associated with compliance with safety practices. That is, when there are pressures to minimise time expended on a given task which might have safety consequences (Wrench & Lee 1973, Weyman, Clarke & Cox 2003).

3.4.1 Perverse motivations exacerbated by the performance regime

A potential for conflict and trade-offs between performance objectives and safety was widely recognised and articulated, by representatives of all staff grades and in each of our participating TOCs. Time pressure, in the context of train service operation, reflects motivations to avoid losing time or the attempt to make up lost time. The focus for our participants was very much on the latter, i.e. dealing with relatively minor service delays. Debates here centred around the practicalities of meeting timetable objectives as well as the population density (number and frequency of train services) in a given area of the network. Tensions were reported, in some instances, between operators and the SRA on this topic. While it was clearly not possible for us to assess the validity of such attributions, the view was encountered that where timings were tight, rail staff may be induced to cut corners and take risks. However, this evidence came from only a small sample of our focus groups.

The picture portrayed by many indicated that where delays are minor, particularly on longer journeys, motivation to recover lost time would be relatively high. Insights from established theories of human motivation permit the conclusion to be drawn that where objectives are achievable such motivational influence will be greatest (Maslow, 1943). That is, any motivation to cut corners / take risks is likely to be greater where it is perceived that there is a high probability of still meeting performance objectives, and will tend to diminish where such objectives are obviously unachievable.

We also encountered limited evidence of how longer term aspects of the performance regime can impact upon priorities. The nature of the performance regime is such that certain allowances are permitted for delays and cancellations within a given accounting period. Accordingly, it was recognised that where TOC performance was hovering around meeting, or just failing to meet, performance / service provision targets, staff may by motivated to modify the boundaries of ‘acceptable service standards’. This would appear to have a potential to include safety aspects.
Equally, a few accounts were obtained from frontline staff that at times they felt uncomfortable with what they saw as pressure from their route control centre not to cancel trains, particularly in instances where there were apparent safety-critical problems reported on-board. Although concrete examples of such pressure having safety implications were rarely encountered in our TOC level research, it seems that having to make trade-offs of this type did increase a sense of personal vulnerability for some.

“There is a lot of pressure. If you talk to the platform staff they would tell you that we jump on them as managers because we get jumped on if we delay a train. So they are under a lot of pressure to get that train out on time because otherwise we get what are called penalty payments. They do it in a safe manner, but they would say to you if they were really honest and open, that a lot of the time they are under a lot of pressure... And they feel a lot of the time they’re under quite a lot of pressure to keep that train going and getting out. And I suppose the public is partly to blame because they just want to get from A to B as fast as they can.” (Senior Manager).

“We’ve not managed to change the times between A & B because they can’t make time between A & B, and it [the timetable] is flawed straight away, it’s flawed. And if you can’t physically do it you’re inciting drivers to exceed the speed limit to achieve what they’re after, or cut corners. And the problem is with that is nobody wants to be running late trains and being late, so some drivers might take that risk.” (Middle Manager)

“... that’s a situation at the moment where from a performance perspective because of the availability requirements for example on the [name removed] line where we’re already fairly close to our ceiling levels as far as cancellations are concerned where normally our tolerance would be ninety 5 per cent sure the thing’s going to stay out there from a performance perspective that might drop to fifty per cent you know if it makes it through the day but doesn’t cause any cancellations I’ll take that chance you know rather than have a vehicle stood in the depot while we do that non safety critical maintenance ...” (Senior Manager)

“I mean it’s a fine example of the day we got a train come in at the platform and ... the doors opened on both sides. Now you can’t take a train out like that. But, route control they were telling her to take it, our train manager. And she said, ‘How can I take it, when I release the doors they’re opening on both sides, platform side and rail side?’ She said, ‘no way am I taking it, you can’t have that in service.’ But they wanted her to take it. Situations like that aren’t good enough.” (Train manager)

“At the end of the day we get paid to provide a safe journey. If anything happens it’s on our head, and at the end of the day I don’t want to be stood in court in three years time because a man’s dead because I took it [the train].” (Driver)

Box 20 General performance pressures

It should be noted that although many train drivers appeared robust in their approach to justifying delays to trains, we heard accounts of instances where staff adopted coping strategies to minimise delays, illustrated in the following extract:
“I think one of the other places where people are possibly encouraged by performance to cut corners is when they arrive at terminal stations and they change ends. Because if they’re late in, in their mind they’re thinking, if I don’t get this out on time I’m going to have to fill in a report, so they rush. And I think turnaround times we’ve got on our patch [sic] is tight at times anyway. And then people are jumping in the cab, and I think we all know that drivers are leaving, starting to roll down the platform still setting up cab radios and that, and they shouldn’t be doing it. But again their mind is set on performance. And the guards especially, I think one of the biggest problems we have is because they are very performance focused and it’s bashed into them all the time, the moment the driver starts to walk up the other end it he gets in the cab and ding ding for go, and he’s not even ready, some will say, well no I’m going to set the cab up properly, and other people will rush, and I think that’s when it starts to impinge on [the] safety side.” (Middle Manager)

Widespread reports of drivers cutting short or forfeiting their right to a Personal Needs Break in order to prevent or reduce delays to the service was found. Some drivers attributed this to inducements not to take breaks emanating from their line managers, and reflected on a sense of personal vulnerability, as illustrated in the quotes in Box 21.

Driver 1 “With breaks, it’s a case of “Do us a favour, can you work straight back?”
Driver 2 “Or “Can you have your break on the train?”
Driver 1 “Yes. I mean the times... you get ‘Here we’re in trouble, will you work it back.’ And the average person says yes, okay ... but it causes a big problem.”

“If you’re going to make the service late ... they [line/middle managers] just say have a cup of tea and go back please. You can be driving for 5/6 hours, but if you’re late they want to keep the train on time still.” (Driver)

“Breaks are non-existent ... it’s constant pressure and if it’s [train] delayed it’s straight back on as well. If the train is late, regardless, believe it or not, whether staff like it, we are the ones that get it back because of the repercussions that we’re going to get because we’ll incur late minutes.” (Train Crew)

“We had a spell with PNB, Personal Needs Break, you were running late and they’d [manager] be there to meet you. Are you having your break driver or are you going to straight back.” (Driver)

“If you say no you’ll take it, if anything happens it will be, it’s your fault so you can’t win either way.” (Driver)

**Box 21 Evidence of pressure surrounding Personal Needs Breaks**

### 3.4.2 Middle management, mixed-messages and tensions between safety and performance

As noted earlier (see Section 3.3.3 *Middle Management Commitment to Safety*) there was a general recognition amongst senior TOC staff of the potential for tensions between performance and safety to become most sharply focused at the middle management level. Similarly, some of our middle manager respondents recognised that a strong emphasis on performance, on their part, had the potential to engender
pervasive motivations on the part of frontline staff. For example, many saw an inherent tension, if not contraction, between emphasising compliance with the principles of defensive driving on the one hand, and delay mediation / avoidance on the other.

While very few concrete examples of performance pressure leading to deviant behaviour on the part of operational staff were reported, the failure to achieve performance objectives clearly constitutes a dormant feature in the minds of these staff on a daily basis. Several TOC managers noted that post-privatisation fluctuations in the wider safety climate and motivations across the sector may have contributed to this situation.

However, it should be noted that we encountered widespread evidence of staff being self-motivated by a sense of professionalism to minimise delays. Accordingly, motivations to meet performance objectives should not be considered to solely reflect reactions to managerial priorities. Frontline staff within all TOCs demonstrated a desire to provide the best possible service for their customers, in addition to wishing prosperity for their own TOC.

“We send out a mixed message I must admit. We’ve always done that whether in BR or within [TOC name removed], to a certain degree. Performance and safety don’t always run together if you don’t send the correct message out. And we’ve spent all our life developing our train driver policy, defensive driving policy, and then as soon as the driver is two minutes late at [a] section we slam him for a report and want to know why he’s lost time. And certainly some of the areas we’ve gone this year with minute attribution caused us a great deal of problems. They don’t run happily together unfortunately.” (Senior Manager)

“Performance targets can de-value our message as well, we want them to do this, but there’s a lot of the time when they physically can’t so really, that sort of defensive driving should be something that they want to do all the time but it gets undermined.” (Middle Manager)

“We saw a big sea change from the privatisation, the money and running to time, speed up. Then we had a big couple of disasters then it was all slow down. And now it’s going back the other way, more pressure is being put on. We’re getting...we’re seeing the company pulling [up] newer drivers especially about timings, why are you driving cautiously? Yet the guys have been trained to drive cautiously and are doing what they’ve been taught. So now we’re seeing a reversal again. It seems it settles down for a couple of years and then it starts to go back to how it was.” (Senior Manager)

“Part of it [the issue of mixed messages] stems from, the type of structure we’ve got you end up with quite a lot of “flavour of the months”. So, if performance is dipped, the message comes out, drop everything for performance, everything you do must focus around performance. So some [middle] managers who might go out doing rides with drivers and guards, start to say, ‘Well I’ve got to do performance, I haven’t got to do safety’ because, in general, TOCs have got quite a functional type structure, functional silos so you have a performance section, you have a safety section, you have a customer service section. So this month, the performance section’s shouting louder than the safety section. And I think as a result of that people think their priorities have changed but they haven’t but the perception is they have.” (Senior Manager)

**Box 22 Mixed messages: the impacts of performance pressures**
We encountered widespread reports, principally emanating from frontline personnel, regarding the approach adopted by line managers when engaging with staff over the failure of services to meet performance objectives, with drivers and train despatch staff in particular seemingly routinely having to justify delays to their line managers. Train drivers, although frequently appearing to be highly resilient, if not impervious in some instances to any ‘inquisitorial’ overtures, reported routine approaches from their managers seeking to elicit justifications for the late running of trains and other service related performance shortfalls. Similar sentiments, relating to service delay attribution, were expressed by train despatch personnel but to a lesser degree. While perceptible differences in management style were apparent between the TOCs studied here, this process focused primarily on the attribution of blame (see Section 3.5 Blame and Culpability), sometimes in a confrontational way, and was clearly a situation which operational staff were motivated to avoid. While our frontline respondents provided very few concrete examples of how such pressure might result in rule infringement or risk taking, it was apparent that they resented such inquisitions and the attribution of blame associated with them. The view was further expressed, by several long service respondents, that more recently recruited frontline staff may be less confident in justifying delays and, as a consequence, may be more readily induced to change their behaviour in a bid to avoid confrontation. However, although such sentiments were widely encountered, we were unable to corroborate this with evidence of direct safety effects.

Similarly, the approach of line management to investigating incidents, in particular ‘Signals Passed at Danger’ (SPADs) was widely viewed as somewhat draconian. In particular the ‘3 SPADs and you're out’ regime appeared to be a common criterion for initiating redeployment of drivers across our sample of TOCs. Investigations into SPAD incidents were almost universally viewed by frontline staff as being focussed upon issues of blame and culpability, almost to the exclusion of mitigating influences.

In summary, a widespread recognition exists within TOCs of the potential for tensions between safety and performance and for this to impact upon operational decision making, leading to inconsistency in emphasis over priorities.

3.5 BLAME AND CULPABILITY

In organisational contexts where a high degree of emphasis is placed upon the attribution of blame and culpability, such a situation will tend to inhibit organisational learning for risk management, tends to complicate the identification of root causes of incidents, and will suppress the reporting of near-miss incidents (Pidgeon, 1997, 1998; Reason, 1997).

Both the A.D. Little (2001) and Mercer (2002) studies, amongst others, have described the rail sector as having a ‘blame culture’. However, these studies offer little in the way of detailed explanation. Our own Top Tier interviews confirmed the widespread belief in the existence of this, and that it also pre-dated the mid-1990s privatisation process in the railway industry. Confirming these initial findings, the TOC level respondents offered widespread evidence of a proliferation of blame and capability both between and within railway sector businesses. These sentiments existed across all TOCs studied and all staff grades. As is also suggested in the Top Tier work, the public / media, regulator and government responses to the accident at Ladbroke Grove were seen by many to have amplified the pre-existing blame culture.
“I think obviously since Ladbroke Grove all the issues that triggered this kind of blame process have pushed everybody down at the other end of the spectrum...there is a real nervousness now and the culture has become one which is more sort of impregnated with fear and, and sort of concerns rather than a much more open and sort of constructive way of handling safety and reducing accidents.” (Middle Manager)

A key TOC level finding (and one which goes further than previous studies of this topic have) is that blame and culpability in the railway sector manifest themselves in a number of ways that are, in large part, a result of the contractual arrangements that prevail under the current industry structure. We were able to identify a variety of often linked facets of blame and culpability from our interviews with railway staff. These are discussed in the following sub-sections. Moreover, it was apparent that these variables impact upon the approach taken to risk management in both direct and indirect ways.

3.5.1 Risk aversion and fear of prosecution

At corporate and senior management levels, it was apparent that most of our respondents felt exposed and very aware of the serious implications of being found culpable for safety management shortcomings. Such notions of personal vulnerability were primarily focused on the potential for prosecution under both health and safety and civil law. It was clear that these concerns had become amplified following Ladbroke Grove (5 October 1999) and subsequent incidents. Management groups in all TOCs appeared well aware of the increased calls for charges of corporate manslaughter / killing to be instigated and for new legislation to be developed to make prosecutions easier.

Again, in concert with the Top Tier results, a number of our senior TOC respondents expressed the view that fears of litigation and prosecution had given rise to a risk averse management style: in other words, a tendency to err on the side of caution where decisions involved uncertainty. This was widely held to be self-evident in Railtrack’s approach to risk management in the aftermath of the Hatfield accident (17 October 2000). The following examples in Box 23 offer a flavour of how perceptions of personal vulnerability permeate down the TOC management chain, and seem particularly apparent in the accounts offered by line managers.

“Well people are very frightened of finishing up in court, and everybody is very careful what they say and do at all stages now ... we’re all up to our ears with every, and any, decision we take.” (Middle Manager)

“I think the difference between BR days is that nobody probably thought about going to jail because of a safety oversight or someone in your command making a mistake, so we’re all more conscious of it and you’re stricter with the staff too because their competence is your get out of jail card.” (Middle Manager)

“... my personal opinion [of safety] is it’s driven into us now since privatisation more so because it’s a way of protecting their backs ... I mean they drill it into us and it’s a way of protecting them. Because now you’ve got these like corporate manslaughter things that can go on, you know, so they’re all worried about their jobs.” (Frontline Staff)

Box 23 Evidence of ‘fear of prosecution’
3.5.2 Blame, proceduralisation and ‘compliance culture’

Associated with discussion of blame, was the widely articulated view that there had been an increase in prescription and proceduralisation within TOCs. One could conclude here that this might even reflect a managerial strategy, in response to a climate of blame and culpability. Moderate evidence was found in relation to middle managers in particular, which suggested that the proliferation of formal procedures was primarily motivated by self-preservation within a culture focused on accountability. Some respondents even painted a picture of what they saw as the development of a ‘coping strategy’ within the sector. This amounted to a ‘bureaucratisation of safety and risk management’. As in the Top Tier research, a few interviewees even went as far as to suggest that in certain areas this might have led to a less considered approach to risk management. That is, increased proceduralisation holds the potential to divert attention away from what were seen as the more important, active safety management issues (although direct examples were more difficult to find). In short, respondents portrayed a picture in which managerial vulnerability, amplified by an increased focus on individual accountability and/or culpability, had contributed to a proliferation of written procedures and conservative interpretations of statutory rules. This process was recognised by all staff grades, but particularly frontline staff.

“No one is prepared to take a sensible approach to risk. It’s all about back-side covering exercises. Dot the ‘Is’ and cross the ‘Ts’ on paper, but no one is checking on-site safety, seeing to the real safety issues. Safety has become over the top because fear is driving this new accountability drive which isn’t necessarily concentrating on whether we are focused on the most important issues and if we are learning, if we can do things better, safer in the future.” (Senior Manager)

“All the paperwork is just to prove we’ve done it, covered our [backs] and the directors’. The danger now is that I think we’ve become guilty of covering our backs instead of covering the issues. Important issues then get lost in smaller less relevant areas of risk and we’re not learning the lessons we should be when things go wrong. We don’t know what the most important risks are and so end up providing blanket solutions and being all too generic.” (Middle Manager)

“... we’ve had an incident [location removed] where a member of staff was almost electrocuted which was, it should never have happened, now all our safety bureaucracy, did not prevent that happening. What should have prevented it happening is the manager being aware of what was going on and observing something wasn’t right on one of his visits and noticing something wrong ... if a manager or a supervisor or a member of staff had said, ‘Well is this really what we should be doing? Is this really safe?’ not ‘Are these forms filled out?’” (Senior Manager)

“... we’ve got to overload with all the bureaucracy I think. I think people have got to a point where they said that, come on, we’ve got a job to do, we’ve got a job to do, our day job to do, cut all this out, does it really make us any safer? Erm, and let’s focus in on what really matters...they have started to say, ‘This is crazy, why do we have to do this?’ And have either stopped doing it because they think they can get away with it. Or have done it half heartedly just to be, just get a tick in the box, but have a fear that it’s going to come and hit them because they haven’t dealt with the paperwork.” (Middle Manager)

Box 24 Increased proceduralisation
An increased emphasis on prescription is seen in the literature as a perfectly desirable feature of an effective safety management system, particularly where this reduces or removes ambiguity in decision making and results in the development of practicable and workable systems (see: Reason, Parker & Lawton, 1998; Lawton & Parker, 2002). A small number of respondents indeed highlighted what they saw as benefits from more clearly defined boundaries of ‘acceptable safety performance’. Here, the sentiments expressed highlighted a belief that standards of risk management had improved compared with the situation that prevailed under British Rail. For example:

“And we’ve replaced that steeped culture that’s been known over 20 / 30 years by each individual, with a much more process, compliance-driven and educated workforce I think. I think the level of awareness of ... say a member of station staff 20 years ago would have been pumping [operating] points, they would have been out on track side in other words talking to signalman in the event of an emergency. Their level of competence to do so would have been thin. And it’s surprising we didn’t have more problems. Now that work group is segregated so you’ve got the person who is competent about points who belongs to NWR and then our members of station staff who will only walk off the end of the platform when the crossing says it’s safe to go and he’s got his rules and he’s trained in personal track safety and that’s all. He’s not trained to get on platforms and do signalling so we’ve actually split up the work and the level of competence within this trade group is greater. It’s slightly less efficient in an operational sense [but] in terms of keeping things going but it’s safer.” (Senior Manager)

However, there is a risk that an overly prescriptive approach, particularly where this is motivated by external influences, may result in unwieldy or impractical solutions, with the potential to generate non-compliance. Limited evidence for this argument, mostly second-hand, was found amongst middle managers.

Discussion of rules, procedures and compliance were, perhaps inevitably, dominated by negative sentiments amongst our interviewees. For example, several of our frontline respondents expressed the view that issues of blame and culpability featured prominently in their experience of accident and incident investigations. Evidence of this approach was judged to be the ‘3 SPADs and you are out’ rule. While frontline staff clearly expected to be held responsible for instances of blatant rule infringement, many suggested that the proceduralised approach to risk management was motivated by a desire by management to shift the focus of blame in the event of non-compliance. As noted above, a significant proportion of our frontline respondents, across all TOCs, expressed feelings of personal vulnerability and awareness of the potential for errors or violations to impact upon their career prospects.

These managerial concerns with blame, culpability and responsibility are seen by our participants to have led to a ‘compliance culture’, which is reflected in more conservative, risk averse interpretations of statutory rules, as well as a proliferation of formalised company based procedures. This process, it is suggested, has diminished the scope for personal interpretation and autonomy at an operational level. The resultant risk aversion is attributed to a range of issues but, most saliently, to the intense media and regulatory focus on safety standards in the aftermath of serious incidents. A contributory influence in the increase in formalised procedures could be the fact that this readily meshes with broader cultural drives towards greater auditing of performance and processes within risk-bearing organisations (Power, 2004). The impact of this on risk management procedures within TOCs has been a growth of internal, paper based, auditing mechanisms.
Hence, a widely encountered sentiment was that the desire to eliminate risk, or perhaps more accurately minimise the risk of culpability for a failure to adequately manage risk, has become almost obsessive, to the point of becoming over-bearing and burdensome. Box 25 gives some views of TOC managers interviewed.

“Risk aversion breeds rules and then you’ve got to sort out all these rules and regulations which come in which are totally over the top and you’re managing a level of risk which is really very, very low and that calls the whole thing into disrepute.” (Middle Manager)

“...but in some areas we go over the top [in terms of safety] ... we’ve almost gone too far, and ‘it’s be careful when you open the door handle, it might spring back to you because you might hurt your finger.’ It’s now, we are now at one of those points where somebody really has got to say, ‘Look, enough is enough.’ Because we’re missing the high-risk activities. And in my own field, I’ve got sort of three high risk activities which are train despatch, coupling and uncoupling of a trains, and people that are in control of site safety when they’re working on or near the track. Now, those high-risk activities are having the same time spent on them as me briefing you on the evacuation procedures which is absolutely ludicrous.” (Senior Manager)

“There are times when it [safety] can be very onerous there are times when the whole business of trying to comply with standards actually stops us in our tracks from what would otherwise be engineering common sense ... I think there becomes a balance point at which once you’ve integrated um safety and standards into your management system if they become too onerous you then start going the other way and building ways round working again and the whole kind of ... I feel now that we’re heading towards that ...” (Middle Manager)

Box 25 Managers' views on ‘excessive’ risk aversion

3.5.3 Blame exacerbated by regulatory activity

There were also said to be pressures emanating from regulators, particularly HMRI to establish formalised, documented procedures, not least under the Safety Case regime. This was felt to reflect a risk averse approach adopted by HMRI following the Ladbroke Grove Inquiry (Cullen, 2001). Some managers felt that the recent approach of both HMRI and the HSE had contributed to this culture of blame and risk aversion. Moreover, the criticism levelled at railway sector businesses by a few of our respondents, that the bureaucratisation of safety had distorted the focus of risk management, was also levelled at HMRI.

“The HMRI are failing us by not identifying and tackling significant risks. They get obsessed with [example of minor hazard deleted] because it’s something they can tangibly see and you say hang on can you risk assess this compared to our other operational risks and really tell us that we should be prioritising that as an activity over and above other more important risks?” (Middle Manager)
3.5.4 Blame exacerbated by the performance regime

So far we have dealt with issues of blame and culpability referenced to the domains of safety and risk management. However, issues of blame and culpability clearly have the potential to characterise a wide range of organisational practice, beyond safety and risk management. In this sense the attribution of responsibility and blame (or conversely, a situation approaching greater degrees of ‘no-blame’: see, Pidgeon, 1997) reflects a generalised facet of management style and one which is apt to vary between one organisational context and the next. When considering the railway sector, however, it is apparent from our data that the industry structure, its associated contractual arrangements, and the performance regime itself, are all characterised by the apportionment of blame (also A.D. Little, 2001).

The potential for deriving compensation for delays and cancellation of services and attribution of culpability between rail sector businesses transparently brings with it notions of blame and responsibility. These sentiments were widespread in all TOCs:

“I think a lot of that was related to standards which Railtrack brought in where you apportion blame ... who’s fault was it’ that all these incidents occurred so we all spent so much time trying to blame each other and not thinking what can we do to stop these incidents and what can we do to improve safety standards.” (Senior Manager)

“There’s still a lot of delay attribution issues, I don’t think there’s enough co-operation between NWR and TOCs to sort out problems which affect both parties ... we’re still focusing on them saying ‘well that problem occurred we think it’s due to a train’ and we go back and say ‘no well we think it’s due to your track’ but nothing is ever done to try and properly sort it out, there’s too much attention to blame but it’s the way we are now with all our contracts, you know it’s all about money.” (Senior Manager)

“It’s the whole thing when they’re [the control room or TOC managers] ringing you up is because basically like NWR and the company want to blame each other so they will call you up to see if they can get the excuse that it was something that was NWR’s fault then they can blame them and they get the minutes back like that. And then if it’s our fault then it’s vice versa...” (Driver)

Box 26 Blame and the performance regime

In marked contrast to many other industries, what emerges from our analysis of both the Top Tier and the TOC data is a picture of the externally structured performance regime, and its associated routine debates over attribution of causes of delays, as being the defining influence for much of the day-to-day activity within TOCs. This in part explains the perceived centrality of responsibility and blame discourses within current railway culture, compared to that found in other organisational contexts where blame is merely a feature (albeit a powerful one) of corporate life. Associated with this is the potential for blame associated with compensation claims, in themselves a non-safety issue, to percolate though individual businesses and impact eventually on perceptions and behaviour of frontline staff. Some (albeit limited) evidence suggests that those who are most prone to being questioned in this regard are drivers and train despatch staff (see Section 3.4.2 Middle Management and Mixed-messages). However, the need to account for underperformance/delays permeates all levels of the
TOC, with middle and line managers also having to account for judged under performance with their superiors.

### 3.6 KNOWLEDGE MANAGEMENT

Previous rail research and consultancy findings (Mercer, 2002) have highlighted a number of weaknesses in ‘knowledge management’ within the sector following the privatisation process. Principal issues identified here, and in the Top Tier work, relate to: an imbalance in the concentration of expertise between stakeholder businesses; a loss of expertise at the point of privatisation with large numbers of personnel leaving the sector; and, finally, the absence of a common approach to staff training. Partially as a consequence of the above, and partly due to other structural changes within the sector, the privatised industry has also experienced an unprecedented influx of staff from other commercial, non-railway, contexts.

#### 3.6.1 Training regimes

Notable changes were reported to have occurred within TOC staff training regimes following privatisation, as reported by many participants. This period has witnessed a significant reduction in the duration of driver training. More broadly, the principle of career advancement based upon tenure has been replaced by targeted recruitment. Not surprisingly, debates proliferate regarding the relative merits of these changes, with many of our longer service respondents perceiving such changes as indicative of an erosion of standards. Train drivers expressed these sentiments most vociferously.

Many of the longer established staff bemoaned what they saw as the loss of a predictable career progression path and a diminution of value placed upon practical experience, the latter being viewed as qualitatively superior to what they saw as the current emphasis on classroom-based assessment. Such sentiments are routinely encountered where changes are made to traditional training regimes. Moreover, humans routinely exhibit a dispositional bias of viewing the past in a more positive light than the present. Hence, while we cannot provide informed comment on the legitimacy of claims of an erosion of training standards, it is apparent that this remains an entrenched belief amongst many of the frontline staff we encountered.

While the misgivings of operational staff are perhaps predictable, given the degree of change that has taken place in the sector, such sentiments were not restricted to frontline professionals. Moderate evidence of both senior and middle managers expressing reservations regarding the process of inculcating a sound conceptual understanding of railway rules, procedures and operating practice in new recruits was also found (see also comments in Section 3.6.2 on ‘Programmed Working’ below).
“I’ll tell you one of the biggest flaws if you like of the safety culture, which is something we’ve been telling them that they don’t see. Now in the old BR days you always rode up front with the driver. Drivers helped other drivers and you would naturally talk about the job, it’s part and parcel of being there. And you would relate stuff that you knew, from your experience. Here watch it when you go down there, I came round a corner the other day and ... now it’s all about rules and don’t do that in the cab, don’t do this. It lost the matey aspect, there’s a sort of networking on the safety side that they’ve lost.” (Driver)

“...there’s no structured line of promotion. In the days before [privatisation] we started off at a bottom line and we were on the station, then on train, then second man and driver was a top line job. What we’re doing now is taking people out of the street, giving them very limited training then they’re riding with drivers, but they could still get the benefit of both ... As it is now we’re taking people off the street and they’re passing an assessment test and we’re putting them straight out as drivers. So if they’ve got any inherent problems they’ve got it straight away and it stays with them.” (Driver)

“I think we have created an industry where too many people are taking key decisions on risk without the benefits of the right experience to do that. We have a far more professional approach to training and competence assessment but can that make up for that deeper level of understanding?” (Senior Manager)

“Well the trainees I have, because I actually take trainees off the street, I tell that basically they’re going to start out with a full bag of rules and an empty bag of experience. And the trick is to fill the bag of experience before you go out alone. And that’s from my perspective the way things are. But with all the emphasis on rules and little on the experience these days it’s an uphill battle for them really, isn’t it?” (Middle Manager)

**Box 27 Training, knowledge and experience**

### 3.6.2 Loss of expertise and ‘programmed working’

Hale and Glendon (1987) distinguish between ‘programmed’ (rule bound) and ‘concept’ (problem solvers) operators / workers. Within the present research we encountered concern in all participating TOCs over possible erosion amongst staff of conceptual understandings of railway operating principles. As noted above, an increased emphasis on rules and procedures characterised by a ‘compliance culture’ (see Section 3.5.2 Blame, Proceduralisation and ‘Compliance Culture’), was portrayed as conflicting with the objective of inculcating sound conceptual understandings (or ‘mental models’) of railway operation in more recently recruited staff. The implication here was that more recent recruits tended to adopt a more programmed, rule following, approach. The sentiments expressed by our respondents appeared to reflect genuine concern over issues of staff training and competence, rather than overt resentment of ‘incomers’ to the sector, an issue also identified by the Mercer study (2002). While there was notable consensus over the removal of what many saw as overly protracted apprenticeships, which historically were associated with recruitment to key safety critical roles, in particular driving and signalling, this perception was often qualified by unease and even suspicion that current training regimes may have contracted too far. This view tended to be linked to a broader awareness of staff shortages in certain key areas (see Section 3.6.4 Maintaining Core Competencies). Box 28 provides supporting evidence of the above arguments.
“... the older people that’s been here is like, well they have an option to have a grey area. But if you’re new in the job it’s basically you want a clean license, so you don’t want to put anything down to chance.” (Recently Recruited Driver)

“The new recruits are great, they’re attentive and hungry to learn but they don’t have the history, the background on the rails anymore and that’s a worry. You can’t just learn the rules; you have to think about what’s behind it, what underpins it. Do you really understand when and how to apply rules in tricky situations? That’s the other thing as well, as the industry has gotten safer, we’ve gotten softer. Our operational staff, the majority of our staff will not have faced an emergency, thank God, but what that does mean is that you’ve got these young guys with a book-based approach to their rules and regs and no real know-how of the real dangers of the job.” (Driver)

“... I think that’s where we’ve got to be very careful when we bring in new people or when we train people to make sure, it’s all very well training them a safety and health manual but when you never really carry it around what you’ve got to do is to be trained to be able to walk the job, observe and if you see something not right, check first, if it’s not right or if it’s really unsafe stop it but check if you're not sure, check immediately with your superior ...” (Senior Manager)

Box 28 Evidence of ‘programmed’ versus ‘concept’ operator issues

3.6.3 Management style

Although the sector retains much of its longstanding tradition in relation to management culture and style some changes to this were reported. Typically, these were attributed to a greater emphasis on a market model combined with the recruitment of senior staff from non-railway spheres. It was apparent that there has been a notable in-flux of senior staff from non-railway commercial backgrounds (both the road transport and other sectors). Perceptions of this change were, perhaps predictably, mixed, with both positive and negative views expressed. Many of the middle and senior managers we talked to welcomed the changes. Less favourable responses surrounded reports of clashes in management style and, in some instances, a transparent lack of confidence in the authority (railway knowledge and ability) of those from non-railway backgrounds, particularly amongst operational staff. Reports of tensions between ‘old’ and ‘new’ recruits to the industry were noted in previous research (Mercer, 2002) and were also widely present across our focus group sessions. It has been argued by some that external recruitment has had the effect of diluting the techno-centric culture (one that is firmly focused on alleviating technological and not human or organisational deficiencies) that historically paved the way to career advancement within the railway sector. It appears from our data that this process has been met with a degree of resentment, particularly amongst those with an interest in established career pathways.

While it would be unwise to dismiss such comments lightly, or as groundless, it should also be born in mind that this type of resentment / diminished confidence in the abilities of senior personnel is routinely encountered during such a process of professionalisation (see, for example: Brutvan, 1985).
“I know that for many years the railway was insular, everybody was home grown, and it used to refreshing to see people moving from other industries with fresh ideas, fresh views, fresh values, given that it’s been, I wouldn’t say stagnant, but in the same pond for that many years.” (Middle Manager)

“... we got a DSM here that’s been driving about 7 months only before he got the job. What’s that all about I ask you?! And that’s what we’ve come to now, being ‘managed’ with a little ‘m’ by people who don’t know their arse from their elbow when it comes to railways ... you go in to ask them a question and they’re like ‘can’t talk to you yet’, shut the door, read the latest management speak sent to their computers and then they’re got their script for the day ... their favourite saying is ‘I’ll get back to you on that’ and the truth is that they have to go and ask someone who actually knows about the railways, not just the rules but the railway.” (Driver)

“Local management is not the correct phrase, they’re not managers, and some are barely even ex drivers. How can they talk to a driver about a driver-related problem when they’ve not been driving much themselves. I understand they have management skills that drivers don’t have, so at the end of the day there are driving skills that a college graduate would never have. Now that’s far more relevant than a management skill ...” (Driver)

**Box 29 Attitudes to changing management style**

### 3.6.4 Maintaining core competencies

Widespread difficulties in recruiting and retaining staff at all levels were reported, although the degree of difficulty varied between the TOCs sampled. In part, this likely reflects broader labour market effects. However, there was some suggestion that the negative media profile endured by the railway sector was a contributory influence too.

“... one of the key things the media has damaged us by is the fact that people don’t necessarily see us as an attractive company to work for the good engineers the good graduates the good people coming through the good professionally whatever whether its either in engineering fields or the commercial fields or you know attracting them and keeping the very best people which we need as an industry its very difficult against the background where you’re constantly bombarded by poor media attention.” (Senior Manager)

Perceptions surrounding the loss of core competencies were not restricted to TOCs, but considered to extend across the sector, including to HMRI.

“... I think their [HMRI] role in this has been absolutely, I think its been disgraceful and I do think mistakes have been made because they have lost their competence as well so they are as exposed as the NWR people who are making those decisions as operators ... they [HMRI] have now trebled their organisation and the vast majority of the people they’ve brought in have no railway experience and so they’re working on the limits of their operational knowledge.” (Senior Manager)
3.6.5 Compliance with rules and procedures

Highly detailed and comprehensive rules and procedures are a cornerstone of the accumulated knowledge within the railway sector, in no small part reflecting historical precedence and expertise based upon almost 2 centuries of development. For example, many of the current operating rules reflect lessons learned from, and reactions to, accidents and incidents. Our interactions with respondents revealed a high level of cultural acceptance and recognition of the need to comply with statutory operating rules and good practice, particularly those rules that reflected safety considerations. For example:

“We don’t have the capacity to deviate from the rulebook. We have the capacity to make a mistake, but not deviate from it. And the mistake would probably be punished I would say, depending on the nature of it.” (Driver)

“We all know that we only get paid the money we get paid to know our rulebook inside out full stop. You can’t deviate from that. Not like in the old days with BR.” (Driver)

“I don’t think there’s really any room for bending rules really without doing things a bit silly.” (Driver)

“I mean they’ve [RSSB] only been in existence for just over a year so perhaps they improve, things will improve but again they’re obsessed with standards again, I mean the amount of discussion over this railway group standards code is absolutely ridiculous and I think, you know it just, you know it takes up time and resources.” (Middle Manager)

“I think we’ve become a very reactive industry, I mean much of it has been beneficial and moved us in the right direction, but we are very standard driven now and its various agencies creating these group standards from codes of practice issued by ATOC to NWR themselves picking these up subsequently as group standards, and we’ve no longer got used to the implementation of one group standard and how we apply it within the industry before its changed, so we never actually get a chance to evaluate the true benefits of where we are within the progression if that makes sense.” (Senior Manager)

“One of the things that the industry tends to push us into is being compliance driven and sometimes I think, that almost stops you from improving your culture to a certain extent because everybody’s looking at the standards, applying them and then saying, ‘We’ve met this standard, what more do we need to do?’ People are so busy working within the rules that they are not seeing where we might do things better ...” (Senior Manager)

“It’s like trapeze artists having to wear hard hats isn’t it, you know, safety conscious. Nobody now can use their own initiative because they’re afraid to do so.” (Middle Manager)

“... what I’ve found is, that has been driven down a very, for obvious reasons, regimented, statutory, legal plan, rule book, type approach. And that's reflected in the way we’ve managed safety within the business and of course, that has to be adhered to. But it’s also reflected in the way, we manage the business, you know this sort of rulebook driven mentality. And I think what we need to do now is to keep, ... hard core, rule book mentality but introduce a way to actually encourage a little free-thinking again and look at the way you can soften that up to actually make it a more enjoyable experience ... than a series of mandatory tasks and things you’ve got to do to cover your backside sort of thing.” (Senior Manager)

Box 30 Rules, procedures and compliance
The edition of the rule book current at the time of the empirical phase of this research (Rule Book: GE/RT8000, introduced 6 December 2003) was generally well received by our respondents. However, despite appearing to welcome improvements to the format of this text, many expressed the view that the general approach to interpreting operating rules and the local (effectively, company based) procedures which these engender, had led to an increased and, for some, unwarranted degree of prescription. As noted elsewhere, a widely articulated view was that an increased emphasis on prescription has increased the degree of reliance on rules and procedures amongst more recently recruited staff. The approach adopted by HMRI, in particular the introduction of the Safety Case regime as well as the Railway Group Standards System, was also seen by some managers as having contributed to the trend for greater prescription and documentation of safe practice.

While it is perfectly possible that perceived changes in the approach adopted by HMRI in this area reflected moves by HSE towards greater harmonisation with other major sectors, in the minds of our respondents a primary driver here was said to be the fact that the ‘railway safety standards spotlight’ had extended to the role of the regulator. Many of our more senior respondents saw HMRI as feeling the need to be seen to adopt a more rigorous approach to rail safety.

In general, moderate evidence suggested that all TOCs saw the level of prescription as continuing to gain momentum, rather than having plateaued, and while some felt that there were benefits relating to certain aspects of railway activity, it was clear that many felt stifled by what they saw as something of an onslaught of prescription. This focus was widely considered to constitute a further driver of a ‘compliance culture’, and in particular a focus on meeting and adopting standards, rather than concentrating on the problems the standards are designed to help alleviate. A corollary of this was said to be an inhibition of innovative moves to generate solutions.

From some, there was a call for a return to what they saw as a more ‘balanced’ approach to rules and procedures that, while not encouraging non-compliance, would engender a reasonable degree of autonomy and ‘free-thinking’, reminiscent of BR days. However, other sentiments encountered were more positive, regarding the contemporary approach to safety management and appeared suggestive of a more integrated approach to safety than that present during the BR period. Overall, the majority of TOC managers, particularly those line / middle managers interacting most with frontline staff groups, supported the development of a strong managerial line on maintaining safety standards and good practice across the rail sector (see Box 31).

The degree to which some middle managers appear to embrace greater prescription should perhaps be considered within the context of other evidence highlighting the vulnerability felt by members of this group. Specifically, it was apparent that middle managers, in particular, felt vulnerable to questioning, even possibly prosecution, in the event of an accident or incident. Members of this group appeared to play a major role in the proliferation of documented, proceduralised approaches to risk management. Their apparent willingness to embrace a more prescriptive approach should perhaps be seen as a position not wholly devoid of self-interest. In short, reducing the scope for interpretation / improvisation can be seen as having the potential to reduce uncertainty. Reductions in scope for non-compliance with rules and procedures were also apparent in several of the accounts provided by frontline professional, especially drivers.
“... there were always systems there in BR days I think the difference is that they were parachuted in on top of what you did you almost ran the railway in spite of the standards somehow I don’t know if that’s fair to say you know you found a way to manage with the standards whereas now most of the time they’re intrinsic to what we do they’re fundamentally built in to how we manage rather than being something that parachutes in on the top which we try to comply with of we can so its actually an integrated part of our management process which is probably one of the biggest differences.” (Frontline Staff)

“I mean you go back to BR days, and let’s say I’ve got a set of empties at [location removed] that I was working, I’d think nothing about cutting across the track to get to the train ... nobody would dream of doing that now.” (Middle Manager)

“One area where we do struggle a little bit though I think is that the standards have become far more prescriptive as time has progressed, haven’t they? [Agreement from the group]. I mean five years ago the train drivers handle was pretty loose to say the least, companies could do very much what they saw fit, and over the last five years it’s become much more prescriptive and if you went into most TOCs you would see roughly the same model cause you’ve got to work to quite a detailed standard. And that leads to greater compliance from our people, less incidents, less of my time disciplining people ...” (Middle Manager)

“I think there’s pluses and minuses for being stricter with the rules ... in terms of the staff and what they do out there on the track, because of the fact there’s so much emphasis put on getting everything spot on right there’s no room for error, whereas in the past I think we’d maybe got a bit more leeway. People get away with far less now than they did two years ago or two years prior to that, or two years prior to that. There’s far more emphasis on getting every single little thing dotted and crossed and people can’t have you having minor incidents now of a real trivial nature without having to do a report and being interviewed. And I think from that point of view it’s a safer railway as a result...” (Middle Manager)

Box 31 Evidence of management support for greater rule compliance

While a ‘compliance culture’ was seemingly embraced by many middle managers, and we encountered considerable evidence of reduced scope for over-interpretation and / or deviation from rules and procedures, the predominant view expressed across all staff grades was that this approach inhibited risk management innovation.
“... one of our biggest problems and we’ve created it almost for ourselves and it’s to combat exactly what you were saying. ... we’ve become so compliant we can’t get out of this compliant cycle and we spend lots of money on it and lots of time trying to concentrate our minds on being compliant but you can’t move to the next stage, where you really have a safety culture, where people just do things in a safe manner ... because every time you try and move to that somebody is saying ‘ah but you’re not being compliant with this’ and we’re being dragged back. I understand in the main why we had to become compliant because there was the railway was fragmented, they needed the safety systems to be the same across the board for all of the companies so they basically bring in all these standards and they go ‘right you’ll comply with all these, and all these, and all these’ and you just get into this very compliant framework ... And we need to move to the next stage, but we can’t because we’re not allowed to. Every time we try and move there will be another compliance issue and you are going to be audited against this and that and the other, and your brain won’t allow you to think any other way than ‘I’ve got to be compliant.’” (Senior Manager)

“Although the rules and regulations are there for a reason, they have got their positives and phases, but they also have got the negatives, because it adds too much red tape as well to the workforce, so there’s that factor to come into it and can make people feel dissatisfied with an inability to make their own decisions about their work.” (Senior Manager)

“... Jacks is a classic example, you know, they’re going to lift a hundred tons but because our engineer surveyor says they don’t comply on certain aspects we can’t use it. But they could have been in use everyday for the last 6 months and these guys wouldn’t be behind when they might rush and safety would really be affected but we can’t do it because he’s said no I’m not going to certify them so yeah that’s a classic example ...” (Maintenance Technician)

“... new guards now they’re saying, I’ve been told this at the school and there is no other way. They revert to that, to their bible. Unfortunately it’s blinkered thinking ...” (Middle Manager)

Box 32 Negative sentiments regarding compliance

The reported bureaucratisation of railway activity was considered, by some, to be in conflict with a deep-seated, ‘can-do’ operational culture. Our respondents cited numerous examples of circumstances when ‘safety bureaucracy’ had created frustration, and in some (fewer) instances a degree of disaffection amongst frontline staff, particularly where this was seen to adversely impact on service provision. Where safety systems, rules or procedures engender frustration and disaffection it can be inferred that the motivation for non-compliance may become elevated. It is therefore important for those who generate rules and procedures to design them well, such that rules are viewed as legitimate and do not engender non-compliant motivations (Hale & Glendon, 1987). In particular, a potential for ambiguity exists where the level of detail provided fails to take account of the range of contingencies encountered in different geographical locations and under varying circumstances.
3.7 ORGANISATIONAL LEARNING

3.7.1 Incident reporting

In general, our respondents suggested that a variety of operational and other incidents are routinely reported to management within the TOCs that we studied. Indeed, it was apparent that senior management placed a high degree of emphasis on incident reporting and devoted notable resources in terms of staff time to the investigation of more serious incidents. However, while it would appear that there is generally a strong managerial emphasis on the reporting of accidents and near miss incidents, the view was also expressed that that the strong emphasis on blame and culpability discussed earlier (Section 3.5 Blame and Culpability) does inhibit some forms of reporting within the sector (Hale & Glendon, 1987; Pidgeon, 1997; Battles et al, 1998). For example:

“Incident reporting is deeply influenced by blame and this reflects on our safety culture. Reporting rates tend to be lower than perhaps they should be and near misses are rarely reported, even though we have tried to educate staff that they’re crucial to our ability to manage safety proactively. We’re still not getting to the real underlying causes of accidents because people aren’t always telling the truth and so we don’t have all the necessary information from which to take appropriate action to mitigate risk in the future. Some people are really honest but more than that are worrying about consequences.” (Senior Manager)

Turning to near-miss events (incidents which have the potential for loss of life, major damage or disruption) it was apparent that the majority of reports of such incidents related to the activity of third parties, typically infrastructure maintenance crews, subcontracted to or employed by NWR. While our participants indicated that reports of near-misses involving staff from other or their own TOCs did occur, this was less common in our data.

3.7.2 Confidential Incident Reporting and Analysis System

Views of the utility of Confidential Incident Reporting and Analysis System (CIRAS) were mixed. In common with findings from our Top Tier interviews, some managers expressed dissatisfaction with the potential for CIRAS to induce frontline staff to circumvent company-based internal reporting systems. Several frontline staff, especially station staff, expressed parallel sentiments. The extracts in Box 33 illustrate these points.
“CIRAS should not be necessary as there are clear reporting procedures through our health and safety reporting arrangements ... CIRAS gives the signal that if you’ve got a problem then don’t talk to your line manager about it, fire it outside of the company instead and I don’t think that’s a good message to send.” (Senior Manager)

“I think there was a bit of resentment at first to CIRAS cause it was yet another bit of safety that was being imposed on us and I think we didn’t really have buy-in. And so we just sort of said to drivers ‘this is another way you can report’, nothing special like and no wonder they didn’t really take much notice ...” (Middle Manager)

“I think CIRAS encourages you to get out of talking to your managers sometimes, you know, avoid having to go straight to them, which could cause a safety problem sooner or later cause it is a quicker route to talk straight to your governor, inn it? There’s gonna be an incident that if it had been dealt on the day that it had been seen, lives would have been saved. So CIRAS is a bad thing when it stops talking within our company.” (Station Staff)

Box 33 Views on CIRAS

From this perspective CIRAS tended to be viewed as a whistle-blowing forum, and one in which TOC’s soiled laundry is being aired in public. In such instances, it is predictable that TOC managers will feel vulnerable and resentful, particularly if there have been efforts put in to improve internal reporting systems. Our discussions with frontline staff gave the impression that recourse to reporting incidents via CIRAS was in some TOCs still relatively rare. For the most part frontline views of CIRAS were ambivalent. However, it was equally apparent that the frequency of use of CIRAS varied considerably between the participating TOCs, possibly reflecting variations in local management enthusiasm, and initiatives around CIRAS, as well as the status of internal reporting systems.

Given the regional specificity of much of its content, many frontline respondents questioned the relevance of CIRAS reports to their own activity, while others saw scope for CIRAS to provide a forum for the expression of politically motivated content. There was also a widely expressed view that the quality of content had diminished since its inception. However, despite the criticisms encountered regarding the precise mechanics of CIRAS, there remained an almost universal belief amongst operational staff in the need to maintain a confidential incident reporting system within the current railway sector, something which we regard as a key observation arising from this research.

3.8 RESOURCES

3.8.1 Investment

When discussing issues of finance and investment in the railway sector, our respondents painted a picture of perceived under investment. This was particularly so during the latter decades of British Rail, as well as during the initial era of privatisation. Many saw privatisation as bringing with it a more cost conscious approach, some highlighting what they saw as a period of particularly low investment during the initial period. It was noted, for example, that investment in rolling stock during the early privatisation period was minimal, although this situation was said to have improved
significantly during the second, more mature, era. A major influence on TOC investment, reported by some managers, was said to be the duration of service franchises.

In somewhat marked contrast, levels of investment in safety were reported to have increased significantly in recent years. Several contributory influences were cited here: but in many instances were ultimately attributable to recommendations arising from Professor Uff and Lord Cullen’s Public Inquiry reports (Uff & Cullen, 2000; Cullen, 2001). However, a number of respondents questioned the trajectory of investment in safety during this latter period. These sentiments appeared to reflect a broader view, which questioned the logic of what was seen as an exaggerated level of concern over safety issues within the sector.

“Nobody’s denying that you need safety, but it’s got to be sensible, it’s going too far. And the safety that they should be implementing they say, well it’s going to cost us money; we don’t want to do that because it’s going to cancel trains. Let’s get in there let’s work a way round that.” (Middle Manager)

The view was equally expressed that a disproportionately large amount of investment capital is being used to finance administrative aspects of TOC activity. In particular, legal and accounting functions associated with contractual interfaces, and aspects relating to the attribution of delays and disruption under the performance regime. The suggestion here was that levels of investment in operational equipment remained sub-optimal, despite substantial rises in the overall level of financial investment within the sector.

“... the current industry is under-invested in and we still haven’t learnt the lessons of under-investment and we’ve spent billions getting to the point where we are on lawyers and accountants and various other bits and pieces to create a fractionalised [sic] industry whereby if some of that investment has been put into the industry itself we may not be in the position we are in now ...” (Senior Manager)

The extent to which these sentiments reflect the actual distribution of investment capital remains a matter for debate. What does seem apparent, however, is that a notable number of respondents expressed the view that the current level and distribution of resources was not necessarily optimal.

3.8.2 People

As noted elsewhere, the privatisation process heralded a reduction in staff numbers compared with the British Rail period. Difficulties in recruiting and retaining appropriate staff have also been widely reported within the media, in the A.D. Little (2001) and Mercer (2002) reports, and in our own Top Tier interviews.

We encountered a number of attributions alluding to safety implications associated with staff shortages and general staffing levels. More established staff, with experience of conditions under British Rail, tended to paint a picture of a privatised railway with staff resources pared down to a bare minimum. These sentiments were encountered across a range of staff grades and participating businesses. Other sentiments expressed focused on what some respondents saw as safety implications of a lack of redundancy in both staff and service provision. Box 34 has a selection of quotes.
“I mean I can recall years ago, I mean the track was patrolled every day. And now you’re lucky to see ... I mean we still see people in different jobs don’t we, and it’s oh we go along that track and we have a look and we check once a week. I mean we’re down to the bare bone now in the people who work on the track now ...” (Frontline Staff)

“... when you look at some of the occupational health and safety stuff you know probably the only way to get total compliance is to have dedicated safety people which is what you used to have in some depots you know there were dedicated depot protection staff at [depot location removed] for example when I worked there they never did anything else, they were the one’s who put the depot protection on and took the depot protection off. But now there isn’t the commercial will to buy people who are non productive to that extent and there is a relevant argument of course that says you should make that part of someone’s core responsibilities why should it be someone else’s responsibility to put your safe system of working but it does create conflict ...” (Depot Manager)

“Because before it was privatised there was a spare capacity where you’d got spare men to cover eventualities. Nowadays they look at it, right this is what we need, get rid of everybody else and then there’s no spare stock, there’s no spare engines, there’s no spare people. There’s no spare capacity for anything. So eventually the whole lot falls down.” (Middle Manager)

“You’re not supposed to turn up for duty if you are not properly rested. I’d like to see somebody actually phone up and say, sorry I couldn’t get to sleep last night, I’ve only had two hours so I’m not coming to work because I’m not properly rested and see what they make of that.” (Driver)

**Box 34 Evidence of staff and resource shortage impacts on TOCs**

It was apparent that difficulties were experienced at line management level in balancing the available resources. In a number of instances, prevailing staffing levels were reported to contribute to the stress experienced by affected staff groups and their line managers. These issues were less apparent for safety critical staff, but were widely encountered amongst non-safety critical personnel. For example:

“I think we’ve got to a situation where if everything was allowed to be equal we would be able to cope. But ... we will never have enough drivers based on the rostering system we’ve got, because it doesn’t take all the variables into consideration ... And the knock on effect is then that people won’t get their days off, and if they don’t get their days off they’re not going to be very happy, so there comes a work stress situation again.” (Middle Manager)

“... I find that because of the workload the pressure is really on, it’s on my shoulders. And that only gets worse of course when there are delays. I think that’s when you could get safety issues coming up.” (Train Manager)

3.8.3 Capacity / redundancy of rolling stock

Perceptions of a lack of redundancy extended to rolling stock, with many of our respondents intimating that the lack of spare capacity in this area presented barriers to
service provision and the realisation of performance objectives. These sentiments clearly constitute a source of frustration with a corresponding negative influence on staff morale (see Section 3.9 Morale, below). But they were also suggestive of an increased motivation to run trains in poor condition and, on occasion, with known faults (such as non-functioning Public Address systems). Differences of degree were apparent between the TOCs sampled in this respect, reflecting both the quality / age of their respective fleets, as well as the quality of the relationships with their maintenance companies.

“At the end of the day it all boils down to money. It costs them money to cancel trains and there’s no spare capacity. Years ago if a power car was faulty it would be taken off and another one would be put on. We can’t do that now because we haven’t got any spares.” (Frontline Staff)

“... if the train fails on the depot you know that’s it, you can’t turn round and say, look give me another engine because there isn’t another engine. And no driver wants to cancel a train, he just wants to do his job, get customers from A to B on time, but it gets to the point where you can’t do it in what you’ve supplied there, the job cannot be done.” (Driver)

“It’s the way that the accountants ... the way the accounts run is if a train is sitting in the sidings as backup there’s no room in it. They’re paying the leasing cost for that unit to sit there. It’s the same with drivers in mess rooms. You don’t see drivers in mess rooms unless they’re on their break. There’s no backup because they get no resource from you sitting there spare. There’s no backup.” (Driver)

“Spare capacity, stock they all cost money. The problem is in the business environment we’re working in today they don’t necessarily deem that it’s necessary to have spare capacity like that. But when things are running late we’ve no contingency plans and we try to keep the service going to time then trains are getting later and later.” (Middle Manager)

“And it boils down to money again. [Maintenance company name removed] want those trains off the depot right time or they’re penalised. So their number one objective is to get that train out of those sidings in the morning so they don’t have to pay for the delay. This is the problem; we’ve got a railway run by accountants, and accountants cannot run railways.” (Middle Manager)

**Box 35** Perceived lack of capacity

In the minds of some of our respondents at least, this situation was the result of a 'market based', rather than a 'service based' approach to resource provision. Reports of the limited degree of redundancy further alluded to effects on the maintenance regime. Here several respondents suggested that where rolling stock supply was limited there was increased pressure to run trains. Where contract arrangements with maintenance businesses included financial penalties for delays, this was perceived as increasing motivations to release for service rolling stock with known faults. In by far the majority of instances, our respondents reported that safety critical maintenance was indeed completed, and that the majority of faults they encountered were relatively minor: involving issues of
cleanliness / hygiene and the function of toilets and buffet facilities etc. These aspects, while not life-threatening, were widely reported amongst train crew as contributing to levels of passenger dissatisfaction and the potential for confrontation with rail staff. Poor standards within the passenger environment were also widely cited by staff as eroding staff morale, impacting upon preparedness to seek alternative employment and contributing to public perceptions of the railway being in a state of some crisis (see also Box 37 below).

3.9 MORALE

Variables reported as negatively impacting upon levels of staff morale included: the media profile (seen as broadly negative) of the rail sector; the poor reliability of rolling stock; delays caused by third parties; failure to meet service / performance objectives; and the material quality of the working environment. While arguably not a safety issue at first sight, issues of morale clearly had an impact upon the individuals we interacted with, in so far as it inevitably provided the backdrop for their perceptions of self-worth and job satisfaction. Moreover, it is generally accepted that a predictive relationship exists between levels of morale and preparedness to withdraw from / seek alternative employment.

Failure of passenger related systems and equipment, combined with poor standards of cleanliness within the passenger compartment, were particularly cited as contributing to passenger perceptions of the quality and safety of the service, and the railway sector in general. All of these have the potential to affect staff morale.

“When they don’t do the job right to start with before we actually get on the trains, you know they don’t prep them up. It’s annoying and the public get the wrong impression about how important safety is and how diligent we are with safety, with our training and all that.” (Frontline Staff)

Other morale issues cited related to the implicit messages transmitted to operational staff by what they perceived as managerial failures to address and / or provide feedback on safety issues raised by frontline staff. While a range of reasons may underpin failures of this type, not least aspects reflecting managerial commitment, other influences reportedly relate to issues such as insufficient funds to address the issues raised. For example:

“What really affects people and workers are the day to day simple safety problems that they raise where they don’t see things being done because of localised budget problems, because of an individual managers you know a lot of depots don't have the money to do it ... They are not the big things, but there are lots of little things that affect peoples’ morale and affect their working environment on a day to day basis, but are missed, because they are not sexy. No one cares whether or not the toilets don’t work at a certain depot, but if you work there [on the train] then its an issue, its certainly a big issue for passengers and those are the sort of things that sometimes still don’t get sorted fast enough.” (Senior Manager)

In each instance, it is predictable that a failure to acknowledge and / or address staff concerns risks an erosion of relationships and may reduce staff motivation to report incidents and other safety related aspects associated with their job. However, we encountered some recognition amongst frontline staff that their operational managers often had limited scope for improving general working conditions.
Further aspects impacting upon morale related to the perception, particularly amongst train drivers, that their status had become significantly eroded by recent changes in training and apprenticeship regimes. Many longer established drivers saw an erosion of standards of professionalism and safety in many aspects of the railway rector, but voiced such concerns most vociferously over aspects relating to the quality of rolling stock, associated maintenance regimes, the infrastructure (in particular track) and the quality of infrastructure maintenance contractors (see Section 3.2.3 Relationships with the Infrastructure Manager). For some of this group, the emphasis on safety can perhaps be characterised as having not only deskilled but also increased the burden on drivers, including their vulnerability to procedural transgressions.

Moreover, we encountered a view that issues of staff personal safety tend to be underplayed in some TOCs, the primary focus being upon passenger related aspects. Personal safety in the light of rising public aggression on trains, particularly towards guards and catering staff, was raised as a priority for station and on-train personnel. Members of these frontline groups constitute a primary point of interaction with the public, and many report that they routinely have to deal with grievances, justified or otherwise.

“... the culture of people has also altered, they’re [the public] much more aggressive, they demand more. The travelling public is - they’re expecting a service and then all of a sudden it’s gone because of the performance and assaults, they’ve gone up. And morale drops because you know you’re going to work for grief. You know you’re going to get grief because of the performance. You can’t come to work now without having to spend X amount of time dealing with unpleasantness because it just doesn’t happen.” (Train Manager)

While it was apparent that some TOCs have made provision to train their frontline staff in ‘anger management’ and other such measures designed to reduce the potential for staff assaults, this clearly does not address the root cause of risks to personal safety where these are associated with substandard service provision and rolling stock. Linkages between service performance and staff assaults were commonly cited by a range of staff grades, across all TOCs studied.

Box 36 Evidence of increasing frontline concerns for personal safety
“A lot of our performance issues and the fact that our trains don’t get anywhere on time is because they just break down all the time. They’re down on power, air conditioning, all sorts of things, and it does inevitably come up with certain safety issues as in like PA, defective doors ... And although they are sort of safety issues but not ... they don’t lead to a train crash, thank goodness, but coming to work and having a safe and healthy environment is a safety issue.” (Train Crew)

“If the train’s going to be late because it’s struggling to meet it’s time, if the kit’s not working people are angry because they haven’t got tea and coffee, you know, then you can track, you can track staff assaults ...” (Middle Manager)

“... we’ve gone from an industry, a nationalised industry where the biggest crime committed was bad sandwiches, to one where the food’s pretty good, its everything else that's crap ... From the staff point of view it totally demoralises the individuals, but it has an even bigger effect on the customer who you've probably seen the rise in assaults on staff, believe that they're not providing a good service, don’t have to be treated with respect, and are there to take basically whatever the paying customer wants to throw at them, because they pay an awful lot of money for not very much, and the guy in the uniform is going to cop it, at some point in time.” (Senior Manager)

**Box 37** Links between poor service provision and aggression towards staff

The rail sector’s media profile, which has tended to centre around the failure to achieve performance objectives and quality of service as well as safety issues, was felt by some to not only have had an overall corrosive impact on staff morale, but to have contributed to the manner in which the public interact with railway staff. In the minds of several respondents such wider changes in society had contributed to the levels of stress experienced by rail staff.

However, it was apparent that it is not simply the need to interact with and justify underperformance and poor reliability to passengers which impacts on staff morale. Our interactions with TOC staff, at all grades, revealed that realising performance objectives and the provision of a high quality service was seen as an end in itself for many of our respondents. For example:

“I have noticed that reliability has fallen and it does affect staff morale. And staff out there aren’t as positive about their work when they aren’t reaching targets.” (Middle Manager)

Overall, the widespread sentiment was that despite their best efforts TOC staff were routinely hostages to fortune, or victims of circumstance, when it came to performance. Many painted a picture in which they were routinely battling with the consequences of delays attributable to the actions or inaction of third parties: e.g. regarding the infrastructure, or decisions of NWR, or the activity of other TOCs, or poor standards of rolling stock maintenance and repair etc. Again, the linkage between morale over such issues and safety is far from direct. However, it was apparent that this contributed to a generalised disaffection for staff, and was frequently linked in their minds with the perception of under investment within their particular organisation, and the rail sector as a whole.
3.10 HOMOGENEITY OF CULTURE

A further issue we explored was the degree of cultural homogeneity between and within TOCs, and across the rail sector more generally. We encountered moderate evidence of the presence of plural cultures both between and within the TOCs we engaged with. However, the overwhelming impression from the research, somewhat surprisingly, was of a marked consistency in culture, behaviour and risk management across all 4 TOC businesses that we studied. As noted at numerous points above, a number of the key management issues affecting TOCs on a day-to-day basis were common to all organisations studied. This suggests to us that it is the overall structure of the performance and regulatory regime within which TOCs have to operate which is the single greatest influence over TOC safety culture.

Cited cultural differences within TOCs tended to centre around more traditional railway personnel (with concerns for technical aspects of train operation) and more recent recruits from other, non-railway, commercial contexts. Notable differences were apparent, and recognised, with regard also to the priorities and agendas within the management teams within participating TOCs:

“... we’ve come from a series of different backgrounds. Some of us would probably play the safety professional card above all else, which is partly our role and partly our make-up. And some of us, perhaps the more operationally, customer driven, would challenge that. So we have some very good debates, which is healthy, and as I say in other companies I’ve worked in don’t even talk about it as the culture, you know, just do what that man says ...” (Senior Manager)

While tribal effects are perhaps predictable between different professional groups, and are well documented on the railways (see: Buck, 1963) we encountered few examples relating directly to the performance regime. For example, the attribution of blame for delays did not seem to heighten distinctions between drivers, guards and station despatch personnel within the same TOC. This suggests that the performance regime itself does not appear to engender the development of direct partisan positions between different frontline staff groups.

Turning to relationships between TOCs and other rail sector businesses, here we predicted that traditional professional rivalries would become amplified by the additional degree of perceived social difference arising from belonging to discrete organisations. Several respondents expressed sentiments that reinforced this hypothesis. We also encountered reports of differences in the safety agendas of NWR and TOC management teams. For many of our senior TOC respondents, the approach to safety taken by NWR was seen as one fuelled by fears of prosecution, following the Hatfield disaster, rather than a more balanced, considered, approach to setting safety management priorities.

Tangible evidence of differences in safety standards between participating TOCs was limited. Where differences were apparent, these principally related to issues of morale, and seemed to be intrinsically linked with aspects relating to operational performance, the age and reliability of stock and equipment (which varied considerably). Differences in levels of certainty over the future were also salient here, and in particular aspects relating to the duration of the franchise and potential changes in employer. Indeed, we encountered notable consensus as to the perceived key shortcomings of the privatised sector. These perceptions highlight what many of our respondents saw as cultural differences, arising in part from the current structure of the
railway sector: namely, fragmentation of businesses and safety responsibilities; the spread of blame culture and fear of litigation; a lack of confidence in the infrastructure maintenance function, in particular issues surrounding the employment of sub-contracted labour; and more fundamentally as noted previously (Section 3.2 Stakeholder Relationships) the separation of ownership between ‘wheel and rail’.

“But I don’t think the structure of the industry actually allows one particular part to be dominant and this is where it’s frustrating really, I’m not harping back to the days of BR which, I don’t think [it] was necessarily better, I think it was probably less safe in those days. But what does appear to be the case is if you’ve got, you know a slightly different structure whereby what happens, you know is going to be down to one organisation so for example, if we were responsible for the signalling system, you know the signalling and the way they interact with the trains ... if you’re responsible for all of that, then you know, there wouldn’t be these problems with contracts, there wouldn’t be this, you know the way in which the industry is structured now and whatever you do is, you know is down to you.”  
(Senior Manager)

“You’ve got men coming in dealing with the track, mending the track to run our trains on who have little experience to do that job.”  
(Middle Manager)

“I think the safety culture [in the industry] has always been there, it’s just the problem is became diluted and dilutes as contractors got brought in from one place and another place and it just continued to get diluted. That’s where it’s collapsed basically since BR days.”  
(Middle Manager)

“I think perhaps we’d be less than honest if we didn’t say that sometimes it’s very frustrating that an industry that was actually quite together 10 years ago struggles to share best practice in a wide range of issues. And often we have to invent our own solutions to things that we could be pooling methods and best practice. I’m not aware that any of the safety ones get backtracked because there are some quite strong safety forums in the industry. But certainly in sorting other issues out we do often have to invent for ourselves. So there’s scope for better co-operation there.”  
(Senior Manager)

Box 38 Industry fragmentation and culture

Many of the sentiments expressed appeared to be at the level of belief, rather than necessarily rooted in first hand experience. However, it was apparent that our respondents viewed prevailing safety standards within certain parts of the rail sector with a notable degree suspicion. Taken as a whole, the sector was portrayed as one in which the fragmentation following privatisation has accentuated cultural differences. However, our respondents intimated that it was equally likely that regional differences were present, though possibly to a lesser degree, within the British Rail structure. This level of cultural diversity was widely recognised amongst senior staff, many of who saw this as a weakness. Our respondents, at all levels, articulated what they saw as problems associated with the increased number of organisational interfaces following privatisation. The focus here, however, was upon barriers to achieving operational rather than safety objectives. An emphasis on improving safety standards, as part of what some senior staff portrayed as ‘the Ladbroke Grove ripple effect’, was widely seen as having had a broadly positive effect on harmonising levels of competence and
approaches to safety management. By contrast, inter-organisational tensions and conflict over aspects of the performance regime seemingly remain commonplace within the mature privatised era.
CHAPTER 4: MAIN FINDINGS

The research has identified a complex set of findings, with a number of interactions between factors observed. However, we believe that the key messages to arise from the research are clear. These are listed below, and organised in relation to appropriate sub-themes. The sections of the main report, both Chapters 2 and 3, of most direct relevance to a specific finding are also shown in brackets. Where appropriate, additional commentaries in the form of general recommendations shown in bold are provided below the specific finding to which they refer.

4.1 STAKEHOLDER RELATIONSHIPS

1. The research indicates a qualitative difference between the stakeholder relationships present during the initial era of privatisations (1993-9) and those of a second, more mature era from approximately 1999 to the present day. Interviewees cited the Ladbroke Grove accident as a key watershed here. Inter-organisational relationships appear less adversarial and confrontational in the mature era than was the case during the initial post-privatisation period, with improved inter-organisational communications also reported. (Report Sections 2.2.1 and 3.2.1)

2. The development of more effective working relationships between businesses in the mature era is, in part, the product of increased transparency in stakeholder roles, but owes much as well to the efforts of key individuals at both strategic and operational levels. However, the prevailing contractual arrangements still engender a partisan approach to relationships with other businesses, something which constantly bears down on TOCs and their management. (Report Sections 2.2.1, 2.2.2 and 3.2.1)

The recent development and enhancement of cross-sector interest and working groups is helping to promote both consistency and cohesion between TOCs and with other sector stakeholder organisations. Such efforts towards greater integration are clearly positive, although further scope to build upon this current forward momentum also exists. This should be actively encouraged by both HMRI and other industry regulators.

3. The focus for current debates over the structure of the industry is centred upon enhancing cohesion, consistency and terms of engagement within a privatised framework, rather than a return to nationalised arrangements. However, there is widespread support for the vertical integration of railway sector ownership: that is, common responsibility for infrastructure management and train operation. Cited potential benefits of future unification of ‘wheel and rail’ relate to (a) reduced scope for inter-organisational conflict and (b) a reduction in detrimental effects on service provision associated with unintended outcomes of the compensation regime. (Report Sections 2.2.2 and 3.2.1)

In the absence of contractual integration of ‘wheel and rail’ in the near term, there is scope for both TOCs and NWR to jointly review how functions might be better co-ordinated across this key interface. Further
research on this critical interface issue might also be warranted by HMRI and/or other regulators.

4. TOC operational staff expressed widespread concerns over the quality of infrastructure maintenance, tending to consider this risk prone. With regard to the latter point, levels of trust in the infrastructure maintenance function have clearly been eroded by the extensive use over the years of sub-contracted labour by Railtrack and NWR. Negative associations amongst TOC staff at all levels are referenced in particular to the incidents at Hatfield and Potters Bar, personal experience at trackside, shared cultural experiences, and broader associations (rightly or wrongly) with a poor safety image of individuals and organisations drawn from the construction sector. (Report Section 3.2.3)

As these hold potential safety implications for passengers and staff, the industry as a whole might examine what alternative forms of contractual structure and/or ways of working might overcome the difficulties expressed here.

5. Particular ambiguities and tensions still exist between TOCs and NWR over divided responsibility for station and platform maintenance and use. (Report Sections 2.2.2 and 3.2.3)

4.2 MANAGEMENT COMMITMENT TO SAFETY

6. There is a widespread recognition amongst senior (and other) TOC staff of the need for high levels of management commitment to safety, in order to engender a positive safety culture within the organisation. As a direct result of this TOCs devote considerable resource to, and place significant emphasis upon, maintaining high safety standards. This espoused commitment is widely recognised across all levels of staff. (Report Section 3.3.2)

Given the known importance of such commitment to fostering a positive safety culture, we regard this as a significant (and desirable) situation.

7. Although levels of management commitment to safety appear to be high, reported variability exists with regard to the visible, active, involvement of senior managers, and the extent to which as a result espoused commitment is perceived as genuine by frontline staff. (Report Sections 2.3.1 and 3.3.2)

The apparent gap between ‘rhetoric’ and ‘reality’ of management commitment represents an important issue for TOCs. Here we would recommend that TOCs look at ways to translate to staff, and act upon, their safety priorities in an effective way.

8. There are widespread reports of tensions between operational and commercial management functions within TOCs. These appear to reflect broader based differences relating to traditional approaches to decision making over priorities and those arising from prevailing economic realities. Management within TOCs was also sometimes characterised as inhabiting ‘functional silos’, implying that notable barriers to integration exist, in particular between technical / operational and commercial groupings. (Report Sections: 3.3.3, 3.4.1 and 3.4.2)
Performance regulators and TOC corporations / holding companies should review motivational influences engendered by operational objectives that may create tensions between operational and commercial management functions. In addition, TOCs might usefully investigate the extent to which such tensions and barriers exist within their particular businesses, their impacts upon day-to-day functioning, and their impact on staff motivations referenced to maintaining safety standards.

9. As an overall comment on the data, senior TOC personnel and regulatory stakeholders tended to portray a picture of improving safety and operational standards. This contrasted with frontline perceptions that, while recognising an increased emphasis on safety, tended to focus on what was seen as an erosion in operating standards.

HMRI or TOCs might consider further research to uncover the bases for this apparent discrepancy. In the short-term senior managers in TOCs could consider ways to engage in greater levels of dialogue over priorities with their staff.

4.3 THE PERFORMANCE REGIME

10. Analysis of both the Top Tier and TOC data suggests that the externally structured performance regime, and with this the routine debates over attribution of causes of delays, forms the defining influence for much of the day-to-day activity within TOCs. We regard this as a key finding of the present research. In addition, and confirming the earlier conclusion of the 2001 study by A.D. Little, we found that a primary focus within TOCs is on loss avoidance rather than profit maximisation per se. The presence of a strong focus on performance issues and loss avoidance featured prominently in the discourse of all staff grades interviewed here. (Report Sections 2.7 and 3.4)

11. A high level of managerial emphasis is placed upon rail staff accounting for delays to services. At an operational level performance pressure appears to have greatest potential to impact upon drivers, train despatch and rolling stock maintenance staff. However, we encountered little evidence of such pressures leading to rule violations or cutting corners. (Report Sections 3.4.1 and 3.4.2)

The potential for practices of delay attribution to unintentionally shape behaviour amongst staff, as well as reinforce a blame culture (see also Section 14.3 below) should be reviewed by TOCs.

12. A further key finding of this research is that tensions in day-to-day decision making over safety and performance issues tend to become manifested within the middle management roles. This has the potential to lead to ‘mixed messages’ being transmitted to frontline staff. Such tensions reflect reactions to competing, externally imposed, potentially conflicting agendas, as well as the immediacy and likelihood of sanctions associated with underperformance. However, few direct examples of this leading to compromise safety standards were found. (Report Sections 2.5, 3.3.3 and 3.4.2)

The tensions between performance and safety found within the middle management / supervisory roles may at times place such individuals in a
difficult position, particularly when communicating (explicitly or implicitly) priorities to frontline staff. Accordingly, the industry as a whole may need to review its training of middle management and supervisory grades, such that they are made fully aware of the potential for these tensions to develop and of possible coping strategies.

4.4 BLAME AND CULPABILITY

13. A further key finding of the current research is that attributions of blame and culpability remain dominant characteristics within the rail sector, as reported also by A.D. Little (2001). This extends beyond the safety and risk management arena, impacting upon the nature and quality of relationships both within and between rail sector businesses. Blame is said to have a long history within the sector, both as a facet of management style and as a dominant feature of incident investigations. However, our findings suggest that recent major accident investigations and fears of litigation are widely considered to have amplified perceptions of blame and culpability, leading to an increased sense of personal and organisational vulnerability and a risk averse approach to safety decision making. (Report Sections 2.6.1 and 3.5)

In principle, accountability is not a negative thing, whilst an extensive blame culture clearly is. Getting the right balance is a critical issue for the industry, regulators and the legislature to consider.

14. Blame within the industry is also exacerbated by the prevailing contractual arrangements, and on a day-to-day level the operation of the performance regime. (Report Section 3.5.4)

The potential for the day-to-day operation of the performance regime to unintentionally reinforce perceptions of a blame culture amongst staff should be reviewed by TOCs.

15. Media, public and judicial interest in the post-Ladbroke Grove period is widely perceived to have given rise to a heightened (some within the industry would even claim unwarranted) focus on safety within the rail sector. (Report Sections 2.3.2 and 3.5.1)

16. The profile of HMRI is generally regarded in a less than positive light: as contributing to a problem of risk aversion, being procedure focused, possibly lacking in some core railway expertise, and as also contributing to the perceived amplified blame culture across the industry. (Report Sections 2.2.4, 3.2.2, 3.5.3 and 3.6.4)

This suggests that additional efforts should be made by HMRI to manage its relationships with the industry, whilst still maintaining its independent position as ultimate regulator of safety.

4.5 KNOWLEDGE MANAGEMENT

17. A further key finding is of an increasingly prescriptive approach to operating practices; in effect a so-called ‘compliance culture’. Coupled with a loss of
traditional expertise from the industry post-privatization, this is said to have lead
to employees adopting a more 'programmed' approach in their work. Potential
positive effects of this relate to a reduction in ambiguity over interpretations of
statutory rules. Potential negative effects relate to a risk of inflexibility in
interpretation of operating procedures, and questions over issues of workability
and non-compliance. (Report Sections 2.4.2, 3.5.2, 3.6.2 and 3.6.5)

Whether this constitutes a significant problem or not depends very much
upon how one views the levels of ambiguity present in the frontline task.
If these are low then 'programmed' working is likely to be adequate.
Where significant ambiguity does exist more conceptual knowledge and
training might be considered.

18. Questions were raised regarding the core skills of middle managers, in
particular with regard to their personnel management and communication skills,
and in some instances conceptual understandings of railway practice. (Report
Sections 3.3.4 and 3.6.2)

TOCs might place greater emphasis on the need for additional training for
these grades in both management / communication skills and railway
practice.

19. Integration of frontline staff within the risk management process, as well as non-
safety related decision making, appeared limited across all participating
businesses. Despite this, some examples of good practice in the involvement
of frontline staff in safety management, primarily through safety representatives,
were encountered. While systems for routine safety briefings were widespread,
middle / line managers did not always appear well equipped to deliver these
sessions or use them as a forum for relaying frontline concerns to senior
management. (Report Section 3.3.4)

TOCs might explore ways in which frontline staff can have an effective
voice in the shaping of safety and other operational decisions.

4.6 ORGANISATIONAL LEARNING

20. As in other contexts, a strong focus on blame within TOCs and other rail sector
businesses has the potential to attenuate employee preparedness to report
near-miss incidents, and leads personnel to focus on immediate rather than
underlying causes in incident investigations. This diminishes the scope for
corporate and sector-wide learning in risk management. (Report Sections 2.6.1
and 3.7)

While recognising that a ‘no-blame' culture is unattainable within most
industry structures, including the present railway sector, our evidence
suggests that potential learning opportunities are currently being missed.
We suggest that industry efforts could be usefully directed to clarifying
for staff the boundary between (a) genuinely culpable actions and (b)
other categories of incident and/or behaviour for which sanction will
definitely not be forthcoming. It is important to ensure that the latter
category is as inclusive as possible. TOC staff should be encouraged
(wherever this is possible) to provide candid incident reports and without fear of sanction.

21. Despite some criticisms and scepticism regarding the national operation of the CIRAS reporting system, there is an almost universal belief amongst operational staff in the need to maintain such a system within the current railway sector. (Report Sections 2.6.2 and 3.7)

As a consequence, we believe that CIRAS needs careful support by industry players in its operation and further development, and should be used in ways that maximise local benefits to both companies and their staff.

4.7 RESOURCES

22. Employees perceive (rightly or wrongly) a history of under investment in the industry, which they feel impacts negatively upon the culture and morale of staff. (Report Section 3.8.1)

23. Historically, unprecedented levels of staff turnover within railway businesses have led to concerns that some established expertise is not being reproduced. However, previously identified weaknesses in safety and operational management associated with an uneven distribution of competent staff are said to have diminished. (Report Sections 2.4.1, 3.6 and 3.8.2)

The development of increased in-house competence within TOCs, and enhanced cross-sector working relationships, may account for this perceived improvement.

24. The quality of rolling stock maintenance can become diminished in instances where limited capacity, coupled with strong contractual influences, leads to strong pressures to minimise service cancellations. Although not necessarily directly safety-related, consequent knock-on effects on staff morale (through customer complaints / aggression over poor service etc.) do have potential safety consequences. (Report Section 3.8.3)

While safety-critical maintenance for rolling stock was reported to us as currently adequate, additional resources to overcome, or anticipate, seemingly minor non-safety critical maintenance and reliability issues might be justified. Spending relatively small amounts might have large impacts upon staff morale within individual TOCs. In the longer-term the reliability and quality of rolling stock is dependent upon franchising and other financial decisions.

4.8 MORALE

25. Personal safety in the face of increases in violent or aggressive passenger behaviour was a particular concern of frontline staff. As noted above, reliability issues are a considerable source of tensions between many frontline TOC staff and passengers, and impact directly upon staff morale. (Report Section 3.9)
Accordingly, some TOCs might review their procedures regarding personal safety of staff.

4.9 CULTURAL HOMOGENEITY

26. A somewhat surprising finding for the research team was the existence of a notable degree of homogeneity with regard to the cultural profile of safety across the TOCs sampled. This most likely reflects strong external and industry drivers of TOC culture and behaviour. In addition, the emphasis placed by HMRI upon driver standards and training following on from the Cullen recommendations appears to have introduced a notable degree of consistency across different TOCs. The development and enhancement of cross-sector working groups and the Group Standards system are also viewed as engendering a more homogenous approach to risk management across the sector. (Report Section 3.10)

27. Primary cultural differences appear to relate to beliefs surrounding differences between technical / operational and commercial interests. Those from traditional railway backgrounds saw conflict between railway priorities and commercial priorities. The commercial element was claimed to be highly focused on loss avoidance, sometimes to the detriment of service provision and possibly to safety standards too. (Report Section 3.10)

4.10 MEASURES OF SAFETY CLIMATE

28. Much of the research activity in the area of safety culture and climate has been exploratory and as a consequence somewhat a-theoretical. However, a common methodological theme has been the widespread use of psychometric approaches: where multivariate analysis is based upon attitudinal data (for example, Zohar, 1980; Flin et al, 2000; Guldenmund, 2000). Here, analyses of obtained questionnaire data is used to generate a range of attitude scales and measures, variously branded as measures of safety culture or climate. The history of research in this area also demonstrates the apparent desire amongst authors to develop generic measures that are applicable across industrial contexts (for example, Cox & Cox, 1991; HSE, 1997). A consequence of this is that mainstream debate has focused on discussions over the detail of the content of developed measures, and process issues surrounding issues of development and application, rather than more fundamental debates relating to the efficiency of the approach per se.

In our view, the absence of a more fundamental methodological breakthrough means that the psychometric approach seems likely to continue to do so. This being so, a number of criticisms of the existing generic approach are important.

First, there is increasing evidence, including from the current study, that the term safety culture can equally be applied to subdivisions of an organisation, including individual departments, work groups or individuals of similar employment status, as well as the organisation as a whole. One inference that may be drawn from this conceptualisation is that any formal measures of safety culture / climate should have the capacity to discriminate, not only between organisations, but between functions, departments and other functional
groupings within the same organisation. This requirement is likely to need scales that are specific to the industrial sector (rather than being generic). A conclusion to draw here is that that any future scale development process should draw upon the responses of a range of population samples - and explore effects associated with organisational role, alongside structurally related variables, in order to test for moderating and mediating influences.

A second key consideration is that generic attitudinal measures of safety climate / culture may fail to tap important context-specific data. The selection of an exclusively qualitative approach for the present research reflected a recognition of the potential shortfalls of developing and applying generic measures, an objective here being to provide a sound foundation for the generation of more formal quantitative approaches in the future. The presence of considerable variability in the range of factors identified by psychometric work in this area (see Flin et al, 2000) can be viewed as offering corroborative evidence of the limitations of a generic approach to measurement.

Third, in terms of generic measure approaches, almost all studies in this area highlight the core defining influence of ‘management commitment’ on safety culture. However, beyond this apparently key variable, the degree of consistency in findings tails off rapidly, although there is also some support for constructs designed to tap ‘compliance with rules and procedures’ and the seemingly pivotal role played by ‘line managers / supervisors’. In addition such sets of measures tend to possess unstable factor structures. This limited degree of consistency in findings leads us again to question the genuine transferability of generic measures from one industrial sector to another.

Finally, much of the psychometric work to date is also open to challenge, on the grounds that it has prominently been methodologically ‘top-down’, rather than applying an empirically ‘grounded’, interactive, approach to underpin developed measures. There has, for example, been very little work aimed at investigating the variables which underlie and characterise the variously identified constructs of safety climate / culture.

Despite the expressed reservations of a number of authors of safety climate / culture measures regarding the use of survey results as absolute measures of organisational risk management performance, custom and practice in many industrial contexts is to use the results of such measures in just this manner. In some instances this amounts to establishing corporate ‘safety culture league tables’. The current authors would strongly reiterate these reservations, and argue that what are fundamentally attitudinal measures should be treated as such. That is, as a means of monitoring how attitudes change over time, rather than treating the data derived as robust measures of risk management performance per se.

As noted at various points elsewhere in this report the primary objective has been to obtain a rich and detailed insight into the issue of railway safety culture. The analysis of transcript data derived from a cross-section of staff in a sample of four TOCs revealed a set of core themes, and constituent facets. In methodological terms, the authors conclude that the development of a range of measures of safety culture and climate customised to the UK railway context are possible upon the basis of this research. The variables which these
address and the method of capturing this information will, of course, depend upon the population of interest.
APPENDICES
## APPENDIX 1: TOP TIER INTERVIEWS – BREAKDOWN OF THE SAMPLE

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<td>Department for Transport (DfT)</td>
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<tr>
<td>Health and Safety Executive (HSE) and Her Majesty's Railway Inspectorate.</td>
<td>6</td>
</tr>
<tr>
<td>Strategic Rail Authority (SRA)</td>
<td>1</td>
</tr>
<tr>
<td>Office of the Rail Regulator (ORR)</td>
<td>2</td>
</tr>
<tr>
<td>Directors / Senior TOC staff</td>
<td>16</td>
</tr>
<tr>
<td>Network Rail</td>
<td>2</td>
</tr>
<tr>
<td>Association of Signallers, Lifeboat men, Engineers and Firemen (ASLEF)</td>
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<tr>
<td>Rail, Maritime and Transport Union (RMT)</td>
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</tr>
<tr>
<td>Railway Safety and Standards Board (RSSB)</td>
<td>3</td>
</tr>
<tr>
<td>Association of Train Operating companies (ATOC)</td>
<td>5</td>
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</tbody>
</table>
APPENDIX 2: PHASE ONE INTERVIEW PROTOCOL

INTRODUCTION
Brief summary of the project - aims and objectives, general issues we are seeking to explore and project outcomes. Also, short introductions of the backgrounds of research team members.

STATUTORY ARRANGEMENTS
Q: What do you see as the strengths and weaknesses of the post-privatisation / post 2000 structure - With specific reference to issues of safety management and culture?

Q: Could you give overview of the statutory obligations / responsibilities which pertain to TOCs?

Prompts:
1. Roles of ORR; SRA; NWR - extent operate as intended and implications for TOC activity?
2. Overview of range of performance criteria and related sanctions - Which most salient to TOCs, in regard to strength of impact on priorities / decision making?
3. Potential for competing / contradictory objectives emanating from HMRI / SRA and ORR?
4. Has the SRA been successful in its objective of enhancing coherence within rail sector?
5. Extent of joined-up working between the above versus focus on partisan objectives? - What potential is there for this to lead to tensions /conflicting objectives within TOCs surrounding performance versus safety trade-offs? [Elicit Examples]
6. Changes since Transport Bill 2000? - To what extent have changes under the Bill impacted on relationships within sector, especially between NWR and TOCs?

STAKEHOLDER RELATIONSHIPS
Q: Could you provide a thumbnail sketch of the types of contractual arrangements / obligations which exist between TOCs and the rail sector organisations they interact with (specifically other TOCs; NWR; leasing and maintenance companies etc.)?

Prompts:
1. Variability by type of TOC – with regard to size / extent of remit / region?
2. Quality of relationships - how much ‘us’ and ‘them’ and scope for tribalism? - causes?
3. Types of sanctions TOCs are subject to and types of sanctions they impose. [Elicit examples] - TOC versus TOC / TOC versus NWR (including contractors) / TOC versus ROSCOs?
4. Extent of co-operation / conflict between TOCs, NWR and others (including TOCs) sharing – a common part of the infrastructure? – and extent of regional variability in this?
5. Impact upon: (a) Corporate, and, (b) Operational priorities within TOCs. [Elicit Examples]
6. Prevalence of a blame culture - between TOCs and other stakeholders - especially NWR?
7. Implications for coherence, communication and safety approaches?
8. Degree of trust between the various stakeholders groups (including TOC versus TOC)?

COHERENCE AND RELATIONS WITH OTHERS
Q: To what extent would you subscribe to the view that the fragmentation of the network, in particular, the separation of the infrastructure from the service provider has negatively impacted upon levels of coherence and co-operation throughout the rail sector?

Prompts:
1. Extent that contractual arrangements engender conflict / tribalism? - or more subtle in reality?
   - notions of 'other'; professional groupings etc. Differences ‘then’ versus ‘now’?
   If so – in what way / to what extent? Prevalence of this view at corporate and shop floor level? [Elicit Examples]
2. Preparedness to share knowledge / expertise - and implication for safety? [Elicit Examples]
3. Scope for corporate introspection due to focus on achieving partisan targets rather than focusing on the big picture - Implications for safety? [Elicit Examples]

PERFORMANCE PRESSURE
Q: TOCs are subject to a range of performance objectives set by the regulatory bodies as well as being tied into contractual arrangements with other stakeholder groups (service providers; maintenance contractors and NWR etc.). Given the costs associated with under performance:

Prompts:
1. Which performance objectives are most salient to TOC managers and their staff and why?
2. What are primary obstacles to TOCs realising punctuality performance objectives?
3. What sorts of sanctions are TOCs subject to for under-performance? [Elicit Examples]
4. How do TOCs attempt to manage this within their own organisations: i.e. local ‘carrots and sticks’ - what is the potential for tensions and trade-offs at middle management level?
5. Are some TOCs more advantaged / disadvantaged - and why? Is size / type / area of service important? Potential for goal conflict and circumstances leading to this? [Elicit Examples]
6. What is the potential for TOC businesses to become fixated on loss avoidance?

Q: How credible do you consider the assertion that operational staff in TOCs feel under pressure to keep services running - even where there are shortages such as a lack of competent people or other shortages of equipment / resources etc.?

Prompts:
1. How widely held are such beliefs within sector - including the extent to which there is variability between operators; regions / types of service etc.?
2. Sources of pressure - line management? Passenger (and media) expectations? Broader beliefs about the need to realise objectives?
3. Potential for disengagement and disaffection?
4. To what extent can this have negative impact on safety - rule nudging etc?

MANAGERIAL COMMITMENT

Q: What can you tell us about the leadership and management styles which proliferate in TOCs?

Prompts:
1. How much steer comes from holding companies? How much autonomy to individual TOCs?
2. To what extent are TOCs and their holding companies run by railway / non-railway people - Any implications re: style of management and scope for engendering ‘us’ and ‘them’ cultures?
3. Quality of rail and non-rail relationships in TOCs – cultural and trust / empathy impacts on safety?

Q: All studies of safety culture highlight the importance of senior management commitment. What are your perceptions of the level of senior management commitment within TOCs?

Prompts:
1. Operational staff perceptions of MC. Priorities and how these are engendered? [Elicit Examples]
2. Potential for conflicting objectives to undermine - in particular impacts on middle managers?
3. Unwritten rules and turning a blind eye to violations – prevalence? And implicit condoning of rule nudging and infringements? [Elicit Examples]
4. Disparities between rhetoric and actions?
5. Extent of variability between operators?
6. Changes pre- versus post-privatisation (then versus now)?
7. Prevalence of a blame culture within TOCs? [Elicit Examples]
8. Trust in managers – senior and local managers (supervisors)?

Q: How do other stakeholder groups view managerial commitment to safety in TOCs?

Prompts:
1. SRA / ORR / NWR / Trade union’s / Passenger groups (e.g. Passenger Transport Executives / PTEs)?

RESOURCES

Q: Some have suggested that safety standards may be compromised by a lack of resources in the rail sector. How well founded are such fears and what are implications for TOC activity?

Prompts:
1. Differences between TOCs - size of businesses; region; length of franchise?
2. Extent of resource contingency (staff; equipment; rolling stock etc.)?
3. Haemorrhaging of staff and loss of competence within the sector?
4. Fragmentation of competence?
5. Shortages of staff; equipment; or resources?
6. Get the job done whatever – BR cultural legacy of make do and mend?
7. Potential for shortages to engender rule nudging and working to unwritten rules
MORALE

Q: How would you describe levels of morale amongst managers and their staff in TOCs?

Prompts:
1. Amount of variability between TOCs? - reasons?
2. Differences between senior managers; local managers and operational staff – e.g. drivers; guards; train crew etc.?
3. Improving or decreasing - reasons?
4. Problems of coherence and fragmentation?
5. Amount of investment in business and staff?
6. Public perceptions of staff? - amount of pressure put on staff by public (then versus now)?
7. Perceptions of TOC staff by other TOCs and other sector stakeholders?
8. Extent of belief in erosion of standards, including safety standards?
9. Extent of belief in erosion of status - issues of professionalism / career progression?
10. Extent of belief in erosion of competence within the sector?
11. Confidence in others - e.g. signalling staff; rolling stock maintenance staff; ROSCOs; infrastructure maintenance (including contractors); NWR; TOC holding companies, etc.?
### APPENDIX 3: TOC FOCUS GROUP/INTERVIEW SAMPLES

<table>
<thead>
<tr>
<th>Occupation / Role</th>
<th>N</th>
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<tbody>
<tr>
<td>Director</td>
<td>20</td>
</tr>
<tr>
<td>Senior professional (e.g. mechanical engineer)</td>
<td>20</td>
</tr>
<tr>
<td>Middle management (e.g. drivers standards manager)</td>
<td>175</td>
</tr>
<tr>
<td>Safety professional</td>
<td>15</td>
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<tr>
<td>Drivers</td>
<td>65</td>
</tr>
<tr>
<td>Guards</td>
<td>65</td>
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<tr>
<td>Train crew</td>
<td>45</td>
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<tr>
<td>Train dispatch staff</td>
<td>55</td>
</tr>
<tr>
<td>Other station staff</td>
<td>40</td>
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<tr>
<td>Train maintenance staff</td>
<td>35</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>545</strong></td>
</tr>
</tbody>
</table>

*Note: a precise count of those present could not be established for all focus groups. Accordingly, these figures are rounded to the nearest multiple of 5.*
APPENDIX 4: PHASE TWO INTERVIEW PROTOCOL

4 (A) LEVEL 1: SENIOR MANAGERS

Introduction
Introduce project team and provide overview of research – background, aims, objectives and outcomes.

Safety culture
Q: The phrase safety culture/climate is much talked about, what is your understanding of the term?

Prompts:
1. Factors which serve to define and impact upon SC.
2. Then versus now (BR days versus current post-privatisation period).
3. Presence of plural cultures.
4. Positive and negative influences (facilitators and barriers?).
5. Attempts to engender change (actions for improvements?).

Statutory arrangements
Q: There has been a lot of talk about safety post-privatisation. What do you see as the strengths and weaknesses of the current structure in the rail sector?

Prompts:
1. Roles of ORR; SRA; NWR - extent which operate as intended and implications on TOC activity?
2. Potential for competing/contradictory objectives emanating from the regulators?
3. Has the SRA brought more coherence post 2000?
4. Explore views relating to increased emphasis on rules and procedures and safety case regime.

Contractual arrangements and relationships
Q: How would you describe the quality of relationships between Anglia and the following: NWR; SRA; other TOCs (sharing same infrastructure); rolling stock leasing and maintenance?

Prompts:
1. Quality of relationships - how much ‘us’ and ‘them’ and scope for tribalism? - causes?
2. Explore coherence and communication aspects (formal and informal channels?)
3. Preparedness to share knowledge / expertise – then versus now? [Elicit examples]
4. Shop floor relationships - Drivers versus Signallers; TOC versus TOC Staff etc. - then versus now?
5. Blame culture between stakeholders – manifestations throughout organisation?

Performance issues
Q: Which performance criteria are most salient and why?

Prompts:
1. What are the major concerns / barriers relating to their realisation?
2. What are the types of sanctions that can be imposed for not meeting targets? And which of these are of greatest salience for the prosperity / survival of the business?
3. Explore compensation regimes and how these operate, including contentious areas and general implications for relations between businesses.
4. Explore perceptions of the extent of joined up thinking / strategy between SRA and HMRI.

Q: How credible is the assertion that TOC staff feel under pressure to keep services running?

1. Emphasise the role of beliefs on behaviour (re: line supervisors and operational staff).
2. Explore with respect to pressures on senior staff and line management and the translation of priorities, including implicit messages.
3. Explore issues surrounding cultural legacy of 'make do and mend'.
4. To what extent do you see this having any negative implications for safe practice – i.e. general non-compliance, including rule nudging and managers 'turning a blind eye'? [Elicit examples]

Q: With regard to resources, how does current situation compare historically?

Prompts:
1. Availability of suitably qualified staff – retention of knowledge and skill base.
2. Implications for rule nudging.
3. Salient performance criteria including:
   a) nature of sanctions on TOCs and impact on priorities.
   b) how this might translate through the management tiers and manifestations at shop floor.

Managerial commitment (All studies highlight salience of MC).
Q: Views on levels of corporate commitment within sector in general – including leadership styles?

Q: To what extent and in what ways do senior managers at your TOC demonstrate safety commitment?

Prompts:
1. How committed to safety do you think operational staff see senior management (re: other priorities) and what are levels of trust in senior management like throughout your TOC?
2. Potential for conflicting objectives for middle managers?
3. Extent of shop floor commitment (individual responsibility for safety).
4. Extent of shop floor involvement in SMS process - then versus now?

Morale
Q: How would you describe levels of morale within TOCs in general and your TOC in particular?

Prompts:
1. Improving or declining - Reasons?
2. Perceptions of your TOC by: travelling public; other stakeholders i.e. TOCs, NWR etc.?
3. Confidence in others - e.g. signalling staff; rolling stock leasing companies; infrastructure maintenance personnel (including contractors); NWR; TOC holding companies?

**Incident reporting** *(Many commentators have highlighted the benefits of learning from incidents)*

**Q:** What do you see as the barriers to incident reporting (and collecting information on near misses)?

**Prompts:**
1. Within your TOC and in TOCs more generally.
2. How credible is CIRAS? How credible do operational staff view CIRAS?
3. How could this (CIRAS and incident reporting in general) be improved?

4 (B) **LEVEL: MIDDLE MANAGERS**

**Introduction**
Introduce project team and provide overview of research – background, aims, objectives and outcomes.

**Safety standards**

**Q:** There has been a lot of talk about safety on the railways since they were privatised. What can you tell us about safety standards on the railway?

**Prompts:**
1. Pre- versus post-privatisation?
2. What’s changed and why?
3. Public perceptions?

**Performance issues**

**Q:** What can you tell us about the performance targets that the company has to meet and the system of fines for under-performance?

**Prompts:**
1. Who has to pay whom what and under what circumstances?
2. What do your managers worry about (which performance criteria do they emphasise)?
3. Foreseeable circumstances leading to tensions over safety and performance. *[Elicit examples]*

**Q:** How credible is the assertion that TOC staff feel under pressure to keep services running?

**Prompts:**
1. To what extent does this have negative implications for safe practice e.g. rule nudging? *[Elicit examples]*

**Q:** With regard to resources (e.g. rolling stock; equipment; staff etc), how does the current situation compare pre- versus post-privatisation?

**Prompts:**
1. Availability of suitably qualified staff – retention of knowledge and skill base.
2. Implications for rule nudging and safety more generally.

**Managerial commitment** *(All studies highlight salience of MC)*
Q: What can you tell us about levels of commitment of senior managers to safety in your company?

Prompts:
1. Do you think that your company is typical of TOC in general?
2. To what extent do senior management priorities lead to safety versus performance tensions?
3. Include reference to pre- and post-privatisation.
4. Explore perceptions of credibility, practicability and workability of rules and procedures (statutory rules and local company based rules and procedures). [Elicit examples]

Q: How would senior management react if you stopped a job on grounds of safety? 
   - Where relevant explore with reference to delaying of trains (e.g. dispatch staff); deletion of services (e.g. lack of train crew; or maintenance issues / mechanical faults);

Q: Some have talked about a blame culture on the railway. To what extent is this present?

Prompts:
1. Increasing versus decreasing. [Elicit examples]
2. Extent to which the rulebook used as a means to punish those who get caught.

Involvement
Q: To what extent do you feel involved in the thinking behind safety policy within the company?

Prompts:
1. How willing are management to discuss and act upon the issues that you raise?
2. Extent of staff involvement in safety decision making and developing rules and procedures; conducting Risk Assessments (RAs) etc.

Relationships with others - What can you tell us about the:
Q: Quality of communication over safety issues within your company (between levels)?

Q: Quality of communication over safety within the rail sector in general?

Prompts:
1. Levels of coherence?
2. Pre- versus post-privatisation?
3. Ways of improving current situation?

Q: Nature and extent of rivalry between businesses – e.g. Drivers versus Signallers; Drivers versus Despatch; TOC versus TOC staff; then versus now, etc. - business orientated or profession orientated?

Prompts:
1. Blame culture between stakeholders? How does blame culture manifest at shop floor?
2. Explore issues of railway people and non-railway people issues?

Morale
Q: How would you describe levels of morale across the sector and in your company in particular?

Prompts:
1. Improving or declining - reasons?
2. Perceptions of your TOC by: travelling public; other stakeholders – TOCs; NWR etc.?

3. Confidence in others - e.g. signalling staff; maintenance staff; rolling stock leasing companies; infrastructure maintenance (including contractors); NWR; TOC holding companies?

**Incident reporting** *(Safety experts have highlighted benefits of learning from incidents/near misses)*  
**Q:** To what extent does incident reporting contribute to organisational learning in TOCs?

**Prompts:**
1. What types of accident or near miss do people report / not report and why?
2. How much emphasis is there on reporting near misses within the company?
3. How would you describe your managers approach to incidents and near misses:  
   a) fair and just – with emphasis on preventing a recurrence?
   b) an emphasis on blame and retribution?

**Q:** What can you tell us about CIRAS?

**Prompts:**
1. Do people use it?
2. Under what circumstances?
3. How credible / useful do they consider it to be?
4. Are people more likely to use CIRAS than report issues to managers – if so why?
5. Do you get to see the feedback – how useful / credible is it?
6. How might CIRAS (and incident reporting in general) be improved?

**4 (C) LEVEL: FRONTLINE STAFF**  
*[For each set of personnel tailor probes to fit their role and remit.]*

**Introduction**
Introduce project team and provide overview of research – background, aims, objectives and outcomes.

**Safety standards**  
**Q:** There has been a lot of talk about safety on the railways since they were privatised. What can you tell us about safety standards on the railway?

**Prompts:**
1. Pre- versus post-privatisation?
2. What's changed and why?
3. Public perceptions?

**Performance issues**  
**Q:** What can you tell us about the performance targets that the company has to meet and the system of fines for under-performance?

**Prompts:**
1. Who has to pays whom what and under what circumstances?
2. What do your managers worry about (which performance criteria do they emphasise)?
3. Does safety always come first? – explore circumstances where it may not?

**Q:** How credible is the assertion that TOC staff feel under pressure to keep services running?
Prompts:
1. To what extent does this have negative implications for safe practice e.g. rule nudging? [Elicit examples]

Q: With regard to resources (e.g. rolling stock; equipment; staff etc), how does current situation compare pre- versus post- privatisation?

Prompts:
1. Availability of suitably qualified staff – retention of knowledge and skill base.
2. Implications for rule nudging and safety more generally.

Managerial commitment *(All studies highlight salience of MC)*
Q: What can you tell us about the levels of commitment of:
(a) Senior managers and;
(b) Line managers to safety in your company?

Prompts:
1. Do you think that your company is typical of TOC in general?
2. To what extent are there ever tensions between safety and performance?

Q: To what extent do shopfloor staff believe that managers are sincere in their stated commitment?

Q: To what extent are managers consistent in the way they deal with staff that bend or break rules?
(a) Senior managers.
(b) Line managers.

Prompts:
1. Explore circumstances under which they are not and attributions as to why?

Q: To what extent do managers turn a blind eye to risk-taking – so long as the job gets done?
1. Include reference to pre- and post-privatisation.
2. Explore issues relating to types of rule / procedural violation (big rules versus little rules).
3. Explore perceptions of credibility, practicability and workability of rules and procedures (statutory rules and local company based rules and procedures). [Elicit examples]

Q: Some have talked about a blame culture on the railway. To what extent do you feel it is present?

Prompts:
1. Increasing versus decreasing. [Elicit examples].
2. Extent to which the rulebook used as a means to punish those who get caught.

Involvement
Q: To what extent do you feel involved in the thinking behind safety policy within the company?

Prompts:
1. How willing are management to discuss and act upon the issues that you raise?
2. Extent of safety reps and general involvement of staff within your TOC in safety decision making and developing rules and procedures; conducting RA’s etc.
Relationships with others - What can you tell us about the:

Q: Quality of communication over safety issues within your company (between levels)?

Q: Quality of communication over safety within the rail sector in general?

Prompts:
1. Levels of coherence?
2. Pre- versus post-privatisation?
3. Ways of improving current situation?

Q: Nature and extent of rivalry between businesses – e.g. Drivers versus signallers; Drivers versus despatch; TOC versus TOC staff; then versus now, etc. - business orientated or profession orientated?

Prompts:
1. Blame culture between stakeholders? How does blame culture manifest at shop floor?
2. Explore issues of railway people and non-railway people issues?

Morale

Q: How would you describe levels of morale across the sector and in your company in particular?

Prompts:
1. Improving or declining - reasons?
2. Perceptions of Anglia by: travelling public; other stakeholders – TOCs; NWR etc.?
   3. Confidence in others - e.g. signalling staff; rolling stock maintenance staff; rolling stock leasing companies; infrastructure maintenance personnel (including contractors); NWR; TOC holding companies?

Incident reporting (Safety experts have highlighted benefits of learning from incidents/near misses)

Q: To what extent does incident reporting contribute to organisational learning in TOCs?

Prompts:
1. What types of accident or near miss do people report / not report and why?
2. How much emphasis is there on reporting near misses within the company?
3. How would you describe your managers approach to incidents and near misses:
   a) fair and just – with emphasis on preventing a recurrence?
   b) an emphasis on blame and retribution?

Q: What can you tell us about CIRAS?

Prompts:
1. Do people use it?
2. Under what circumstances?
3. How credible / useful do they consider it to be?
4. Are people more likely to use CIRAS than report issues to managers – if so why?
5. Do you get to see the feedback – how useful / credible is it?
6. How might CIRAS (and incident reporting in general) be improved?
APPENDIX 5: PHASE TWO - TEXT CODING FRAME

FREE CODES (10)
“Key quotes”
Safety culture
Trust/confidence in others
Cross-industry parallels
Era consistency
Era variability
TOC consistency
TOC variability
TOC autonomy/influence
Lack of TOC autonomy

TREES (168)
1. Railway culture
Long service (career railwaymen)
Strictly regulated
Highly complex
Highly unionised
Human factors under-researched
Macho / male dominated
Confidence / professionalism
‘Intimate’ relationships
Legacy of safety versus performance tension
Pride in the job
Centralised / cohesive org. culture
Resource / cost constraints
Lots of job / policy progression

2. Industry structure
Greater accountability
   +ve = shared responsibility / in and between TOCs
   -ve = blame culture
Greater bureaucracy / audit and paper trail
   +ve = more thorough
   -ve = distance / time wasting
       - frontline grievances
   -ve = safety rhetoric / excessive safety egs.
Fear of litigation
   Passengers / society in general
   reputational risk
Accident investigation
   +ve = deeper / root cause analysis
   -ve = reactive rules
Training/competence assessment
   +ve = more rigorous / consistent
   -ve = less practical / railway background
Performance regime
   contractual matrix details
   -ve = focus on lost time minutes / delays
-ve = focus on profit / shareholders

Resources
-ve = lack of redundancy
-ve = poor environment and impacts
-ve = high staff turnover
-ve = cost constraints

Organisational change
+ve = better structures / processes
-ve = instability / negative impacts
-ve = organisational / management structure difficulties

Fragmentation
+ve = 2nd era improvements
-ve = them and us / 1st era adversarial
-ve = TOC-TOC competition / friction; new structures / informal communication

Infrastructure Issues
-ve = NWR frictions / issues
-ve = contractualisation
-ve = agency staff issues
-ve = separation of maintenance function

Expertise / Professionalism
+ve = persisting frontline autonomy
-ve = deskilling / loss autonomy
-ve = exodus / loss of expertise
-ve = non-rail versus rail / concept versus programme issues
-ve = old versus new staff frictions / issues

3. Accident impacts
Public pressure / perceptions
Media pressure / perceptions
Safety systems / policies
+ve = improved learning / feedback
-ve = criticisms / poor perceptions

4. Leadership issues
Commitment / staff support role
Rise of non-rail middle mgers
+ve = better people managers / schemes
-ve = lack experience / status
Difficulty managing sub-cultures
Frustration with paperwork
Training issues (inadequate people skills?)
Particular pressures / responsibility
Holding company issues

5. Performance issues (+ve = balance)
Examples mixed messages
Examples performance pressure
Drivers
- station / train crew
- maintenance
- control team / room
Company loyalty
Franchise / timetable issues
  Investment / safety impacts
  management distraction
  (SRA) performance focus
Turnaround times

6. **Regulator relationships**
   Good aspects / changes
   SRA / ORR
   HMRI
   Bad aspects / changes
   SRA / ORR
   HMRI
   RSSB

7. **Compliance culture**
   Examples frontline deviations
   drivers
   station / train crew
   maintenance
   NWR
   +ve = better / clearer rule definition
   -ve = lack of innovation
   -ve = impractical / open interpretation
   -ve = overprescriptive
   New rule book issues
   Examples of management turning blind eye

8. **Sub-cultural variations**
   Within / Across TOCs
   frictions / different agendas
   Between TOCs and other businesses
   frictions / different agendas

9. **Morale**
   Examples
   middle managers
   drivers
   station / train crew
   maintenance
   Care and concern
   Rostering / poor diagrams
   Loss of camaraderie

10. **Risk aversion**
    Examples / Perceptions
    Role of HMRI

11. **Management commitment**
    Perceptions Senior Management by Middle Management
    +ve
    -ve
    Perceptions Senior Management by Frontline
Perceptions Middle Management by Frontline

+ve
-ve

How Senior Management believe perceived
congruence
incongruence

12. Safety communication
Within TOCs
+ve = open communication to and from Frontline
-ve = barriers / poor communication, to and from Frontline
Between TOCs and other businesses
+ve = information / best practice sharing
-ve = lack of sharing / co-operation

Workforce involvement
lack of Frontline input into risk decisions
issues with safety briefs
issues with (health and) safety reps

Frontline safety concerns
Management concerns

13. Incident reporting / organisational learning
Feedback issues
CIRAS issues
Lack of reporting / near misses
Increased reporting / monitoring
Future improvements
SPAD issues
Fault not found / maintenance reactions

14. Blame culture
+ve = attempts / schemes tackling Blame Culture
Driver examples
Management examples
Maintenance examples
Traincrew/Guards
Lack of learning
REFERENCES


## GLOSSARY

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ACSNI</td>
<td>Advisory Committee on the Safety of Nuclear Installations</td>
</tr>
<tr>
<td>ATOC</td>
<td>Association of Train Operating Companies</td>
</tr>
<tr>
<td>BR</td>
<td>British Rail</td>
</tr>
<tr>
<td>BTP</td>
<td>British Transport Police</td>
</tr>
<tr>
<td>CIRAS</td>
<td>Confidential Incident Reporting and Analysis System</td>
</tr>
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<td>DfT</td>
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