

University of Strathclyde

**Department of Human Resource
Management**

**Managing 'our most important
asset': The Rhetoric and Reality of
HRM in the Airline Industry.**

Carol Boyd

Ph.D Thesis

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In memory of Harvie Ramsay.

I confirm that this is all my own work

Carol Boyd

Carol Boyd

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Abstract

On the surface, airlines appear to embrace a ‘soft’, people-centred approach to HRM, demonstrated by the deployment of a range of HR strategies aimed at the ‘soft’ ideals of cooperation, commitment and trust. However, within the context of tight profit margins and competitive markets, a range of ‘hard’, cost-centred HR strategies, may dominate. In other words, the deregulated, competitive environment of the airline industry may find airline companies shifting from a ‘soft’, people-centred approach to a ‘hard’, cost-centred approach, where cost considerations take priority over all other concerns, including those relating to employee health and safety.

In an industry that claims ‘people are our most important asset’, one might expect ‘good practice’ in terms of occupational health and safety (OHS). However, the present research finds that cabin crew OHS is being overshadowed by airline companies’ profit imperatives. Based on a cabin crew perspective, the research examines developments in OHS, in terms of the range and extent of OHS risks that are experienced by cabin crews. These developments in turn, provide an insight into the case study airlines’ approach to people management. The research identifies a high prevalence of a range of illnesses and OHS risks, which can be linked to airline companies’ people management policies. Overall, the thesis challenges the rhetoric of airlines’ ‘people-centred’ approach, as well as current notions of the range and extent of OHS risks relating to the cabin crew labour process. In addition, the thesis offers an innovative review and analysis of HRM taken from an OHS perspective.

Introduction

“In an industry like ours, where there are no production lines, people are our most important asset and everything depends on how they work as part of a team. This means that, to get the best results, managers have to care about how they (the employees) live and function, not just about how they work and produce” (Sir Colin Marshall, ex-chairman British Airways, quoted in the Financial Times, 1984).

During the 1980s, British Airways, like many other UK organizations, implemented a range of new working practices and strategies in response to the challenges of market forces, growing competition, and the increased freedom for employers to reconstruct the employment relationship. A key objective of new management strategies was to ‘win the hearts and minds of employees’, and to secure their cooperation and support for new business objectives. The popular cliché ‘people are our most important asset’ is indicative of organizational recognition that control and compliance are often insufficient for survival, and that the active cooperation and commitment of employees is a valuable resource, potentially offering a key to achieving a ‘competitive edge’. Human resource management (HRM) principles and techniques were purported to offer a key to securing these objectives.

HRM could be described as the generic term under which many new management practices congregate. HRM has been promoted as a business panacea with almost magical abilities to secure the much sought after ‘competitive advantage’. The continuing debates about the nature of HRM orbit around Guest’s (1987) definition of HRM as a set of policies and practices designed to achieve strategic integration, high employee commitment to the organization, a high degree of workforce flexibility and a high-quality workforce. Critiques range from ‘a new system of industrial relations’(Millward 1994), to ‘old wine in new bottles’ (Blyton and Turnbull 1992, Guest 1987,

1989, 1990b, 1991, 1992a, Keenoy 1990a, 1990b, 1991, Keenoy and Anthony 1992, Legge 1994, Storey 1989, 1992).

The literature identifies two different and opposing forms of HRM: 'hard' and 'soft'. These terms have been used by many commentators to categorize approaches to managing people according to developmental-humanist or utilitarian-instrumentalist principles (Legge 1995b). Empirical evidence points to the dual-adoption of 'hard' and 'soft' HRM (Truss et al 1997), with some commentators describing organizations as adopting a 'pick and mix' approach (Marginson et al 1992). A 'dual-adoption approach' of 'hard' and 'soft' HRM is visible in a number of major organizations, for example, Hewlett-Packard, Marks and Spencer and British Airways (BA). Keenoy (1997) describes how BA has taken a 'hard' approach to 'headcount', while at the same time implemented a wide-ranging programme of 'soft' HRM (improving communication and leadership, for example). However, following the recession in the early 1990s, many UK organizations have opted for 'hard' HRM in favour of 'soft' (Legge 1995a, Sisson 1994, Storey 1992, 1995). This shift may be understood within a framework of the political economy of industry, where the type of product, sector and industry will be influential in defining management's approach. Tight profit margins and fierce competition may find organizations adopting a short-termist, highly cost-sensitive approach, rather than a high quality, investment approach (Schuler and Jackson 1987, Wood 1998).

On the surface, airlines appear to embrace a 'soft' approach to HRM, placing their employees at the centre of the organization, demonstrated by the deployment of a range of HRM strategies aimed at the 'soft' ideals of cooperation, commitment and trust. This approach is resonant of the opening statement where BA asserts that people are their most important asset and that only by adopting a people-centred approach, will a competitive advantage be secured (Colling 1995, Höpfl 1993). However, the reality of fiercely competitive markets create a number of conflicts and contradictions, which in turn, may

encourage a shift from a 'people-centred approach', to a highly cost-sensitive approach where cost (and profit) considerations, take priority over all others. Such pressures are highly visible in the airline industry where deregulation and increasing competitive pressures have led to a range of cost-cutting measures resulting in wide-spread redundancies and tumultuous industrial relations (Capelli 1985, 1995; Warhurst 1995). The extent to which the intense competitive pressures in the airline industry have set airlines on a course for 'hard' HRM, is therefore of interest.

Occupational health and safety (OHS) offers one measure to assess the extent to which airline companies have in reality, shifted from a typically 'soft' HRM approach, to one more characteristic of 'hard' HRM. This shift would be characterized by a cost-centred rather than people-centred approach to OHS. An analysis of cabin crew OHS and airline companies' people management strategies adds to debates on orthodox (characterized by soft HRM) and unorthodox (characterized by hard HRM) accounts of HRM. On the one hand, HRM is perceived as valuing human 'assets' in organizations, placing them at the centre of organizational success (see for example Guest 1987, Poole 1990). On the other hand, HRM is perceived as a tool of the capitalist, where employees are strategically exploited in pursuit of maximum profit (see for example Hart 1993, Legge 1995a). Implicit in the latter perspective is the rationale that 'soft' HRM may be used to cloak the reality of strategic exploitation of workers, one facet of which could be the priority of profit over employee health and safety. This explanation also fits within a labour process theory framework.

Given that health and safety is a key area covered by HRM, it is surprising that it receives minimal coverage (or none at all) in key HRM texts and journals. One exception is Bach (1994) who argues that HRM and health and safety are intimately connected by four themes: cost effectiveness, commitment, quality and strategic integration. According to Bach, cost efficiency may be undermined by the cost of accidents, in terms of the costs of absence and fines resulting from

HSE action¹, while the management of quality and safety may affect the ability of companies to produce quality output consistently. Safety awareness has consequently been integrated into a number of Total Quality Management programmes (e.g. BP), and firms such as Esso and British Airways emphasize the working environment in their mission statements and annual reports. At the same time, the management literature offers a superficial recognition of the symbiotic relationship between good health and safety practice and improved business performance is apparent. The majority of supporting arguments for good practice show a tendency to be based on the unnecessary costs to business and the economy caused by work-related injury and illness. However, the propensity of management to adopt short-term cost-efficiency strategies at the expense of long-term OHS considerations has become all too apparent as the catalogue of tragedies and occupational disease in a range of industries continues to grow (Nichols 1997).

The question remains as to why some UK employers applaud good health and safety practice and high quality working environments, yet in practice, actively contradict virtuous mission statements and formal safety policies. Possible explanations include the influence of economic and market pressures, as already indicated. A further explanation may be the regulatory framework and political influence on OHS agendas. In addition, it could also be argued that within HRM there is an embedded assumption that good health and safety practice is assured in a management philosophy that values workers as human beings and ‘important assets’.

In addressing these questions and propositions, we apply OHS as the prism through which shifts in airlines’ people management policies are assessed. In doing so, we examine the range of influences on airline companies’ people management policies, as well as identifying the nature and extent of OHS risks experienced by airline cabin crew. We then explore the connection between

¹ The business-friendly approach of the HSE ensures that fines are a last resort and are relatively low

these risks and the approach adopted towards people management in the airline industry. An understanding of these factors may be of value to future OHS interventions, and may also underline the extent to which airline companies and the regulatory bodies have overlooked and underestimated a number of OHS risks.

The thesis looks more to the underlying causes of work-related injury and illness than to a measurement of absence and injury rates for cabin crews. The key dimensions explored are cabin crew health, the working environment, working patterns, workloads and training - all of which are established in the literature as key factors in occupational health and safety. The literature links the built environment and employee health (Bain and Baldry 1995), productivity pressures and an increased number of workplace accidents/injuries (Baker et al 1991, Nichols and Armstrong 1973), and occupational stress and organizational variables such as workloads and training interventions (Cooper 1985, MacKay and Cooper 1987, Leather et al 1999).

Our primary research is based on a range of qualitative and quantitative data collected from three airlines. Due to the considerable data available on BA, and the view that BA sets a precedent in the airline industry, we draw on a considerable amount of evidence generated from BA policy statements and previous case studies. Our research questions are based squarely on the overall objective of the thesis, which is to explore developments in cabin crew OHS and use these developments to assess the nature of the shifts that have been occurring in airline companies' HRM strategies and policies. A number of research questions will be addressed in order to meet this objective:

1. Is the cabin crew labour process, in particular the OHS dimension, typified by a people-centred or profit-centred approach? In other words, does 'hard' HRM dominate over 'soft' HRM?

when the severity of the 'crime' and the profits of the company are considered.

2. Which factors impinge upon cabin crew OHS, and how do these relate to airline companies' HRM strategies and policies?
3. To what extent have airline companies overlooked or underestimated health and safety risks related to the cabin crew labour process?

The first question calls for a review of airlines' HR strategies and policies based on the HRM literature. The rationale is that while airlines' policy statements and public image espouse a 'soft' people-centred approach, the reality experienced by cabin crews may be quite different and more likened to the 'hard' form.

The second question is aimed at developments in cabin crew OHS and sets out to establish links between OHS outcomes and airlines' policies. This question also allows an exploration of the range of factors affecting cabin crew OHS, which in turn, allows corroboration of the literature on cabin air quality, shiftworking and work intensification.

The third question is related to the previous question as it explores the extent to which cabin crews experience a range of OHS problems. The findings may challenge current notions of cabin crew OHS, as well as underline the extent to which airlines and regulatory bodies underestimate OHS risks in the cabin working environment. This may in turn provide an impetus for the case study airlines to review their people management policies, particularly those which are shown to affect cabin crew OHS.

We begin with an outline of the chapters to follow.

Chapter one begins with a discussion of changes in the employment relationship and the philosophy of HRM. It reviews a wide range of literature on HRM (e.g. Guest 1987, Keenoy and Anthony 1992, Legge 1989, 1995a, 1995b; Storey 1989, 1995). We explore HRM in terms of its proposed four key elements

- Quality, Flexibility, Commitment and Integration (Guest 1987) - and review the literature on 'hard' and 'soft' HRM. The 'hard' model focuses on the management of human resources (employees) in "as 'rational' a way as any other economic factor" (Storey 1987:6), while the 'soft' model is geared towards generating commitment via 'communication, motivation and leadership' (Storey 1987:6). We also incorporate Guest's (1987) and Storey's (1992) definitions of hard-soft models of HRM where they view the key difference as being whether the emphasis is placed on the *human* or the *resource*. 'Hard' HRM can therefore be characterized by a cost-rational, 'market-value' approach, while 'soft' HRM is concerned with a developmental, people-centred approach based on mutual benefits.

This chapter reviews the literature on flexibility, quality, commitment and integration, and considers the trends in management practice and the wider economic, political and technological influences on the formulation of management strategies. We expose the contradictions within, and the limitations of, management's attempts to increase employee flexibility and commitment to organizational objectives, and their failure to integrate health and safety with wider business objectives. This provides a basis for our analysis of flexibility, commitment and quality strategies in the airline industry.

Chapter two explores the conflict and contradiction within HRM highlighted in the previous chapter, with regard to cost and quality, cost and safety, and productivity and safety, in the airline industry. Competitive pressures have launched airlines on a mission to achieve full utilization of their human resources, while maintaining a competitive edge in a deregulated market environment. We examine the extent to which deregulation and restructuring have intensified these pressures. This chapter builds on the previous chapter in terms of discussing the economic, market and political factors that may influence airlines' HR strategies and OHS interventions. In addition, this chapter explores

the possible relationships between various people management policies and OHS.

Chapter three considers the basis of cabin crew OHS in terms of the regulatory framework and environment. The roles of various actors in aviation OHS including the government, the Health and Safety Executive (HSE), the Aviation Accident Investigation Board (AAIB), the Civil Aviation Authority (CAA) and trade unions, are considered. While the CAA governs health and safety for aircraft and its occupants, this body adopts an approach similar to that of the HSE. A background to self-regulation is discussed in terms of the introduction of the Health and Safety at Work Act (1974). It is argued that a self-regulatory approach is deeply flawed and limited in its ability to deliver adequate protection for employees, including airline cabin crews. Examples of health and safety malpractice and a number of weaknesses in the government's approach to workplace health and safety add weight to arguments that current approaches to occupational health and safety in the UK, including the airline industry, are far from adequate.

Chapter four continues in preparing the ground for the focus of the primary research. In a review of a wide range of academic and practitioner literature, we identify a number of potential risks to cabin crew OHS based on the demands made on their physical and emotional labour, and the quality of their physical working environment. Factors relating to work organization and the aircraft cabin working environment are examined with a view to identifying the key areas in OHS that may be affected by airline companies' policies and strategies at a macro-level. *Section one* discusses the literature relating to cabin crews' physical and emotional labour, and *section two* discusses the literature relating to the cabin working environment.

Section one explores cabin working patterns and workloads. While shiftworking and long working hours are standard features in the industry, increasing demands

on cabin crews for higher productivity and enhanced flexibility may have serious health and safety consequences. In terms of stress-related illness for example, many of the factors linked to stress are inherent in cabin crews' work (e.g. increasing workloads, job insecurity, shiftworking, long working hours).

Section two of the chapter explores the potential risks to cabin crew health and safety. This involves an examination of a wide range of literature on cabin air quality, jet-lag, transmission of infectious diseases, ozone exposure, organophosphate hazards and cancer risks (Band et al 1990, Driver et al 1994, Härma et al 1994, Häugli et al 1994, Kenyon et al 1996, Mcfarland et al 1994, Mawson 1998, Melton 1982, Nagda 1989, Nagda et al 1992, Pukkala et al 1994, Smith 1996, Suvanto et al 1993, Vasak 1986).

In light of the substantial body of evidence pointing to serious health risks in relation to cabin air quality and the cabin working environment, we assess airlines' responses in terms of any improvements to the physical working environment or work organization that have been made, or that are planned in the near future. Their responses depict the wider trends in the airline industry - trends which are most likely to be followed by the case study airlines.

Chapters five, six and seven present the primary research conducted for this research. Our literature review has presented a number of issues and provides the necessary background to our research questions. **Chapter five** discusses the research design, methodology and the content and structure of the questionnaire, based on the linkages to the key issues identified in the literature review. The questionnaire survey to over 2000 UK cabin crews provides a rich source of qualitative and quantitative data.

Chapter six addresses our first research question about whether 'soft' HRM will be dominated by 'hard' HRM in terms of management decisions affecting work organization. According to the literature, one manifestation of 'hard' HRM is

work intensification, where cost-efficiency and productivity strategies are implemented to extract the maximum value from workers, regardless of the consequences on for example, OHS. We therefore, attempt to gauge changes to cabin crew work, in terms of working patterns, working hours and workloads. Respondents' perceptions of changes to work are further explored via the comments provided in the questionnaires.

Chapter seven addresses our second and third research questions. The literature review identified a number of factors that impinge upon cabin crew OHS, including cabin air quality and shiftworking, and how these were directly related to airline management's decisions on cabin air recirculation and commercial pressures. The primary research identifies a range of health and safety risks experienced by cabin crews, and measures the adequacy of training provisions and the quality of the cabin working environment. The data analysis tests for relationships between respondents' self-reported illness and factors of work organization. A key finding is that dimensions of work intensification are related to respondents' experience of illness. A further finding is that issues regarded as 'unimportant'² by the CAA, AAIB and airlines, such as ergonomics, are key OHS concerns for respondents.

Chapter eight proposes that OHS should be given a higher priority in management agendas. We discuss the symbiotic relationship between employee health and business performance, and demonstrate how the failure to prioritize people-centred concerns may lead to a chain reaction of damage to business performance. We present a business case for 'good practice' in OHS, where we demonstrate the 'hidden' and avoidable financial costs for organizations which arise due to poor OHS practice.

Finally, **chapter nine** summarizes the key findings of the study and relates these to the objectives of the thesis.

Chapter One

HRM, Work Organization and Health and Safety

This chapter reviews a wide range of literature on HRM, examining its definitions, goals and orientations ('hard' and 'soft'). We focus on the four key components of HRM as identified by Guest (1987), and review past and present management practice in these areas. The review identifies employers' responses to competitive pressures in terms of flexibility, commitment and quality strategies, and further identifies a number of contradictions and conflicts within each of these areas.

This chapter is an important foundation to our research questions, in that it describes the range of economic and political factors that may influence management's utilization of various HR/people management strategies and policies, in terms of whether 'soft', 'people-centred', or 'hard', cost-centred HRM, is realized. In fiercely competitive environments, 'soft' HRM may be a luxury that many companies cannot afford. However, this may not prevent companies from still espousing the values of 'soft' HRM, while actually practising the 'hard' form. We also explore the range of conflicts and contradictions inherent in the adoption of various HR techniques and strategies, in terms of the impact they may have on employee OHS, and in turn, on long-term business performance.

This chapter also illustrates that the process of distinguishing 'soft' from 'hard' HRM requires more than simply auditing the *type* of HR techniques or strategies that are in place. Instead, the way in which these techniques are utilized in terms of whether the emphasis lies with people or cost concerns, provides a more

² Based on the fact that these agencies have not implemented any regulations that mirror those of the European Regulations on Manual Handling (1992).

accurate evaluation of whether the organization's approach fits with 'soft' or 'hard' HRM.

We firstly discuss some of the changes to the employment relationship and the conditions under which HRM has achieved popularity.

1. Changes in the Employment Relationship

The employment relationship can be defined as an economic exchange based on labour power and the agreement by the employee to submit to the authority and direction of the employer. An interdependent relationship ensues, creating patterns of both conflict and cooperation, where the employer is in possession of greater power resources than the employee. The employment relationship encompasses diverse fields such as employment rules, health and safety and the entire field of organizational behaviour. For the purpose of this research, we explore two such variables – the organization of work and health and safety. These variables are popularly recognized as contributing to improved business performance (Bach 1994, CBI 1990, IPD 1996).

The philosophy of HRM

HRM is based on unitarist principles where an individualistic rather than collectivist approach to employee relations is adopted. A unitary perspective of work relations simply assumes that the only goal of the employee is furthering the profits of the firm, such that management need only inform the worker of organizational requirements to secure worker cooperation and optimum performance. Conversely, a pluralist perspective accepts a 'conflict of interest' between the employer and the employed. With its foundations in a unitarist approach, HRM therefore, interprets the employment relationship on the basis of consensus between the employer and the employed. Basic conflicts and tensions between profit/wage and authority/compliance, are not recognized. HRM's general approach focuses on individual employees and the way in which they are managed to enhance performance along the lines of broader organizational

objectives. Within this perspective, the role of trade unions tends to be marginalized, and the existence of separate interests scarcely acknowledged, if not ignored altogether (Blyton and Turnbull 1998:9). Trade unions are however, alive and well within HRM and non-HRM firms alike (Cully et al 1998, Millward et al 1992), and are enjoying growth in some sectors, in particular call centre sector (Bain and Taylor 1999, Korczynski 1999). The Employment Relations Bill (1 July 1999) provides a number of key opportunities for trade union recruitment. It appears therefore, that in general trade unions are weathering the storm, which we now trace back to the 1980s.

2. The Rise of HRM

The popularity and spread of HRM through the 1980s and 1990s can be understood partly on the basis of ‘right time, right place’, and the range of prizes it was purported to offer (Keenoy and Anthony 1992, Legge 1995a). Recession in the 1980s and growing competitive markets from abroad set organizations on a ‘Holy Grail’ for obtaining a ‘competitive edge’. At the same time the ‘excellence movement’ in the US was entering the UK, with almost evangelical promises for revival and success (Keenoy and Anthony 1992, Legge 1995a). While the past two decades have provided an opportunity for managers to reconstitute the basis upon which they structure and conduct employee relations, they have also presented severe constraints on management action and the development of any long-term strategy (Blyton and Turnbull 1998). Economic recession and intense international competition have continued to undermine the development of long term policies. Moreover, evidence suggests that management have failed to secure employee commitment and to break out of the low-trust dynamic, intrinsic to UK employee relations (Scott 1994, Fox 1974). Blyton and Turnbull (1998:102) attribute this to a management style based on opportunism and pragmatism rather than one based on a coherent philosophy.

During the 1980s, a combination of social, economic, political and technological developments were taking place. This period marked a number of changes in the

employment relationship throughout the UK. According to Hyman (1995:28), from 1979 Conservative governments 'presided over the most radical changes in British industrial relations since the industrial revolution'. The tides of change were powered by increasing globalization of markets and the intensification of competition posed by the rise of the Pacific economies (Japan, South Korea, Taiwan, Singapore), and the opening up of Eastern European markets, which combined modern technology with relatively cheap labour. New technologies also speeded up worldwide communication, while inward investment from Japan and the US marked the spread of multinational companies operating on a worldwide basis. Policies of 'asset management' or 'value-added' strategies were pursued as companies were forced to become more strategically aware (Capelli and McKersie 1987).

For the UK, the change of government in 1979 heralded a period of significant change in the UK, where the 'New Right' embarked upon a mission to transform the pillars of British social and economic life. The 'enterprise culture' promoted by the Conservative government, formed the political direction and an attempt to reconstruct the employment relationship. Sectoral shift, demographic change and the feminization of the workforce ousted trade union strongholds in manufacturing and heavy industry, while an onslaught of restrictive trade union legislation reduced the power and scope of the unions. According to Blyton and Turnbull (1994), other influences included a sharp rise in redundancies, peaking during the 1980s and 1990s. They argue that this may have encouraged 'resigned behavioural compliance' from employees, while a newly confident management, reinvigorated by legislatively induced weakened trade union resistance, enjoyed a free hand in implementing new working practices and policies aimed at enhancing flexibility and quality. The feeling of a bewildered public from having the 'carpet pulled from under their feet', is clear from Ron Todd's (the general secretary of the TGWU at that time) statement, 'we've got three million on the dole and another 23 million scared to death' (cited in Blyton and Turnbull 1994:52).

New Labour has continued with many of the former Conservative governments' policies, for example, the refusal to repeal of all Tory anti-trade union laws. New Labour's ambitions include a 'unitary command structure leading directly to the party leader, a transformed organizational structure, maximizing flexibility, innovation and adaptability with less but better people; a new culture (The Guardian 12.9.95). New Labour was itself to become an HRM organization, displaying a modified acceptance of the Thatcherite landscape. As we will see, the political environment has had a significant influence over both HRM and the management of health and safety.

3. Conceptualizing HRM

Human Resource Management (HRM) encapsulates a whole range of notions on management theory, style and practice. A wealth of publications on the subject area is available ranging from academic journals to management guru texts. HRM has received much attention from academics and practitioners alike, as for some, it offers new direction in the management of people which complements (or capitalizes upon) the significant social, political, legal and economic changes experienced in the developed countries. In a number of industries, the pressures generated by growing international competition has been a persuasive force for change, and many organizations have responded by introducing a range of new working practices (bearing the hallmark of HRM), in an attempt to secure cooperation and flexibility from their workforces. A range of evidence shows the increasing popularity of HRM, particularly during the late 1980s (Fernie and Metcalf 1995, Guest and Hoque 1994, Hakim 1990, Hill 1991, Marchington et al 1992, Marchington 1994, Marginson et al 1993, Millward 1994, Wilkinson et al 1992, Wilkinson and Morris et al 1993).

According to Keenoy and Anthony (1992), organizational change during this period reflected attempts to fundamentally reconstruct our conceptions of 'reality'. Keenoy (1990a) argues that HRM is a cultural construction which

reflects an attempt to redefine both the meaning of work and the way individual employees relate to their employers. In their view, HRM has become, ‘the conceptual euphemism to describe all the apparently transformative changes in the management of employment relations in the 1980s’ (Keenoy 1990b:370). For Keenoy and Anthony (1992), HRM is a ‘self-seeking product...installed to manufacture, mediate and administer cultural transformation in an environment softened up by recession and unemployment’ (Keenoy and Anthony 1992:236). Backing this unorthodox account of HRM, Legge (1995a:325) argues that HRM has been ‘hyped’ as something new and is consistent with demands of the enterprise culture, masking the intensification and commodification of labour.

The origins of HRM can be found in the US ‘Harvard model’, where it began life as part of an MBA syllabus in 1981. According to Beer et al (1984:x), its original intention was to develop ‘a framework for thinking and managing human resources that general managers will find useful’ (Noon 1992:16). Guest (1987, 1989) provided a valuable contribution to our understanding of HRM, and made an attempt to increase its status to that of a ‘theory’. For some academics and practitioners, HRM is accepted as a full-blown management theory, while for others it remains an uncertain and imprecise notion. According to Storey HRM is:

“...a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic deployment of a highly committed and capable workforce, using an integrated array of cultural, structural and personnel techniques” (Storey 1995:5).

While Storey’s definition describes the components and objectives of HRM, other commentators provide insight into its consequences. A clear polarization of perspectives is apparent:

“...it regards people as the most important single asset of the organization; it is proactive in its relationship with people; and it seeks to enhance company performance, employee ‘needs’ and societal well-being” (Poole 1990:3).

Alternatively,

“I believe HR to be amoral and anti-social, unprofessional, reactive, uneconomic and ecologically destructive” (Hart 1993:29).

The ensuing confusion was addressed by Noon (1992), who questioned whether HRM is a ‘map’, a ‘model’ or a ‘theory’. In his words, ‘as a model or a theory, HRM is elevated to a position of scholarly and practical importance in terms of its analytical and predictive powers, whilst as a map it only lays claim to being a diagnostic tool aimed mainly at practicing managers’. Drawing on the work of Dubin (1978), he concludes that HRM ‘theory’ fails on two counts: first, in terms of ‘adequacy’ because of inherent logical inconsistencies, and second, in terms of ‘reality’ because it does not model the empirical world, or at least cannot adequately be tested as being able to do so (Noon 1992:28). A more liberal assessment of HRM is rejected on the grounds that academic integrity is contingent upon rigorous testing of theories. It may therefore be more appropriate to describe HRM as a map or framework for analysis, in order to avoid raising expectations about its ability to describe and predict.

Before discussing ‘hard’ and ‘soft’ approaches to HRM in detail, we firstly address the differences between HRM and traditional personnel management, which was a key debate during the 1980s and 1990s.

‘Old Wine in New Bottles’?

The difference between HRM and personnel management is a key topic of the HRM debate. Underpinning both personnel management and HRM are the twin ideas that people have a right to proper treatment as dignified human beings

while at work, and that they are only effective as employees when their job-related personal needs are met. Underpinning HRM is the idea that the management of human resources is much the same as any other aspect of management, and the correct deployment of people with the required skills at the right time is more important than prying into people's personal affairs (Legge 1995a: 65). Moreover, the contentions that HRM is proactive rather than reactive, system-wide rather than piecemeal, treats labour as social capital rather than a variable cost, is goal-oriented rather than relationship-oriented, and ultimately is based on commitment rather than compliance (Beer and Spector 1985, Guest 1991, Walton 1985), suggests that it is 'better' than personnel management (Blyton and Turnbull 1992:5). However, many commentators argue that HRM is no more than a re-labelling and re-packing of personnel management. According to Legge (1995b), HRM is simply 'old wine in new bottles'.

From a historical and evolutionary viewpoint, Torrington (1989:65-6) has argued that "personnel management has grown through assimilating a number of additional emphases to produce an ever-richer combination of expertise...HRM is no revolution but a further dimension to a multi-faceted role." Torrington also notes that while personnel management is supply-driven, HRM is demand-driven:

"Personnel management is directed mainly at the employees of the organization, finding and training them, arranging their pay and contracts of employment, explaining what is expected of them, arranging their pay and contracts of employment, and trying to modify any management action that could produce an unwelcome response from employees. In contrast, the human resource manager starts not from the organization's employees, but from the organization's need for human resources: with the demand rather than the supply" (Torrington 1989:60).

Legge (1989) goes on to identify three significant differences between the two:

- HRM is applied to managers as well as employees
- HRM concerns the management of people and all other resources in a business unit
- HRM emphasizes the management of organizational culture as the central activity of senior management (Legge 1989:27-8).

A range of evidence finds that many organizations implementing HRM-style policies still have ‘Personnel Managers’ in place (Gennard and Kelly 1997, Guest and Hoque 1993, Marginson et al 1993, Millward et al 1992). Guest (1995) argues that this may be down to the scepticism of industry and commerce about the rhetoric and the language of HRM, while they have nevertheless implemented a range of policies and strategies that mirror the four goals of HRM: strategic integration, high employee commitment to the organization, a high degree of workforce flexibility and a high-quality workforce (Guest 1987). In advance of an analysis of the four components or goals of HRM, these different emphases of HRM are firstly examined.

4. Hard and Soft Models of HRM

On closer examination the various definitions of HRM offered by commentators contain two different emphases, which can be characterized as ‘hard’ and ‘soft’ models of HRM. The ‘hard’ model reflects a ‘utilitarian instrumentalism’, while the ‘soft’ model is aligned with ‘developmental humanism’ (Hendry and Pettigrew 1990, Storey 1987). For Storey (1989:8) the ‘hard’ approach would be characterized by a strategy based on flexibility in headcount, job boundaries and the structure of remuneration in order to reduce labour costs and increase labour utilization. In contrast, a ‘soft’ approach would place emphasis on communication, motivation and leadership. Flexibility would be utilized in a way that would create, for example, more fulfilling jobs through the acquisition of a broader range of competencies and responsibilities.

Central to the ‘hard’ model is the importance of the close integration of human resources policies, systems and activities with wider organizational strategy. Successful integration would depend not only on the logical consistency of policies with business strategy, but also on consistency between them (Hendry and Pettigrew 1986). Moreover, the over-riding characteristic is the focus on the ‘quantitative, calculative, and business strategic aspects of managing the headcount resource in as “rational” a way as for any other economic factor’ (Storey 1987:6). *Here the starting point of HR strategies is cost.* All aspects of people management – manpower planning, recruitment, training, reward etc – are therefore measured and assessed on the basis of ‘asset management’ (Cappelli and McKersie 1987). Short-termism and cost prioritization are two of the potential dangers (and often realities) of such an approach to people management.

Alternatively, the ‘soft’ developmental approach, while still emphasizing the importance of integrating human resources policies with wider business objectives, stresses the development of employee commitment via ‘communication, motivation and leadership’ (Storey 1987:6). This approach is one more akin to ‘people-centred’ than cost-centred. *The starting point for achieving a competitive edge is the human resource or employee.* Mutuality of interests is recognized as HR policies are designed to deliver ‘resourceful humans’ (Morris and Burgoyne 1983), while achieving better economic performance through a ‘value-added’ approach (Cappelli and McKersie 1987). The distinguishing features between ‘soft’ and ‘hard’ HRM is therefore the focus on either people or cost concerns, respectively.

Legge (1995a) identifies a range of contradictions implicit in these models that are mainly down to double meanings in their conceptual language, for example, ‘integration’ and ‘flexibility’ can be defined differently under each model. The departure points circle around whether singular or mutual benefits are gained.

The 'hard' rational model gives priority to the organization's needs, while the 'soft' developmental model seeks mutuality. Legge (1995a) describes the resultant contradictions in, for example, 'flexibility', where flexibility can express values of employee upskilling, development and initiative, or the numerical and financial flexibility to be achieved by treating labour as a variable cost-to-be minimized input (Legge 1995a:69).

The incorporation of both soft and hard elements within one theory or model is problematic because each rests on a different set of assumptions in the two key areas of human nature and managerial control strategies. Many of these assumptions can be traced to the work of McGregor (1960), who used the terminology of hard and soft to characterize forms of managerial control. McGregor's Theory X characterized people as disliking work, thus necessitating tight managerial control through close direction and supervision. Alternatively, Theory Y described people as able to 'exercise self-direction and control in the service of objectives to which he is committed' (McGregor 1960:326).

Legge (1995b) notes that the different emphases are not necessarily incompatible since most of the normative statements of what constitutes HRM (see Legge 1989) contain elements of both the 'hard' and 'soft' models. Some evidence exists for a 'dual-adoption' approach, where both 'hard' and 'soft' HRM are evident in organizational policies and management style. Truss et al (1997) found that no pure examples of either approach existed in eight in-depth case studies, and concluded that the rhetoric adopted by companies frequently embraces the tenets of the soft, commitment model, while the reality experienced by employees is more concerned with strategic control, similar to the hard model (Truss et al 1997). Other commentators have similarly commented on the 'rhetoric' and 'reality' of HRM, while at the same time, pointing out some of the contradictions between 'soft' and 'hard' HRM (see for example, Legge 1995). A key question is the extent to which companies shift from a 'soft' to a 'hard' approach when economic and competitive conditions intensify. While this

research does not offer a longitudinal study, a comparison of the rhetoric and reality of airline companies' people management policies offers some insight to their approach. In the airline industry, where airline companies rely on cabin crews as their ambassadors for the company, one might expect a 'soft' approach to people management policies, where key organizational objectives employee commitment and commitment to a high quality of service, might best be realized. Moreover, the safety-sensitive nature of the airline industry demands the prioritization of safety over cost/profit imperatives.

For the purposes of this thesis, we regard the distinguishing feature of 'soft' from 'hard' HRM to be 'people-centred' policies and strategies. For example, is the starting point of the people management strategy based on mutual benefits to the employee and employer? Is the employee at the centre of the strategy where his or her abilities and aptitudes are valued, utilized and developed? Is the employee being treated in a manner congruent to descriptions of 'the company's most important asset'?

Where a blatant disregard is shown to employee interests or concerns, and the starting point is profit maximization/cost-minimization, we consider this type of HR strategy to be a 'hard' form of HRM. Realistically, organizations may have to combine both forms of HRM, but the extent to which this dual approach impinges upon the health and well-being of employees has to date, received little attention.

Manifestations of 'hard' HRM are shown in table 1.1, where the expected differences between 'soft' and 'hard' HRM as described in the literature, are shown.

Table 1.1 : Expectations of ‘soft’ and ‘hard’ HRM

	Soft	Hard
Flexibility	<p>Mutual benefits in flexible working hours/working patterns/contracts</p> <p>Core and periphery differentials e.g. job security</p> <p>Team working</p> <p>Skill enhancement through training and support (e.g. mentoring)</p> <p>Training addresses business and individual needs</p>	<p>One-sided benefits in working hours/patterns and contracts – organized to suit business objectives/needs</p> <p>Few differentials between core and periphery workers</p> <p>Peer pressure/management by stress</p> <p>Work intensification/increased responsibility without adequate support or training</p> <p>Training is business-focused</p>
Commitment	High Levels of Employee Commitment	Low Levels of Employee Commitment
Quality	<p>Customer-focused</p> <p>Emphasis on high quality service</p> <p>Employee Involvement in quality improvement</p> <p>Development-oriented appraisals</p>	<p>Business-needs focused</p> <p>Pressure to meet quality and productivity requirements ; utilization of surveillance and monitoring</p> <p>Management-led and controlled policies. Tight controls</p> <p>‘Incentive-Penalty’ Focused Performance Management</p>
Health and Safety	Health and Safety Champions	Cost-limited approach to health and safety
Integration	Strategic integration of all HRM policies – HRM feeding into wider business decision making process	HRM feeding from wider business decisions

‘Hard’ HRM may therefore be characterized by a cost-rational, ‘market-value’ approach, while ‘soft’ HRM is concerned with a developmental, humanist approach based on mutual benefits. Table 1.1 provides a guide for distinguishing ‘soft’ from ‘hard’ approaches for forthcoming chapters. The complexity of HRM means that it is not enough to simply audit the *type* of HR/people management policies that are in place in organizations. In order to establish whether a ‘soft’ or ‘hard’ approach is being adopted, the focus and utilization of the various techniques must be evaluated.

We now progress to a review of management practice in each of Guest's four areas and assess the influence of wider economic, political and technological influences in shaping employers' people management policies and strategies. We begin with a review of a range of flexibility, employee involvement and quality strategies aimed at increasing employee and business performance. Flexibility is a core issue in the cabin crew labour process. Numerical, temporal and functional flexibility are demanded in the occupation, and so a review of these forms of flexibility is required. A key emphasis is the relationship and interaction between these strategies and OHS.

5. Flexibility

“Flexibility’ refers to labour market and labour process restructuring, to increased versatility in design and the greater adaptability of new technology in production” (Smith 1989:203).

The impetus for increased labour market and employment flexibility has been the combination of increased international competition and more volatile markets, the import of new working practices from Japan and the US, new technology and the feminization of the labour market. According to Guest (1987), flexibility has three components: organizational design, job design and employee attitudes and motivations. For organizations to have the capacity to manage planned change and to be adaptive to uncertainties or change, they must secure flexibility via organic structures, extensive decentralization and devolved control (which requires job redesign). Guest concludes that flexibilities can only be achieved if employees display ‘high organizational commitment, high trust and high levels of intrinsic motivation’ (Guest 1987:514). Flexibility therefore, is central to organization's ability to adapt to change and survive in fiercely competitive climates. While this appears as quite straightforward, achieving employee commitment to flexibility may be more difficult since in many cases only one-sided benefits appear to be generated (i.e. where the employer benefits at the expense of the employed). This is in direct conflict with the orthodox

account of HRM, where employee also benefit from flexibility, through for example, acquiring a range of skills. For airline cabin crews, numerical flexibility is a highly relevant. Many airlines make significant adjustments to the number of cabin crew employed depending on seasonal fluctuations (George Ryde, 1998). The ubiquitous culture management training programmes and regular performance appraisals that crews are subject to, are likely to have a primary objective of mitigating any negative effects of temporary contracts on employees' commitment and loyalty to the company. The extent to which these mechanisms are successful could form the basis of a future research project.

Trends in Labour market flexibility

Both governments and employers have promoted labour market flexibility and employment flexibility. Both the European Commission (EC) and the Organization for Economic Co-operation and Development (OECD) have identified the importance of labour market flexibility as a contributor to economic growth (EC 1993, OECD 1989, 1997). Consequently, the removal of restrictions on the type of contract employers can offer, job boundaries, and the introduction of new working patterns, sub-contracting and flexible reward systems, have proliferated throughout Europe. In turn, flexibility has been seen as playing a potentially important part in achieving various organizational objectives, including lower labour costs, improved responsiveness to market uncertainties, greater utilization of plant and equipment and higher-quality output (Blyton 1995:259). While the concepts of HRM and flexibility may have propagated from a common set of circumstances, trends in atypical working illustrate the important influence of economic and political environments in defining the emphasis of HRM ('soft' or 'hard').

The Flexible Workforce

The growth of flexible working has been a key feature of the UK labour market in recent years. The temporary workforce in the UK has grown steadily in recent years to a position where there are now around 1.75 million temporary workers,

representing more than 7% of all employees. This compares to around 5.5% a decade ago (IRS 677, April 1999). According to the Labour Force Survey figures, the number of temporary employees in the UK grew by around 30% between 1995-6 compared with an increase of only about 2% in all employees during the same period. In addition, the number of temporary agency workers increased by a massive 148% (Labour Market Trends 1997). Employers are increasingly adopting such arrangements to meet fluctuating demands for labour in the short term, and to adapt to technological and organizational change in the longer term. However, a recent report finds that employer abuse of flexible working arrangements can lead to deteriorating working conditions and insecurity of employment (IRS 1997:2). The report finds that “too often flexibility is a one-sided bargain, with workers expected to be at the beck and call of their employers, but employers making few attempts to accommodate the needs of their staff”. It also identifies a growing trend for employers to use flexibility as a means to cut costs and minimize their legal obligations to the workforce via an increasing use of agency workers and outsourcing. This strategy may allow the employer to withdraw from the employment relationship altogether (IRS, November 1997).

The ‘one-sided bargain’ is not unique to the UK. In New Zealand, McLaughlin and Rasmussen (1998) found that in the retail sector many employees are required to work flexible hours and days but are unable to exercise much influence over those hours and days of work. “Zero hours” contracts offer employers maximum flexibility, since no guaranteed working hours is given, but the employee can be called in at any time by the employer. A recent study found that a quarter of organizations across all major UK industrial sectors employ workers on zero hours contracts, with women accounting for over 50% of those employed on such contracts. The research found that some employers relied heavily upon their use on a long-term basis. The majority of organizations used zero hours contracts to reduce costs and improve flexibility (IRS, May 1997:4). However, Casey et al (1997) argue that “exotic forms” of flexibility such as zero

hours and subcontracting are not used to any great extent by employers, despite being widely written about.

The researchers used information from the Labour Force Survey, the Workplace Industrial Relations Survey and six case studies, to look at the changing use of flexible employment over the past decade. They concluded that large organizations make more use of flexible labour and the public sector had the highest use of short-term contracts. Furthermore, they found that flexibility increases gender pay differentials, particularly with overtime and shiftwork being assigned to men and temporary and part-time work to women.

Evidence from a range of studies (Cully et al 1998, Marginson et al 1993, Millward et al 1992, Storey 1995) finds significant movement in functional, numerical and financial flexibility. They conclude that while there has been some increase in forms of numerical flexibility, it has been utilized in an opportunistic and pragmatic fashion. Increases may simply reflect the expansion of the service sector and the feminization of the labour process. In terms of functional flexibility, the trend has been toward job enlargement and overlapping job descriptions and functions, but with little multi-skilling. Financial flexibility has been associated with the adoption of performance related pay (PRP), which has gained popularity in recent years. Organizations that favour PRP schemes do so because they help to focus employees' attention on business objectives and allow pay rates to be more sensitive to market conditions, while enabling them to retain employees with skills which are at a premium in the labour market. Many people remain of the view that the net result of PRP schemes is to demotivate employees, since 'few gain at the expense of the many' (IDS June 1998:1-2).

Developments in organizational structures and HRM cannot be held solely responsible for the growth in flexible labour strategies. The increased use of flexible labour strategies is set against the contexts of wider economic, political

and social changes. Comparing the UK experience with other countries also lends some insight into the trends in labour flexibility strategies.

In her analysis of changing regulatory frameworks and non-standard employment in four European countries (Germany, Spain, Sweden and the UK), Cousins (1999) finds that the use of non-standard employment increased across the European member states during the 1990s, especially during the years of recession but also in the first year of employment growth in 1995. Even in Sweden and Germany where non-standard employment remains highly protected (except for marginal part-time workers in Germany), non-standard employment is increasing together with pressures aimed towards weakening job security and employment protection. In Spain, the majority of the workforce is now in some form of non-standard work, set within a context of very high unemployment and a considerable informal economy. However, Cousins argues that there is not necessarily a convergence between countries in non-standard employment patterns associated with economic change. While the force of change is impelled by international competition, the operations of multinational companies and the diffusion of new organizational and managerial models, these forces of change are mediated through the social, political and institutional structures within each country (Cousins 1999:117). Hence, non-standard work in some countries does not necessarily mean poor working terms and conditions. For example, in Sweden, women can exercise their right to work part-time on the birth of their first child without the loss of employment rights. However, part-timers in the UK, some of those in Germany and those on fixed-term contracts in Spain forfeit much more.

The negative face of non-standard work is however, particularly visible in Australia where the spread of non-standard employment has decreased employment security, thereby enabling employers to extend their control over the labour process and to extract higher profits (Burgess and Strachan 1999). The employment protection enjoyed by permanent employees in Australia (e.g.

holiday pay, sickness pay, and protection from unfair dismissal) does not extend to non-permanent employees. Burgess and Strachan (1999) argue that employers have used the growth of non-standard employment to limit and weaken regulation of the labour market as a whole. Subsequently, many workers have experienced a decrease in job security during a time of rising unemployment. In addition, employers have challenged and eroded the terms and conditions of workers.

This trend is also identified by Kyotani (1999) in his analysis of new managerial strategies of Japanese corporations. In this example, large-scale businesses in an advanced capitalist economy deliberately responded to enhanced global competition by developing flexible labour policies intended to claw back the favorable employment conditions previously enjoyed by the Japanese core workforce. Taken for granted high levels of job security and lifelong employment came under increasing pressure during the 1990s, when there was a movement by management towards the introduction of short-term and low-security contracts. Moreover, major Japanese corporations are seeking to persuade their government to reduce legal regulation of the labour market to allow more flexibility in female employment, agency work, working hours and terms of employment (Kyotani 1999). New managerial strategies have resulted in a reduction in the size of the core employment sector and an increase in the number of peripheral employees. Core employees are also experiencing hardship because Japanese management is trying to eliminate traditional systems of *nenko* and *shushin-koyo* (regular wage increases and promotions) and lifetime employment (Kyotani 1999:194). In one of the homelands of HRM, such management strategies suggest the dominance of 'hard' HRM over 'soft' HRM. It would appear that when the going gets tough, the tough get tougher. Moreover, it could be argued that the Japanese example illustrates how some employers may shift from 'soft' to 'hard' HR strategies if corporate survival requires such a move.

Possible Outcomes of Flexibility

Blyton (1995:263) notes that labour flexibility has been a key tool of employers for many years. Casual forms of employment provide employers with considerable scope to match the volume of labour with the level of demand. Taking men on by the day or by the hour in the docks was standard practice until trade unions were recognized. A full circle appears to have been completed since the 1920s, with zero-hours contracts commonly used in the service sector today. Such a contract demands that an employee is available for work when required and is paid only for the time actually worked. Recession, high unemployment and the squeezing-out of trade unions are related to this circuitous pattern.

Clearly, employers have long appreciated the importance of labour flexibility, but as Hakim (1990) notes, current practice differs from earlier periods on the basis of the increased number of forms of labour flexibility and the increased pace of change in at least some aspects of workforce flexibility. The growing pressures on organizations to respond rapidly to change, while retaining effective cost control, is at the heart of the variety of forms of flexibility and the pace of adoption. The tendency for some organizations to pursue flexibility via different forms of 'precarious' employment contract, raises particular questions about the consistency of various aspects of flexibility within a broader strategy of HRM (Blyton and Morris 1992). Possible conflicts exist between the flexibility and both the pursuits of higher levels of employee commitment and the securing and maintenance of high quality output. Employees on less secure contracts may display lower levels of commitment to the organization, and certain pay schemes, for example piecework, may encourage employees to maximize the quantity of their output, with little regard to quality levels. The value of numerical flexibility within the airline industry could be questioned given the possible conflicts it may create with airlines' perceived need to secure cabin crew commitment to the organization.

While employers gain a number of key benefits from flexibility strategies, the benefits for employees may be limited. What appears as a 'one-sided bargain' has the potential to undermine other corporate goals such as employee commitment. Guy Standing (1986) remarked that a possible pitfall of flexibility is that it may undermine stability and continuity within organizations. The short-term nature of fixed contracts, for example, contrasts with the continuity embodied in more permanent employment relationships. It appears that in some cases, many numerically flexible strategies have been pursued for their cost-cutting and control potential rather than for any broader contribution to the organization.

Undeniably, the drive for flexibility has generated significant change in employment patterns, working arrangements and practices, reward systems and industrial relations, all of which have been aimed at securing lower labour costs, tighter staffing levels and higher efficiency. Flexibility therefore, can influence every facet of the employees' experience of work: the type of contract they have, level of job security expected, job design, control over work, reward (financial or other benefits) and hours of work. The literature illustrates that when implemented with a long-term view, flexibility offers more proactive, humanitarian approaches to productivity gains (mirroring 'soft' HRM), than shorter-term views of productivity enhancement combined with cost-minimization (reminiscent of 'hard' HRM). As the international review revealed, national employment legislation is an important factor in defining the meaning of non-standard working/flexible labour patterns.

We might argue that due to economic and market pressures, HRM has evolved from a people-centred, developmental approach to a cost-based rational approach to people management. A conspiracy theory approach might argue that HRM has simply been exposed as a cunning device, which was intended to reform the employment relationship under the cover of 'soft' values. Our expectations of the employment relationship and working terms and conditions

continue to be reshaped within the pressurization chamber of the 1990s. As the ambient pressure increases, the employment relationship is squeezed and contorted, and while oxygen concentrations become thinner, resistance becomes more difficult.

The review of global trends in flexible labour suggests that the profound impact on those engaged in non-standard works is part of a broader transformation of the economic and social landscape. Labour markets around the world are becoming more segmented, fragmented and fractured. These changes have profound implications for material inequalities and personal day-to-day lived experiences of workers, and pose serious challenges to the effectiveness of modes of organization that have long served the labour movement (Felstead and Jewson, 1999:17). Furthermore, while wider contextual factors undoubtedly shape flexibility strategies, it is apparent that management is not slow to exploit all weaknesses to their favour. Some of the literature discussed, also suggests that it is not uncommon for management flexibility strategies to be characteristic of a 'hard' HRM approach. This is also visible in time flexibility strategies.

Temporal Flexibility

Temporal flexibility has also enhanced organization's ability to operate around the clock and achieve maximum return from investment in machinery, technology and people. While shiftworking in its different forms provides a range of opportunities for employers, an array of social, psychological and medical problems for employees have been recorded (Suvanto et al 1992, LRD 1990). Compounding this are the marked social and family disruptions that can be caused by shiftworking. The overall implication is that while round-the-clock working may look at first sight an extremely efficient use of resources, there are considerable drawbacks. Recognition of such drawbacks formed the major reason for the general reductions in the 1960s and 1970s in the proportion of shifts containing night-working (Bosworth and Dawkins 1980, NBPI 1970).

Recent studies have suggested that twelve hour shifts have a more positive effect on employee health and job satisfaction compared to eight hour shifts. This is attributed to the increased number of consecutive days off included in twelve hour shift cycles, which allows more time for recuperation and social activities (Akersedt et al 1999, Lowden et al 1999). However, the population of workers studied was involved in occupations with relatively low workloads. It is therefore necessary for studies of employees with heavy workloads (such as airline cabin crews or production workers under a JIT or TQM regime), to be carried out before any recommendations on twelve-hour shift patterns are accepted. While more consecutive days off may benefit family and social life, high effort and output over a twelve-hour period may have serious effects on employee health and safety at work. Human error leading to serious occupational accidents has been linked to tiredness and reduced concentration, which are in turn linked to heavy workloads and long working hours (e.g Bosworth and Dawkins 1980, Cutler and James 1996). The linkage between forms of flexibility and employee health and safety is therefore apparent. For airline employees, similar trends are visible in terms of reduced job security, higher workloads, worsening pay, terms and conditions (Blyton et al 1998), and working patterns that mirror the 24-hour nature of the airline industry. The same linkages to employee health and safety could also be expected.

A 'soft' HRM approach cannot, however, be ruled out in firms' utilization of labour flexibility. Such firms might be 'excused' by the concept of 'core' and 'periphery' workers, with 'core' workers enjoying employment security, training and other benefits. This perspective was put forward by Atkinson (1984) in his identification of a trend towards the 'flexible firm', comprising different groups of 'core' and 'periphery' workers. In this model, the centre of organizations is occupied by a primary or 'core' workforce of full-time, permanent employees who possess key skills, and as a result enjoy relatively high-status positions with good prospects of security and promotion. Employees with less scarce and unique skills are secondary or 'peripheral' workers, who are easily recruited to

carry out semi-skilled or unskilled work and are likely to be employed on a part-time or temporary basis. The numbers in the peripheral group can therefore be varied to reflect the rise and fall of demand.

However, empirical evidence finds a number of flaws with Atkinson's model which include:

- the distinction between core and periphery workers is over simplistic and misleading as some organization's entire workforce are part-time or contract workers; 'core' groups do not always enjoy the status or benefits that the model suggests;
- there is a lack of recognition that forms of temporary working have long existed (Blyton 1995).

As already mentioned, controversy surrounds the extent to which flexibility is deliberately sought by management as part of a forward-looking plan, which systematically relates labour-use patterns to corporate or business objectives (Hunter and MacInnes 1992). This point flags up the opposing arguments stated earlier, of whether organizations deliberately implement 'hard' HRM strategies as part of the strategic exploitation of workers, or perhaps it is simply a case of incompetent managements muddling their way through the competitive jungle, while adopting a range of 'fire-fighting' responses.

From the literature review, it could be argued that flexibility has removed the permanency from jobs, the rigidity from pay schemes and the predictability from working patterns. The potential of new working practices such as quality circles, team working, total quality management and performance related pay systems have been linked to work intensification and increased stress and pressure at work (Delbridge and Turnbull 1992). The link to stress is substantiated by a TUC study (1995) that identified job insecurity, shift working and long hours as key sources of work-related stress. Job insecurity has also been linked to

physical and psychological problems (Ferrie 1998). This evidence points to the relationship between various HR policies on work organization and OHS.

It could be argued that the promotion of flexibility as being crucial to business survival simply provided a sugar coating to make the bitter pill of no extra pay easier to swallow for many employees. Similarly, the shift to fixed-term contract agreements and other precarious forms of labour have been promoted by employers as crucial for controlling costs in order to remain competitive. Employers fare well with reduced labour costs on all counts, while employees may be left shivering in the wind of job insecurity. As we will see, working practices such as TQM and the ability of employers to closely monitor employee' output through electronic surveillance systems have arguably contributed to a trend of work intensification in various industries, such as financial services (in particular, call centres) and production line manufacturing. Our analysis of the airline industry will go some way in identifying the extent to which similar patterns and trends exist.

Flexibility Japanese Style

Thurley (1981:30) identifies the objectives of Japanese personnel policies as being performance, motivation, flexibility and mobility, secured through an array of complementary policies such as self-appraisal and feedback, consultation, status/grading progress, organizational bonuses, job rotation and retraining, self-education, all of which were 'cemented' by an all-embracing organizational culture. While the UK's approach to HRM has been criticized as 'piecemeal and *ad hoc*', Robbins notes a key difference in the Japanese approach:

“The Japanese commit more than lip service to their concern for human resources. They back it up with a well-integrated system of strategies and techniques that translate ideology into reality” (Robbins 1983:68).

An example of Japanese-style HRM is evident in Nissan³ at Sunderland, a vehicle manufacturer on a green-field site, where business success was attributed to flexibility, quality and teamwork, employee commitment and high trust employment relations (Wickens 1987). Naylor (1984) describes the Japanese approach as employee-centred and 'humane', seeking to develop individuals and utilize their talents, which is resonant with McGregor's Theory Y. However, evidence suggests that the experience of work under a Japanese work system (incorporating the key features of Just In Time production (JIT) and Total Quality Management (TQM), is far from a 'humane' approach to management (e.g. Delbridge and Turnbull, Sewell and Wilkinson 1992). Instead, the experience of work under such regimes is one characterized by work intensification, loss of autonomy, increased managerial control over the pace and quality of work, increased surveillance and peer pressure. This illustrates that it is not the *type* of HR techniques that are in place that provides a means for distinguishing 'soft' from 'hard' HRM. Instead, 'soft' and 'hard' approaches can be differentiated on the basis of *how* the various techniques are deployed and utilized by management.

Delbridge and Turnbull (1992) are representative of the group of critical theorists who take the different view that Japanese flexibility equates to labour intensification and management-by-stress, quality with control and management-through-blame, teamworking with peer surveillance and management-through-compliance. Here, the scope of 'empowerment', 'teamworking' and 'involvement' is representative of management's ubiquitous control over the labour process. The boundaries of empowerment are dictated by management, while teamworking acts as a further source of control through utilizing the powerful effect of peer pressure, reinforced by a system of reward and punishment. Involvement and participation of workers is closely prescribed, tightly controlled and ensures workers are focused on work tasks rather than any broader organizational issue. Employees are only required to participate in

³ For a critical review of Nissan see Garrahan and Stewart (1992)

incremental improvements to product quality and process efficiency, which simply incorporates workers in the projects of capital without extending any real control or collective autonomy to the workforce (Dawson and Webb 1989). As Schonberger (1982:193) points out:

“Work under JIT and TQM focuses on waste and cost reduction and high productivity through human resource maximization. This style of work organization sits more comfortably with a ‘hard’ model of HRM, where cost-efficiency and productivity take absolute priority in the pursuit of the competitive edge.”

Enhanced managerial control

The critical stance is that quality and HRM, and the broader ideas of enterprise and excellence, increase the subordination of employees. Sewell and Wilkinson (1992) argue that the pursuit of quality results in greater subjugation of employees due to the refinement of techniques of surveillance that permits enhanced management control. This approach has its roots in the labour process tradition, while some recent variants of control develop the ‘panopticon’ element of the Foucaultian perspective on power. Panopticonism increases the potential of management to control individuals via the deployment of techniques of individualization and enhanced surveillance. The call-centre industry is one where quality is controlled to a high level via scripts for operators to follow during calls, and electronic call-monitoring. Electronic surveillance allows management options on recording telephone conversations between agents and customers, or listening into ‘live’ conversations. Management can also calculate the number of calls answered over time and the length of calls. Breaks from the job can also be electronically monitored, thus curtailing the opportunity for employees to take unofficial breaks.

Teamworking

By some accounts, teamworking embraces the ‘soft’ side of HRM (Walton 1985, Lawler 1986). Both team members and employers alike supposedly benefit from teamworking. While the Hawthorne experiments in the 1920s identified teamworking as beneficial to levels of job satisfaction and productivity, motivational theorists such as Herzberg (1966, 1968), who argues that a set of social needs can be met as a consequence of working in groups. Within group dynamics, norms and attitudes form quickly as demonstrated by Sherif (1936). Sherif’s work suggested that in order to organize and manage itself, every group developed a system of norms, which express the values of the group members. Norms develop in a group around those subjects and topics which are important to its functioning. Group norms develop around the work itself, and about how it should be accomplished, how quickly and in what way, and around the attitudes and opinions that should be held by group members regarding work and management policies (Buchanan and Huczynski 1997). When group values are aligned with organizational objectives via culture management programmes, work behaviour such as attendance, effort and quality standards soon become key concerns of group members, especially when financial incentives are attached. Tapping into basic human behaviour and group dynamics can therefore, provide employers with a potent mechanism for controlling and maximizing productivity, efficiency and quality. The attractiveness of teamworking is thus apparent offering both psychological benefits for the employees and a range of organizational benefits.

Within the studied Japanese organizations (Delbridge and Turnbull 1992, Sewell and Wilkinson 1992), team working was integral to work organization. Work itself was organized into ‘manufacturing cells’ where groups of workers are responsible for actual products rather than a single process. Collective autonomy is limited to task execution as opposed to task design (Klein 1991), leading to conformity and standardization of work, and loss of control over work. Group harmony and consensus is achieved through careful recruitment and selection

processes and induction and ‘socialization’ programmes. The team itself can then be seen to support and deliver group compliance (Delbridge and Turnbull 1992:61). Team leaders take on the responsibility for quality, operator training, allocating jobs at the start of each shift, and reporting on lateness, sickness and absenteeism. Ultimately, they become the ‘eyes and ears’ of management on the shopfloor and provide a direct means of communication with the workforce (for a full discussion see Delbridge and Turnbull 1992, Sewell and Wilkinson 1992).

It would appear that in many cases the ‘hard’ model of HRM is dominant in management’s approach, illustrated by cost control as the main driving force in decision making. The minimal discretion afforded to workers is resonant of Theory X where workers cannot be trusted, a perspective which is in direct conflict with ‘soft’ HRM. Furthermore, unequal power and authority are evident in a number of aspects of the organization of work. Inconsistencies in flexibility are also apparent, casting doubt over the extent to which flexibility can form part of a cohesive and strategic business strategy.

Our review of numerical, temporal and functional flexibility has prepared the ground for the forthcoming literature review of the cabin crew labour process and a variety of airline strategies and policies. We have attempted to demonstrate that the utilization of various HR strategies must be scrutinized before judgements are made about whether a ‘soft’ or ‘hard’ approach is being adopted. Furthermore, the influence of economic and political environments on the translation and utilization of HR techniques has become evident, and is also likely to be true of the airline industry. Finally, this section has underlined possible relationships between various HR strategies and employee health and safety, justifying our interest in what happens to OHS when economic and political climates precipitate and accommodate ‘hard’ HRM. We now continue our literature review by focusing on Guest’s other three components of HRM, namely commitment, quality and integration.

6. Commitment

“People feel a sense of commitment to an organization’s objectives when they identify with those objectives and experience some emotional attachment to them. The shared beliefs and values that compose culture help generate such identification and attachment” (Sathe 1983:6).

A central plank of the normative model of HRM is the development of employee commitment to the organization. According to Guest (1987), “...committed employees will be more satisfied, more productive and more adaptable”. In order to meet the demands of the ‘enterprising customer’ (Abercrombie 1991), the organization must develop into a dynamic enterprise in which empowered, enterprising employees use their personalities to delight the customer by anticipating and exceeding their expectations (du Gay 1996). A key advantage is recognized in offering a more personalized, innovative and flexible service delivered by front-line workers (Rosenthal et al 1997). We now review some of the mechanisms utilized by management, and identify some of the tensions and contradictions in management strategies aimed at securing employee commitment to increased quality of service/product.

Culture and Commitment

Commitment is portrayed as internalized belief, as generating constructive proactivity, of ‘going beyond contract’ on the part of employees, and is associated with ‘soft’ HRM. Commitment is intimately connected to organizational culture i.e. a set of policies, values and objectives that comprise the organization. There are two fundamental debates in the field of corporate culture, which cross over each other in places. The first of these can be labelled the *culture-as-a-variable* (Ouchi 1981, Pascale and Athos 1981, Peters and Waterman 1982) versus *culture-as-a-metaphor* debate (Gregory 1983, Smirchich 1983, Morgan 1986, Anthony 1994). The first view holds that culture is an objective reality that can be measured and changed by management, while the counter-view asserts that culture is a psychological state that has to be tolerated

since it is incapable of being changed by management. The second debate focuses on which of three perspectives is the most appropriate for viewing corporate culture – integrationist; differentiation perspective; fragmentation (see Martin 1992). Viewing culture-as-a-variable continues to be popular, partly served by seductive studies that promote corporate benefits. One example is a recent UK survey (carried out by management consultants), which found that HRM practices aimed at generating commitment among workers had a significant impact on business performance, with companies recording growth rates over 25% (Deloitte and Touche 1998).

Commitment is often associated with ‘soft’ HRM and ‘high trust’ organizational cultures. Alternatively, compliance is seen as being maintained by externally imposed bureaucratic control systems that in turn, generate reactive behaviours limited to contract obligations. Much of the cultural management literature (e.g. Peters and Waterman 1982, Tichy 1983) asserts that the key organizational objective is to develop a strong, unitary, corporate culture, whereby organizational members share a commitment to values and beliefs that direct or reinforce behaviour considered conducive to organizational success (see Legge 1995b:175-207 for a review of organizational commitment). More recently debates have centred around ‘high-commitment management (HCM), characterized by systems and operational methods (e.g. pay systems, employee involvement schemes, TQM) that can guarantee both higher productivity and competitiveness and higher quality services and products (Wood 1999, Wood 1998, MacDuffie 1995, Lawler et al 1995).

One orientation of reviews of organizational commitment is how commitment can be generated and whether ‘commitment’ is more effective than ‘compliance’ in improving organizational performance. Questions have also been directed at whether individuals can be induced to become committed to a ‘new’ organizational culture and what are the consequences of such commitment? (for a review see Guest 1992b). Achieving attitudinal and cultural change remains a

key objective of organizations, often actioned by an array of culture management programmes. However, the extent to which *behavioural* change is achieved as opposed to *attitudinal* and cultural change is less than clear.

Compliance or Commitment?

In their case study of a large UK supermarket, Rosenthal et al (1997) argued that the attitudes of a significant number of employees towards customer service went beyond mere observable behaviour. While suggesting that employees had internalized the quality and service values of the organization, the authors conceded that the increased discretion of employees was subject to management's control boundaries and new flexibility initiatives that ensure staff can be deployed to a variety of tasks during quiet or slack periods, had the potential to intensify effort (Rosenthal et al 1997:493). The implication is that if management tactics changed for the worse, internalized beliefs and values might be exorcised. The complexity of culture change and its management is further demonstrated by Dawson's (1998) case study of a TQM initiative in a large Australian optometry organization.

Dawson (1998) examined the implementation of a 'service excellence programme', which was intended to create a "new" culture which would serve to unify and integrate employees throughout the organization and at the same time, serve to increase employee involvement in creating a more customer-focused business which would exceed customer expectations. Following the introduction of service excellence, additional control responsibilities were devolved to front-line staff in dealing with customer concerns or complaints. As a consequence of this change, some staff did go beyond the normal expectations of the clients, creating additional costs for the company. For example, a customer who had returned damaged frames before going on holiday, received special service when a branch employee carried out the minor repairs costing \$8 and sent the glasses to the customer by special courier (costing \$56) to the customer's holiday resort. The employee was reprimanded for over-stepping the bounds of reasonable

service and for making decisions which were creating additional and unnecessary costs. The narrow boundaries of 'empowerment' are evident in this example, where management controlled the level of discretion. While employees' responsibilities are extended, the breadth of employee' initiative and decision-making are defined by management and may be curtailed or withdrawn at any time.

Dawson (1998) notes that this case study highlights how the imposition of a unitary philosophy of service excellence across all operations is ultimately unachievable because of the rich diversity of sub-cultures which exist within the organization. He concludes that many of the changes brought about through the service initiative were essentially superficial or temporary in nature. Furthermore, no evidence of the development of a common culture was apparent, and instead, some of the tensions between groups were exacerbated. It would appear therefore, that creating a universal panacea for moulding the behaviour of a diverse range of employee groups into a unitary view of the world of work and the nature of business operations, may be less than straightforward. This may have implications for the culture initiatives implemented in the airline industry.

Managing the Service Culture

In the service industries – financial services, retail, hotel and catering, airlines and other passenger transport - the quality of service provided is a key factor of organizational success. However, unlike manufacturing, the quality of the product cannot be wholly controlled since it is human beings who 'manufacture' the service, for example, treating customers courteously, being friendly and helpful at will. Managers are therefore faced with the issue of how to ensure the quality of service during customer interaction. From a sociological perspective, Fuller and Smith (1991) argue that the required levels of responsible autonomy and sensitivity to interactional dynamics cannot be achieved through simple and direct control by managers, nor bureaucratic solutions that standardize the

service transaction by means of rules. Instead, service quality is better achieved through influencing the attitudes and orientations of employees. Customer service training programmes seek to inculcate employees with new customer-orientated attitudes and skills, particularly in the service sector with its increasing emphasis on 'consumerism' and the provision of 'commercial love'. While products, technology and price are vulnerable to emulation by competitors, the quality of customer service may offer a means of differentiation and subsequently, a competitive edge. Consequently, culture change programmes have proliferated throughout the service sector.

Initiatives in managing culture are observed in the array of cultural change programmes in newly privatized industries, such as BT and British Airways (Clark et al 1988, Höpfl et al 1992, Höpfl 1993, Young 1989), in banking and financial services (Hendry and Pettigrew 1986, Pettigrew and Whipp 1991), and in retailing (Ogbonna and Wilkinson 1988, 1990, Marchington 1993). The aim of such programmes is to achieve employee commitment to the values senior management considers being facilitative to improved organizational performance. Some commentators argue that the new emphasis on customer service has a subsequent increased demand on workers' emotional labour to the extent where emotional labour has become a commodity for organizations to control and manage (Fuller and Smith 1991, Hochschild 1983, Taylor 1997). We discuss emotional labour in more detail in forthcoming chapters.

Employee Cooperation and Involvement

Colling (1993:13) asserts that securing the commitment of employees to organizational objectives requires significant change in management behaviour, where managerial prerogative is eschewed in favour of employee involvement within a climate of cooperation trust. Employee involvement techniques are highly visible in UK organizations, many of which were implemented in efforts to secure employee acceptance of new working practices and new technology. Ramsay (1995:226) lists possible management objectives for EI, such as

increasing job satisfaction and job control (via team working and empowerment), increasing employee ties to company performance and profitability (via financial participation), and to win the hearts and minds of employees from union influence. However, some critiques of EI define it as no more than a route to work intensification and reduced control over work. Moreover, it is argued that EI is simply part of a one-sided management policy which grants privileges that can be taken away as quickly as they were given (Salamon 1998). Again, this illustrates that the presence of HR techniques does not say anything about the type of approach being adopted by management. Closer inspection of the utilization of these techniques is required in order to establish the extent to which people-centred or cost-centred concerns are the driving force.

A 1993 survey of 63 organizations found that 70% used some form of EI and two-thirds reported increased effective decision making, employee job satisfaction and productivity (IRS, October 1993). Management may classify simple methods such as memos, noticeboards, house magazines, suggestion schemes and attitude surveys as methods of EI. It is hardly surprising therefore, that Tillsley (1994) found that 85 per cent of employees reported at least one form of EI in their workplace. WERS (1998) initial findings found a high level of EI in surveyed organizations:

- 65% of workplaces reported that most employees worked in teams
- 61% of workplaces operated team briefings
- 56% of workplaces of non-managerial employees are formally appraised
- 42% of workplaces had quality circles
- 28% of workplaces had joint consultative committees
- 30% of workplaces had profit sharing schemes for non-managerial staff

Indeed, only 2 per cent of managers reported none of the listed EI practices or schemes in place (Cully et al 1998).

At present there is relatively little research on the link between a cluster EI initiatives (or 'soft' HRM) and organizational commitment. There is evidence that employees generally welcome such initiatives but there is a lack of consistent evidence of their impact on motivation, performance and employment relations (Kelly and Kelly 1991).

While time and resources are invested into nurturing employee commitment and/or improved performance, such policies and objectives could be undermined by for example, job insecurity, poor physical working conditions, pay cuts and inadequate training. Under these conditions, the route of new wave management techniques aimed at high quality and high skills may experience unexpected diversions from the 'high road' onto the 'low road'. Milkman (1999) argues that the 'low road' is more typical of the path of US firms based on their reluctance to abandon their authoritarian ways making the range of high-trust and high participation working practices impossible to implement on more than a piecemeal fashion. Gordon (1996:41) argues,

“So much emphasis has been placed on 'high-performance' innovators that we've learned so much about them in recent years than about those who carry on as before. Wages have been falling. Job security has been eroding. Firms have been relying more and more on contingent and temporary workers, relieving themselves of the obligation to pay benefits... Some firms are seeking to reward and involve their workers. Many more firms appear to fatten the bottom line by cheapening their workers' labor power”.

In both the US and the UK, economic and political climates make the 'low road' an easy route for organizations to follow when they are committed to short-term objectives and goals, and to sustaining the power imbalance between labour and management. As Gordon (1996) suggests, new wave management may be an anticlimax, while serving as a distraction from the reality of authoritarian

management and ‘Stick Strategies’. This may also be true of the airline industry where a wide range of new wave management practices are evident (Colling 1985, 1995; Höpfl 1995). If Gordon’s argument was applied to the airline industry, such expressions of ‘soft’ HRM may serve to act only as a distraction to authoritarian management and ‘stick strategies’.

7. Quality

While the popularity of quality management reached its peak in the late 1980s, it was not until the 1950s that quality became identified as an important business component in the pursuit of competitive advantage. At this time, Feigenbaum highlighted the centrality of quality stating that:

“Customers – both industrial and consumer – have been increasing their quality requirements very sharply in recent years. This tendency is likely to be greatly amplified by the intense competition that seems inevitable in the near future” (Feigenbaum 1956:93).

The prophetic content of Feigenbaum’s words is seen in the rise and dominance of Japanese manufacturing industry within world markets, new technology acting to change product markets and working practices, social, economic and political change leading to widening markets with fewer trading boundaries. Within Guest’s (1987) model, quality is the third component, and has three dimensions: quality of staff, quality of performance, and a public image that the organization has a reputation for high quality in its human resource management policies. These objectives are achieved through high standards in recruitment, selection, training, appraisal and achieving a good reputation through identifying, meeting and exceeding customer needs and expectations. In Japanese manufacturing, workers at each stage in production are defined as ‘customers’. In a system of total quality management, quality is defined at every stage of production where the quality of the work carried out at the previous stage affects the next stage of production, making workers at every stage

'customers'. Following their success, Japanese manufacturing companies emerged as HRM-role models for the West. Many organizations in the UK and US have attempted to assimilate the Japanese 'role model' with varying levels of success. Failure can often be attributed to the short-termist approaches by UK and US organizations, the piecemeal adoption of 'high-commitment' and 'high participation' policies, and the reluctance of management to release their grip on power (Gordon 1996, Milkman 1999).

Marchington et al (1992) found that a TQM-type programme was in place in 84 per cent of surveyed UK companies. According to Deming (1982), known to some as a 'Total Quality Guru', improvements in quality means that costs decrease due to less wastage and correction. His vision of 'zero defects' empowers each worker in the chain of production to avoid quality errors and to identify potential defects, thus placing a responsibility on every set of shoulders to continuously seek out and solve problems in the production process. An embedded assumption is that workers will enjoy increased levels of job satisfaction as a result of managing extra responsibilities - a theme which is also true of HRM.

As we have already discussed, main vehicles of quality improvements in manufacturing have been total quality management (TQM) and just in time production systems (JIT). The critical literature argues that despite prescriptive rhetoric, contemporary management interventions such as TQM, in fact pursue their objectives through some combination of increased control, surveillance, work intensification, and the manipulation of meaning via ideology or discourse (Rosenthal et al 1997). According to Delbridge and Turnbull (1992:69), it is not uncommon for workers under a JIT system to offer this simple advice:

“Don't fall ill, don't grow old, and above all don't get tired”.

A key weakness of these regimes may be the apparent under-prioritization of employee health and safety. Business health, in terms of higher productivity and efficiency, and of reduced costs, may be pursued at the expense of employee health and safety. Furthermore, there may be a range of unanticipated problems associated with a blinkered profit-centred approach, particularly where it fails to take into account the impact of initiatives on employee motivation, job satisfaction and commitment.

To date, a number of trends have been identified in a range of industries, and some of the implications relating to flexibility, commitment and quality have been highlighted. This further adds to the foundations for our forthcoming analysis of the airline industry.

We now turn to Guest's (1987) fourth component, integration, and discuss an example of the integration of health and safety within wider business strategy.

8. Integration

Strategic integration has been defined by Legge (1995b:96) as having three dimensions: 'the integration or 'fit' of human resources policies with business strategy; the integration or complementarity and consistency of "mutuality" employment policies aimed at generating employee commitment, flexibility and quality; and the internalization of the importance of human resources on the part of line managers. Integration with business strategy can be concerned either with developing HR policies that 'fit' the organization's stage of development, or with its strategic orientation, such as models that build on Porter's three generic strategy types (for a review see Schuler and Jackson 1987). While the problematic nature of 'integration' and 'strategy' have been identified by a number of commentators, both Legge (1989) and Keenoy (1990) argue that fit might not be attainable, or desirable in a diversified organization. Complications include power, politics and culture (see for example, Kamoche 1994; Purcell and Ahlstrand 1994).

9. Integrating OHS

The strategic integration of HR policies can be evidenced by the existence of a feedback loop where each policy feeds from and into a connected policy. This can be illustrated by performance appraisal, where the performance criteria will directly reflect organizational needs (e.g teamworking abilities, organizational skills). OHS is a key issue which deserves to be integrated into wider business objectives, given its clear links with employee productivity, efficiency and overall business performance. However, health and safety is noticeable by its absence in many key HRM texts.

One explanation could be the strong connection that health and safety has with trade unions and state intervention. As a subject area, the essence of conflict and power struggles, may still linger. This would be rather contradictory, since health and safety is one of the few areas where management, employers and employees show a degree of consensus. Good health and safety practice benefits all – lower absence, higher employee morale and performance, better retention, positive corporate image, and increased job satisfaction. These are only a few of the joyous messages taken from the management and practitioner literature (e.g IPD 1998, CBI 1990). However, perhaps the issue of the potential challenge to management power and prerogative should not be underestimated. We discuss power and ideology in the employment relationship in forthcoming chapters.

10. Conclusions

This chapter has reviewed the concepts and contexts of HRM and the variety of influences, which shape the direction and focus of HR/people management strategies and policies. The literature separates ‘soft’ from ‘hard’ HRM on the basis of the extent to which HR or people management strategies are founded and *practised* on a ‘people-centred’ basis, instead of a hard-line cost/profit approach. It appears that some of the HR practices that are characterized by the literature as ‘soft’, may take on a quite different emphasis in practice.

Effectively, it is the focus of the HR strategy in terms of whether it is ‘people centred’ or ‘cost-centred’, rather than the type of HR practices deployed that really provides a means of distinguishing ‘soft’ from ‘hard’ HRM. This point is demonstrated by the literature review of flexibility strategies. It was clear that for various reasons flexibility strategies were often implemented to maximize productivity and profit, without offering any ‘soft’ benefits to the employee. It follows that under ‘hard’ HRM, health and safety is likely to be managed on a similar cost-rational and short-term basis. There is also some evidence from the literature review that such an approach may undermine employee health and safety, and there may also be a knock-on effect on business performance. This suggests that in attempting to enhance business performance, management should perhaps look towards the impact of various HR strategies on employee OHS, instead of looking for a ‘quick fix’ through HRM. However, this would involve adopting a long-term approach, which is not typical of UK business.

As already mentioned, a range of conflicts and contradictions are created by a cost-centred approach. However, it should be noted that good practice could not be assured where money is poured into health and safety interventions. Nevertheless, it appears that a range of people management policies may impact upon OHS, such as policies on workloads (Cooper 1985), the working environment (Baldry and Bain 1994), and productivity pressures (Nichols and Armstrong 1973). Where a cost-centred, profit maximization approach is adopted, employee health and safety may consequently suffer. The interaction between a variety of HR policies and OHS, is therefore of interest. We now progress to the next chapter where we continue to build the foundations of this thesis by focusing on the idiosyncrasies of airline industry.

Chapter Two

Competition and Survival in the Airline Industry

This chapter explores the conflicts and contradictions within HRM highlighted in the previous chapter, with regard to cost and quality, cost and safety, and productivity and safety, in the airline industry. Competitive pressures have launched airlines on a mission to achieve full utilization of their human resources, while maintaining a competitive edge in a deregulated market environment. We examine the extent to which deregulation and restructuring have intensified these pressures. This chapter builds on the previous chapter in terms of discussing the economic, market and political factors that may influence the utilization of airlines' people management strategies. In addition, we explore the possible relationships between people management policies and OHS.

Since the 1978 US Airline Deregulation Act, civil aviation has experienced profound changes, most notably changes to ownership, market liberalization, and the emergence of global 'mega carriers' and global alliances (Blyton et al 1998). Following deregulation in the US and Europe, there has been a significant shift in the regulation of the industry entailing a reduction in the extent of state involvement and its replacement by greater market regulation. With progressive relaxation of state regulation creating more volatility in the industry, there is a much greater emphasis on making higher profits as well as a sharper focus on finding ways to reduce costs (including labour costs) and increase productivity. While the aircraft industry argues vigorously that safety is never compromised by commercial considerations, the reality is that safety involves significant operational costs including the thoroughness and efficiency of maintenance checks, the age of aircraft, the training level of employees, the working hours and fatigue levels of both ground staff and air. All of these come under fierce pressure in a climate of competition. This climate may also generate a range of implications for employee OHS.

As airlines are increasingly forced to operate on the basis of tight profit margins, particularly in the low cost market, some airlines have chosen to set up separate divisions which cater to these needs, as well as the needs of the lucrative business market. BA is a prime example, where GO was set up primarily to compete with the likes of Easyjet and Ryanair.

1. The Global Airline Market

Deregulation has created waves of restructuring within the airline industry with the core objective of creating a seamless transportation system, which provides a clear service concept to consumers worldwide. Many airlines have concluded that to survive one must provide consumers with a brand that is recognized as able to provide travel services from any one point to another point in the world. Shared computer reservations systems, international code sharing, and blocked space arrangements enhanced by joint frequent flyer programs help a carrier to establish an easily identifiable brand worldwide, which may increase customer loyalty. Customers can now travel seamlessly through several continents on different carriers using just one set of tickets and checking in baggage at the first departure point. There are now almost 400 alliances involving more than 170 carriers, although most of these are restricted in terms of carriers and route networks.

The major alliances now account for around 46 per cent of the world market, with the largest alliance serving 578 cities in 108 countries with 1,334 aircraft and 210,000 employees (Blyton et al 1998). The latest step in the evolution of the airline business into two or three megagroups, is marked by the formation of the Star Alliance and Oneworld. The second megagroup, Oneworld is a five-airline global initiative led by British Airways and American Airlines, which is known as a marketing agreement set up to avoid intervention by regulators. The deal has so far faced a storm of criticism from opponents, such as Virgin chairman Richard Branson, objecting to its anti-competitive implications and potential to lead to higher fares for consumers (The European, 28 September

1998:19). The third major grouping is based around Swissair, known as the Qualiflyer group. This includes smaller carriers such as TAP Air Portugal, AOM of France, THY Turkish Airlines, Austrian Airlines and Sabena.

In any industry, companies can compete on the basis of lower costs, higher quality, or product innovation (Porter 1990). In civil aviation, the 'choice' is typically presented as one between either low costs or high quality/service innovation (Kochan and Dyer 1995:576). Increasingly, however, airlines seek to compete on all three criteria, with almost identical service quality and virtually all airlines offering marketing innovations such as 'frequent flyer programmes'. However, what differentiates airlines is the delivery of service and the cost of travel. The fiercely competitive environment where tight profit margins operate, particularly in the low cost market, have led to massive restructuring within the industry where the emphasis has been on cost-reduction exercises. The extent to which these changes will intensify the downward pressure on pay, job security and other factors of work organization (including the management of health and safety), is of key interest. We now consider these areas in some detail.

2. Low-Cost Airlines

European civil aviation deregulation, completed in 1997, has mirrored the earlier US experience of price wars between established and new-start airlines. The drive to secure mergers and alliances has occurred on a global basis and the increased competition from new-start 'low-cost' airlines giving an added 'bite' to market forces and the Darwinian struggle for survival. In the US, the incumbent major airlines, groping for ways to eliminate competition from new entrants, devised the expensive hub systems, which effectively shut out the new challengers. They then proceeded to buy out the weaker airlines as a means to eliminate any source of competition. Since US deregulation, more than two hundred new-entrant carriers have come and gone (Rosen 1995:35). Worldwide, the most visible effect of the relaxation of state regulation of airline markets has been the number of independent low cost airlines. The new entrants have typically been able to offer low cost flights on the basis of lower overheads,

operating from second-tier airports, engaging in direct selling, requiring employees to be highly flexible and by offering a very basic service (for example, no catering).

In the UK, new start or 'low-cost' airlines have enjoyed a high level of success to date. Ryanair and Easyjet have continued to expand in recent years, prompting a knee-jerk reaction from the main carriers such as British Airways to create 'low-cost' versions of their own. Ryanair already flies to 26 European cities and employs around 1 000 people, and plans to expand its aircraft fleet from 21 to 46 in the next five years (The Scotsman 10.7.98). Indeed, BA has recently blamed their nosedive in profits on a subdued European market, despite significant increases in passenger numbers and freight being recorded. Figures for January to June 1999, show that traffic rose 7.4% to 340 million and freight rose 2.1% to 4.6 million tonnes. It would appear therefore, that someone else is winning at BA's expense (Scotland on Sunday 15.8.99).

The apparent strong foothold low-cost airlines have in the UK market signals the significant changes that have occurred the air travel market. While Easyjet and operators like it have been described as pioneers in Europe, they are in fact copy-cats of models developed in the US, where prestigious airline names were going bankrupt and others were saved only by stripping down to the bare essentials of commercial flying, while stripping down their prices as well. The convention under which every passenger got a sizeable meal on flights by virtue of taking a seat is gone, and quality of service and amenities offered to economy passengers are worsening. The competition is now based on price. This focus on price covers a broad spectrum of issues: in-flight luxuries/services offered to passengers; seat configuration (putting as many seats as possible in the cabin); related services such as baggage handling and aircraft maintenance; and employee pay, terms and conditions. The drive to reduce costs on every possible item is responsible in part for the increasing number of services being

outsourced by airlines. This has significant implications for labour relations and aviation safety.

3. Cost-Efficiency Strategies

“There can hardly be an international carrier that does not look to BA for ideas on how to thrive in the new era of liberalised global air transport” (International Transport Workers’ Federation [ITF] 1997a).

Many of airlines’ cost-efficiency strategies can be linked back to the previous chapter’s review of flexibility. ‘Hard’ HRM appears to be dominant in airlines’ responses to increasingly competitive markets. We now review a number of key areas in some detail.

a) Outsourcing

Two key strategies employed by BA in recent years have been franchising agreements and sub-contracting of services. Both of these strategies mean that the company ceases to own units or provide services directly but still maintain control over the services provided. Amongst European airlines, BA has taken the lead in outsourcing non-core activities such as catering and vehicle management and maintenance (EC 1997:202-3), while the outsourcing of some ticketing services to India began back in 1991. In July 1999, BA announced its plans to shut down its telephone sales operations in New York with the loss of around 600 jobs. According to the ITF, many of these jobs are being moved to a non-union site in Florida while other work will go to India. A BA spokesperson said, “BA has decided to outsource telephone sales to lower costs” (ITF News, 4/99). It is also clear that if other services such as aircraft maintenance and ground handling, are to be retained in-house they must now be cost competitive against low-cost service providers. The threat of outsourcing reinforces the idea that all operations must be costed at ‘market price’, which BA defines as the price at which the same or better quality of service can be purchased elsewhere.

Aircraft maintenance is currently in a process of global restructuring. A growing number of airlines are contracting out their maintenance work and selling off their maintenance facilities. BA, for example, recently sold its engine overhaul operation to General Electric (GE). The new technology required for modern aircraft maintenance makes it an extremely cost-intensive and increasingly specialized business, while improved aircraft models requiring less frequent maintenance make it harder for individual airlines to justify the expense of in-house maintenance. The trend of airlines contracting out aircraft maintenance has led to massive job losses and the transfer of work and workers into companies where conditions and benefits for employees are often inferior compared to those previously enjoyed.

As maintenance becomes an increasingly global affair, unions are concerned that the companies will have increased opportunities to relocate work around the world, with the aim of chasing lower employment costs. Blyton et al (1998) found that more than half of the unions involved in their study reported a global trend of subcontracting services. Examples include Swissair's maintenance centre in Shannon, Ireland; Singapore Airlines', JAL and Cathay Pacific's TAECO maintenance operations in Xiamen, China. A related trend is the movement of jobs to non-union sites, most recently seen in the closure of BA's call-centre in New York. In October 1998 the British Airways Employees' Union in Bombay wrote to their local BA management to complain that "the company has been using this subsidiary (WNS) to create a workforce parallel to the unionized workforce of BA with the intention to destroy the organized and collective strength of the workmen of BA". The WNS subsidiary is non-union and employs staff on fixed term contracts (ITF 4/99:9).

BA pioneered franchise agreements with several airlines – where the franchisee operates its own aircraft painted in BA colours with its staff wearing BA Livery – including GB Airways, Maersk, Logan Air, Comair (South Africa's second largest airline) and Sun-Air (a Danish regional airline). All but three of the forty

new routes opened by BA between June 1992 and June 1995 were franchise or partnership operations (EC 1997:202). BA even has plans to franchise some routes from the UK to the USA, to Airline Management Ltd. (AML) - a company which has no planes and no crew (both aircraft and crew will be leased to AML by BA) (ITF 1997). This strategy allows the flag carrier to operate a service with much lower costs, minimal investment, and fewer objections from the competition authorities (Blyton et al 1998:11).

b) Labour Costs

A recent study finds that despite growth in the airline industry (around 7 per cent), employment has tended to remain stable, with just a 1 per cent increase over the past ten years (Blyton et al 1998). According to the study, while employment among certain occupational groups directly employed by the world's airlines has increased (e.g. pilots and cabin crew), employment has declined or stagnated amongst other occupational groups (cleaning, catering, refuelling and baggage handling and ticketing/sales). Many of these jobs may have been outsourced to non-airline companies (Blyton et al 1998:14). While cleaning and catering and other services have been outsourced, the service-led expansion (and labour cost reduction exercise) has led to the increased recruitment of cabin crew. In 1997, BA announced 5000 new jobs six months after it offered voluntary redundancy to the same number of employees. The redundancies were part of a bid to save £1 billion by 2000. What appears as an unusual strategy is quickly understood when the starting salaries and benefits for new starts will be substantially less compared to existing employees, generating immediate financial savings (The Scotsman 22.3.97).

Labour Relations

In assessing labour relations in the US airline industry, Wolf (1995) argues for the pressing need for labour and management in the airline industry to develop a new and more effective relationship, in order to secure the preservation and expansion of their companies. While traditional labour-management

relationships had been successful in producing an airline industry that historically has afforded its employees an unparalleled combination of benefits and working conditions. However, the markedly changed operating environment has effectively brought down the axe on such favourable conditions. Restructuring in the industry has led to an assault on airline employees' pay, terms and conditions, leading to tumultuous industrial relations in a number of countries (e.g. US, France, UK). Historically, airline trade unions have employed a 'go-it-alone' strategy (Moody 1987), and cooperation and solidarity across boundaries remained more of an ideal rather than a reality (Cappelli 1995). However, more recently, interunion cooperation has become a central issue against a backdrop of rapidly changing and threatening conditions since deregulation in both the US and Europe.

The circumstances that have made airline unions more relevant to one another in recent years are likely to extend into the future and to continue to place a premium on unified efforts. Many of the obstacles facing trade unions can be linked to the cost-efficiency strategies being employed by airlines, including outsourcing and attacks on labour costs.

After years of making substantial wage concessions to help airlines survive the recession of the 1980s and also early 1990s, embittered employees are now pointing to airlines' profits and demanding payback. Long running disputes over pay and working conditions are visible around the world and the call for solidarity amongst aviation workers is being acted upon. Just one month after the launch of the Star Alliance, the ITF announced the formation of the Star Solidarity Alliance. Cabin crew, pilots and ground staff in Canada, Australia, Britain, Spain, France, Germany, Hungary, Poland and Hong Kong, all put their names behind a united union agreement binding every union to share openly all information and details of collective agreements. In recent disputes over pay and working conditions, shows of solidarity support have been obstructed by legislation in various countries, for example, the planned support from KLM pilots for their colleagues at Northwest in August 1998 was ruled by a Dutch

judge as illegal. During the cabin crew dispute in the summer of 1997, BA threatened legal redress against cabin crew members in the Transport and General Workers' Union (TGWU) and the ITF. The BA dispute is now discussed in more detail since it demonstrates the airline's ability to undermine any people-centred policy when it comes down to profit and survival. Furthermore, this example demonstrates the unequal balance of power in the employment relationship and the range of barriers that cabin crew and their representatives face in attempting to challenge management's decisions.

The BA Dispute

Following BA's refusal to negotiate or consult union representatives over the implementation of new conditions, cabin crews held a series of strikes despite being threatened with dismissal and being personally sued if they went on strike. The intimidation of crew members also included phone calls at home from BA managers threatening dismissal if they took part in strike action. The "mass sickie"⁴ was as effective a form of industrial action as strike action since it grounded a substantial proportion of BA international flights. BA also threatened the TGWU with legal action claiming that more people voted in the strike ballot than should have. At the time of the dispute David Cockcroft, general secretary of the ITF commented,

"This dispute is about basic rights. It is about a company saying to its workers 'we are going to increase your work hours and lower your pay, and take it or leave it'. When employees objected, the company responded with threats and intimidation of a kind which has never been experienced before in the airline" (ITF Media Release, 8.7.97).

The agreement BA tried to impose involved a restructuring of pay in which overtime is abolished by being merged into basic pay. Cabin crew estimated that they would lose thousands of pounds a year and would be working up to 28 extra

⁴ *Nearly two thousand staff called in sick on 11 July 1997 (BA figures).*

days a year for no extra pay. The agreement also slashed the new entrant cabin crew pay from £11 000 to £8 000 per year – a 20% loss - which would make BA cabin crew the cheapest in Europe. BA received agreement to these new conditions from Cabin Crew '89, a minority union which broke away from the British Airlines Stewards and Stewardesses Association (BASSA) in 1989. It has been suggested that the current BA chief executive Robert Ayling helped set up Cabin Crew '89 when he was BA's Human Resources Director "with the express intention of encouraging the kind of split in the BA workforce that led to the formation of the Union of Democratic Mineworkers which defied the 1984 miners strike" (The Independent 26.7.97). BA then attempted to impose the 'agreed' conditions onto BASSA/TGWU members.

When the ITF began to coordinate active international union support for the strike, BA threatened the ITF with legal action. The company claimed that the ITF had breached UK labour law by calling upon foreign trade unions to support their colleagues in BA. International solidarity was however widespread. A picket of JFK airport in New York reportedly kept four jumbos on the ground and delayed at least one Concorde flight, while BA check in staff in Paris (Roissy) went on strike for 72 hours in solidarity with the BASSA-TGWU strike. Cabin crew organized by the SNPNC in TAT, BA's subsidiary in France also held lightening one day strikes which further disrupted BA's global networks. The SNPNC had previously held a 28 day strike against BA following cuts to their pay and conditions making them the worst in the French aviation industry. In addition, TAT ground staff organized seven day strike action. Other solidarity action occurred in various countries including Australia and New Zealand. BA however, worked hard to contain the strike action.

Ground staff in Zimbabwe were arrested after placing banners reading, "BA union busters go home" on the check-in desks and in the BA departure lounge, BA managers in Rome airport had Italian union members removed who were distributing leaflets to passengers at BA check-in desks. In the UK, BASSA

representatives were locked out of their offices in the Compass Centre at Heathrow airport. BA's efforts to hire strike breaking aircraft and crews were severely hampered by shows of international solidarity. Charter carriers in Holland and in the US, including Tower Air, World Airways and American Transair, declined BA contracts due to threats by the pilots and flight attendants' unions (e.g. the AFA) in the respective countries that they would not accept strike breaking by the company. Clearly, international unions recognized the trend-setting power of BA and the potential for the imposition of the new working conditions to have a knock-on effect in the industry. The outcomes would undoubtedly send out strong messages to other airlines about what could be achieved. This rapidly internationalized the dispute and helped trigger solidarity support by aviation workers in other countries.

In the end, many of the new BA conditions have been put in place with the unions winning few concessions. Overall, BA experienced severe disruption to international flights and reports of the costs of the strike were estimated at around £125 million, plus the millions of pounds that were wiped off the company share value during the dispute (The Guardian 5.8.97). At the very least, the strike cost BA many times more than the £42 million which the company's imposed conditions were aimed at saving. This example clearly does not support a people-centred, 'soft' approach to people management.

Outsourcing Cabin Crew Jobs

In a highly competitive market where service quality is acknowledged to be a crucial factor, moves by major European airlines to sub-contract work to lower-paid, less well-trained staff appear to run contrary to virtuous company 'mission' statements, and could be interpreted as a clear signal that, in reality, cost takes precedence over quality. Cabin crews have already been replaced in some European airlines (Britannia, Monarch, Air 2000) by 'flag of convenience' crews with lower training standards and more 'flexible' working arrangements. Staff from low-wage countries in Latin America and Asia are often

non-unionized, providing a lever which may allow employers to ratchet down the pay and conditions of UK cabin crew. In addition, cabin crew in seven developing countries do not even implement cabin crew training standards, yet can still operate UK flights under a 'flag of convenience' (ITF, 2/1998).

Hiring staff from abroad may reduce airlines' costs but it has been argued, amongst other effects, this practice can also create safety risks. It has been claimed that hiring cabin crew who do not have a good command of the English language has already led to serious safety problems - such as wrongly interpreting pilot instructions in emergency situations (AFA 1997). At a time when safety experts are making it clear that the competence, co-ordination and training of staff must be given a higher priority, airline work is being casualized and de-professionalized through an increasing use of casual and temporary jobs, or work being contracted out (ITF 1995). When in December 1996, Air Gabon sacked its entire 94-strong cabin crew workforce to replace them with casual workers in order to cut costs⁵, an ITF representative commented,

“This is an industry in which neither professional nor safety standards can be sacrificed for short term cost savings” (ITF News 1/97).

However, as deregulated airlines have shifted their emphasis from service to cost, the value of the cabin crew to the airlines appears to have decreased. In the UK, BA has been involved in cut-price crewing operation for some transatlantic flights. BA considered existing crews to be uneconomic and so recruited experienced crew at pay and conditions far below existing BA cabin crew levels. Employees argued that virtually recruiting people off the streets and turning them into operational crew within days made a mockery of the extensive training and experience of existing crew (The Herald, 3.1.95). Trade union representatives expressed fears that the recruiting policy represented the thin edge of the wedge that could result in a repeat of BA's acquisition of British

Caledonia (Bcal) which saw Bcal crews sacked, then re-hired at much reduced pay and conditions.

c) Virtual Airlines

The centrality of cost to all operations in an airline is evident even when decisions affecting safety of crew and passengers are taken. Decisions on outsourcing crew and aircraft are of key concern to leading industry bodies. The emergence of ‘virtual airlines’ has raised concerns over the accountability of airlines and companies. The term describes a company which offers air travel from one place to another under a global brand, but whose services are supplied by contractors, franchisees and alliance partners. According to a leading industry analyst,

“In an ideal world, what’s an airline going to be? As they move to becoming virtual airlines, they’re going to want to rent aircraft by the hour and turn them into infinitely variable costs. Airlines will be a brand, a yield management system and access to a distribution mechanism...they don’t need to own anything” (Kleinwort Benson, Air Transport World, May 1997).

Keeping control through a complex web of contractual agreements is not just a problem for the company, but for the regulator. A regulatory nightmare is created when aircraft are owned by one company in one country, maintained by someone else and possibly flown by crews in a different country. The term ‘flag of convenience’ was coined by the ITF to refer to the maritime industry where ships are registered in countries with lower safety standards than the country in which the ship will operate. Currently the maritime industry appears ready to live with the fact that one bulk carrier goes down per week (ITF 1998).

One of the most serious threats to regulatory control over civil aviation is the risk of airlines seeking to step outside proper regulatory oversight altogether. In

⁵ Following a two year legal battle supported by the ITF and the SNPNC union, the crews won their

Europe already there is already a problem of charter airlines which may use one country as an operational base while using aircraft registered in a different country. In these cases the national aviation authority of the country from which the aircraft operates services has no responsibility for the safety standards of the aircraft. Regulatory loopholes allow UK tour operators, flight bookers and 'seat only' companies to use non-EU 'flag of convenience' aircraft and crews. However, following a crash in February 1996 when 176 German tourists were killed returning from the Dominican republic in a Turkish Boeing 757, the largest German tour operator issued a list of approved foreign airlines to charter carriers, and banned sub-chartering out with the list (The Observer 19.5.96). The 'dual-missions' of national aviation authorities refers to where these bodies are charged with both promoting liberalized low cost travel and air travel and to regulate industry standards.

An inherent danger in 'dual missions' is the subordination of safety oversight and regulation in favour of perceived short-term economic advantages and efficiency for operators. In the aftermath of the ValuJet crash in Florida in May 1996 when 110 people were killed, it emerged that the aircraft was considered 'unfit to fly' by the US Federal Aviation Administration (FAA). Although the FAA had conducted 21 separate investigations into serious safety incidents on ValuJet flights prior to the crash, and had faulted the company for 43 incidents in a September 1995 report, the US government publicly and regularly lauded ValuJet as an example and inspiration to the industry from its formation in October 1993 until the Florida crash (Boyd and Bain 1998). More recently, fears have been expressed over the economic crisis in Asia affecting aviation safety (ITF 1998).

d) The "least cost safe option"

The ITF argues that the structural changes in the airline industry are not driven by the service needs of the consumer, but instead, by the corporate strategies of the airlines. This is particularly true in a global market of unrestrained

jobs back in April 1999 (ITF News 3/99)

competition. While every airline pledges to put safety first, the fact of deregulation is that it provides the relative freedom for airlines to ‘cost’ safety. Currently, the international harmonization of safety regulation is underway between Europe and the USA. According to the ITF, the impetus behind the international harmonization of air safety regulations has not been the need for a rational set of international aviation rules operating to the highest safety standards. Instead, the objective has been a set of common rules between the major aviation powers to allow airlines to operate flexibly and without cost duplication in a global market (ITF 1998). Arguments for economic efficiency have been quickly transformed into arguments for economic competitiveness, which in turn may lead to operators and manufacturers gaining access to new markets with reduced safety costs. Already industry representatives are openly demanding that harmonization should follow the “least cost safe option” i.e. where the regulations differ, the cheapest ones should be automatically applied (ITF 1998).

It could be argued that the precedence of cost over safety is also illustrated by the lack of action taken by airlines following an £18 million investigation by the US National Transportation Safety Board (NTSB), which traced a number of explosions on aircraft to the positioning of air conditioning units directly beneath the 747’s central fuel tanks. The explosions occurred when heat from the air conditioning units producing fuel vapour when the aircraft is stationary, which then ignites the central fuel tank. According to the NTSB “many hundreds of thousands of planes could be at risk” (The Herald 7.6.97). Re-configuring the aircraft would of course present a massive cost to airlines, not only from the design costs, but also the lost revenue from grounding aircraft. This illustrates the contest between short-term and long-term strategies.

Safety implications are apparent in other cost-efficiency strategies embraced by airlines. This focus on cost efficiency has led a number of airlines to reduce the number of cabin crew on flights to the minimum legal requirement which, in turn, creates a greater work demand on operating crew. Safety concerns are also

highlighted when their primary role as safety officers on board aircraft is considered. Recently, the Association of European Airlines (AEA) failed in its bid to reduce the minimum cabin crew standard that there should be one cabin crew member for every 50 *seats* on board the aircraft. The AEA wanted to change this regulation to one crew member for every 50 *passengers* on board. The existing standard recognizes that the minimum number of crew should be based on the number of seats rather than just the number of passengers since this takes into account important factors such as the size of the aircraft, and the practical difficulties of evacuation with greater distances between doors and passengers being distributed in different parts of the aircraft (ITF News 2/1998).

e) Air Quality

Technological advances in air conditioning and environmental control systems have transformed building design in terms of the dependence on fresh air. During the 1980s, systems that were capable of recirculating air became popular in buildings and aircraft. Such systems offered reduced running costs as it is less expensive to recirculate air compared to pumping in 100% fresh air. Changes in building design with features such as sealed window units and environmental control units, which control temperature, ventilation and lighting in buildings, can be traced to the mid 1970s and early 1980s when the inflationary pressures, rising oil prices and deep recession catapulted organizations into searching for ways of cutting costs. Methods of reducing oil consumption became a prime concern for governments and the captains of industry and commerce, illustrated by the American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE) conveniently slashing its recommended level of fresh air provision to buildings by 75% (Baldry and Bain 1994:5). This led to building operators in North America virtually closing down the outdoor air supply and instead encouraging continuous air recirculation. The growing acceptance of recirculated air resulted in the airline industry, the proportion of recirculated air has gradually risen from an initial 20% to a now standard 50%. Currently, airlines are free to set their own rate of air recirculation, a licence condemned by

Paul Halfpenny, ex-chair of the US National Academy of Sciences Committee on Airliner Cabin Air Quality, who argues that standards should be set and regulated instead of being left to individual airlines' discretion (ITF 1995).

While reducing airlines' and building owners' running costs, there is substantial evidence that recirculated air may lead to significant health problems to aircraft/building occupants. Changes in building design incorporating sealed windows and environmental control units (ECUs) contributed to the high incidence of Sick Building Syndrome in the past two decades. In 1982, the World Health Organization (WHO) recognized Sick Building Syndrome as occurring where a cluster of work-related symptoms of unknown cause are significantly more prevalent amongst the occupants of certain buildings in comparison with others (Baldry and Bain 1994:3). Typical symptoms listed by the WHO include:

- eye/nose/throat irritations
- mental fatigue
- headaches
- coughs

Those afflicted, experience individual or combinations of, SBS symptoms on a daily basis, and the severity and incidence of the symptoms is related to the amount of time spent by sufferers in the affected work environment (Baldry and Bain 1994:4). Although many factors have been found to contribute to SBS, commentators generally agree that inadequate ventilation and/or recirculated air is a key factor (Raw 1992).

Some commentators argue that the built environment should not be regarded as a neutral factor in explanations of occupational illness and/or disease. According to Bain and Baldry (1995) the built working environment is a critical element of the labour process because it represents decisions about cost efficiency, the

regulation of energy and the level of individual control over the environment, which in turn have significant implications for the health and well-being of employees. Sick Buildings often share a number of characteristics. One such feature is a Building Management System (BMS), which control ventilation, temperature, lighting and even fire systems. These systems have been referred to as the ‘brain’ of the building, which subsequently release individuals’ brains from exerting any control over their working environment. Similarly, in aircraft, cabin crews have no individual control over their working environment. In addition, aircraft cabins share a number of design characteristics with Sick Buildings, which includes a reliance on recirculated air.

In aircraft, the health and comfort of occupants is significantly dependent upon the quality of the design, and operational performance of, the air conditioning and ventilation systems. The environmental control units (ECUs) on most commercial aircraft are based on the same general design. Since air at 30 000 feet above the ground cannot be breathed by human beings, it has to be compressed to a pressure which is life sustaining. Simply, compressed air is induced by, and ‘bled’ from, the engines and then passed through an ECU, where excess water is removed and the temperature is regulated. The process of continually extracting fresh air and delivering it into the aircraft cabin uses up fuel and thus increases running costs. Recirculated air provides a less expensive option, since up to half of the cabin air can be passed through filters and then re-injected back into the cabin. While the quality of air in the cabin is affected by a number of factors (e.g. environmental tobacco smoke, ozone concentrations and humidity levels), the continual recirculation of air may prevent the full flushing out of contaminants from the aircraft’s internal environment.

While airlines will generally seek to maintain industry standards and comply with inflight safety regulations, ‘grey’ areas such as air quality and circulation rates are susceptible to cost-cutting – first, in terms of reducing the fresh air provision rate and, secondly, in failing to properly maintain the air-conditioning

system. Correct maintenance and cleaning of filters is essential for good air quality in the cabin. However, considering the minimal amount of time that aircraft spend on the ground, particularly during peak periods places limits on the thoroughness of both maintenance and cleaning which can be carried out. Engineers may only have time to focus on the aircraft's flight worthiness. Given the symptoms of illness suffered by occupants of 'sick buildings' and the number of design characteristics that aircraft cabins share with 'sick building', we postulate that cabin crews will suffer similar symptoms to those found in SBS studies. SBS studies further substantiate the links between factors of the physical working environment and employee health, and between economic pressures and employee health.

f) Productivity vs Safety

The conflict between productivity pressures and safety are apparent within the airline industry. Aviation trade unions report that their members are under pressure to overlook safety misdemeanours where airlines demand to get the aircraft back into the air as quickly as possible (ITF 1998). According to the ITF, this can in part be attributed to the emergence of anti-union, inexperienced, low-cost carriers in the region, which makes it easier for managers to put pressure on employees to violate safety practices. As an example, Stuart Howard, the ITF General Secretary cites the small low-cost carriers in the Philippines where the flag carrier PAL is under threat of bankruptcy.

Since deregulation in 1994, four out of five start-up carriers have spent time grounded by the authorities because of safety violations. In September 1998 Asian Spirit was grounded for a "non compliant attitude to safety". In August 1998 Grand Air was grounded for flying routes with unqualified pilots. In February 1997, a Cebu Pacific DC-9 crashed into a mountainside killing all 204 passengers and crew. At airlines where there are unions, the unions increasingly find themselves having to defend members penalised by their companies for sticking to safety rules. The Fijian court that found Air Fiji to be "overly

concerned with economic considerations at the expense of safety concerns", was responding to the case of a ground crew member who had been suspended for raising concerns about the overloading of a flight (ITF 1998a).

In December 1997 the Australian civil aviation authority wrote to all licensed engineers saying: "sufficient anecdotal evidence exists to show that some organizations pressure licensed engineers to certify work that they would not have ordinarily have signed for, or to breach regulations in some way which affect air safety. Many maintenance engineers fear losing their jobs if they do not comply with such `requests' from their managers" (ITF 1998). Subsequently, aviation trade unions joined the campaign for 'whistle-blower' protection, to ensure that safety-conscious workers are not penalised for safety conscientiousness. Calls for 'whistle-blower' protection are now being addressed in forthcoming legislation. The Public Interest Disclosure Act 1998, effective from 2 July 1999, will provide protection for all employees, third party contractors and the self-employed, who disclose information about malpractice in their workplace. The benefits are likely to be substantial considering the charity Public Concern at Work in its annual report for 1996, found that the 219 request it received for legal help arising from serious malpractice in the workplace, over 30% related to workplace and/or public safety (IRLB 579, October 1997).

We mentioned earlier that a central plank of the Guestian model of HRM is integration. We now review a case study example of the level of integration of health and safety in one of the world's largest airlines.

4. The Integration of Health and Safety

"The Board of British Airways believes that excellent standards of safety and health are essential for the well being of our people, reputation and business performance. We are committed to ensuring all our activities world-wide are

conducted in accordance with industry best practice” (**Robert Ayling, Chief Executive BA, exert from BA’s Corporate safety management policy**).

BA’s Compass Centre at Heathrow Airport is a 24 hours a day, 365 days a year operations centre which deals with the briefing and reporting needs of up to 4 000 transient flight and cabin crew every day, as well as 900 resident staff. While the Compass Centre has been described as being ‘the spiritual and logistic home of British Airways’ (Turner and Myerson 1999), the cabin crew safety representatives’ quarterly report (BASSA Safety Inspection Report, Heathrow, April 1997), reveals serious oversights in the management of health and safety. While business needs were well integrated to the design of the building (modernity, security, social, catering and retail facilities), the management of health and safety does not appear to be prioritized, and by implication, valued by British Airways. Management’s level of commitment to crew health and safety on the ground was such that there were significant flaws in the management of health and safety, illustrated by the lack of compliance to legislation requiring risk assessments. The key findings of the inspection are detailed in appendix one in this volume.

While the report was conducted over two years ago, the very same health and safety issues are still of concern today. While the trade union has enjoyed some success in securing limited improvements, most notably in the provision of plastic gloves during services, broader areas such as cabin air quality and manual handling issues, still present serious risks to the safety and health of cabin crews. To date, risk assessments are still not carried out for handling the trolleys, opening doors or handling cabin baggage. The current regulations on the cabin working environment free airline management from this obligation, although they are still required to carry out risk assessments on the ground, for example, in the training area, where crews practice working with the trolleys. The farcical

nature of this position is thus apparent – the same work is (in theory at least), is risk assessed on the ground in areas unrepresentative⁶ of the aircraft cabin.

The findings of the health and safety report suggest a low prioritization of health and safety in British Airways management practice. The report reveals a lack of ownership of health and safety and a lack of leadership in the management of health and safety. While other factors may be well integrated into BA's HR strategy (e.g. absence management, performance management), it is apparent that health and safety maintains the status of the 'ugly sister' in the workplace. Moreover, there appears to be nothing more than a superficial interest in health and safety issues, and an embedded assumption permeating the management structure that somewhere, somehow, health and safety is taken care of. This situation is understandable given the positive health and safety policy statements, and the corporate image of BA. To assume basic health and safety provisions are in place, is not unreasonable.

The apparent failure by management to recognize the linkages between employee health and business health may illustrate a limited understanding and appreciation of the possible outcomes and consequences. It could be argued that in management's haste to maximize profit, they demonstrate an apparent disregard for the consequential dangers and risks to others. Several possible explanations for management's behaviour can be put forward.

Firstly, that management simply underestimates the role of good health and safety practice in improving business performance. Secondly, economic and competitive pressures compel management to adopt a short-termist, low-investment approach, which prevents them from honouring the rhetoric of health and safety policy statements. Thirdly, economic and competitive pressures simply reinforce existing management ideology where profit imperatives are knowingly and deliberately put before the health and safety of the workforce.

⁶ The training rooms are not representative of the cramped aisles or tiny galley areas in an aircraft cabin.

Adding some weight to the proposition that management purposely avoid any threat to profit, is the argument that suggests management are reluctant to attribute work-related illness to any factor of work organization or job design in order to avoid potentially expensive change or any challenge to existing power structures (Quinlan and Bohle 1991). It could be argued that the growth in popularity of employee assistance programmes (EAPs), where the onus is on the individual, and problems such as the experience of stress, are attributed to individual weaknesses without corrective action being taken to address the cause, such as workloads.

10. Conclusions

This chapter has discussed a range of airline companies' strategies and policies, including those related to people management and OHS. The influence of political and economic factors on airline companies is likely to be substantial. Deregulation has created a volatile and competitive market environment for airlines across the world. In general, industry standards have been heavily influenced by the 'mega-carriers' whose clout in the industry is substantial. Precedents have been set by the largest airlines, such as BA in terms of franchise and sub-contract agreements and according to some commentators, this practice may lead to a 'tangled web of agreements' where responsibility for safety is difficult, if not impossible, to pin-point. This fragmentation and shifting of responsibility to external suppliers is considered to be a key industry trend.

Overall, the impact of global restructuring has been negative, in terms of work intensity, job security, job satisfaction, management-labour relations, earnings and hours of work (Blyton et al 1998). The impact of deregulation has propelled airlines to cut costs, and to demand higher productivity and improved service quality from the workforce. Conflict and tension between cost and quality, and cost and commitment are visible where lower paid staff who are working longer hours and enjoying less job security are expected to provide high quality service in line with company values and objectives. This presents a different version of

the management paradigm presented in the literature, where customer service, including internal customers, culture change and high-commitment policies are prevalent. It is not clear whether airlines are faring better or worse under deregulated conditions as opposed to state-distorted regulation. The formation of hugely powerful global alliances may simply have created a different form of regulation, as competition takes on a different edge.

In terms of health and safety, it could be argued that the neglect of employee health and safety is an age-old issue. However, the challenges that deregulation has introduced, in terms massive outsourcing, is representative of a wider contextual change to employment relations. As airlines move increasingly towards becoming a 'virtual employer', the once preferential working terms and conditions enjoyed by aviation workers, in particular, cabin crews, have come under severe attack. The dominant theme appears to be 'profit at all costs', which 'fits' better with 'hard' HRM as opposed to the 'soft' form. This may indicate that a shift towards 'hard' HRM has occurred in the industry. We explore this assertion further in our primary research.

While BA's policy statements and prescribed HR strategies embrace the tenets of 'soft' HRM, the company's management of OHS suggests that in reality, the 'hard' form is practised. This is equally apparent in BA's and other airlines' cost-savings strategies aimed at labour costs and operating costs, both of which can be linked to employee health and safety outcomes (e.g. SBS). The linkage between health and safety outcomes and flexibility strategies was underlined in the previous chapter where shiftworking, as a form of temporal flexibility, was linked to a range of illnesses, and functional and numerical flexibilities were linked to work-related stress and employee illness.

While economic climates have had a clear effect on the airline industry, airline companies' choices and decisions operate within the constraints of industry and national regulation. Some commentators have argued that regulatory constraints

are inadequate in protecting the health and safety of aviation employees and passengers. The ITF describes airlines as operating in an environment of ‘unrestrained competition’, and they call for blanket regulations set above the ‘lowest cost safe option’. Other commentators have argued that the safety and health of crew and passengers may be undermined by the breadth of discretion afforded to airlines in terms of air recirculation in aircraft cabins and the regulatory loopholes which allow airlines to use ‘flag of convenience’ aircraft and crews. We now go on to consider the regulatory environment and framework for airlines in more detail.

Chapter Three

Voluntarism, Self-Regulation and Health and Safety

In chapters one and two we presented a range of management's interpretations of flexibility, commitment and quality strategies, all aimed at improving organizational performance. The review of trends in the utilization of these strategies indicated a tendency for employers to take advantage of the freedoms afforded to them by the political environment. There was also some indication that the orientation of HRM ('soft'/'hard' forms) appeared to be affected by economic and political factors. We now progress to a review of the political and regulatory environment within which UK airlines operate. This chapter sets out to highlight the weaknesses in the approach to regulating OHS in the airline industry, which is important for two reasons. Firstly, it prepares the reader for the forthcoming chapters, in terms of understanding why existing practices are accepted in the airline industry, and secondly, it provides the context for our argument that both the existing regulations, and the approach to OHS in the airline industry, are inadequate.

This chapter discusses the political framework for health and safety in the UK and the airline industry, and the roles of various actors including the government, the CAA and trade unions, in shaping the OHS agenda in the aviation industry. We firstly review critiques of a 'self-regulatory' approach to OHS in the UK and discuss specific industry examples of the outcomes of a self-regulatory approach. We argue that a self-regulatory approach is deeply flawed and limited in its ability to deliver adequate protection for employees, including airline cabin crews. We go on to consider the prospects for new or tighter regulation in the airline industry by reviewing New Labour's approach to OHS, with regard to the recent 'Healthy Workplace Initiative', which supports the continuation of a self-regulatory approach and promotes 'the business case' for good health and safety practice. This approach could be considered to be the diametrical opposite of one which gives the employees the legal muscle with

which to demand good practice. The final section of the chapter reviews the progress of aviation trade unions in achieving OHS improvements.

1. Health and Safety Regulation in the Airline Industry

A novel situation is apparent in the UK airline industry. UK-wide health and safety regulations only apply to airline cabin crews when they are working on 'the ground' or within UK air space (HSE 1999). This means that Health and Safety at Work Act (HASAWA) (1974) and the Management of Health and Safety Regulations (1992), for example, are obsolete when the aircraft is out-with UK airspace. Instead, the Civil Aviation Authority (CAA) and the Joint Aviation Authority (JAA) oversee aviation safety (and allegedly, health). These bodies formulate and implement the rules and regulations governing aircraft and aircrew⁷.

The system follows a self-regulatory approach after the initial 'check' for aircraft during the licensing stage. Unlike other UK workplaces, aircraft cabins are not subject to 'spot-checks' by health and safety inspectors. Moreover, there is what can only be described as a complete void, in the regulations relating to basic health and safety issues such as rest breaks, hygiene, air quality, ergonomics and rest facilities for employees. While regulations do exist for air quality in terms of 'recommended' concentrations of carbon dioxide and ozone for example, none of these are 'policed' or monitored by the regulatory bodies. The singular concern of the aviation regulatory bodies is the issue of crash survivability.

Cabin crews fulfil the function of physical pieces of safety equipment, yet there is little in the way of interventions which ensure their comfort and well-being in the workplace. The CAA openly comment that they are not concerned with issues such as rest breaks or ergonomic considerations for cabin crews (CAA 1999). The hard issues of training, familiarity with safety and emergency equipment and knowledge of safety and emergency procedures, remain the

primary focus of the CAA and JAA. This suggests that factors such as air quality, shiftworking and workloads are not recognized as potential safety risks. This thesis may go some way to reverse such a view. The apparent lack of concern for cabin crew health and welfare is further underlined in the approach to recording accidents onboard aircraft.

Cabin Crew Accident and Injury Statistics

There is an interesting and worrying caveat in the reporting and recording of cabin crew accident and injuries. The present situation is that ‘minor’ injuries leading to three or more days absence (as defined by RIDDOR) are only officially recorded when the aircraft is either on the ground, or flying within UK airspace. Three parties are interested in aviation accidents: The Aviation Accident Investigation Bureau (AAIB), the CAA and the HSE. The AAIB and CAA are only interested in serious accidents that lead to cabin crews’ or other aircraft occupants’ incapacitation through for example, death, severe burns, fractures or poisoning. The HSE records all RIDDOR qualifying accidents and injuries, but only when the aircraft is on the ground or within UK airspace. Arguably, accidents and injuries are most likely to occur while cabin crews are actively involved in their duties, during which time, they are likely to be out-with UK airspace. A gap in knowledge is evident in terms of the number and type of accidents and injuries of a ‘minor’ nature that occur out-with UK airspace. Airlines are under no obligation to report these incidents and while they do record these, the author was unable to access the data. A black hole in the statistics is thus apparent, and requires extensive investigation in the near future. A further problem is that HSE statistics do not define between ground and cabin staff. A specific analysis of cabin crew accidents and injuries is therefore not possible using official Health and Safety Executive (HSE) data.

We now move on to consider the adequacy and appropriateness of self-regulation in some detail. While the regulatory environment in the airline

⁷ The JAR operations manual details the full range of regulations covering aircraft and aircrew. These

industry is rather disjointed from other UK workplaces, it is nonetheless heavily influenced and directed by wider developments in the UK and Europe. New Labour have already excluded airline cabin crews from the Working Time Regulations (1998), demonstrating their influence over cabin crew OHS issues and the regulatory framework within which airlines operate.

2. Voluntarism and Deregulation

“History and reality, the past and the present, argue very forcibly against the idea that British industry is yet fit for self-regulation” (Neil Kinnock, quoted in Hansard, vol 875, May 1973).

In the UK, the Health and Safety at Work Act (1974) embodies a ‘voluntary self-regulation’ approach. The legislation was the product of the Robens Committee report, whose main aim was to replace the inherited mass of detailed, prescriptive regulation with a more rational, broad, goal-based regulatory framework (Robens 1972). The Robens Committee suggested a single comprehensive unifying and enabling piece of legislation which laid out the basic duties of both the employer and the employee. Safety was to become primarily a matter of ‘self-regulation’ rather than prohibitory, external regulatory control.

According to Nichols and Armstrong (1973:30):

“The Robens report was largely written by administrators, the kind of people for whom, maybe, the thought comes hard that the real safety and health problem is to protect workers against the inherent ‘unnatural’ excesses of a society dominated by the market; a society in which some men are paid to squeeze as much production as possible out of others ... Most of all, they (the authors of the report) never realized that in a society deeply divided between those who control

are too extensive to discuss in detail.

and those who are controlled, goodwill, however much of it exists, is simply not enough... people who do the producing must have the power to ensure that *their safety is put first*”

The implementation of the Health and Safety at Work Act was carried out by the HSE, and was overseen by the tripartite Health and Safety Commission (HSC) on which trade union-nominated appointees were involved in the elaboration of overall policy objectives. Crucially, this agency had to be independent in the sense of not being subordinated to the policy exigencies of particular sponsoring Ministries or corporate organizations. The role and scope of the HSC/E has been constrained considerably since then.

From 1979 onwards, a corporatist approach to health and safety was promoted, reinforced and legitimized by Conservative governments (Baldwin 1996, Woolfson 1998). One consequence was the instruction to the HSC that they should consider the economic implications of any proposed new regulations, in order to ensure that business and enterprise was not inhibited during the recovery period of the mid-late 1980s. The economic recession of the early 1980s had created an apparent imperative to limit the cost impact of new health and safety legislation on business. Moreover, this ‘damage-limitation’ approach extended to existing health and safety provisions, creating an intensified political drive towards wholesale societal deregulation (Woolfson 1998). Indicative of this were two White Papers – *Lifting the Burden* (1986) and *Building Business Not Barriers* (1986) – which, as their explicit titles suggest, called for a reduction in the regulatory ‘burden’ on business. The source of the deregulatory motive force can be located in growing competitive pressures being experienced by organizations, setting the course for a ‘search and destroy’ mission (Bain 1997). Following the White Papers, the government launched the Deregulation Task Force in October 1992, which conducted a review of an initial 400 pieces of regulation.

The demotion of the HSE from a chief to an Indian is visible in a step-by-step approach by consecutive governments to curtail its role in implementing HASAWA (1974) and in policy formulation. The HSE has experienced drastic cuts in resources during most of the 1980s, which increased in severity during the 1990s. An additional blow to the status and muscle of the agency occurred in 1993, when the HSE enforcement arm's operations were subjected to 'market testing' to see if the private sector could provide services more cheaply, and the job of chairing the HSC was made part-time by the government. The agency's 4,545 strong staff was reduced by 203 (including 102 inspectors) in 1994-5, while by the year 2000, staff numbers would be at least 20% down on the 1993 figure (Bain 1997:183). The HSC continued to come under attack not only in financial terms but also in its underlying philosophy and ethics. From 1992 onwards, the government pressurized the agency to adopt a less rigorous approach in enforcing the legislation. Under a new code for enforcers, inspectors were advised to adopt a more sympathetic attitude to business problems and to adopt a 'softly softly' approach to the enforcement of health and safety legislation. More recently the HSE/C has been subject to requests by the Government to take on a greater advice-giving role as opposed to involvement in policy formation (IRS, April 1999).

The demonizing of health and safety regulation as a 'cost' and a 'burden' to business and enterprise, may be viewed as part of the Conservative government's rhetoric to reinvent and adapt what was considered necessary and acceptable in terms of regulatory intervention. The outcome was increased flexibility for employers, but potentially increased vulnerability for employees. From a critical perspective, this parallels the utilization of 'hard' HRM, which to some accounts has served to justify and legitimize reduced job security, atypical working and managerial prerogative (e.g. Keenoy and Anthony 1992). With the rhetoric of the enterprise culture, competitive advantage and market forces, it could be argued that we are gradually becoming desensitized to vulnerability and insecurity. Furthermore, our acceptance of tolerable risk with regard to health

and safety may also be attributed the rhetoric of free enterprise (Woolfson 1998). This goes hand-in-hand with the notion that market forces will act as a decisive force in ridding industry of incompetent management and poorly performing organizations.

Placing Our Faith in Market Forces

The notion of Compliance Cost Assessment, which has been imposed on regulators attempts to measure the costs of regulation to business. A ‘balanced risk assessment’ (striking the balance between protecting the public and ‘intrusive, expensive controls), as promoted by the DTI, focuses on the alleged costs of regulation rather than the events which highlight the need for safety standards and regulation. In the view of the Conservative governments, the preferred outcome of this process is non-regulation with the impetus for change lying firmly in the ‘hands’ of market forces (Woolfson 1998). According to the DTI,

“Society may put the matter right without needing a change in the law...Market forces...may be faster or more reliable method of solving the difficulties which you have identified.”(DTI, 1994b:5)

This suggestion that unscrupulous employers will cease to trade as society and market forces react to bad practice serves as an insult to the victims (and their families) of disasters such as the Clapham rail crash, the Kings Cross fire, the Piper Alpha disaster, the loss of the Herald of Free Enterprise, and specific to the airline industry, the Valujet disaster⁸. The irony of the pro-market forces argument is found in the finding that in each of the cases mentioned above, the employers in question continued to reap healthy profits, while at the same time, introduced minimal health and safety improvements despite the massive loss of life, and the pain and suffering inflicted.

⁸ While Valujet is a US registered company, the philosophy of self regulation is equally prominent in the US, and arguably led the way to UK deregulation of health and safety.

Valujet are still in business, albeit trading under a different name (Transair), while outsourcing, responsible for the Turkish Boeing 757 crash in 1996, is an ongoing practice in the international airline industry. However horrific and tragic the outcomes of self-regulation and business-friendly policies, the Government maintained their stance of minimal regulation by placing their faith in market forces. It appears that while the organ grinders continued to pander notions of market forces, the monkeys spun out appropriate comments:

“Some enforcers seem to believe that business people seek to cut corners and ignore safety. Businesses are impelled to place safety at the top of their priorities; it is in their own best interests to do so. A restaurant where the customers fall ill will soon lack customers; an airline or bus operator with a poor safety record will find passengers reluctant to use it. Business people generally apply themselves with great dedication to ensure that their businesses are safe for employees, customers and neighbours” (DTI, 1995:1).

Implicit in the above statement is that businesses are at liberty to harm customers' safety and/or health in the first place. The restaurant customers had to suffer food poisoning before the restaurant got a bad reputation, the airline or bus company had to kill or maim some employees or passengers before business suffered! This distasteful argument that market forces can regulate health and safety policy and practice may be regarded by some as utterly void of logic, morals and ethics. While some would argue that the maintenance (and even extension) of a self-regulatory approach is essential if UK industry is to compete effectively with the rest of the world, some of the inadequacies of a voluntaristic approach, with particular regard to health and safety, are nonetheless visible.

3. Health and Safety and Business Performance

“We have never accepted that health and safety regulation is a burden on business” (Angela Eagle, Labour's Environment Minister, quoted in Hazards 54, 1997).

Following their election into government, New Labour was keen to promote improvements in occupational health. It was estimated that the economy loses £16 billion a year due to accidents and ill health at work, equivalent to about 3 per cent of GDP. The recent announcement of a ‘statement of intent’ on workplace health (IRS, April 1999) is a mark of the Government’s intention to move health issues up the workplace agenda. Government press releases detail that all Government departments and agencies (including the Health and Safety Commission) will work in partnership with others to develop examples of good practice. To date, the HSE has funded a range of seminars and projects for trade unions, including a five-day workshop on health and safety strategy (Hazards 66, 1999). Clearly, well-informed safety representatives are crucial for any chance that trade unions might have in ensuring that they have a say in health and safety at work. While this appears to be a positive move in raising the profile of trade unions’ role in health and safety at work, the traitorous nature of New Labour should not be underestimated.

“Your Cheating Heart”

New Labour’s flirtation with ‘the stakeholder economy’, based on market regulation by a supportive government, and cohesion and partnership between employers and unions, greater equality and a reformed financial system, has been curtailed by industrialists, as the party has arguably become more the party of business than of trade unions. For New Labour, collectivism is only acceptable when it is imbricated with management objectives (McIllroy 1998). To date, New Labour’s relationship with employers and trade unions is analogous to the relationships a man has with his wife and his mistress, as he attempts to satisfy both sets of demands and needs, while lying to each woman about whom he loves the most. The consequence is a watered down, minimalist approach to regulating the employment relationship. New Labour can be seen to embrace a unitary framework of industrial relations and the rhetoric of human resource management. According to Blair,

“In modern world class companies the relationship between employers and employees must be based upon partnership and trust and the recognition of a shared stake in the success of the enterprise, of mutual rights and obligations...Labour believes that the old language of conflict and competing interests must be set aside” (Labour Party 1996:7).

McIlroy (1998) argues that New Labour’s ‘modernization’ has led to a more marginal role for trade unions and in an analysis of the industrial politics of New Labour, demonstrates how unions have enjoyed a very limited restoration of their power and legitimacy in the employment relationship. This state of affairs where unions can only hope to influence management from a distance is indicative of their relationship with the Government, and knocks another nail into the coffin of Labour’s extreme form of the social democratic model. Despite the New Labour rhetoric of social partnership and equality, the prevailing situation in the UK has seen a move towards the pressure group model, where unions influence political parties from a distance. The accommodation of globalization, deregulation and increasing competition has, according to Fox Piven (1991) heralded the decline of social democracy, where capital is cast as not only more powerful but more moral than labour (Fox Piven 1991:17-18, quoted in McIlroy 1998).

Having reviewed some of the factors influencing the UK’s health and safety culture, we now examine in more detail New Labour’s approach to workplace safety, which acts as a presage to the direction of OHS legislation and regulation in the UK.

The Healthy Workplace Initiative

In what the government describe as a ‘new approach to the problems of health at work’, the healthy workplace initiative aims to place health in the mainstream of business thinking and organization development. In the Minister’s words,

“Improved health for people at work offers real gains to employers and employees through improved productivity, lower rates of sickness absence, less time to recover and a quicker return to work, fewer accidents and less illness” (Tessa Jowell, Minister for Public Health, quoted in IRS April 1999).

While the above conclusions are hardly ground-breaking material, they do illustrate that any improvements and initiatives to improve employee health must be able to present a strong business case – for example, higher productivity and/or a quicker return to work. Jowell’s comments further illustrate the fact that employers require a financial/business incentive to improve health and safety at work due to the lack of obligation placed upon them by legislation. The same could clearly be argued for the airline industry. Furthermore, the initiative demonstrates the self-regulatory philosophy of health and safety culture in the UK. The propaganda supporting the initiative describes its intention to “link the culture and ethos of an organization, its management practices and health and safety management arrangements for a unified approach”. It further states,

“This approach emphasizes that the health and wellbeing of employees is a key factor in the success of any business or organization. Recognizing the value of a healthy workplace will ensure that staff are ‘healthier, happier and here. Placing these issues at the centre of an organization’s concern will help ensure its continuing effectiveness” (The Healthy Workplace Initiative, Department of Health, April 1999).

The initiative highlights one of the central questions in health and safety debates, namely, the relationship between good practice and the financial performance of capitalist enterprises. On one hand, good health and safety management is regarded as contributing to sound enterprise financial performance. However, this ideological stance is compromised by the common reality that financial performance often undermines good health and safety practice. This argument is

supported by studies of the relationship between health and safety practice and production. Evidence of correlations between increased numbers of accidents, injuries and fatalities, and productivity pressures demonstrates that workers may cut corners and take risks at work where productivity targets are at stake (Baker et al 1991, Nichols and Armstrong 1973).

The pressure to achieve production targets has been identified as a key contributory factor during investigations into the causes of major disasters. Cutler and James (1996) cite the example of the 1988 Clapham rail disaster, in which 35 people were killed as a result of a wiring error. The Department of Transport (1989) recorded that a technician, who had worked considerably long hours over an extended period during a rewiring programme at British Rail, made the error⁹. Unsafe working practices were linked to a work programme that was considered to be seriously understaffed in relation to its schedule. Effectively, the technician took risks in order to meet production targets.

Following on from Nichols and Armstrong (1973), Cutler and James (1996) use this example to demonstrate the ‘ambivalent relationship’ between unsafe working practices and company policy. They argue that while dangerous working practices contradict formal safety policies, production pressures imposed by management place the worker somewhere between a rock and a hard place. Resultant errors can therefore be recorded as ‘human error’, since they contradict and deviate from formal company safety policies. Moreover, formal inquiry rulings of ‘human errors’ effectively absolve the organization of blame for injuries or fatalities. This further illustrates that no matter how much legislation is in place to protect workers, it is the dominating force of the philosophy and active workplace culture that shapes health and safety management and practice at individual workplace level.

⁹ The technician had worked for 13 weeks without a day off. Even after the disaster, the RMT said that technicians continued to work an average of 57 hours a week (Labour Research 1990).

On the other hand, the Healthy Workplace Initiative reverberates with the theme of cost vs. safety. The financial costs of absence, illness and injury are highlighted suggesting that improvements to health and safety practice require the backing of cost-rational arguments and justification. In their critique of the 1996 HSE report, “The Costs of Accidents at Work”, Cutler and James (1996), argued that there are significant methodological problems with an approach that embraces (or even condones) cost-benefit analyses of accidents/injuries/fatalities. Consequently, if statistical analyses predict that the cost of injury will be less than the cost of preventative measures, it follows that the risk of injury will be ‘acceptable’. Cutler and James (1996) argue that measuring ‘risks’ is not the same as identifying ‘hazards’. ‘Hazard’ signifies the presence of a potentially harmful effect, whereas risk measures the likelihood that harm will occur. Without exceptional psychic powers and insight, how can one accurately measure hazards and risks? The heavy basis of assumptions about individual behaviour at work flaws a risk assessment approach to health and safety. How do different individuals within the organization perceive a hazard? In their analysis of the ‘Herald of Free Enterprise’ disaster, Cutler and James (1996) emphasize that in making a commercial case for safety, a common framework of rationality is crucial.

The weight and legitimacy given to ‘hazards’ or ‘risks’ may differ between management and first-line supervisors for example. Dawson et al (1988), in their study on the chemical industry, identified a disparity between first-line supervisors and management perceptions on the causation of accidents. Middle and senior managers saw work hazards as problems of workforce attitude, knowledge and behaviour, whereas first line supervisors and safety representatives saw hazards in terms of the task or working environment. Consequently, the logic of making a ‘business case’ (with equal appeal to all parties) for improvements is significantly flawed. As with many serious accidents, a string of related events eventually fuses together and escalates to

form the accident or tragedy. Such was the case for the ‘Herald of Free Enterprise’ and Valujet disasters.

In the case of the Herald of Free Enterprise, at least five other incidents involving bow doors being left open on sailing were reported before its sinking. Even more warning was provided by the airline Valujet, which had undergone twenty-two separate investigations for failure to comply with safety regulations prior to the 1996 crash. On the basis of these case studies, it could be argued that it is considered impractical, illogical and irrational to base health and safety management on risk assessment, and it is equally unacceptable to adopt the view that commercial cases can be made for improving health and safety management.

In the case of the ‘Herald of Free Enterprise’ disaster 192 lives were lost because calls for improved safety mechanisms had been ignored. Various ships’ masters in the fleet of which the Herald was part of, had previously urged management to invest in warning lights on the bridge as it was not possible for bridge officers to ascertain physically whether bow doors were closed on sailing. Management responses to these requests, which were recorded by the Court investigation of the disaster, are shown below:

“Do they need an indicator to tell them whether the deck storekeeper is awake and sober?”

“Nice but don’t we already pay someone!” (Department of Transport 1987:24).

This illustrates the cost imperative linked to health and safety management. Even after the Clapham rail disaster and crashes at Purley and Glasgow, British Rail’s corporate budget for safety expenditure for 1990 fell massively short of the funds required to install devices that would prevent similar accidents (Labour

Research 1990)¹⁰. Automated warning protection (AWP) systems were installed shortly after the crashes on the Great Western and Cheltenham lines, but were fraught with problems due to ‘retro-fitting’ (i.e. designing a system around an existing system). Even with the AWP installed, 7 people died and 150 were hurt in the train collision near Southhall station on 19 September 1997, making it the worst rail crash since Clapham. In the aftermath of the accident, speculation centred on whether the AWS was in operation in the cab of the Great Western Train. The HSE later criticized Railtrack for some “overly liberal interpretation of the rules” in relation to the use of AWP. The system in place is a downgraded version of the Automatic Train Protection (ATP) system, which as well as audibly warning the driver of approaching signals, can override the driver and stop the train. The comprehensive installation of this system on the UK’s rail network was rejected by the Government in 1995, due to their assessment that although the system could save 52 “equivalent” fatalities over 20 years, the cost of £14-15 million per life saved was too expensive (HSB 263, November 1997).

The deregulated railway system embodies the approach of costing safety and calculating benefits. With franchise agreements coming to the end of their term, rail companies are loath to spend on improvements in any area. The forthcoming legislation will however, oblige rail companies to install a downgraded version of ATP (Train Protection Warning System TPWS), to an agreed timescale and locations considered to be at the highest risk for collisions (though RMT safety representatives will not be involved in the risk assessments)¹¹. Effectively, the rail companies have had to be forced by legislation to provide minimum safety standards, thus highlighting the failures of voluntaristic ideology. Furthermore, the deviance of some managements is arguably highlighted by the Southhall

¹⁰ BR’s 1990 safety expenditure budget was £125 million at which time an appropriate automatic train protection system (ATP) was estimated to cost around £389 million and would have taken five years to install.

¹¹ From a telephone interview with Philip Dea, Health and Safety Representative, Rail Maritime and Transport Union, 25.5.99).

train collision, where opportunistic interpretation of the regulations may have been a main factor in the loss of seven lives. Corporate manslaughter charges against Great Western Trains and a manslaughter charge against the driver of the train were dropped in July. The train drivers' union ASLEF said that their had been an attempt to scapegoat its member for the accident (Labour Research, August 1999).

The very same trends have already been discussed with regard to the airline industry. The on-going harmonization process is openly following a 'lowest cost safe option'. Furthermore, the Valujet disaster, as already discussed, was found to be caused by an electrical fire in the cargo hold which led to the explosion. During the investigation of the disaster, it was revealed that a request pre-dating the tragedy for automatic fire extinguishers in the aircraft hold had been denied by the US Federal Flight Administration (FAA) on the grounds that it would be too expensive for airlines to implement. Similarly, following the aircraft fire at Manchester 1985, where a Boeing 737 caught fire on the runway, recommendations were made by the AAIB regarding the fitting of smoke hoods, sprinklers and close circuit TV, all of which have considerable cost implications (Labour Research 1990). Despite the obvious benefits to safety and preservation of life, none of the above improvements have to date been made (Civil Aviation Authority 1999). The bill for safety appears to be dodged by employers and is instead passed onto employees. Forms of payment include loss of life, injury, illness, and even prosecution¹².

From the cited examples, the contradiction and conflict between financial performance/business health and public/worker health and safety comes over loud and clear. Given the government rhetoric, supplemented by the rhetoric of HRM, it could be argued that the public is under pressure to accept that business interests have a legitimate right to take priority over employee health and safety.

¹² The train driver of the Southhall train crash faced prosecution. The court case took place in June 1999 and found the driver not guilty. Great Western Lines are to be fined, but will not face manslaughter charges. The public enquiry is pending.

Behind the rhetoric of “free markets” and “safety makes sense” is the crude issue of power – who dictates, who decides on what is acceptable and allowable, and is there anyone able to challenge these decisions effectively (and without facing victimization)?

One on hand, it could be argued that the limitations of voluntarism and self regulation have become all too apparent, and that New Labour’s cosy relationship with capital serves to maintain the status quo where employees are inadequately empowered within the employment relationship. On the other hand, it could be argued that if the ‘shoes were on the other feet’, labour’s trade-off between health and safety provisions and financial viability might attract similar criticisms. The task of identifying all possible causes of work-related accidents, injury and illness presents a colossal task, no doubt requiring a bottomless pit of financial resources. If there were an open channel to have every problem solved, a financial abyss could be created. Furthermore, once the channel was open, how could it be closed? This perhaps explains why we are confronted with the rhetoric of ‘management’s right to manage’ and assertive, positive health and safety policy statements from organizations. Such policies, it could be argued, create no more than a smokescreen behind which, management stay in control of what is classified as a hazard or risk, and what financial investment can be directed to health and safety interventions.

One might argue that since employers and employees have ‘equal’ interests in the area of health and safety, both parties should have equal influence in decisions affecting health and safety at work. Health and safety at work is one definite area where employees can claim to have superior knowledge than management. Workers are on the front-line; experiencing first hand the job design, physical characteristics of the working environment and factors of work organization. Workers represent therefore, an extremely valuable source of knowledge and expertise in addition to their ability to carry out a given job. They

can offer management a watchdog service, where any factors undermining employee performance/job satisfaction/morale could be rapidly identified. Within 'soft' HRM and 'high commitment organizations' (HCO:Wood 1998, 1999), employee involvement mechanisms may allow for this level of input into maintaining good health and safety practice. In safety-sensitive industries such as the railway and airline industry, one could argue for the solid common sense behind the inclusion of front-line workers in the management of health and safety. The reality is however, that workers in these industries are denied the legislative muscle which would enable them to demand good OHS practice, and to secure a platform in the decision making process.

This highlights the importance of accounting for power relations and inequalities in the employment relationship when rationalizing management's approach to health and safety at work. Even where there is a general consensus that work should take place in a healthy and safe environment, the countervailing pressures for the production of goods or the delivery of services challenge management's commitment to its legal obligations. The potential danger is that productivity and profit imperatives will be allowed to take priority over all other issues.

The remainder of this chapter goes on to discuss the role of trade unions in OHS and reviews the progress of aviation trade unions in achieving OHS improvements.

4. Trade Unions and Health and Safety

Trade unions have throughout the past century played an important part in addressing the question of health and safety at work. It was through the union form of collective organization, particularly in the nineteenth century, that many workers began to seek relief from danger and work-related illness. It was out of these concerns that many in the labour movement, unions and their parliamentary counterparts, campaigned for legislation to deal with the ill-health and danger at the workplace, as well as for the welfare provisions that have been

elaborated in many societies during this century. This was part of a process whereby employers were forced to address some of the more obvious assaults on workers and their communities (Fairbrother 1996).

A range of evidence supports the justification for involving trade unions in workplace health and safety. Nichols (1997) argues that improvements in workplace health and safety were attributable to an increased public awareness of health and safety, increased health and safety training provided to TUC affiliates, and a heightening of a trade union safety consciousness. Appreciating the role of trade unions in the effective management of health and safety in the workplace is demonstrated when we consider the effectiveness of legal regulation in unionized workplaces. A substantial body of evidence strongly suggests that where unions are consulted over health and safety issues, fewer accidents and injuries at work occur (e.g. Millward et al 1992, Reilly et al 1995). In a review of the statutory provisions on health and safety in the context of the erosion of union power in the 1980s, Reilly et al (1995), argue that where health and safety joint consultative committees have representatives appointed by unions, there is a significant reduction in workplace injuries. This is evidenced by nationally representative aggregate data sets (from WIRS 3), which confirm that a union presence has a beneficial impact on injury levels. Reilly et al (1995) also point out that worse injury rates occur where management alone decided health and safety in the absence of unions or safety committees. Waddington and Whitson (1996) report how health and safety remains one of the most common issues raised by union members with their representatives, thus underlining the key role of trade unions in OHS. Just over one-third of active members referred to health and safety as one of their three most common grievances. Indeed, according to the most recent WERS survey health and safety was the top issue dealt with by trade union representatives (Cully et al 1998).

The HSE have publicly acknowledged the key role of safety representatives in improving workplace safety and reducing injury rates.

“We (the HSE) would far rather see safety representatives. There’s no doubt about it. They add value and so if there is something that actually promotes the appointment or election of safety representative rather than relying on direct consultation with workers, that we think would be value added” (Jenny Bacon, Director General, HSE, January 1998).

Despite the apparent welcoming of safety representatives into the arena, it has traditionally been the case where trade union representatives consulted and negotiated with employers over health and safety issues. A potential danger of non-unionized safety representatives is that they will not enjoy the support or backing of a trade union where they disagree with management over health and safety issues. Towing the line may be the only option. The potential for managerial dominance in dictating the OHS agenda is illustrated by WERS (1998), which found that in 47% of workplaces there are no unions members at all – up from 36% in 1990, while only 2% of workplaces were fully unionized – down from 7% in 1990. With fewer unionized workplaces, it is unsurprising that by 1990, management alone determined health and safety in about four out of 10 establishments (Nichols 1997). However, doubling the concern over health and safety at work is the reduced influence of the HSE in policing and monitoring standards.

It has been recently estimated that UK workplaces will be visited once on average every seventeen years compared to every four years two decades ago (Labour Research, April 1997). Giving life to these concerns is the increase in fatality and injury rates during the 1980s (Bach 1994, Nichols 1986). The implication is that health and safety during this period may have followed a managerial agenda in the absence of strong trade union representation. However, the vilification of trade unionism and demonization of health and safety during the 1980s, may be reversed as New Labour tentatively embrace collectivism in

the employment relationship. However, the prospects for trade unions receiving the power to enable them to ensure that workers' health and safety is put first (Nichols and Armstrong 1973), may be less than good where the government continues to support a self-regulatory approach to OHS.

Aviation Trade Unions

According to the ITF, fundamental changes in the structure of the civil aviation industry now require governments and international aviation organizations to catch up with the new corporate and economic environment to ensure that the regulatory bodies have the necessary powers, independence and resources to ensure safe skies in a globalized industry. Consequently, they are calling for the recognition of the rights of aviation employees, and unions to independently comment upon and be consulted upon, safety regulations and company procedures to ensure that safety remains at the centre of aviation decision making. However, trade union organization in civil aviation is still overwhelmingly based in the major carriers and low-cost airlines are keen to keep the unions out.

One example of anti-union tactics is that of Midwest Airlines in North Carolina, US. Employees had indicated a desire for union representation. On the day the AFA filed its application for an election to be held, the company announced a pay increase, a stock option agreement, free uniform replacements, an improved bidding system for scheduling and other benefits for cabin crew. Management memos were sent to employees urging them to vote against a union and threatened to remove the new benefits if the AFA was elected. An anti-AFA group of employees was allowed company facilities to distribute literature while the AFA was not allowed such facilities and pro-AFA materials were banned by the company. In the end, the union lost the vote by four votes. The TGWU are currently attempting to recruit and organize cabin crew at Easyjet with limited success so far.

In raising the profile and increasing the contribution of aviation trade unions, the representation of ITF affiliates at international meetings, conventions, and regulatory agencies will clearly be valuable, and is likely to assume greater importance in the global airline of the future. The ITF has been involved in high profile campaigns about Air Rage, Cabin Baggage, Cabin Air Quality and Sexism, while adopting a proactive role in seeking improvements in aircraft cabin design. The ITF has built partnerships with aircraft manufacturers including Boeing/McDonnell Douglas and Airbus Industrie. Cabin crew representatives now have some input into cabin layout, operational design and evacuation profiles. ITF unions have continued to press manufacturers and regulators on cabin environment issues such as air quality, noise, vibrations and ionizing radiation. While the certification of new aircraft types continues to be a subject of considerable contention between cabin crew trade unions, industry regulators and manufacturers, cabin crew organizations are now insisting on taking a proactive approach with manufacturers on key issues through rulemaking processes. Alain Garcia, Senior Vice President of Airbus has emphasized the value of developing a constructive dialogue with the ITF and the benefit of exchanging ideas in the Company's ongoing research on cabin safety (ITF News 4, 1998).

The proactive approach adopted by the ITF is also apparent in their representation in the Joint Aviation Authority's (JAA) Regulation Advisory Panel. This committee reviews all proposed regulations before they are issued for public consultation. It is also drawing up proposals for future rule making procedures. The ITF played an important part in the defeat of a proposal by European operators to reduce the minimum cabin crew standard (number of crew onboard). As already mentioned, the Association of European Airlines (AEA) attempted to change the existing regulation of one cabin crew member for every 50 *seats* on board the aircraft, to one crew member for every 50 *passengers* on board. Such a move would have undermined the safety of crew and passengers since passengers may not be seated close to crew members, especially those who may need extra assistance in the event of an emergency.

The ITF has played an integral role in raising the profile of cabin crew as ‘safety professionals’ through a range of campaigns, directed at cabin crew training standards and changes to terminology (e.g. ‘attendants’ to ‘crew’) (ITF News 1, 1999). They argue that aviation employees are safety professionals who implement aviation rules and whose duties carry the primary responsibility of ensuring operational safety. The ITF is currently calling for the licensing of all staff with direct responsibilities affecting aviation safety.

The AFA in the US is involved in a long-running campaign to have aircraft cabins included in the remit of the Occupational Safety and Health Administration (OSHA), which would extend the coverage of air quality criteria to aircraft. AFA representatives are also present on the Boeing aircraft design committee. The AFA’s main objectives are to influence the future internal layout of aircraft cabin and to improve ergonomics and facilities for flight attendants. The organization is proactive in addressing the issues of crew injuries caused by cabin baggage and crew illness. It is currently lobbying the FAA to adopt new regulations on cabin baggage policies, and is also involved in an extensive data collection exercise that seeks to correlate flight attendants’ reports of illness/injury to cabin air quality factors.

5. Conclusions

This chapter presented a critique of a self-regulatory approach to OHS and argued that this approach is inadequate and inappropriate for workers’ and the public’s health and safety. A fundamental flaw in self-regulation is the level of trust it affords to organizations. Given the examples of unethical health and safety practice by some employers, it is quite unbelievable that voluntarism continues to be actively promoted by the government, while at the same time, the HSE continues to be being degraded and starved of resources. This is the same system and conditions that prevail within the UK airline industry.

The CAA and JAA embrace a self-regulatory approach, and the same weaknesses and inadequacies are evident. As notions of cost-compliance and risk-assessments continue to dominate the thinking of organizations in the UK, the dangers of low-cost OHS are all too apparent. Indeed, as already mentioned, airlines are already openly calling for the 'lowest cost safe option'. Despite heavy criticism, the relatively loose regulations in the airline industry look set to continue, as prospects for tighter regulation are blighted by New Labour's propensity for the continuation of self-regulation, and their support of market forces logic and 'business cases' for good (OHS) practice. New Labour continues to operate in contrast to the typical situation in Europe (allowing for country variations) where employee rights, best supplied by solid legislation, are seen by the state as legitimate and indeed, necessary elements in the effective functioning of employee relations (Blyton and Turnbull 1998). New Labour's contrasting approach is illustrated by the fact that cabin crews remain out-with the Working Time Directive, and are not protected by other relevant OHS legislation when out-with UK airspace.

Despite the lack of opportunities afforded to trade unions in terms of supportive legislation and regulations, they have continued their commendable record in achieving health and safety improvements. This is particularly true of the aviation trade unions, where an increasingly strategic and collaborative approach is being adopted, despite a tradition for unions 'chronic vulnerability to nationalism' (Ramsay 1991:548). It would appear that raising public (and worker) awareness and expectations, and utilizing the European legislation (e.g. Management of Health and Safety at Work Regulations 1992; forthcoming Public Disclosure Act 1998, effective from 2 July 1999), lies in the hands of trade unions and other employee representative bodies.¹³ However, the extent to

¹³ The Management of Health and Safety Regulations 1992 offers protection against victimization against employees responding to what they consider to be unsatisfactory conditions which could detrimentally affect theirs, or others, health and safety at work.

The Public Interest Disclosure Act 1998 protects not only employees, but also third-party contractors, the self employed and trainees against victimization or dismissal for disclosing information about a

which they are suitably empowered by New Labour to do this, is questionable. Although New Labour have not (yet) followed through on the Conservative's legislative deregulation campaign¹⁴ (where health and safety legislation was a main target), their approach to regulating the employment relationship arguably pays no more than lip service to related European Directives.

We now progress to the next chapter where we examine the key factors affecting the work organization, work content and health and safety of cabin crews. We review the literature on the specific OHS issues relating to airline cabin crews. This review allows the identification of key OHS issues which will be addressed in the primary research. The primary research will provide a more detailed exploration of the range of OHS experienced by cabin crews, the extent to which they are experienced or observed, and how these risks may be related to airlines' people management policies and strategies.

business and its operations in cases of malpractice in the workplace (e.g. health and safety or financial malpractice).

¹⁴ The Deregulation Unit was renamed the "Better Regulation Unit", thus signaling intent to continue with legislative review but with a Labour agenda.

Chapter Four

Cabin Crew Work, Safety and Health

The previous chapters have attempted to provide context to the subject area of this thesis. The literature review of HRM in chapter one sets out our expectations of ‘soft’, people centred and ‘hard’, profit/cost centred approaches. It was suggested that some employers may follow a ‘dual-adoption’ approach where ‘soft’, people-centred HRM is visible in the rhetoric of company statements and written policy, while the reality is a ‘market-value’, cost-rational approach to decision making. The casualties of this approach may include job security, pay, and health and safety at work. The different approaches to HRM were explained in the context of political, economic and legal influences. Our review described how in many cases, lifetime employment and job security are ‘gone with the wind’, and lifestyles, expectations and assumptions have been radically transformed. Whereas some commentators have argued that within these changing circumstances, HRM has provided organizations with the formula for securing a competitive edge (e.g. Peters and Waterman 1982), others have argued that the philosophy of HRM is supported by the rhetoric of employers and governments, while the reality embodies a selfish, profit-bias approach, to which employee interests are subordinated (e.g. Keenoy and Anthony 1992).

Airline employers are as likely as any other employer to take advantage of the new environments and subsequent opportunities. This was evidenced by our review of the airline industry in chapter two, which highlighted similar trends in flexibility practices and a cost-centred approach to OHS. Chapter three highlighted the weaknesses in the approach to regulating OHS in the airline industry, which adds to our understanding about why existing practices are accepted in the airline industry, and secondly, it provided the context for our

argument that both the existing regulations, and the approach to OHS in the airline industry, are inadequate.

We now progress on to specific OHS issues concerning airline cabin crews. This chapter examines the literature on cabin crew work, safety and health and identifies the key issues that the primary research will explore. Airline cabin crews are considered to be a highly topical occupational group given the industrial sector and gender balance. European research has identified the transport sector as a 'high strain' sector where jobs are typified by high demands and low controls (European Foundation for the Improvement of Living and Working Conditions [EFILWC] 1997). The EFILWC report concludes that high strain jobs are more likely to create occupational stress and a higher number of health complaints from workers. Furthermore, a recent report finds that stress, strains and violence at work are more likely to affect women than men, with almost nine out of ten women suffering work stress and over half, workplace strains. The survey of 700 workplace safety representatives showed that particular problems for women were strains, manual handling and violence ('No More 'men only' health and safety', TUC 1998). However, despite all of this, airline cabin crews are excluded from the relevant OHS regulations when out-with UK airspace.

We explore a range of techniques and policies used to manage airline cabin crews. The primary focus is identifying potential risks to cabin crew OHS based on the demands made on their physical and emotional labour, and factors of the physical working environment. These in turn may be linked to specific people management policies.

Section one discusses cabin crews' work content and organization in terms of working hours, working patterns and workloads, while *section two* explores the literature on the health and safety risks associated with the cabin working environment.

Section One: Cabin Crew Work Organization

1. Cabin Crew Work

“This is without doubt one of the dirtiest, most unhygienic environments to work in. We are serving food and drink, clearing used meal trays, used hand towels, used sickness disposal bags, used nappies. We also handle dirty rubbish bags and we clean out dirty seat pockets, dress dirty toilets (renew toilet rolls and hand towels). All of these duties are done without adequate cleaning/washing facilities or protective clothing” (Boyd 1996:35).

However much airlines rely on the courtesy of their cabin crew to win and retain satisfied customers, it is the ability of the cabin crew to respond to emergencies which constitutes their primary role onboard aircraft. Cabin crews have been described as physical pieces of safety equipment on aircraft. At 30 000 feet, they act as the fire department, paramedics and may have to deal with terrorists or hijackers. In addition, flight attendants provide meal and refreshment services to passengers.

The working environment of cabin crew is one that is sealed from the outside environment. As prisoners in a metal tube for an average 10 hours a day (Boyd 1996) they cannot go for a walk during their meal-break to escape work pressure, nor can they open a window for some fresh air. Instead, flight attendants are confined in an often overcrowded, noisy environment where they are under continual pressure to complete a given range of service duties within a set time-scale. A large proportion of their day involves pushing and pulling meal/drink/duty free carts that can weigh up to 70kg. Considering the majority of cabin crews are female, the physical intensity of the job is apparent.

Of all workers in an airline, the flight attendant has the most contact with passengers, and he/she sells the company the most. When passengers think of service they are unlikely to think of the baggage check-in agent, the ramp attendant or the cabin cleaners. They think of the flight attendant (Hochschild 1983:92). The pressures faced by cabin crews can be categorized as external and internal. External refers to the pressures of job security arising from temporary and fixed term contract work; managing home and/or domestic responsibilities while shift working; and financial pressures created by pay freezes or low income. For an occupation that is commonly perceived as well paid, it may be surprising to some that new start cabin crew in the UK are paid a basic salary of around £8368 (British Airways recruitment advertisement, *Cosmopolitan*, June 1998).

Internal pressures include increasing workloads, long working hours, working in an environment that is heavily dependent on recirculated air, dealing with passengers during or after flight delays and carrying out intensive service schedules in-flight. While service is minimal on short flights and on low-cost carriers, cabin crews can operate on between three and seven consecutive flights (sectors) in a single duty (TGWU 1998). While the removal of catering duties may save physical effort, the demand on cabin crew emotional labour is relentless. Before examining the demands on emotional labour, we focus on the demands on physical labour.

2. The ‘speed-up of work’

Whilst most references to Hochschild’s work in the labour process literature are related to her important contribution to the development of theory in identifying and analyzing the roots and nature of “emotional labour”, this emphasis has overshadowed certain other aspects of her analysis of flight attendants’ work. In particular, she described a number of ways in which speed-up in the airline industry had both intensified and prolonged the hours of work. However, the

measures encompassed in the process of this speed-up are significant in themselves in terms of their deleterious effect upon the attendant's work, but have generally been overlooked (arguably by Hochschild herself to some extent). It is these changes in work organization and content that we now consider.

This part of Hochschild's analysis was firmly located historically. In the course of her research, cabin crew members described to her the conditions onboard aircraft during ten-hour trips in the 1960s, with three flight attendants and a "social director" to cater for 75 passengers, less crowded planes and longer layovers for the crew before resuming duty. However,

"the golden age ended sometime after the recession of the early 1970s when the airlines, losing passengers and profits, began their campaign to achieve 'cost-efficient' flying." (Hochschild 1983:22)

This entailed using aircraft capable of carrying more passengers and flying for longer periods without re-fuelling; the flight attendant's working day was lengthened and more work-days were bunched together; and shorter layovers meant less time for the crew to adjust to time-zone changes. Airlines, such as Pan American, also reduced the time that aircraft spent on the ground between flights from 90 to 75 minutes, while an American Airlines flight attendant complained about the fact that, despite there being "more passengers to the same crew", the time to provide a drinks and dinner service had been cut from one and a half hours to one hour.

Hochschild shows that a further turn of the "speed-up" ratchet came in the aftermath of the deregulation of the US airline industry in 1978, which resulted in a huge increase in the number of passengers as fare prices came down. However, from the flight attendants' perspective, this development was followed by "a super speed-up". The new measures were reflected in one Panam union official's claim that, while they were expected to get by with twelve or fourteen

attendants, “if we had the same ratio now that we had ten years ago we would need twenty”. The post-deregulation growth of low-cost, non-union companies led to a copy-cat response from some of the large airlines, where they introduced low fare, minimal service, high-density seating flights in order to compete with the start-up companies. Even faster aircraft turn-around times meant there was no time to clean the cabin or to ensure the replenishment of supplies for the following trip.

This deterioration in working conditions, accompanied by attacks upon what were regarded by airline employees as the compensatory “perks” of working in the industry, forced many - like this Panam attendant with thirteen years service - to critically examine their position:

“...the job, the work on the plane, was the most strenuous, unrewarding, alienating concentration of housework and waitress-type drudgery to be found anywhere.” (Hochschild 1983:126)

This widespread disaffection, in Hochschild’s words “occurred in many airlines throughout the 1970s as flight attendants set up independent unions to name and give voice to their accumulated resentment and discontent”.

The experience of the flight attendants during the 1970s - and carried into the 1980s under the banner of “Reaganism” - was certainly not an exceptional case; on the contrary, it was symptomatic of the kind of management offensive, directed at their wages and conditions, that many US workers suffered in this period (Smith: 1991). And, rather than regarding this group of workers as atypical, in the light of recent developments, a more valid approach might be to view the cabin crews’ experience as an example of “plus ca change, plus c’est la meme chose” (Boyd and Bain 1999).

We now assess the current state of affairs with regard to cabin working hours, patterns and workloads.

a) Working hours and working patterns

Chapter one explored flexibility in a range of areas including working hours. It was suggested that a ‘hard’ HRM approach may measure and calculate employee resources in terms of organizational needs, while a ‘soft’ HRM approach may allow flexibility for employee preferences or requirements. In airlines, working hours and working patterns mirror the 24-hour nature of the business, making shift working a fundamental feature of cabin crews’ work. The apparent ubiquity of long working hours may be a consequence of the CAA duty hours limitations which allow cabin crew to work up to 17 hours if required (e.g. as a result of a delay). Long working hours are highlighted during the recruitment stage, along with “opportunities to travel to new and exciting places” (Virgin Airlines advertisement). However, information on the erratic shift patterns worked by crews and the tendency during busy periods for crews to work continuously on ‘minimum rest’ (eleven hours rest between duties), is absent amongst the rhetoric of ‘travelling the world’.

b) Shiftwork/Fatigue

The deleterious effects of shiftwork on health and well being have long been acknowledged. A European Commission working paper concluded that workers on nightshift were more likely to be affected by heart trouble, gastro-intestinal problems, appetite and sleeping problems and dependence on alcohol/tobacco/drugs (Labour Research, October 1995). The UK Health and Safety Executive (HSE) say that body rhythms are disturbed by changes from day to shift work, which can cause drowsiness (possibly compromising safety). Evidence also suggests that night and shiftwork pose risks to the fertility of women (Suvanto et al 1993). A 1996 British TUC survey identified shiftwork and long hours as two of the main causes of stress. The report states:

“It’s time for management to start managing staff health and safety in a competent and committed way” (TUC 1996).

Shift working/night working and long hours are also prevalent in a number of other industries such as lorry driving, factory working (where 12-hour shifts are becoming increasingly popular). In addition to shiftworking and long working hours, inadequate rest breaks may increase levels of fatigue at work. Adequate rest breaks during work are now mandatory for most UK employees, except transport workers and cabin crews, who are excluded from the UK regulations. Rest breaks are considered necessary for several reasons including performance and safety considerations. Research on the operational safety performance of workers involved in shift working or extended work periods (of up to ten hours over several days) for example, professional drivers, found that performance deteriorated after an average 6 hours of work. However, if a rest/meal break was taken before this cut-off point, performance levels remained steady (Haworth 1995, Harris and Mackie 1992, Mathiassen and Winkel 1992). According to a series of studies of accident rates in relation to the hours of work of professional drivers, if rest breaks were taken during driving hours 2 to 4 and 4 to 6, the accident risk was significantly lowered (Lin et al 1993, 1994; Yang et al 1992).

The recently proposed European limits on flight and duty time are considered inadequate by some Aeromedical practitioners. According to Dr H M Wegman, of the DLR Institute of Aerospace Medicine, "medical advice has largely been ignored in drawing up the flight time proposals. They are still unsatisfactory from a medical and aviation point of view" (ITF 1995). The ICAO already requires member states to set limits on flights and duty times, but does not regulate or specify recommended figures, so conditions vary from country to country. The ITF are currently petitioning for the adoption of internationally accepted blanket regulations for flight and duty times, arguing that increasing market pressures will inevitably encourage some airlines to compromise cabin crews' safe working limits. This fear is given life by events in the US. The US airline ValuJet (now named Transair), held up as a model for all to follow by the Clinton administration prior to the horrific crash in Florida in 1996, has been

heavily criticised for violating federal duty periods limits and minimum rest requirements. Typically, duty periods were 12 to 14 hours, of which up to six hours was unpaid ground time. Cabin crew could be drafted to cover another flight immediately following a duty, meaning they could have to work more than 24 consecutive hours (AFA 1997).

Organizing rest breaks for cabin crews is complicated by the pull of competing needs – service and passenger requirements and cabin crews’ need to eat, drink and rest at work. Service schedules are dictated by individual airlines and are made up of meals, drinks, duty free, and other services such as hot towels. Passenger requirements may range from dealing with simple requests to first aid emergencies. The familiar sound of call bells during a flight adds to the atmosphere of organized chaos as cabin crews attempt to deliver the prescribed in-flight service to passengers. The perpetual time constraints will ultimately curtail the amount of time for crew to eat, drink or rest during a flight. The experience of many crews is that meal and rest breaks cannot be accommodated during flights, and instead they are taken during turnaround (the time when the aircraft is being re-fuelled, cleaned and re-catered in preparation for the next load of passengers). However, increasing pressure from airlines to reduce turnaround time may mean that no time is left for a meal or rest break after the crews have completed their various duties during turnaround periods. The result may be extreme fatigue caused by a non-stop working schedule.

Cabin crew fatigue is augmented by the effects of jet-lag. Developments in aircraft technology mean that aircraft now fly at faster speeds and for longer periods without re-fuelling. The overall consequence for cabin crew is that they pass through more time zones in shorter periods, whilst working even longer shifts. Cabin crews on transmedian flights, crossing different time zones, have been found to suffer significant disturbance in sleep quality after such journey, regardless of the direction of travel. Jet-lag has been linked to higher cancer rates in female flight attendants (Mawson 1998). The combination of shift working

and flying across time zones underlines the need for adequate rest periods for cabin crews both while on duty and between flights. Fatigue leading to reduced alertness have been documented in a range of studies (e.g. Caldwell 1997, Lowden and Akerstedt 1999, Suvanto et al 1993), which has implications for cabin crews' performance levels, especially in the event of an emergency.

b) Toilet Facilities

One consequence of high workloads and time pressures, is that crew sometimes do not have enough time or opportunity to go to the toilet. Medical studies show the importance of regular urination, with women generally needing to void more frequently than men. Adverse health effects that may result from voluntary urinary retention include increased frequency of urinary tract infections, which can lead to more serious infections and, in rare situations, renal damage. Further medical evidence shows that health problems including constipation, abdominal pain and haemorrhoids, can result if individuals delay defecation (OSHA 1998).

Despite this evidence, workers on production lines, bus drivers, call centre workers and airline cabin crews, may be denied toilet breaks. One case of a US food manufacturing company found that workers were faced with the choice of urinating in their clothes while working on a production line or face suspension or dismissal for leaving their workstation to use the restroom. Other examples include workers who have to put up their hand and wait until permission is given. According to one study, some had to wait up to two hours (Hazards, 64, 1998). In a 1996 survey of Canadian workers at four major motor manufacturers, the majority of respondents reported that it was difficult to find a relief worker to cover for them while they used the rest room facilities (Hazards, 64, 1998). Arguably, the speed-up of work and new management techniques are curtailing one of the most basic human requirements across the industrialized world.

3. Teamworking

Before discussing teamworking in the cabin crew occupation, it is necessary to define the term 'teams'. What may appear straightforward is complicated by the myriad of different notions about 'teams' available both in academic and practitioner literature. One definition of teamwork is offered by Sundstrom *et al* (1990:120), where a 'team' or the less conceptually blurred term, 'work unit', is described as an "interdependent collection of individuals who share responsibility for specific outcomes of their organisations" (quoted in Benders and Van Hootegem 1999:619). This definition is appropriate for airline cabin crews given that they come together as a group of individuals, who carry out specific duties (as opposed to engaging in job rotation), that are aimed towards a specific outcome (safety and service), for which they share responsibility. In Sundstrom's *et al* (1990) categorization of types of teams and their outputs, flight attendant crews are listed as 'production teams', which experience a low degree of differentiation from other work units, but a high degree of co-ordination with other work units, while practising a high degree of technical specialization during repetitive or continuous work cycles.

Teamworking has a long history in cabin crew work, where crews manage and direct both their individual, and group working activities. Indeed, many of the principles of effective teamworking are incorporated in the cabin crew labour process, such as effective communication. This is vital for safety and service, while the ability to focus on the team's objectives rather than personal grievances or other distractions, is essential. Good communication, flexibility and co-operation are essential elements in the team-based work of cabin crews, all of which find expression in recruitment criteria. Once recruited, such abilities will face rigorous tests while attempting to maintain good working relations when working in an overcrowded, noisy environment for up to ten consecutive hours often without more than a ten-minute break (Boyd 1996). From service quality and safety perspectives, it is clear that effective teamwork amongst crew members is absolutely vital.

Depending on the type of aircraft, the crews operate in teams made up of between five and fourteen cabin crew plus flight deck staff. Team members of all grades participate in the service delivery. The type of aircraft dictates the minimum number of cabin crew that must operate on the flight. This relates to the number of emergency exits and lay-out of the aircraft. The team is led by a cabin services director (CSD), purser or number one. The terminology is dependent on the airline. This senior crew member is stationed primarily at the front of the aircraft, close to the flight deck. This is to enhance communication between the chief steward/stewardess and the flight deck, particularly in emergency situations. This individual also leads and directs the entire service during the flight and co-ordinates the 'forward' team, i.e. those crew who attend to the forward section of the aircraft. At the rear of the aircraft, another less senior crew member (usually referred to as 'the number two') leads the 'rear' team. In between, are the ants – the junior crew members. The junior crew members deliver the service schedule as instructed by the senior crew members. In terms of the extent of worker autonomy, cabin crew work is organised around the various sections of the cabin. Each crew member attends to their section (as allocated by the CSD) throughout each flight, and may also deal with passenger requests from other sections in the cabin. While the content of the service schedule remains highly defined by management, the CSD may exercise some discretion over the order of service and the provision of additional services (e.g. a second drinks service). Individual cabin crew may exercise a high level of discretion over the manner in which they deliver the service, in terms of whether they adhere to management's set procedures. Such procedures verge on the ridiculous, for example, when offering a meal, a flight attendant should face the passenger, look them directly, smile, ask if they would like to have meal. Before doing this, they should have checked their appearance conforms to the Company's grooming specifications (e.g. make-up, hair, uniform). Serving dozens of meals and refreshments, while dealing with passenger requests within a very limited time period, simply does not allow for such detail every time.

While service schedules may not always be realistic, it remains the CSD's responsibility to ensure standards are met. However, due to the lay-out of an aircraft cabin and the busy, often hectic, service schedules, individuals are not subject to rigorous surveillance from senior crews. Consequently, each crew member to some degree, must be trusted to deliver the service to the standards demanded by management. Their ability and motivation to meet these standards may be dependent on a range of factors including their commitment to the organization, the time available during flights, the quality of the physical working environment and the team dynamic. Similarly, the team dynamic may be affected by the above factors, in terms of how related HR policies and working practices support and encourage the positive organisational and psychological benefits supposedly offered by teamworking. More recently, management has sought to further extend control over the cabin crew labour process leading to the increasing Taylorization of cabin crew work and the subsequent reduction in the level of autonomy that cabin crews may enjoy at work. This is evidenced by growing administrative burdens for senior crew, which are based on management's desire to gather information relating to crews' activities during flights, such as performance levels and adherence to prescribed service and quality standards.

The Objectives of Teamwork

The way in which cabin crew work is organized offers a range of benefits to management. Firstly, teamworking supports both enhanced managerial control and nominal autonomy where teams pursue improvements in the quality of the service or product by exercising a degree of discretion over the conception and execution of work tasks, while expending and utilizing their tacit knowledge. Effectively, they are 'working smarter to work harder' (Sewell 1996). In doing so, management may be required to partially surrender their control over the labour process. However, rather than being a honest and fair transaction, various studies, including the present research, suggest that workers are awarded

pseudo-control based on evidence which shows that the level of control given to workers, is tightly reined by management (Adler 1993; Danford 1998; Harley 1999; Sewell 1996, 1998). The presence of control mechanisms can be understood on the basis that, in order to ensure that workers surrender their full capacity to work, control mechanisms, such as defining, directing and supervising tasks, are required to ensure that the expended effort approaches the full potential of the worker (Braverman, 1974). Such mechanisms are highly evident in cabin crew work where definitions range from the colour of lipstick female crew must wear, to the individual services being offered on flights and in what sequence they are to be offered, to the precise nature of the checks carried out on emergency equipment prior to every flight. However, the extent to which crews actually adhere to management rules and boundaries during flights is unclear due to the absence of direct management presence in the aircraft. Crew members may for example, change the set order of services, delete certain services, or ignore quality procedures relating to service delivery.

Secondly, management may benefit from a number of psychological benefits linked to teamworking, which in turn may improve workers' performance. (Hackman et al 1975, Herzberg 1966, 1968). However, the complexity of the concept of teamworking deletes any notion that within teamworking the redistribution or devolution of control over work is assured. Sewell (1998) argues that teamworking obfuscates the locus of control, to the extent that it may appear that management is returning a certain amount of control to workers.

Thirdly, and as a continuation of the previous point, management's perennial desire to maximize their control over work can be realized in team-based work, where rather than enhancing or returning autonomy to workers, workers collaborate in their further subordination (Sewell 1998). A number of critical studies argue that empowering working practices that give workers the 'freedom' to organise their work and form their own set of norms (based on

their local rationalisation of acceptable work behaviour), simply engage workers in their further subordination and exploitation at work (Barker 1993; Delbridge and Turnbull 1992; Sewell and Wilkinson 1992). Evidence to support this argument could be found in the ever-increasing range and amount of information that is gathered on cabin crew performance. As Sewell (1998) explains, the basic concept of concertive control is adopted from Tompkins and Cheney (1985), who identified it as a post-bureaucratic mode of control. Barker (1993) presented concertive control as an approach that conceptually and practically transcends traditional bureaucratic boundaries, while at the same time, pursues the logic of increasing rationalisation (Sewell 1998:410). A further argument, fitting within a Foucauldian framework is that the formal performance management responsibilities of CSDs may act as a form of social control, where cabin crews are aware that their behaviour is being monitored, but are not sure when the CSD will carry out a formal appraisal. This type of surveillance adds to that which is provided by the passengers who observe crew during flights, and who may choose to complain if dissatisfied. Perceptions of increased visibility in terms of performance and behaviour, may lead to the team becoming self-disciplining, whereby under certain conditions, individuals become consciously aware of their transparency and accountability to management (or a team leader adopting a 'superior' role), via surveillance monitoring (Foucault 1977). In accordance with this perspective, under these conditions, certain behavioural outcomes are more likely, thus offering a means of social control.

Given that teamwork has previously been reported as the most enjoyed factor of cabin crew work (Boyd 1996), one outcome of increasing rationalization could be the deterioration of cabin crew performance and/or levels of job satisfaction. Indicators of a negative impact may include reduced productivity, lower levels of job satisfaction and a lack of commitment to the job. This situation would operate in contrast to the management literature where teamworking and other empowering working practices are regarded in highly positive terms, where

expressions such as high performance and employee commitment are intimately related.

4. Emotional Labour

A young businessman said to a flight attendant “Why aren’t you smiling?” She put her tray back on the food cart, looked him in the eye and said, “I’ll tell you what. You smile first. Then I’ll smile.” The businessman smiled at her. “Good”, she replied. “Now freeze and hold that for fifteen hours.” (Hochschild 1983:127)

Cabin crew work invariably requires a high degree of personal contact with the public and the performance of what has been termed as ‘emotional labour’ (Hochschild 1979). Indeed, civil aviation has been described as an industry wholly dependant on good employee morale, where the emotional labour content of cabin crews work is seen as being critical to passengers’ perception of the services offered (Warhurst 1995). As Deery et al (2000:2) explain, employees are expected to display emotions that comply with certain expression norms or rules of the organisation which help to create a desired ‘state of mind’ in the customer. In this context, employees are expected to ‘appear happy, nice and glad to serve the customer in spite of any private misgivings or any different feeling they may have’ (Erickson and Wharton 1997:188). However, Wharton (1993) argues that the disjuncture between what employees might feel towards their customers and what they are expected to display may prove difficult to resolve and may cause considerable anxiety. In addition, Deery et al (2000:8) propose that increasing demands on employees’ emotional labour may lead to the experience of emotional exhaustion. In particular, the authors link a higher risk of experiencing emotional exhaustion to an increase in the number of interactions with abusive customers .

While a company’s HR policies will determine the nature of and demands on employees’ emotional labour, intensive workloads and a high degree of

sustained contact with the public may increase the risk of emotional exhaustion, thus emphasizing an OHS dimension in the subject area. This section discusses the concept of emotional labour and the associated implications for people management and OHS.

What is emotional labour?

Emotional labour has more recently been incorporated into labour process debates, while being studied in a number of occupations (Bolton 1997, Briner 1995, Deery et al 2000, Filby 1992, Fuller and Smith 1991, Hochschild 1983, James 1989, Sturdy 1994). Taylor (1998:84) defines emotional labour as ‘the management of human feeling during social interaction with the labour process, as shaped by the dictates of capital accumulation. The presentation of emotions that are specified by the organization and embodied in the rules of employment has subsequently been described as the commoditization of emotions (Gordon 1989). Indeed, Hochschild (1983) argues that airline flight attendants are exploited to the degree where their management of emotion becomes a commodity and an instrument of labour, forcing cabin crew to induce or suppress feelings as the job dictates.

Emotional labour is a key feature of the service sector. The expansion of the service sector has firstly, raised awareness of the significance of *how* employees interact with customers, and secondly, the fact that these interactions occur in an increasingly competitive environment as customer choices for similar services grow. Feeling management, as part of the valorization process, is a predominant aspect of the service sector workplace, and is being increasingly recognized by employers. A greater emphasis has been placed on electing and training employees for the purposes of emotional labour, while installing the mechanisms to supervise and evaluate its deployment (Filby 1992, Fineman 1995, Fuller and Smith 1991, Ogbonna and Wilkinson 1990, Taylor 1998). Components of emotional labour include skills and attributes such as the ability to cope with the demands of working with the public, ‘helpfulness’, ‘problem-solving abilities’

and ‘approachability’. All of these factors are likely to be targeted in performance appraisals.

While emotional labour can be viewed as an integral part of service sector work, there is some evidence that growing demands on emotional labour may have negative outcomes on employee health. A recent study of call centre workers proposes that the high demands made on employees’ emotional labour may lead to ‘emotional exhaustion’ and withdrawal from the workplace (Deery et al 2000). The study links high workloads, the speed of work and the incidence of abusive customers to emotional exhaustion and absence. This illustrates the possible linkage between emotional labour and employee health. Furthermore, where absence rates increase, so do the associated costs to business, both in terms of lost productivity and sick pay costs.

5. Managing Emotional Labour

“We are maintaining a commitment to customer service which transcends merely being nice. It demands more than a plastic smile and ‘have a nice day’ ...As well as using their brains, they are going to need to use their hearts and engage in what we call ‘emotional labour’” (Dr Nick Georgiades, a former Director of Human Resources at British Airways, quoted in Blyton and Turnbull 1998:69)

Within the airline industry, management has sought to utilize and maximize both the physical and emotional labour of employees, and in particular, of cabin crews. As with other service industries, the quality of service provided is a key factor of organizational success. However, unlike manufacturing, the quality of the product cannot be wholly controlled since it is human beings who ‘manufacture’ the service – for example, treating customers courteously, being friendly and helpful at will. While electronic surveillance is widely used in static locations such as the call-centre industry or at the supermarket check-out, the

same control is not (yet) in place inside aircraft. Achieving attitudinal and cultural change remains therefore, a key objective of airlines, actioned by an array of culture management programmes. Customer service training programmes seek to inculcate employees with new customer-orientated attitudes and skills, particularly in the service sector with its increasing emphasis on 'consumerism' and the provision of 'commercial love'.

Gramsci (1976) noted that the control over labour is based on the permeation of a whole system of beliefs, morals and values. While different theoretical perspectives exist, the objective remains to create norms and meanings that are congruent with corporate interests and objectives. The traditional notion of ideology indicates that managers try to shape the values and beliefs of others by means of propaganda, such as the rhetoric of markets, customers and enterprise. One vehicle for achieving these goals is culture management programmes. The competitive pressures of the last decade have led to some companies differentiating their product on the basis of customer service. In the airline industry where different companies offer the same basic product (i.e. travel) customer service can be considered a prime competitive lever. A number of airlines have subsequently commenced training initiatives to refocus on customer service. For example, Ansett Airlines in Australia recently invested eighteen months and \$9 billion in designing and preparing such a 'culture development programme' for its 15,000 employees (Air Transport World, January 1996). Air New Zealand incorporates a two-day training course called 'Service Above All Else' to make it even more responsive to the needs of passengers (Management, Auckland, 1996). Indeed, British Airways credit their elevation to 'the world's favourite airline' to a four-phase culture management programme, which focused on excellence in customer service (Managing Service Quality, 1994). On the other hand, these cultural management training programmes have been criticised as a form of 'brainwashing' (Personnel Management, 8.8.96).

For some commentators, “British Airways provides the best instance of intensive and ambitious commitment to culture change in the UK in the past ten years” (Höpfl 1992:5). The philosophy and principles of HRM were central to BA’s programme of culture change – extensive training and communication, leadership and employee involvement, for example. However, the extent to which BA achieved *behavioural* change as opposed to attitudinal and cultural change is debated (Campbell-Smith 1986, Goodstein 1990). This is a theme that will be addressed in our analysis of the primary research.

Who is in Control?

As already mentioned, service sector organisations are increasingly specifying the way in which employees present themselves to their customers. This has in turn led to particularly invasive forms of workplace control, most notably in the call centre industry. Taylor and Bain (1999:109) describe the tightly scripted dialogue imposed on call centre agents as an attempt to structure the ‘speech of workers into a series of predictable, regulated and routinized queries and responses’. Employees may therefore have little flexibility in negotiating their interactions with customers and may subsequently suffer a loss of control over their self-presentation to customers. However, management’s ability to commandeer emotional labour is questionable in that ultimately it is ‘owned’ by the individual and is subject to their discretion.

The self-management of emotional labour, in that it is ‘volunteered’, suggests that individuals prescribe some control over the delivery of emotional labour. Filby (1992) found that female betting shop workers varied their delivery of friendliness or sarcasm towards customers. Similarly in the airlines, crews’ efforts to be ‘genuinely friendly’ are subject to individual discretion. However, management techniques to control emotional labour through overt and covert forms of supervision may lead to the reduction and even loss of individual’s control. Like Pavlov’s dogs, employees learn to respond to stimuli and produce

the desired behaviour (smile, transcribed conversation, questions etc.) in order to gain reward.

Taylor's (1998) study provides an example of emotional labour in practice. The author describes how agents were instructed to respond to the perceived feelings and interests of the company, rather than in a manner which expressed their own perceptions and feelings. In the words of one telephone sales agent:

“They train you to put the stress on yourself. If you have a rude or ignorant customer, you are supposed to pretend that something awful has just happened to them... ‘always feel sorry for the ignorant customer, do not hate him’ (sic)...this is what they tell you to do, ‘put sympathy on to him and not yourself’” (Taylor 1998:91).

A margin of discretion remains however, as employees learn the system and its flaws. According to one agent:

“When I know she [the supervisor] is not listening, I can't help but change my accent, what I say and the words I use.when I am positive she is not listening, I have been really short with bad customers, it's a great feeling” (Taylor 1998:95).

Taylor found numerous examples of agents' resistance to management prescribed behaviour, including disconnecting calls from customers that were particularly rude or ignorant, mouthing obscenities to the telephone, and rolling of eyes to colleagues - but only when agents were convinced they were not being observed by management, either physically or electronically (Taylor 1998:96). However, cabin crews are confronted with face-to-face interaction with 'customers' (often for prolonged periods), which disqualifies a number of these 'safety-valves' for dealing with stress or frustration at work.

6. The OHS Implications of Emotional Labour

From the discussion on emotional labour so far, it is clear that it represents a central component of cabin crew work and will feature as a key area in people management policies. Emotional labour may be targeted through culture management programmes, appraisal systems and recruitment programmes. While it is widely accepted that customers' perceptions of service quality are significantly affected by the nature of the interaction with front line staff (Peccei and Rosenthal 1997), less is understood about the consequences of constant and sustained demands for emotional labour on employee well-being (Deery et al 2000).

Hochschild (1979, 1983) claims that burnout is one of the most likely outcomes associate with the performance of emotional labour. She believed that staff who were employed in jobs with high and sustained customer contact risked high levels of stress. Morris and Feldman (1997) also considered that frequent interpersonal interactions with customers, particularly if emotionally intense and of a long duration, could be expected to lead to emotional exhaustion.

While cabin crews clearly meet the above criteria for performing emotional labour and potentially experiencing emotional exhaustion, their case is further enhanced by Deery et al's (2000) study which found that the perception of an increasing incidence of rude and/or abusive customers was related to reports of emotional exhaustion and higher absence levels. For cabin crews, the increasing incidence of both verbal and physical abuse represents both a growing demand on cabin crews' emotional labour and the risk of experiencing emotional exhaustion. As Hochschild (1983:123) noted,

“while some passengers assume the right to vent hostility towards cabin crew, the flight attendant has no corresponding right because she is paid, in part, to relinquish it”.

In addition, Deery et al (2000) identified high workloads and the speed of work as predictors for the experience of emotional exhaustion. These increasing demands may therefore represent the intensification of emotional labour, with the associated risk of emotional exhaustion. We now explore violence at work in more detail where we review the literature and discuss the linkages to people management policies and OHS interventions.

7. The Intensification of Emotional Labour?

Violence at work is a widespread but largely unrecognized problem across all sectors where employees work with the public. While bullying at work is increasingly recognized as a major concern to employers and trade unions, public assaults (verbal abuse to physical violence) on employees have received little attention in the UK. Recent headline events such as the flight attendant who was attacked with a broken bottle leaving her scarred for life, and the tripling of assaults on railway workers during the period 1995-98, highlight the growing problem (ITF 1999, TUC 1999a). A recent TUC survey outlines the increase in verbal abuse and physical violence experienced by UK workers, with one in five workers subject to a violent attack or abuse at work every year. Moreover, the report finds that women, especially those aged between 25 and 34 are most at risk (TUC 1999a). This has particular significance for airline cabin crews, the majority of which are female.

A TUC report lists transport workers as a 'high risk' group displaying at least two of the factors of 'dangerous workplaces': public frustration at having to wait and dealing with members of the public who having been drinking or taking drugs (TUC 1999a). Aggressive, threatening or dangerous behaviour by customers and members of the public seems to be a growing problem across all fields of enterprise and in all parts of the world. Aviation is no exception, but in this industry such behaviour poses a unique threat to crews and passengers and presents an unparalleled set of difficulties for those trying to manage it when it occurs. The common sense procedures for employees facing aggression or

physical threats from members of the public have little relevance for disruptive behaviour on board aircraft. Management advice to employees in such situations runs along the lines of: remove yourself and others from the risk, call on law enforcement agencies to restore order, and prosecute offenders in order to establish a zero tolerance reputation. These options are often not open to aviation workers. In the confined environment of a crowded aircraft at thirty thousand feet in the air, cabin crew simply cannot walk away from threatening or violent situations. Nor is there the prospect of calling for immediate outside help. The nearest police force might be hours of flying time away. Even once on the ground, the ability to involve law enforcement agents or to prosecute case can be frustrated due to major loopholes in international law.

Airline employees, as a result, face a unique challenge in having to tackle the problem themselves without being able to rely on outside assistance and without being able to withdraw to safety. Their obligation to act is all the greater because such behaviour, in addition to presenting a major threat to themselves personally, can also jeopardize the safety of the flight itself and put at risk the lives of all passengers on board the aircraft. In the face of such daunting challenges, the aviation industry is beginning to act. Airlines are developing policies and procedures to handle such cases, law enforcement agencies are introducing new airport security measures, and governments and air safety regulators are looking at ways of plugging the legal gaps. Commentators are currently calling for an international treaty or action, and legislation by individual countries that would ensure that unruly passengers could be arrested on landing. Currently, very few countries accept jurisdiction for an incident occurring in flight on board a foreign carrier. For example, if a crew member suffers an assault on board an American aircraft flying from Chicago to Frankfurt, the German police authorities are powerless to arrest any offender when the plane lands. The only countries that to date, have extended their national legislation to plug this legal gap are Canada, UK, USA and Australia.

The recent evidence pointing to the substantial increase in occupational violence - in the forms of verbal abuse, threats and physical violence – brings the management of emotion into focus. Mayhew and Quinlan (1999) provide evidence which shows that a large proportion of workers in many industries experience occupational violence. The authors found that verbal abuse and threats of physical assault were a common phenomenon among taxi drivers, fast food workers, hospitality and bar workers, nursing and hospital staff and teachers. Interestingly, females doing the same job tasks as males were often more frequently verbally abused than their male counterparts (Mayhew and Quinlan 1999:19). The survey included fast-food workers, of which, 48% commonly experienced verbal abuse from disgruntled customers. While verbal abuse may be an endemic risk for workers in, for example, restaurants, an important feature is that customers come and go relatively quickly. However, where workers are ‘hostages’ of abusive or disruptive customers, in for example aircraft, the emotion strain is perhaps more pronounced.

As the growing number of people boarding aircraft approached its summer climax this year, the UK government announced plans for a new offence called “acting in a disruptive manner”, which carries a maximum penalty of two years in prison. According to Lord Whitty, “these measures will be seen as a warning to those who behave badly in the air...they will be severely punished” (The Guardian 2.8.99).

The new offence is likely to be welcomed by airlines and flight attendants alike, but more information on the actual reasons for disruptive behaviour would allow the government and airlines to address the growing problem at source. It could be argued that the current approach of dealing with the outcomes of various triggers by way of punishment, is indicative of both the government and management’s approach to dealing with many of the occupational health and safety risks discussed so far (e.g. absence management).

Providing an indication of the growing international trend of 'air rage', British Airways and American Airlines reported a 400% and 200% increase in the past four years, respectively. Furthermore, a Lloyd's underwriter has now launched an insurance package to protect airlines from the considerable costs of air rage (The Guardian 2.8.99). The ITF has documented reports of crew members being punched, head-butted, kicked in the back, bitten on the cheek, throttled, hit by a bottle, and, in the case of a KLM cabin crew member, stabbed. Cabin crew in one airline had reported around 100 incidents of verbal or physical abuse per month (ITF News 6, 1998).

While a number of airlines provide training for restraining violent passengers, verbal abuse is not as clearly prescribed. One complicating factor is that individuals' perceptions of verbal abuse may be affected by their own physiological and psychological state. A key question is whether the crews' professionalism can rise above factors such as exhaustion/fatigue (jet-lag for example) and hunger/thirst (too busy on the flight to stop for a break). The extent to which cabin crews might be subject to these factors is explored in our primary research in chapters six and seven.

The experience of stress by passengers has been linked to air rage incidents. A recent survey of passenger behaviour found that 40% of respondents perceived take-off and landing as causing anxiety, and 50% became anxious during flight delays. Respondents' coping mechanisms most commonly included the consumption of alcohol or smoking (McIntosh et al 1998). It could be assumed therefore, that for a large number of passengers the flying experience itself is inherently stressful. Furthermore, factors such as a reluctance to follow directions or instruction from females (the cabin crew occupation is dominated by women) may also aggravate a potentially violent situation.

A number of external factors are also included in the equation of 'disruptive passenger syndrome', many of which are within airlines and airport authorities'

boundaries of control. The ITF has identified the main causes of disruptive behaviour as alcohol and drugs, smoking, cabin baggage, overbookings/delays/seat allocation, the cabin environment and unrealistic passenger expectations. We will look at each of these in turn and assess the airline industry's approach to solving or addressing the problems.

a) Alcohol and drugs

Alcohol consumption is associated with over half of all incidents in which the safety of a flight, its crew, or its passengers is put at risk. Firstly, consider the availability of alcohol in the airport lounges and also on the aircraft. Airline flights are unique amongst the transport modes in routinely dispensing alcoholic drinks free of charge, often without limit, to passengers. Business lounges and premium transfer lounges almost universally provide free alcoholic drinks including spirits. The aircraft environment is also unique in that intoxication will occur at a lower level of consumption than on the ground. Intoxicated travelers represent a more acute safety threat in aviation than in any other transport mode (except road transportation). While the holiday atmosphere may put an acceptable face on drinking alcohol, the fragility of safety at thirty thousand feet in a restricted, non-escapable environment highlights the potential dangers. An angry drunk causing trouble in a pub can be escorted to the pavement; however, in an aircraft, the perpetrator has a captive audience and predominantly female 'security guards'. Diverting is a last resort for the Captain (which was recently estimated as costing an airline £20 000)¹⁵, and cabin crews are expected to defuse the situation in the cabin and avoid panic or upset to other passengers. The whole concept of selling unrestricted amounts of alcohol to passengers in the airport lounges and then supplying it (often free of charge) on the aircraft, is clearly unsafe and in any risk assessment, would be considered as a high risk to safety and health. The ITF argues that for these reasons, the culture of alcohol provision within an aviation environment needs to be urgently reviewed by the industry (ITF 1999a).

¹⁵ Conversation with Cpt. Mike Vivan, Flight Safety Division, the Civil Aviation Authority

b) Smoking

Smoking is linked to a high proportion of disruptive incidents. Existing 'no smoking' policies do not incorporate any mechanisms to avoid unruly/disruptive behaviour that often results when passengers refuse to adhere to the policy. Non-compliance with smoking regulations is one of the principle categories of unruly and sometimes disruptive passenger behaviour, and presents a difficult and often dangerous situation to cabin crew and other passengers. Evidence on the physiological and psychological evidence points to the stressful effect that not being able to smoke can have on some passengers, and nicotine denial is known to provoke disruptive behaviour in some circumstances. A recent study of factors causing anxiety in passengers found that in response to anxiety caused by take-off and landing/flight delays, the most frequent anxiety-reduction methods mentioned included smoking and alcohol (McIntosh et al 1998). Some commentators have called for airports to sell and airlines to promote nicotine gum and other products to passengers, since it is not just during the flight that passengers cannot smoke, but also prior to departure in some airports. Some trade unions are calling for airlines to provide nicotine patches to passengers on board the aircraft to alleviate some of these effects (ITF conference 20-22 April 1999).

Smoking presents an equally complex problem for non-smokers who can be deeply offended by smoke around them. There have been a number of reported incidents where being in the proximity to smokers has itself been a trigger for disruptive or unruly behaviour. Smoking is an emotive issue and discrimination can trigger unruly or aggressive behaviour. Some suggestions for improvements include providing smoking areas in all airports (not just in the public bars) and in departure areas. Clear and consistent information should also be provided so that passengers know well in advance of their flight that smoking is prohibited. In all, airlines should adopt a more comprehensive approach to 'no smoking' policies

on flights, through ensuring passengers understand these policies before they enter the aircraft cabin.

c) Cabin Baggage

Research suggests that cabin baggage issues account for 10-15% of disruptive passenger incidents, and thus constitutes the third most frequent factor after alcohol consumption and smoking. The root of the problems appears to be a lack of clear, coherent and consistent information from airlines about their cabin baggage policies. As a result, passengers are uncertain about what constitutes a reasonable cabin baggage allowance for their flight. It is not uncommon for passengers to be allowed to take a particular bag on board one day, but not on another day. The recent increases in cabin baggage allowances are one of airlines' strategies to attract customers. Without doubt, this strategy further exacerbates the cabin baggage problem. British Airways have recently increased the limit for cabin baggage in first and business class from 14kg to 18 kg, and in economy class, from 6kg to 8kg. This is a move which will undoubtedly be followed by other airlines in an effort to compete. Given the high number of injuries caused by cabin baggage as already mentioned, it could be argued that some airlines portray a clear lack of consideration for crew and passenger safety on board aircraft.

d) Overbooking, delays and seat allocation

As flying becomes more popular, there is, increasingly, a gap between the expectations of passengers and their experience of air transport. A standard policy by airlines is the overselling of seats, which in turn, may lead to overbooked flights and passengers being refused travel. Airlines' load management policies may therefore contribute to the 'air rage' issue. Delays are also a major factor contributing to disruptive or unruly passenger behaviour. In some parts of the world, such as in the congested airspace in Europe, delays are almost routine. If an aircraft misses its 'slot' in one sector, it is often impossible to make up for lost time, especially on short-haul routes. The result can be delays

for all the subsequent flights of that aircraft for the remainder of the day. Unrealistic turnaround times are partly responsible for this quandary. On short-haul routes in particular, turnaround times can be as short as 20 minutes. If the aircraft requires attention from engineering, or there is a delay in catering or refuelling, the aircraft will miss its slot, and the snowball of delays begins to roll. It is also not uncommon for passengers to be on board the aircraft for extended periods during delays. The confined environment of an aircraft cabin may add to stress and anxiety levels amongst passengers, and the reduced efficiency of air conditioning and ventilation units while on the ground, may further exacerbate the problem.

A further issue is seat allocation. A survey of the causes of unruly behaviour carried out by North West Airlines, placed disagreements about seat allocation as the third most important factor causing disruptive behaviour (ITF 1999a). Seat allocation arguments can arise over upgrading, when families or groups travelling together are split, when smokers cannot sit in the smoking section, or equally, when non-smokers have to sit in the smoking section. 'Free-seating' policies are thought to provoke further aggravation and disruptive behaviour (e.g. Easyjet and Virgin Express). Passengers can be seen charging onto the aircraft as they compete to secure their preferred seating. Cabin crew may then be expected (or have no choice but) to defuse and resolve passenger conflict, which clearly is an undesirable situation.

e) The cabin environment: Seat Pitch and Cabin Air Quality

Seat Pitch

A key problem for passengers is the excessively narrow seat pitches in the aircraft cabin. The CAA minimum seat pitch is 26 inches. On aircraft, seat pitches vary from 28 to 34 inches depending on the airline. Narrow seat pitches may lead to discomfort and stress for passengers, while in some cases, common events like reclining one's seat may lead to verbal abuse from the passenger seated behind. Again, cabin crews are expected to resolve these situations.

Airlines have recently been accused of putting passenger safety at risk by reducing the space between seats to such an extent that some passengers may be unable to adopt the correct brace position for a crash landing. Many of the injuries suffered in the Kegworth air crash ten years ago were blamed on passengers' failure to adopt the correct brace position. The correct brace position involves bending as far forward as possible, with the chest close to the knees, with the head protected by the hands. Over the last ten years, the average space in economy class has been reduced from 34 inches to around 31 inches. Some charter and 'no-frills' airlines have gone as low as 28 inches, which is still within the CAA safety guidelines. Disturbingly, a recent study where the seat pitch was greater than 28 inches, found that only two of the eighteen individuals involved in the test could adopt the correct brace position (Scotland on Sunday 27.6.99).

Cabin Air Quality

Ironically, the prohibition of smoking inside aircraft may have led to worsened cabin air quality. It has been argued that airlines' support of the ban of smoking was based on the cost savings that would result from the reduced need to refresh cabin air as frequently. However, lower ventilation (refresher) rates mean that carbon dioxide levels may reach unhealthy levels. Poor ventilation in the aircraft cabin has been traced to the routine habit of some carriers (e.g. British Airways) of switching off air conditioning packs to save on fuel consumption (Dispatches 1998, ITF 1999). Earlier this year, the Aviation Health Institute claimed that the quality of cabin air had deteriorated so significantly on many flights that airline passengers were being exposed to excessive levels of carbon dioxide. Too much CO₂ can cause palpitations, anxiety, panic attacks, mood swings and irritability. With that in mind, it is unsurprising that poor cabin air quality has most recently been linked to the increase in incidents involving 'air rage' (The Guardian 2.8.99).

f) Unrealistic expectations

The growing gap between the expectations of some passengers and their experience of flying is created by the airlines' marketing images. The flying experience is often marketed as a luxury or premium service, which can be far removed from the more mundane reality experienced by the majority of passengers who travel in economy class. In the chase for high-value premium passengers, airlines sometimes give the impression that every whim of customers can be met. This emphasis on the service dimension to distinguish their product and promote their brands can give an entirely misleading impression of customer service on economy flights.

This review of violence in the airline industry illustrates the growing demand on cabin crews' ability to both manage their own and passengers' emotions. Emotional labour can be seen to have important implications for cabin crew health in terms of the potential for experiencing emotional exhaustion as a result of prolonged and often emotionally intense interactions with the public. Moreover, our focus on factors that influence verbal and physical abuse from passengers, underlines the extent to which the airline industry has prioritized profit imperatives at the expense of OHS.

8. The Impact of Deregulation on Cabin Crew Work Organization

The impact of deregulation in the airline industry on corporate organization and management strategy remains as an important consideration. It appears that increasingly, cost considerations are taking priority, which may have important implications for safety at work. Cost and profit over safety is illustrated by airlines' continuance of selling alcohol onboard aircraft. As already mentioned, one factor related to violent or disruptive passenger behaviour is alcohol. The revenue that alcohol generates may mean that its availability will continue before and during flights. Considering the acute safety risks that so-called 'air rage' presents, it is surprising to find that in a number of ways, airline companies' policies contribute to the growth of the problem. Equally, cost concerns can be

seen to overshadow people concerns in terms of air recirculation and the propensity of some airlines to switch off air conditioning packs during flights in an effort to reduce fuel costs. Moreover, the emphasis or focus of some airlines' strategies and policies (people/ cost concerns), as well as the possible relationships that these have to cabin crew OHS, are becoming apparent. This is further demonstrated by that evidence that shiftworking, long working hours, airlines' increasing demands for higher productivity and flexibility from cabin crew, and on emotional labour, may lead to serious health and safety consequences.

We will now examine the literature on the health and safety risks related to the cabin working environment. This will further demonstrate the possible linkages between airlines' strategies and policies and OHS, as well as extending our understanding of the range of potential OHS that are relevant to airline cabin crews.

Section Two: The Cabin Working Environment

This section continues our exploration of the range of risks to cabin crew health and safety. In doing so, we review the literature on cabin air quality, jet-lag, transmission of infectious diseases, ozone exposure and cancer risks (Band et al 1990, Driver et al 1994, Härma et al 1994, Häugli et al 1994, Kenyon et al 1996, Mcfarland et al 1994, Mawson 1998, Melton 1982, Nagda 1989, Nagda et al 1992, Pukkala et al 1994, Smith 1996, Suvanto et al 1993, Vasak 1986).

1. Insidious Dangers - Cabin Air Quality

Whilst most peoples' concerns about aircraft safety understandably focus upon the seemingly increasing possibility of a horrendous crash, such as those which occurred in 1996 off Long Island in Florida, and at Delhi, other more insidious and widespread threats to the health and safety of airline crews and passengers, have largely gone unrecognized in the UK.

Despite reassurances from the airline industry that cabin air poses no health risks to passengers or crew, a growing number of reports document a catalogue of symptoms suffered by aircraft occupants (Driver et al 1994, Kenyon et al 1996, Mcfarland et al 1994, Smith 1996). Airlines are under increasing pressure from flight attendants and their representative bodies to improve the cabin air quality through allowing a higher proportion of fresh air into the cabin.

The environment within aircraft cabins is controlled by environmental conditioning units (ECUs), which recirculate up to 50% of cabin air. Recirculating stale cabin air was not normal practice until the early 1980s when airlines responded to increased oil prices and sought to reduce the cost of pumping 100% fresh air into aircraft cabins. As already mentioned, this cost reduction exercise has been criticized by a number of commentators who argue that standards should be set and regulated instead of being left to individual airline's discretion. Cabin air quality has become a major concern to flight

attendants and to (some) official bodies. In February 1996, an International Civil Aviation Organization (ICAO) paper concluded:

“Poor cabin air quality is a double safety risk, affecting both the performance of the crew and the health and safety of everyone on board” (ITF 1995).

Cabin crew testimonies from the US OSHA hearings on Indoor Air Quality in 1994-5 provide evidence that air quality does present safety risks. One flight attendant described a flight in which:

“Shortly after take off, I noticed that there just did not seem to be enough air to breathe...I reported that all eight flight attendants were experiencing difficulty breathing, tingling in their arms and hands, and nausea” (OSHA 1994-5).

In addition to concerns over air quality leading to cabin crew incapacitation, recent evidence suggests that there is a risk of contracting infectious diseases onboard aircraft. Dr Niren Nagda, principal investigator of a US Department of Transport study of cabin air quality, testified to Congress in July 1993 that due concern should be given to the transmission of infection and disease, and he called for further research into possible links with reduced ventilation rates. Indeed, the transmission of antibiotic-resistant mycobacterium tuberculosis is known to have occurred on aircraft. Recent US research revealed that, on one journey, at least six passengers were infected in-flight by a fellow passenger suffering from the disease (Mcfarland et al 1996). A more recent case involved two British women who contracted TB from a passenger sitting ten rows behind them, and with whom they had no contact during the journey (Channel 4, Dispatches, 1998).

In the UK, the CAA argues that since aircraft filters are of the same standard and quality as those used in hospitals, air recirculation poses no health risk because airborne bacteria and viruses are trapped by filters in the air conditioning systems. However, such confidence is called into question by the findings of a

survey carried out by the union representing hospital radiographers in Britain. The survey found that a wide range of illnesses and ailments experienced by individuals in various areas of the hospital appeared to have been contracted through the circulation of bacteria through air-conditioning and ventilation systems (Society of Radiographers [SOR] 1991).

The various health hazards associated with the air quality in aircraft cabins were recently brought into focus by a successful legal case by US flight attendants, which resulted in US tobacco companies agreeing to fund a £185 million research foundation to investigate illnesses related to passive smoking on board aircraft. The flight attendants argued that they had contracted illnesses such as lung cancer and heart disease from breathing in secondhand smoke as a routine aspect of their work aboard aircraft. The flight attendants also retained the right to pursue damages claims of more than three billion dollars, and the airlines agreed not to block the rights of up to 60, 000 cabin crew members to file individual suits. In the tobacco companies' defence, lawyers argued that other airborne pollutants such as ozone, cosmic radiation and non-tobacco contaminants had contributed to the diseases suffered by the flight attendants.

The effects of Environmental Tobacco Smoke (ETS) on those who passively inhale it have long been recognized in the USA, and in 1989, Congress banned smoking on all domestic flights. In 1995, the ICAO recommended a worldwide ban on smoking to its 183 member states. As this move had no legislative muscle, smoking bans were taken up on a voluntary basis by airline companies. On many international flights tobacco smoke is still a major contributor to the diminished cabin air quality. Cigarette smoke is recorded as being the most common complaint by passengers and crew members concerning overall air quality on international flights (Oldaker and Conrad 1987).

Infectious Diseases

While air quality and ventilation rates may be factors in the spread of infectious diseases onboard aircraft, cabin crew are also at risk of contracting disease by the very nature of their job. A number of occupational groups are exposed to the risk of infection, such as nurses, dentists, police, housekeepers and airline cabin crews. The risk of cabin crew members being exposed to disease is increased as a consequence of performing routine duties, but additionally they may be called upon to treat injury or illness inflight. In this capacity they may be exposed to blood spills, vomit, urine, faeces, mucous and saliva. However, unlike the aforementioned occupational groups, cabin crews are not covered by a national training standard on incidental exposure to bloodborne pathogens, nor do they have the right to protective clothing, such as latex gloves, when carrying out routine duties.

Ozone

An additional hazard associated with aircraft cabins is ozone. Ozone is formed in the upper atmosphere, especially above 35 000 feet (the cruising altitude of many aircraft). Ozone is created from the effect of ultraviolet radiation on molecules of oxygen. There is clinical and laboratory evidence that exposure to ozone can cause pulmonary symptoms such as coughs (Melton 1982). Other symptoms include headaches and loss of concentration. For those exposed to ozone, pulmonary symptoms occur at much lower concentrations with physical activity, hence flight attendants are much more likely to suffer from the effects of ozone than pilots. Moreover, the presence of airborne bacteria and viruses on aircraft makes the sometimes elevated levels of ozone in the cabin of even greater concern as the respiratory system is more susceptible to infection following exposure to ozone.

Cabin ozone concentrations depend on ambient levels, but also vary with the type of aircraft, passenger load and characteristics of the air conditioning system. In the USA, the Federal Aviation Administration advised that routes and cruise altitudes should be avoided where high levels of ozone were predicted to occur

(FAA Advisory Circular AC 120-38 1980). However, if catalytic converters were installed in aircraft, then ozone levels could be maintained to comply with medically safe guidelines at all times. Some operators (e.g. Icelandair) have voluntarily taken this step.

Radiation

Aircrews are exposed to cosmic radiation levels that are higher than the cosmic and terrestrial radiation levels normally encountered on the ground. Cosmic radiation is a mixture of various types of ionizing radiation. A more familiar form of ionizing radiation is medical and dental X-ray examinations. The galactic cosmic radiation field at aircraft operating altitudes is complex, with a large energy range and the presence of all particle types. No single device, active or passive, can satisfactorily measure the whole range of particle types and energies (Bagshaw, 1998).

Monitoring equipment for ionizing radiation is installed in the Concorde supersonic aircraft, which flies at altitudes of around 18 km (59 000 feet). British Airways has been measuring and monitoring cosmic radiation exposure of flight crew since Concorde entered service in 1969. There are a number of methods for measuring crews' radiation exposure, one of which is wearing individual dosimeters. British Airways abandoned this method of measurement following various problems, such as crews forgetting to remove the dosimeters after work, or forgetting to wear them at all. Instead, dosimeters are placed in aircraft or more commonly, software packages are used to calculate the average radiation exposure on given routes. In one study, passive dosimeters recorded a dosage that was 68% higher than the estimated doses calculated by the software package CARI. This highlights the danger of relying on software packages to estimate radiation exposure, and ultimately, to assess the risk to flight crews, as all European airlines will be obligated to do from 13 May 2000 (EC Directive on Ionizing Radiation).

It is not only Concorde crews that are at risk. Boeing 747-400 aircraft (used on most longhaul flights), are capable of flying 'ultra-long-haul' routes of up to 16 hours, during which time a cruising altitude of around 37 000 feet will be maintained. While flying at a lower altitude (atmosphere shielding at 39 000 feet is predicted to give about half the cosmic radiation dose rate of that at 59 000), radiation doses have a time/dose relationship, so long flying times can equate to high radiation doses, posing a significant risk to flight crews (and passengers who fly regularly).

The EC Directive will require airlines to assess exposure to radiation when organizing work schedules, to inform crew of the potential health risk that their work may involve and apply special protection for pregnant crew members. Barish (1999) argues that the protection offered to aircrews should be extended to regular business flyers whose schedules include a substantial amount of flight time at high altitudes. Data from frequent-flyer reward programmes found that in 1996, approximately 435 000 people in the US travelled distances and routes that, according to medical estimates, would take them over the recommended maximum legal exposure limits for members of the public (Barish 1999). The FAA recently proposed that frequent flyers on transatlantic flights may be exposed to the equivalent of 170 chest x-rays a year, putting them at increased risk of cancer (BBC Online Health 29.6.99). There is currently no legislation addressing exposure to radiation through air travel, although the European Directive that requires European airlines to measure levels of radiation on flights, may lead to significant changes in the future. Farrol Khan, director of the Aviation Health Institute, argues that companies who send employees on regular trips by plane should be aware of the risk and inform their staff accordingly, in order to avoid future litigation (BBC Online Health 29.6.99).

Measuring Radiation Dosages

A number of studies have measured radiation exposure. In January 1992, the US Office of Aviation Medicine published a DOT/FAA report on the levels and

possible effects of radiation exposure of aircrew (DOT/FAA/AM-92/2). The report details a study of 32 flights where levels of exposure were measured and the health risks assessed. It concluded that even with the highest dose of radiation measured, a crew member who worked as many as 1,000 block hours a year would be exposed to less than half the annual limit recommended for a *nonpregnant* occupationally exposed adult by the International Commission the Radiological Protection (ICRP). However, on about one-third of the flights studied, the radiation exposure of a *pregnant* crew member who worked 70 block hours a month for 5 months would exceed the recommended safe limits for pregnant women.

The ICRP report states that the risk to an unborn child of incurring a radiation-induced defect as a result of the mother's occupational exposure to galactic radiation was real. However, the report stated that it would be impossible to establish that an abnormality or disease in a particular individual resulted from such exposure. This presents an alarming situation for female flight attendants who may not be aware of a pregnancy due to irregular periods for example, and are thus unwittingly exposing their unborn child to occupational radiation. Moreover, should their child suffer any abnormalities or disease at birth (or in later life), the mother could not prove employer liability. This is clearly, a precarious situation and one which is unacceptable since radiation levels are not currently routinely measured or controlled in aircraft (the exception being Concorde flights).

Other studies have shown statistically significant findings of increased chromosome damage in flight crews (e.g Romano et al 1997), while some studies suggest that while recorded doses are relatively high, flight crews do not *routinely* exceed the recommended radiation doses (Bagshaw et al 1996; Freidberg et al 1989,1992). Bagshaw et al (1996) found that less than 4% of British Airways crew based in Tokyo exceeded the recommended dose level.

The relative risks are therefore suggested to be minimal for **non-pregnant** air crews. However, as already mentioned, there are a number of problems in measuring radiation. An alternative and more reliable method of measurement has been developed whereby chromosome damage has been analyzed in the blood cells of air crew members (Schied et al 1993). A number of studies using this method have found statistically significant increases in damaged chromosomes in air crew, with cabin crew having relatively more damage than pilots (e.g. Lebuser et al 1995). Earlier assurances of minimal risk to non-pregnant crew may subsequently be considered to be invalid.

The EC Directive may provide some comfort to those who were rocked by the bombshell provided by a Finnish report, which assessed whether occupational exposure amongst commercial airline cabin crew was associated with the risk of cancer. The study found a significant excess of breast (1.9 fold) and bone cancer (15 fold) compared with the national average. It concluded that, “ionising radiation during flights may add to the cancer risk of all flight personnel” (Pukkala et al 1995). Lynge (1996) further reports an increased risk of breast cancer for female flight attendants studied in Denmark. A Canadian study found a significant increase in all leukaemias, brain, prostate cancers and malignant skin melanoma, compared to the normal population (Band et al 1996). A recent international conference ‘Cosmic Radiation, Electromagnetic Fields and Health Among Aircrews’ (1998), researchers shared findings of longitudinal studies of cancer incidence among aircrews and called for continued surveillance of air crew health (particularly cancer incidence), radiation dosages and measuring devices. A number of key studies are due for completion in the year 2001.

Increasing information from research and protection under the EC Directive, has however, come too late for thousands of cabin crew who have been subject to the effects of radiation without being provided with adequate information, which would have enabled them to assess the risks.

Pregnancy and Flying

Reliable data concerning the risk of flying to pregnancy is sparse. However, a British General Practitioner with a large number of cabin crew patients, believed that flight attendants suffered more miscarriages than might be expected (Goodwin 1996). In 1984, Vaughan et al examined pregnancy outcomes in various occupational groups by perusing Washington State birth records and detected,

“a significant increase in the reporting of prior spontaneous foetal loss by women usually employed as flight attendants in comparison to a sample of all other women having live births”.

This finding was corroborated by Daniel et al (1990), who also found that cabin crew reported miscarriage nearly twice as often as other women, though the risk was not so marked when compared with other *employed* women. However, “a clinically significant pregnancy risk among flight attendants”, was noted. In addition to radiation exposure risks, the pregnant crew member and her unborn child are at risk to other environmental hazards, such as decreased air pressure (thus reduced oxygen concentration), electromagnetic hazards, noise and low frequency vibration.

Airliner cabins are usually pressurized to an equivalent outside atmosphere of around 8 000 feet. However, this represents a significant fall in oxygen pressure of some 28% (Goodwin 1996). Considering that pregnancy will increase the mother’s oxygen consumption by up to 14%, the cabin environment is not the ideal environment, particularly when flight attendants are involved in physically demanding labour. A Japanese study of non-pregnant flight attendants showed an increase in heart rates while performing duties in-flight, compared to when flight attendants were on the ground (Yoshioka et al 1982).

Several studies suggest that the foetus can cope with the level of hypoxia at normal cabin altitudes. However, these studies were carried out on sedentary passengers - not working stewardesses.

According to a report from the United States Army Aeromedical Research Laboratory, a further risk emanates from electromagnetic hazard in the cabin, which could harm the developing foetus. The paper concluded that:

“the issues and concerns of pregnancy and flying are complex... but the potential for foetal injury and death is real” (Mason 1994).

Just as flight attendants are out-with the protection of the Health and Safety at Work Act (1974), they are also excluded from the EU Noise At Work Regulations (1994). Scandanavian and Canadian studies (Härkainen-Sörri 1986, Lalande 1988) link a 3-fold increase in infant hearing loss to the exposure to occupational noise (as low as 90dB) during pregnancy. Furthermore, there is evidence that occupational exposure to vibration increases the risk of miscarriages and birth defects (Flournoy 1990). The low frequency vibration present in airborne aircraft could be classified as occupational noise, although its particular effects on the health of air crew has not been extensively researched to date.

Pesticide/Organophosphate Hazards

Pesticides are commonly used on aircraft, both when passengers and crews are onboard and when the aircraft is empty. On flights to a number of countries including, Trinidad, Tobago, Grenada, India and Uruguay, crew and passengers are directly sprayed with aerosol pesticides. Aircraft occupants may also be exposed to pesticides without their knowledge or consent. Empty aircraft are sprayed prior to passenger-boarding, with the intention of leaving long-lasting insect-killing residues in the cabin. Such pesticides could remain in the air-conditioning system, on the fabric of seats and on carpets and other surfaces.

These pesticides are recognized for their carcinogenic effect. Indeed, many of the small canisters that crew disperse in the cabin are labelled to indicate that the contents are harmful to health. Canisters also read, 'Avoid contact with skin, Do not inhale fumes'.

The US Environmental Protection Agency's Director of Pesticide Registration, in a 1994 testimony before a US Congressional Subcommittee, acknowledged that spraying occupied passenger cabins with aerosol insecticides could create medical problems for people with allergies, chemical sensitivities, asthma, and other respiratory problems. One report lists a catalogue of complaints from crew and passengers including headaches, nausea, fatigue, memory loss, a reduction in cognitive skills and immune system depression (NCAP, Riley 1999). Medical studies suggest a link between organic solvents and other chemicals that airline workers are exposed to, causing multiple leukemias and breast cancer (e.g. Dorgan et al 1999).

2. The AFA Investigation

Organophosphate hazards are being extensively investigated by the AFA in the US. They argue that there is a clear relationship between the contamination of the bleed air system on aircraft with hydraulic fluid and lubricating oil, and reports of air quality problems. Moreover, they argue that this is a problem which is clearly understood and recognized by airlines and manufacturers, as evidenced by various procedures for correcting fluid or oil losses after flights. The loss of fluid immediately before landing (recorded in maintenance records by the flightdeck), has been correlated with reports from cabin crew of the cabin filling with mist or smoke. This is classed as an '*incident*'. This can occur on landing, take-off, mid-flight or during prolonged periods on the ground. Positive correlations have been made between reports of mist and odour in the cabin and logged mechanical problems. In one airline studied by the AFA, there were approximately 6.8 such incidents *per month*. The MD-80 aircraft appears to be the worst affected by fluid leakages into the APU (around 70% of reported

incidents). The AFA describe four basic types of incidents for a total of 462 recorded cases:

- 1. Landing Incidents – 35 Cases of Misting on Landing**
- 2. Take-off Incidents – 35 Cases of Misting or Haze on Take-off**
- 3. Mid-Flight Incidents – 186 Cases of Haze in Cabin**
- 4. Ground Incidents – 32 Cases of Haze in Cabin**

Other: 140 incidents did not identify a flight segment; 34 incidents where misting occurred on both take off and landing (Witkowski 1999).

The result of these incidents is that aircraft cabin occupants are exposed to irritants and neuro-toxins in combusted products of hydraulic fluid or an aerosolized mist of hydraulic fluid. Given that cabin crew will accumulate many more flying hours than a typical passenger, their exposure levels are of particular concern. The reported symptoms associated with the incidents are feeling intoxicated, headaches, dizziness, giddiness, loss of motor coordination (shaky hands), twitching or myoclonic tremors, rashes, eczema and upper respiratory symptoms (e.g. sinusitis, rhinitis). Some flight attendants have reported long-term mental impairment which they connect to misting incidents (Witkowski 1999).

There is some evidence that the type of oil used (Mobil 2) causes the chamber seals to deteriorate before inspection intervals, which means that fluid can leak from the chamber into the air conditioning systems. As these chambers are located close to the air conditioning systems, only major re-design of aircraft would fully remove the danger, even if different oils/fluids were used. The decision by airlines and manufactures to bury their heads in the sand over this problem can be appreciated when the massive cost involved in such a move, is considered.

In a review of the literature on the health effects of oil-mists in a variety of workplaces, Karube et al (1995) reports that there appears to be a worldwide distribution of the problem, and the number of reported cases grows with increasing clinical awareness. In 158 reports published from 1965 to 1993 the following diseases were observed: skin-contact dermatitis, oil acne and photosensitive allergic dermatitis; scrotum-benign and malignant tumours; respiratory system-nasal symptoms, rhinitis, nasal mucosal displasia, nasal mucosal tumor, laryngeal cancer, bronchitis, lipoid pneumonia, lung fibrosis, lung cancer and bronchial asthma and others, including possible carcinogenicity and a high incidence of chromosomal change. This suggests that oil mists are involved in many industrial diseases; however, the cause-and-effect relationship still remains a matter of conjecture (Karube et al 1995).

'Economy Class Syndrome'

The dangers of forming a blood clot during air travel have been associated with long-haul flights, cramped seating and reduced legroom, dehydration, poor air quality and inadequate ventilation (Burnard 1997). Several studies are now underway to identify and define the risk factors for blood clots during long distance air travel for both passengers and crew members (Kahn 1999¹⁶, Burnand 1999¹⁷). Studies to date suggest that blood clot risks were increased for flights of 4 hours or more (Mercer and Brown 1998), and the condition – usually associated with older people with medical histories - may also occur in young individuals with no medical history (Ribier et al 1998).

3. Absence Management

One possible incentive for management to address some of the occupational risks outlined above might be absence levels. The Health and Safety Executive

¹⁶ Farrol Kahn of the Aviation Health Institute (Oxford) is currently compiling a database of passenger reports of blood clots during/following air travel.

¹⁵ Professor Kevin Burnard is conducting a study of 2000 passengers travelling from Britain to Australia to establish how many blood clots are suffered. Guy's and St Thomas's Hospitals, London

(HSE) estimates that 60% of all work absence is caused by stress-related illnesses, totalling 40 million working days per year in the UK alone (HSE 1995). Increased workloads are reported to be a key cause of stress and stress-related illness, estimated to cost UK industry around £1300m in lost working time (IPD 1998). The 1997 European Foundation for the Improvement of Living and Working Conditions (EFILWC) survey of absence concluded:

“...it is essential to consider what actions are relevant to improving the work environment or the promotion of worker’s general health and well-being...” (EFILWC 1997).

In recent years, employee health has received considerable attention from employers and trade unions. This is partly attributable to increased public awareness about various workplace health hazards, such as the effects of passive smoking. A further reason for attention to employee health may be linked to the increased costs absorbed by employers for absence (estimated at £12bn in 1996: CBI). Prior to January 1994, the Government contributed to the costs of sickness pay. The decision to transfer this expense to employers was based upon the premise that it would encourage more effective management of sickness absence. The government of that time might well be proud – a range of punitive absence management strategies are employed in most UK organizations (e.g. return to work interviews, home visits, reduced holiday entitlement).

One indicator of their apparent ‘success’ is found in various studies, which find that a majority of UK employees are afraid to take time off work when they are ill (UNISON ‘Control or Management, 1998; TUC 1995). A recent survey by the Manufacturing, Science and Finance Union (MSF) found that the majority of respondents made a link between ill health and their job. Symptoms included stress and sleeping problems, which they linked to working hours and shift patterns (MSF 1997). The study also looked how employers were encouraging healthier living. Few employers took action to restrict excessive working or stress. Only 21% had carried out a health and safety audit and only half provided an occupational health service for employees.

4. Absence Policies In the Case Study Airlines

The airlines, on which our case studies are based, incorporate a range of absence management policies. The procedure for dealing with absence begins with informing the crewing department of the intended absence. This department organizes stand-by call outs and cabin crew work rosters. Cabin crews are required to inform crewing of their intended absence at least two hours before their rostered report time. On each day of absence they must telephone crewing to provide information about when they think they will be fit to return to work. Crewing officers are at liberty to call absent crew at home to confirm any of these details or to discuss future roster changes. Absent crew must be contactable at all times, and may face a reprimand if crewing or the duty manager are unable to contact them. On the first day back at work, crews fill out an 'absence notification form', where details such as the reason for absence, must be completed. Return to work interviews took place for absences of more than seven days. In addition to tight control measures, the airlines also utilized financial and other incentives aimed at reducing employee absence. A main incentive is flight pay. Flight pay is hourly rate premium and can amount to around 30% of the basic salary every month. A further incentive is the avoidance of 'roster-wiping', where absent crews lose forthcoming lucrative trips abroad.

Less overt mechanisms are also in place, which demonstrate the 'harder' side of teamworking. Rosters are generally designed to have the same group working together for a block number of days. During this time a sense of loyalty to the team may develop and this can act as a motivator for crews to come into work even when ill. Loyalty to the other team members may also prevent sick crews from 'calling in sick', as short-notice absences mean that a colleague will be 'called out' from stand-by to provide cover (from discussions with HR departments, cabin crew and cabin crew representatives at British Airways, Britannia and KLM UK, September 1998).

As labour costs are increasingly squeezed in the present competitive climate, employees who are suffering from the ill-effects of their working environment may well find themselves under pressure to come to work despite possible adverse long-term effects on their health. This approach sits uncomfortably with theoretically strict rules governing flight attendants stating that they are not fit for duty when they have minor complaints such as colds, as more serious conditions could develop (e.g. aural barotrauma). Effectively, crews may be penalized for taking time off work when almost every factor associated with the design and content of their work could be related to ill health. Short-term profit imperatives may mean that tighter discipline is recommended in favour of the introduction of initiatives that address the possible root causes of illness (e.g. workload, working patterns). This logic operates in reverse to that of the EFILWC, which suggests that improvements to employees' working conditions and working environment can lead to a reduction in absence rates.

The aforementioned EFILWC study concludes that employers could do more to tackle worker absenteeism by looking to health and safety. The report criticized the procedural measures found in most countries (e.g. return to work interviews), as simply an attempt to reduce absenteeism by tightening procedures without addressing preventative measures. The report suggested the removal of work-related causes of safety, health and well-being problems, which can include acquiring safer equipment, climate control, task rotation, better information systems, work organization and safety management. The benefits of implementing such measures can be found in Norway for example, where a national absenteeism project found that the one-third of companies that had improved working conditions were also the most successful in reducing absenteeism (on average by 10% a year) (Health and Safety Bulletin 262, October 1997).

5. Conclusions

Airplane travel is undoubtedly one of the most popular modes of travel in the modern world. Passenger numbers are expected to double on European routes from 400 million in 1995 to 814 million by the year 2000 (Scotland on Sunday 24.9.95). The industry has enjoyed an impressive recovery from the 1980s world recession, illustrated by British Airways annual profits of £585 million for 1995, a 29% increase on the previous year. The potential of a still-expanding market is further highlighted by the continuing growth of the low-cost airlines such as Ryanair and Easyjet. It could be argued that such a profitable and expanding industry could be expected to provide a safe and healthy working environment for its employees. In addition, we might expect that modern aircraft would offer an improved working environment, and that the increasing competitiveness in the airline industry would reinforce the importance of employee commitment and motivation in achieving excellence in customer care and service.

However, many of the good intentions of culture management programmes and other policies may be undermined not only by 'hard' people management policies affecting work organization, but also by a range of serious and insidious risks to cabin crew health and safety (and by implication, passenger health and safety). These risks have been identified in the aircraft cabin environment, and there is some evidence that airlines are aware of the range of possible OHS risks, but do little to minimize these risks. The literature review suggests that while airlines may publicly promote an employee-friendly image where 'people are the most important asset', the underlying dynamics in the organization may be based more on a 'cost-sensitive', market approach. Such an approach is shown to have implications for cabin crew health and safety, in terms of work intensification through a variety of means, and the failure to provide cabin crews with a safe and healthy working environment. The façade of 'soft' 'people-centred' HRM undoubtedly helps to create a more positive public image, while the reality of economic, market and regulatory conditions may entice (or force) airlines' to implement 'hard' forms of HRM, where higher productivity and cost-efficiency take pole position over 'people concerns'. In terms of OHS, this may mean that

‘people concerns’ such as the quality of employees’ working environment and the health effects of productivity strategies on employees, would be overshadowed by the hard figures generated by productivity increases and cost savings. These gains however, may only be enjoyed on a short-term basis, given the possible long-term effects of airlines’ policies on employee health.

In terms of our research questions, the literature reviews provides some support for our proposition that airlines espouse ‘soft’ HRM, but in reality practise the ‘hard’ form. It also provides a frame of reference for our second and third questions, namely, that there may be some connection between airlines’ people management policies (e.g. work organization and the quality of the working environment) and cabin crew OHS. Furthermore, the range and extent of OHS risks experienced by cabin crews may be greater than what is currently acknowledged by airlines and regulatory bodies.

We now progress to the primary research where our research questions are addressed. Our analysis is based on OHS as perceived by the front-line workers – cabin crews. We examine developments in cabin crew OHS and use these developments to assess shifts from the publicly perceived ‘soft’, people-centred HRM, to the profit, cost-rational ‘hard’ form. We also assess the range and extent of OHS risks experienced by cabin crews and the nature of any relationships between these risks and airline companies’ people management policies. We begin with a discussion of the methodological positions behind this thesis.

Chapter Five

Research Methods and Design

The process of serious academic research requires researchers to thoroughly and methodically plan and justify their epistemological and ontological positions. This is of high importance since any generated 'knowledge' will be judged for its reliability and validity on these principles. A range of choices and methods are available for research, which relate to the philosophical underpinnings and the objectives of the research. The term used to identify a focus on, or study of, what *kinds* of things exist is of course, ontology (Ackroyd and Fleetwood 2000). In this study, ontological questions are concerned with for example, the type and range of OHS issues for cabin crews. This leads us into epistemological questions, which are of course, enquiries into our knowledge of being in terms of *how* we know what kinds of things exist (Ackroyd and Fleetwood 2000). For the purpose of this study, this translates into identifying the approach adopted for the analysis of cabin crew OHS and the case study airlines' approach to people management. What epistemological assumptions regarding objectivity and subjectivity are accepted and how do these affect the research methods employed? To explain and justify our epistemological choices, we now consider various approaches to social science research.

1. Epistemological Positions

This section will outline three key epistemological positions: positivism, interpretative and critical realism. These three alternatives to social science are idealized, simplified models of more complex arguments and consequently differ in a number of ways (Neuman 1997:62). However, in practice, few social researchers agree with all parts of an approach and often mix elements from each (Neuman 1997:62).

A positivist approach follows the logic of hypothesis testing and is based on a general cause-effect relationship that is logically derived from causal law in general scientific theory. This position views the process of research as one of testing, measuring, controlling and isolating variables with a view to testing hypotheses. This approach does not accommodate subjectivity, as it follows a 'value-free' and objective philosophy. The doctrine of positivism is associated with August Comte (1758-1857), who proposed that science was the only source of knowledge and that this approach could be applied in both the natural world and to human behaviour (Maxim, 1999). Emile Durkheim followed Comte in advocating a positive approach in sociology, where the scientific study of society is confined to collecting and objectively classifying information about phenomena (Haralambos and Holborn 1991:699). For Comte, the internal meanings, motives, feelings and emotions of individuals were irrelevant to the scientific study of society since these could not be observed and so could not be measured in an objective manner. Adopting a similar perspective, Durkheim argued that social facts manifest in the belief systems, customs and institutions of society provided a range of social facts for objective measurement. For Durkheim, this range of social facts was evidence of a set of collective beliefs, values and laws which existed externally from individual psychology or mental states. In his words, "collective ways of acting or thinking have a reality outside the individuals", making individuals behave in particular ways (Haralambos and Holburn 1991:700). For positivists, the belief that the means of understanding the natural world can be transferred to the social, leads to a preference for quantitative approaches such as questionnaire surveys and highly structured interview schedules. As with many other epistemological positions, this approach has been criticized and challenged (see for example, Neuman 1997, Sayer 1992).

The validity of a positivistic approach being applied to human behaviour has been strongly challenged on the grounds of the unpredictability of human behaviour. It has been argued that the study of human behaviour is

fundamentally different from studying the natural world since unlike subject of matter of, for example chemistry, people possess consciousness – thoughts, feelings, meanings, intentions and an awareness of being, which in turn produce individual and subjectively formed meanings. Unlike matter which simply reacts ‘unconsciously’ to external stimuli, human define situations and give meaning to their actions and those of others. In other words, they do not merely react to external stimuli in a uniform manner, thus invalidating the notion of straightforward ‘stimuli-response’ observations. Consequently, some sociologists have argued that sociology requires a different type of methodology from natural science (Haralambos and Holborn 1991:698).

Within the context of this study, a positivistic approach would assume the existence of constant conjunctions of events or ‘laws’ in the social world which would be universally valid regardless of historical eras, cultures or even industry context. The objective measurement of OHS would not therefore, take into account the ability for cabin crews to perceive the nature, range and extent of OHS risks differently, focusing instead on objective and observable OHS indicators such as policy statements and regulations. Such an approach may provide a simplistic understanding of cabin crew OHS where underlying structures, processes, social relations and individuals subjective interpretations of these, would not be fully considered. Suitable epistemological choices may therefore lie at the other end of the epistemological spectrum where interpretative social science is located.

Interpretative sociologists usually reject the use of natural science methodology for the study of social action. Unlike matter, peoples’ interpretations and meaning are under constant negotiation and their behaviour cannot be explained as a simple reaction to stimuli. Moreover, it is argued that meanings are not imposed by an external society which constrains its members to act in a certain way. Instead, meanings are constructed and deconstructed by actors in the course of social interaction (Haralambos and Holburn 1991:707). This approach

accommodates the concept of social actors' ability to feel and think. The ontological position of this approach is based on the concern to interpret the social environment of subjects and the meanings that they ascribe to it. In general, the interpretive approach is the *systematic analysis of socially meaningful action through the direct detailed observation of people in natural settings in order to arrive at understandings and interpretations of how people create and maintain their social worlds* (Neuman 1997:68). Consequently, in terms of research methods this approach operates from a qualitative, ethnographic and inductive tradition requiring an unstructured approach. Methodologically, researchers adopting this approach search for meaning, in terms of the meanings actors attach to particular situations. As a result of this process, the (constructed) social world emerges (Newsome 1999:133).

Max Weber (1864-1920) was one of the first sociologists to outline this perspective in detail. He argued that sociological explanations of action should begin with 'the observation and theoretical interpretation of the subjective "states of mind" of actors' (Haralambos and Holburn 1991:19). Since it is impossible to get inside the heads of actors, the discovery of meaning must be based on interpretation and intuition, which raises questions about reliability and generalizability.

Accordingly, interpretative approaches have been criticized and challenged on the basis of being too subjective and relativist. In addition, interpretative social science treats the subjective reality in the form of people's ideas at a localized, micro-level as more important than actual conditions while at the same time, ignoring the broader and longer-term context. In the context of this study, this approach would restrict its focus to understanding the meanings cabin crew respondents give to OHS issues without due consideration being afforded to the external influences such as economic and competitive climates and regulatory frameworks. In doing so, only a limited understanding of cabin crew OHS would

be generated which would offer little scope for generalizability across the airline industry.

A third approach to social science research is critical realism. This approach attempts to go beyond the constructed subjective reality to question *surface illusions and to uncover the real structures in the material world in order to help people to change conditions and build a better world for themselves* (Neuman 1997:74). It assumes that that social reality always changes and the change is rooted in the tensions, conflicts or contradictions of social relations or institutions. It focuses on change and conflict, especially paradoxes or conflicts that are inherent in the way social relations within a capitalist system are organized, in an attempt to reveal the true nature of social reality. Meanings remain important for the way that explanations are constructed. However, the realist approach sets those orientations within the structural, objective relations that shape social interactions, thus placing them in a larger, macro-level context (Neuman 1997:75). This avoids the stereotypically polarized epistemological positions endorsed by positivism and interpretative, relativist perspectives. The same applies to research methods. Realists tend to prefer qualitative methods, but are not hostile to surveys and other quantitative techniques.

While the approach does not make a complete separation between the social and natural worlds, it rejects the positivistic position that constant conjunctions of events or 'laws' exist in the social world (Bhasker 1986; Ackroyd and Fleetwood 2000). Instead, emphasis is put on event regularities that mostly occur in special situations, namely in sets of relations or systems. Attention therefore, turns away from the flux of events and towards the causal mechanisms, social structures, powers and relations that govern them (Ackroyd and Fleetwood 2000:13). For realists, structures embody a system of relationships which underlie and account for the sets of observable social relationships and those of social consciousness (Keat and Urry 1982). Structures impose limitations or constraints upon what

happens, but mechanisms and the variables which affect them, determine the actual course of events.

For the purpose of this study, a critical realism approach is thus considered most appropriate to the requirements of this thesis, in terms of utilizing cabin crews' experiences and interpretations of OHS, while at the same time exploring the underlying and unobservable structures, mechanisms and processes affecting cabin crew OHS in a broader, longer-term context. Using this data, we are then able to assess the airlines' approach to people management. Such an approach offers deeper understanding which has some degree of generalizability. A positivistic approach is not appropriate since the subjective responses of cabin crews would be invalid, while an interpretative approach on its own, would only account for the internal processes by which people interpret the world around them, without adequate consideration for the influence of external structures, mechanisms and processes, either observable or underlying.

2. Research Methodology

Our chosen approach requires a duality of methods: quantitative research methods to gauge the range, nature and extent of OHS risks as identified in a questionnaire survey, and voluntary comments from the questionnaires and data generated from semi-structured interviews as sources of qualitative data. While a combination of approaches may be criticized, it is argued that the complexity of cabin crew OHS and the cabin crew labour process, demands such an approach. This is justified on the basis that in order to account for structural conditions, social relations, the meaning subscribed to OHS and possible relationships between variables, a combination of research methods is required. This has been referred to as a 'methodological pluralism' (Burrell and Morgan 1979), where a mixture of qualitative and quantitative methods are used. This plurality of methods – a practice known as 'triangulation' – can be useful in terms of checking on the accuracy of the conclusion reached on the basis of each; to

provide a more complete picture of the social group being studied; and qualitative research may illuminate why certain variables are statistically correlated (Haralambos and Holburn 1991:754). In Bryman's (1983) view, both qualitative and quantitative research have their own advantages, although neither can produce wholly valid and reliable data. However, the combination of both can provide useful insights into social life. We now go on to explore the research methods in more detail.

The focus of this thesis is based on increasing our understanding of the range and extent of health and safety issues affecting airline cabin crews and the relationship these issues have with airlines' HR strategies and policies. The literature has described the range of economic and political influences on airlines. The overwhelming message from airlines' policy statements and other literature is that 'people are their most important asset'. While such statements embrace the tenets of 'soft', people-centred HRM, a further body of evidence pertains to the range of 'high commitment' people management strategies and working practices operated in airlines, in particular BA (e.g. Blyton and Turnbull 1998, Colling 1995, Corke 1986, Höpfl 1993). The literature also describes the rationalization strategies of airlines following deregulation and growing international competition, in terms of widespread redundancies and tumultuous industrial relations (Warhurst 1995). However, the relationship between shifts in airlines' people management strategies and policies (with regard to 'soft' concerns taking a back seat to cost and profit oriented 'hard' concerns), and cabin crew OHS, have not to date been adequately addressed in the literature.

The main factors influencing the construction of the research methodology are shown below:

- a) The research design was constructed to identify 'soft' and 'hard' (as identified in the literature review) HR/people management strategies and policies relating to the cabin crew labour process.

b) In constructing the research design, the concern was to allow for the possibility that there may be a wider range of cabin crew OHS issues than those currently covered in the literature.

c) The research design was constructed to gauge the prevalence of a range of OHS risks. Both the range and extent of OHS risks must therefore be measured.

d) The design must also allow for the identification of relationships between airline companies' HR policies and cabin crew OHS.

e) A further concern was to develop a research strategy that would expose any gaps or weaknesses in airlines' management of OHS. This would reveal the extent to which airlines may have overlooked or underestimated the health and safety risks related to the cabin crew labour process.

Based on the research objectives and focus of this thesis, a combination of epistemological approaches, and subsequently research methods, is held as strongly justifiable by the author. The benefits include an in-depth exploration of the linkages between HR strategies and OHS, greater reflexivity, fluidity and an overall richness of data. We shall now consider the methodological choices in more detail.

3. Justification of Methodology

The methodological approach to this thesis is based on research design of survey research. The social survey is conventionally associated with questionnaires and interviewing. According to Bryman (1995), survey research entails the collection of data at a single moment in time, with a view to collecting systematically a body of data in respect of a number of variable which are then examined to discern patterns of association. As a number of writers have suggested (such as Marsh 1982), the tendency to associate survey research solely with interviewing and questionnaires is inappropriate, because this design accommodates other methods of data collection such as structured observation or pre-existing data, for example, company policy statements. This design does not allow for cause

and effect relationships to be established, since survey researchers cannot manipulate any variables.

A survey research design engages with quantitative methods, which allows the identification of common properties and patterns within populations, such as the UK airline cabin crew community. At the same time, the research design allows for qualitative methods in the form of semi-structured interviews and the utilization of voluntary comments contained in the questionnaires. It is within this arena that we are able to explore notions of the social actor, focusing in this instance on the nature of OHS risks in the cabin crew labour process and the factors to which cabin crew attribute illness.

We justify a survey research design on the basis that, firstly, the key concern of the thesis is to build a picture of cabin crews' social reality of OHS, built from data that draws upon the experiences of cabin crews. In doing so, the thesis seeks corroboration for the OHS issues identified in the literature, as well as exploring the breadth of the area for other factors in cabin crew OHS. This objective justifies the use of qualitative methods in the form of interviews, and the collection of airline policy statements and data relating to the HR strategies utilized in the case study airlines.

Secondly, the research questions are concerned with the identification of common patterns and distinguishing features within the cabin crew community and sub-groups of this community, which offer a level of representativeness and the scope for generalizability. This justifies the use of a large-scale questionnaire survey and some statistical analysis. In order to gauge the extent to which respondents experience a range of symptoms and illnesses, a quantifiable element is essential. The questionnaire survey systematically collects a body of quantifiable and qualitative data in respect of a number of variables, which are examined to discern patterns of association, and tentative conclusions of these relationships are drawn.

Thirdly, the research questions are focused on achieving a deeper understanding of the range of OHS issues concerning cabin crews and the extent to which cabin crews attribute OHS problems to, for example, factors of their working environment, work organization or management attitudes. Quantitative methods are employed to measure the range and extent of OHS risks.

Overall, this research sets out to critically examine cabin crews' experience of work organization, their views on health and safety, and their self-reports on health. A combination of quantitative and qualitative research methods are thus applied in the research design with the objective of providing an informative analysis of cabin crews' experience of work organization, the working environment and self-reports on health. This approach is justifiable on the basis of the objectives and aims of this thesis, with the key focus on building an understanding and a picture of cabin crews' social reality.

4. The Active Research

A decisive issue for most researchers is likely to be access to companies. The research took place during the aftermath of the BA cabin crew dispute. It seemed extremely unlikely that the company, or any other airline for that matter, would be particularly keen on opening the proverbial 'can of worms' of cabin crew health and safety. Access and financial support were therefore sought through the trade unions. The largest trade union, and most representative of the cabin crew community is the Transport and General Workers' Union (TGWU), which represents some 16 000 UK cabin crews out of a population of around 25 000 (Ryde 1998). Through this trade union, the researcher could access cabin crews in a wide selection of geographical areas in the UK, as well as providing access to a variety of crew designations in three different airlines. This would allow comparisons between companies and between cabin crew groupings, allowing corroboration for particular OHS issues identified by the findings. It would also go some way towards producing a representative sample. It was also believed

that cabin crews would be more likely to be frank and open about their OHS concerns where the trade union, rather than management, were openly supporting the study.

The remainder of this chapter discusses the active research process.

a) Qualitative Data

Within the overall research methodology, qualitative data was generated from four main sources: ten one-to-one semi-structured interviews with British Airlines Stewards and Stewardesses Association (BASSA) cabin crew representatives, two telephone structured interviews with airline management representatives, structured postal questionnaires to each airline's HR department and voluntary comments in the questionnaires. A range of qualitative data was also collected from airline policy documents. The telephone interviews and postal questionnaires to the HR departments provided fairly limited data with the most useful and insightful data being generated from the voluntary comments provided in the questionnaires.

These data collection methods were related to the research objectives in terms of gaining a broad understanding of the range of health and safety issues in the cabin crew labour process, while providing some insight into how these may be related to airlines' HR strategies. Due to the researcher's limited knowledge of qualitative data analysis methods, the qualitative data generated by the questionnaires, is organized into pattern codes and used to highlight and emphasize key issues identified in the findings.

Cabin Crew Interviews

Qualitative data was collected during ten one-to-one structured interviews with British Airlines Stewards and Stewardesses Association (BASSA) cabin crew representatives (all members of cabin crew and not management). The interviews were predominately structured with a standardized format. While

semi-structured, non-standardized formats facilitate greater flexibility of approach, they also require more time and other resources than a standardized format, mainly to assist building rapport and the ability to conduct a fluent conversation. Other factors affecting face-to-face interview proceedings include the level of trust between the interviewer and interviewee and the particular state of employee relations within an organization. The format of the interviews for this study reflect these considerations. In terms of the post-survey interviews with BASSA cabin crew representatives, access to these individuals was strictly time-limited. The researcher was based in Glasgow and had to make several trips to Heathrow and Gatwick in order to access cabin crew representatives. The logistics of setting up meetings with various members of cabin crew and their representatives was fraught with problems. As well as financial constraints preventing the researcher from making multiple shuttle trips, cabin crew representatives have tight work schedules and little free time. Interviewing individuals in their workplace during working hours was not an option due to the nature of the job. It was therefore, extremely difficult to arrange separate interviews with a variety of representatives from different geographical bases, in terms of the logistics involved and the researcher's time and financial resources. On advice from BASSA, the researcher attended a quarterly meeting for the UK cabin crew representatives in London. This was attended by cabin crew representatives from all of the UK regions. The researcher was allowed access to observe the meeting and then to conduct short interviews with ten representatives at the end of the meeting. Since time was of the essence, short structured interviews were conducted and were not taped at the request of the interviewees. The interview questions were based on key themes which had emerged from the analysis of the questionnaire responses. The objectives of the interviews were to seek corroboration for the identified themes and further information on other areas not raised in the questionnaire.

In terms of an 'interviewer effect', the researcher's personal experience of the occupation may have gone some way to evoke more direct responses, free from

background and contextual information. It is true that the work of cabin crew is so different to that of the common perception, that when explaining the nature of the job, cabin crew may find it difficult to relate to 'civvies'. This reflexivity could be used to justify the somewhat brief interview transcripts, which was also due in part to the researcher having to take notes.

Knowledge of Airlines' HR Strategies and Policies

In terms of building a picture of airlines' HR strategies, the data collection included a short questionnaire survey to all three airlines where they indicated the range of working practices associated with 'high commitment' management that were in place. Company policy statements of health and safety, absence management policies and violence reporting systems, were also collected. Structured telephone interviews were conducted with Cabin Crew Managers in BA and Britannia. Management representatives in KLM UK refused to participate, because they did not agree with the basis of the research. In terms of data, the management interviews/questionnaires generated fairly superficial results and as already mentioned, the most valuable qualitative data was obtained from the voluntary comments made by questionnaire respondents.

Voluntary Comments from the Questionnaires

The qualitative data from both the questionnaire's voluntary responses and from the interviews adds breadth to the quantitative data generated by the questionnaire. Basic content analysis identified key words in the text which were coded into pattern codes (e.g. absence, working conditions). The qualitative data is used to illuminate key points and broaden our understanding of the context of the quantitative data (e.g. increased productivity demands as depicted by changes to working hours and workloads).

b) Quantitative Data

Survey Stage

According to Sayer (1992), the key objectives of a large-scale questionnaire survey are to identify common patterns, distinguishing features in a population. A second objective is to assess how widely certain characteristics are distributed or represented. This relates to comparisons between OHS issues and cabin crew groupings, and to exploring relationships between variables. For these reasons, a questionnaire survey was considered to be most appropriate as a research method.

Questionnaire Construction

A range of sources was used in the questionnaire construction phase. As the researcher was employed as a member of cabin crew during the period 1992-1994, her past experience of cabin crew work was useful in providing a greater understanding of the cabin crew labour process. The researcher's past experience of cabin crew work is loosely termed as 'ethnography'¹⁸ since at the time, no study was explicitly taking place. However, in adding depth to the researcher's knowledge of the idiosyncrasies of cabin crew work and the range of OHS issues, this experience was highly valuable both in terms of providing a frame of reference for the range of literature on the subject and in formulating the cabin crew questionnaire. This 'informal' fieldwork can be accommodated within the study's epistemology and so methodology, in terms of placing primary importance on the cabin crew perspective and experiences, thereby ruling out a purely positivistic approach.

These insights may have enhanced the internal reliability and face validity of the concepts and dimensions contained within the questionnaire. However, it could be argued that this knowledge may have weakened the research in terms of the researcher imposing her construction of the social reality of cabin crew work on the content of the questionnaire and interview sessions, ultimately creating bias which could invalidate the findings. For this reason and others, the content and structure of the questionnaire was discussed in great detail with a number of

representatives of the TGWU and BASSA during the construction phase. BASSA represents the sectional interests of cabin crew within the parent group of the TGWU. A draft questionnaire was formulated following lengthy discussions attended by the researcher's first supervisor, the cabin crew representatives and the researcher. A range of corrections and revisions were carried out following further discussions, and a final version was eventually agreed upon. These discussions also facilitated the research in terms of broadening the researcher's knowledge of current OHS issues and the influence of economic pressures and airlines' HR strategies and policies on cabin crew OHS.

The questionnaire data was collected over a five-month period (May to September 1998). A postal questionnaire was used in preference to a self-administered questionnaire for three reasons. Firstly, the large number in the sample would be unmanageable to conduct self-administered questionnaires. Secondly, the questionnaire did not contain multiple-item rating scales, making completion rapid and straightforward, with minimum or no guidance required. Thirdly, the questionnaires were posted directly to a named person at their home address so there is some assurance that the responses were made by the correct person.

The collected data does have quantifiable elements, for example, the number of symptoms suffered by respondents, the number of hours spent on the aircraft and the number of rest breaks taken. However, these measurements are taken at a single moment in time, where data on variables are collected simultaneously. This is a key problem with most research, but in particular with survey research, whereby cause and effect relationships are difficult to establish because spurious relationships cannot be systematically controlled for. Our objective was not to identify cause and effect relationships, but to explore associations between variables, which could act as an impetus for future scientific study. Moreover,

¹⁸ Ethnography is the process utilized in describing a culture and understanding another way of life

the findings may influence future OHS policies on the behalf of airlines and trade unions.

In terms of operational issues, a cover letter was enclosed with the questionnaire and a reply-paid envelope. The letter explained the purpose of the survey and the cover page of the questionnaire assured respondents of anonymity and confidentiality and estimated the completion time for completion at fifteen minutes.

A twelve page (A4) self-report questionnaire survey containing 39 main questions was distributed to 2280 members of the TGWU/BASSA, all of whom worked as cabin crew for either British Airways, Britannia or KLM UK. The surveys were posted to cabin crews' home addresses and postage-paid envelopes were enclosed with the questionnaire survey. The questionnaires were distributed by the TGWU local offices around the UK and were sent directly back to the researcher. Distribution began in early May 1998 and returned questionnaires were accepted up until 12 July 1998. The data from the questionnaires were analyzed using SPSS 8.0 for Windows. A database with 115 fields was formulated to contain all responses and comments from the contributors.

Each of the 39 questions offered a choice and range of possible responses set beside tick boxes. Tick box responses were considered important as cabin crews' administrative workload is significant, and time-consuming questionnaires were less likely to be completed. The questionnaires were coded so that each airline was identifiable.

The Sample

A total of 2280 questionnaires were distributed to three UK-based airlines. The TGWU was requested to conduct a census of their members and took responsibility for distributing the questionnaires. The response rate was 41%

from the native point of view (Neuman, 1997:346).

(N=926). In terms of gender, the majority of the sample was female (83%), mirroring the gendered nature of the occupation. The majority of the sample was aged under 35 and had less than 8 years service. A complete analysis of the sample's characteristics are provided at the beginning of the next chapter.

The airlines were selected on the basis of representativeness of the cabin crew community. One schedule airline (British Airways), one charter airline (Britannia) and one airline which operates scheduled and charter flights (KLM UK) were selected. The combination of schedule, charter, short-haul and long-haul operations ensured that the different demands placed on crew working in different designations was incorporated into the sample. Crews who fly only long-haul with a schedule airline are likely to be in contact with a different passenger profile than colleagues working on charter holiday flights to Europe. Furthermore, the service schedules and demands differ between long and short-haul flights, based mainly on the tight time-scale on short-haul, within which, a variety of tasks must be completed. The extended time period of a long-haul flight may mean that there is less urgency during service delivery. These airlines also had crews based at a wide range of locations around the UK, and so avoided a concentrated sample from one part of the country, which could bias the data. It was also decided to target cabin crew at a wide variety of bases throughout the UK in order to make the sample highly representative of the UK cabin crew population. All crews were UK-based, working from bases at Heathrow, Gatwick, Stanstead, Bristol, Manchester, Newcastle, Glasgow or Edinburgh. A random sample of cabin crews was selected by the trade union.

The fact that all respondents were union members offers a level of stability to the findings, since it could be argued that a difference could exist between unionized and non-unionized workers' willingness to put forward critical views of the organization. Criticism could however be based on the possibility of a militant tendency in the sample, or similarly, that those who completed and returned questionnaires had 'an axe to grind'. These criticisms are rejected on the basis of

the characteristics of the sample, in terms of its size and the spread of age, length of service, gender, and the variety of the working bases throughout the UK. This reduces the probability of a concentration of hard-line, militant groups in the cabin crew population (assuming that they exist) contaminating the research findings. However, the exact motivations of the individuals who completed and returned questionnaires are impossible to be sure about.

A more in-depth explanation of the content of the questionnaire is now provided. This is considered necessary to allow the reader a better understanding of the peculiarities of the cabin crew labour process.

5. Questionnaire Content and Structure

Each of the questions contained in the questionnaire is explained and the concepts and dimensions of the questionnaire justified.

Section one of the survey contained questions on the profile of cabin crews (questions 1.1 – 1.5) in order to produce a profile on cabin crews personal details— gender, age, grade, length of service, type of contract. Comparisons between these groupings for a range of variables were conducted.

Section two contained questions on cabin crews' working patterns. Question 2.1 – 2.2 identified the number of working days rostered and the number of sectors worked in last full roster. This differentiation between days and sectors was important because although some long-haul crews may work more days per week (single sector flights) compared to short-haul crews, the short-haul crew may work up to seven sectors in a single day. Question 2.3 identified respondents as active long-haul, short-haul crew, or those who worked a mixture of short and long-haul flights. This variable was used in data analysis to explore differences between airlines and designations.

Given the centrality of shift working to the occupation, questions 2.4 – 2.7 explored shift working patterns. The number of early morning report times (04

00 – 10 00), day time report times (10 00 – 19 00) and evening/night report times (after 19 00) were recorded. In order to establish the type of shift routines/patterns, question 2.8 asked respondents how often their working week consisted of a mix of early, day and late report times. Question 2.9 asked respondents to gauge any changes to their sleeping patterns or perceived state of health as a consequence of shift patterns and working hours. Sleeping problems and ill-health have been associated with shiftwork and long working hours (Hazards 1995), which is explored in the analysis in terms of the relationship between shiftworking patterns and reports of changes to health since starting the job.

The number and regularity of rest breaks was considered to be an important area. For cabin crews, there is no guarantee of a rest break being allowed during working hours, since the provision of rest breaks may be dependent on the demands of the service schedule. For example, if various interruptions mean that the service schedule takes longer than expected, there may be no time left for crews to stop to eat or rest. Questions 2.11 – 2.13 asked about the number of rest breaks rostered, actually taken and the length of breaks. Question 2.14 asked crews' opinion on whether enough breaks were allowed during working hours.

It is generally assumed by airline management that cabin crew take rest breaks in between sectors when the aircraft is on the ground. On a short-haul flight for example, after the outbound passengers have disembarked, the aircraft will be refuelled, recatered and cleaned before the inbound passengers arrive for the return journey to the UK. This period is called turnaround time. Question 2.15 examines the typical length of turnaround times experienced by crews – to gauge the amount of free time available to crew on turnaround. A key question was whether there was time on turnaround for cabin crew to take meal breaks as management assume. Space for comments was provided.

Section three of the questionnaire focused on job design. Question 3.1 asked

respondents about their main health and safety concerns. This may be valuable in identifying cabin crews' key health and safety concerns, which may in turn, inform management and trade unions about possible training requirements or job design requirements. Choices of low, medium or high concern were available. Respondents were asked to rate their level of concern on 12 areas. Five of these areas centred on manual handling: opening aircraft doors, lifting bar boxes, pushing/pulling trolleys, handling cabin baggage, stowing cabin baggage. Crews are expected on a daily basis to carry out all of the above duties, despite risks such as muscle or back strain, injuries from trolleys with faulty wheels/brakes and sheer drops from the door area if the boarding stairs have been removed prior to the door being closed. This is common during turnaround with regard to the doors used by the catering vans.

Assisting passengers with baggage is fraught with problems – for example, if the bag is over-sized as has to be removed to the main baggage hold. In an attempt to avoid queues at baggage collection points, or fear of losing baggage, passengers may take their luggage into the cabin despite size and weight restrictions. Refusal by the crew to allow the bag to stay in the cabin may lead to annoyance and even verbal abuse from the unhappy passenger. Confusion over cabin baggage policy further complicates the situation. In some cases the passenger may have been allowed the same bag on board a previous flight with the same airline. Policy changes or stricter enforcement of existing policies by crew leads to confusion and frustration for passengers. This links to the next key issue, dealing with the public.

Dealing with the public covered two further areas: violent/abusive passengers and unwell passengers. Obvious risks include physical assault, verbal abuse or contact with blood, saliva, vomit and infectious diseases. An earlier study (Boyd 1996) and other research, identified hygiene on board the aircraft, cabin air quality, turbulence and taxi injuries as potential health and safety concerns. Hygiene on board incorporates issues such as the cramped galley areas where

food is prepared and handled by crew, the lack of hand-washing facilities in the galleys, and toilet facilities that are shared by passengers and crew. The standard of cleaning in the galleys and toilets between sectors is minimal due to time constraints, which leads to increased concerns about hygiene. Given that a large body of evidence links cabin air quality to a range of illnesses and symptoms suffered by crew and passengers during flights, this question also set out to gauge respondents' awareness of cabin air quality as a health and safety issue. Finally, turbulence and taxi injuries were considered important since it is not uncommon for crews to be mobile during these periods. Space was available for respondents to make any comments.

Question 3.2 then identifies the level or depth of training received by crew with regard to the identified risk areas: Lifting/Pulling/Pushing (manual handling), Contact with body fluids, Dealing with violence and Cabin Baggage. Possible responses were no training, brief outline (the example of its inclusion in the induction course was given), and in-depth training (the example of a specific training course on the subject was given).

Building from this, respondents were asked if they would like more information on any of the following areas: manual handling (correct and safe handling of trolleys/doors etc), contact with body fluids, dealing with violence, cabin baggage and stress/anxiety. This question (3.3) offers information on what areas respondents would like more information about or training on, and may therefore be valuable to airlines and trade unions. Space was available for respondents to make any comments on further information/training requirements.

Questions 3.4 and 3.5 focused on respondents perceptions of any change to their job over the past year in relation to the speed, intensity and volume of work, and the level of stress and pressure, and the number of abusive/violent passengers encountered. Space was also available for any comments. Question 3.5 asks

whether the number of crew on flights and the number of duty hours had changed over the past year.

Questions 3.6 and 3.7 asked respondents to comment on the two things they liked and disliked most about their job. This question was useful in identifying other important issues not covered by the questionnaire, for example, the regularity and short-notice of changes to working rosters.

Section four focused on self reports on health. Question 4.1 asked crew about any changes to their state of health since starting the job, i.e. whether their state of health had stayed the same/deteriorated/improved. Given the range of environmental risks discussed in chapter four, crews' perceptions of changes to their health since commencing the job are considered valuable.

Question 4.2 examines the type of symptoms experienced by respondents, and regularity of occurrence. Thirteen symptoms were listed with a choice of 'every/most/some duties or never' to gauge regularity of occurrence. Seven of the symptoms have been identified as typical symptoms of Sick Building Syndrome: headaches, eyestrain, sore throat, sore eyes, coughs, blocked nose, tiredness/lethargy (Raw 1992). Four further symptoms – backache, painful wrists/fingers, neckache/sore shoulders, scalds/burns – were related to the level of manual handling involved in the job (e.g. lifting passenger bags, pushing trolleys, lifting bar boxes and carrying full coffee/tea pots for extended periods). The final two symptoms were 'ear problems' – related to cabin pressurization changes on take-off and landing, and 'anxiety/stress' – related to job demands. Respondents were able to comment on any other symptoms experienced.

Question 4.3 asked respondents' opinions on the causes of the symptoms they had experienced. Eight options were available with space for comments on any other causes. The options related to the key risk areas identified in the literature review and during discussions with trade union representatives. These are listed

as: cabin air quality, aircraft pressure, irregular reporting times, cabin temperature, close proximity to passengers, poor rostering practice, not wearing protective gloves during service and hygiene standards on board the aircraft.

Question 4.4 asked respondents to rate the quality of the cabin working environment. Responses ranged from very poor to very good. Responses would give some indication of crews' satisfaction with the quality of their working environment. This may be valuable in hypothesizing about the importance of the working environment or the work itself in explaining cabin crew illness.

In order to identify the primary features that crew were most dissatisfied with, question 4.5 asked respondents to indicate which features they had complained about, and how often. Nine features were listed with possible responses ranging from 'never' to 'every flight'. Respondents could comment on any other features or factors of the working environment or job content with which they were dissatisfied.

We were also interested in the identity of the most likely recipient of the complaint – trade union representative, management or colleagues. This would give some indication of the level of communication with each of these parties, and the willingness or ability of crews to communicate with them (question 4.6). In order to understand possible reasons for poor communication, for example, low levels of trust, question 4.7 asked if there was any reason why respondents would not complain to either trade union representatives, management or colleagues.

Given the number and type of symptoms suffered by respondents in an earlier study (Boyd 1996) and the apparent pressure on cabin crews to maintain 'clean' attendance records, question 4.8 asked respondents if they ever came to work when they were ill. Question 4.9 then asked for the main reasons for doing so. Seven reasons were listed and space for respondents to comment on any other

reasons was available. The listed reasons from discussions with trade union representatives. These are listed as: understaffing, pressure of work, commitment to the airline, fear of reprimand, worried about sick leave record, not ill enough to warrant staying off work and loss of income.

Providing a further insight into cabin crew health, question 4.10 asked whether respondents had suffered from a range of health complaints in the past year, all of which had been identified in the literature review: menstrual problems, miscarriage, fertility problems, sleeping problems, drink/drug related problems, digestive problems, depression, anxiety/stress.

Question 4.11 asked respondents to rate hygiene standards on board the aircraft. This would act as further evidence of poor hygiene on board aircraft. Ratings ranged from poor to excellent.

Considering the focus on working conditions and health, question 4.12 asked respondents to rate management's level of commitment to their health and safety at work. Ratings ranged from very low to very high. The relationship between these ratings and commitment to the airline (albeit in the context of coming to work when ill), is of interest and is explored in the analysis.

Finally, respondents were invited to make any further comments and space was provided for this. Basic content analysis was applied to these data in order to identify key themes. The questionnaire and survey results can be found in appendix three. A full review of the comments made by respondents can be found in appendix four. A complete set of the statistical analyses undertaken in exploring the data is located in appendix six.

Dimensions of Concepts

Three point scales relating to 'often', 'sometimes', 'never' / 'increased', 'decreased', 'no change' / 'more', 'less', 'about the same' / 'low', 'medium', high were used. While this assisted respondents in making speedier responses due to simpler construction, it constrained the depth of analysis that could be carried out. The time taken to complete the questionnaire and the simplicity of structure and content were emphasised by cabin crew representatives prior to the construction of the questionnaire. This was based on the heavy administrative workload of some crews and crews' general unwillingness to complete questionnaires, in particular, complex questionnaires. With hindsight, uniformity of scales in terms of using five point scales throughout the questionnaire would have enhanced the statistical analysis process. With the time and ease of completion issues in mind, it seemed appropriate at the time to use a variety of scales.

6. Methods of Statistical Analysis

When exploring the relationship between nominal and ordinal data, crosstabulations and chi square (Phi and Cramer's V) are applied. Chi square is not a strong statistic in that it does not convey information about the strength of a relationship (unlike correlations). It simply tells us that there is a relationship, and the size of chi-square indicates how confident we can be that the relationship exists. The combination of nominal and ordinal data restricts us to this method of analysis (Bryman and Cramer 1999).

Where interval data is combined with nominal or ordinal data, more extensive analysis can be undertaken, such as correlations and a means procedure with *f* ratios. Correlations inform us about the strength and direction of the relationship between variables. The means procedure analyzes data where the dependent variable is interval and the independent variable is either nominal, ordinal or dichotomous. As our key interest is the strength and direction of association between variables, our statistical analysis is based on correlations (kendall's tau).

7. Limitations

In offering some sort of retrospective to my¹⁹ chosen methodology, there are a number of limitations which must be highlighted. Many of these are a consequence of an understanding and awareness that I simply did not have when starting this process as a research assistant. Despite this very real awareness of changes in my own levels of intellectual understanding, I stand by much of the research approach contained within this thesis. In many ways I would argue the strength of the thesis has been the concern to challenge the current limited appreciation of the existence and range of, OHS risks relating to the cabin crew labour process. Furthermore, the thesis challenges any notion that good OHS practice is assured under HRM and adds to the unorthodox accounts of HRM and labour process theory. The research is also successful in highlighting the gaps and weaknesses in airlines' management of cabin crew health and safety, as perceived by front line workers, and policy reviews could result. The research also illustrates the dominance of profit-centred management strategies over those based on 'people-centred' issues, which may represent a shift in airlines' HR/people management strategies and policies. However, the thesis contains a number of weaknesses and limitations, which will now be described.

With reference to the process of data generation, a great deal of attention was paid to the cabin crew perspective at the expense of more input from airline management representatives. This imbalance was due in part to difficulty in accessing management views. While airline managements were contacted, their initial reluctance to cooperate perhaps allowed me to close the door too quickly on attempting to achieve a balance in views. Their reluctance was in part due to the tumultuous industrial relations within the companies, in particular, BA. This meant that the airlines' stance on cabin crew OHS was taken from the fixed perspective of policy statements, short structured questionnaires and telephone interviews. The main reasons for these methods being employed were therefore,

limited access and the employee relations climate at that time. A second reason for the minimal input from management was being overwhelmed with survey data. The response rate was relatively high and the subsequent amount of data input, immense. The data processing exercise was considerable and used up the majority of the time available to work on the thesis. My contract was coming to an end and a new lecturing job awaited.

These limitations present a number of implications for the data obtained. Firstly, our epistemological aspirations may have been better met by a greater emphasis on a managerial perspective, in terms of providing a deeper understanding of the underlying structures, social relations and processes in the management of cabin crew OHS. Secondly, a managerial perspective may have been insightful in understanding possible barriers and difficulties in formulating and implementing specific HR policies aimed at addressing the range of OHS issues relevant to the cabin crew labour process. Thirdly, any attempts to explain management's approach to OHS cannot go beyond speculation.

Despite these concerns, I would argue that it is in these arenas that the most interesting possibilities for future research are to be found.

¹⁹ It is considered appropriate to revert to the first person for this part of the chapter.

Chapter Six

The Primary Research

One of the key assertions of this thesis is that airlines espouse ‘soft’ HRM, but in practice, utilize the hard form. Previous chapters have illustrated that the process of distinguishing ‘soft’ from ‘hard’ HRM is based on an examination of how the HR technique is utilized by management in terms of whether people or cost/profit concerns are prioritized. We argue that expressions of ‘soft’ HRM may only provide the surface layer of management practice, while underneath this top layer may be the ‘hard’ translation or adaptation of HRM, in the forms of work intensification and degraded health and safety provisions. Given the range of economic and political influences, it may prove utterly irresistible for airlines to engage in profit-maximization strategies which supercede all other considerations, while at the same time, benefiting in a variety of ways from the shiny surface layer of ‘soft’ HRM.

The following two chapters examine airlines’ adaptation and utilization of various people management strategies and policies. We use developments in cabin crew OHS to assess shifts (from ‘soft’ to ‘hard’ or vice versa) in airlines’ people management policies and strategies. This chapter will address our first research question:

1. Is the cabin crew labour process typified by a people-centred (‘soft’ HRM) or profit-centred approach (‘hard’ HRM)?

We begin by establishing the presence of HRM-related strategies in the three airlines, and then present the key characteristics of the sample.

1. HRM in the Case Study Airlines

The range of HRM-related working practices in each of our case study airlines was audited by questionnaires sent to the airlines' HR departments. Each HR representative reported that the company had a mission statement and utilized HRM to achieve higher performance levels throughout the company. The short questionnaire was based on WERS (1998), table four, "Use of 'new' management practices and employee involvement schemes. A full set of results is contained in appendix five. Each airline was asked if any of the following were in place:

Type of 'new working practice'	Number of airlines
• Team briefings	3
• Performance appraisal - most non-managerial staff	3
• Performance appraisal – most managerial staff	3
• Problem-solving groups (e.g. quality circles)	3
• Regular meetings of the entire workforce	0
• Profit-sharing for non-managerial employees	2
• Workplace joint consultative committee	2
• Most supervisors trained in employee relations skills	3
• Attitudinal tests before making appointments	3
• Employee share ownership for non-managerial employees	2
• Most employees receive a minimum of 5 days training days per year	3
• Individual performance-related pay scheme for non-managerial employees	3

From the above data it is clear that employee involvement initiatives are prominent. Other HRM-related strategies such as PRP and performance appraisal also feature.

2. Key Characteristics of the Sample

Total number of returned questionnaires: 926

Total number of questionnaires distributed: 2280

Response Rate: 41%

Response BA:	285	(51%)	560 distributed
Response Britannia:	499	(36%)	1392 distributed
Response KLM UK:	142	(43%)	328 distributed

Age		Sex		Length of Service	
Under 21	1%	Male	17%	0-2 years	15%
21-25	13%	Female	83%	3-5 years	22%
26-30	32%			6-8 years	19%
31-35	26%			9-11 years	19%
36-40	13%			12-15 years	9%
41-45	9%			16-20 years	8%
46-50	5%			21-25 years	6%
51-55	1%			26-30 years	2%
55+	-			31 + years	-

Designation		Grade	
Long-haul	7%	Inflight Director/CSD/ No.1	31%
Short-haul	41%	Purser/No.2	34%
Mixed short/ long-haul	52%	No.3/No.4	32%
		No.5	3%

Contract	
Full-time Permanent	83%
Part-time Permanent	12%
Full-time Temporary	4%
Part-time Temporary	1%

The full set of results can be found in appendix three of this thesis.

The remainder of this chapter explores dimensions of work organization in three case study airlines. The rationale is that while airlines' policy statements and public image espouse a 'soft' people-centred approach, the reality experienced by cabin crews may be quite different and more likened to the 'hard' form. According to the literature, one manifestation of 'hard' HRM is work intensification, where cost-efficiency and productivity strategies are implemented to extract the maximum value from workers, at the expense of 'people-centred' or other concerns (e.g. OHS). We therefore, explore the case study airlines' people management policies by examining changes to cabin crew work, in terms of working patterns, working hours and workloads.

3. Work Organization and Work Content

We now assess the following areas (the question numbers in the questionnaire to which the issues relate to is shown in brackets):

- a) **Shift patterns (questions 2.5 –2.8)**
- b) **Length of working day (question 2.10)**
- c) **Rest breaks (questions 2.11 – 2.14)**
- d) **Length of turnaround periods (question 2.15)**
- e) **Changes to work (question 3.4)**
- f) **Duty Hours/Crew Complement**
- g) **Teamworking / Quality of Service**

a) Shift patterns

Key Questions:

- **What is the evidence for the extensive use of 'mixed' shift patterns?**
- **Are there any differences between airlines or designation and a high prevalence of mixed shift patterns?**

During consultation with the cabin crew representatives on the construction of the questionnaire, we were informed that the shifts worked by crews were normally split up into earlies (before 6am) days (after 10am) and nights (after 7pm).

The results show that an average roster (work schedule) included a combination of earlies, days and lates. This was reinforced by question 2.8, where 76% of respondents reported that their working week 'often' worked consisted of mixed report times. There were no statistically significant relationships for different airlines or between long/short/mixed haul crews.

b) Length of working day

Key question:

▪ How long is a normal working day?

60% of respondents spent between nine and twelve hours on the aircraft. This does not include the time before the flight during briefings or after the flight when for example, bar takings are counted and banked. Performance appraisals may also be carried out after flights to review a crew member's performance during that flight. Crew representatives averaged this extra time at around sixty minutes. However, only the first thirty minutes of 'ground' time was paid.

c) Rest Breaks

Key question:

▪ Are there any differences in the number of rest breaks taken in terms of designation, airline and the length of the flight?

The BA crews were 'rostered' a break, meaning they were entitled to take a break during work. However, the timing of these breaks remained at the discretion of the cabin services director (CSD). Most of the short-haul and 'mixed' crews in Britannia and KLM UK, were not rostered a break. This is evidenced in the survey findings where only 38% of respondents said they were

rostered at least one break. However, at least one break was taken by 78% of crews and 54% reported that the breaks lasted between five and fifteen minutes. An important point is that 61% of all respondents were not rostered breaks and so had no entitlement to a break during work. Breaks, therefore, are vulnerable to service and passenger demands and may take place randomly. Furthermore, fifteen minutes rest in a twelve-hour day can hardly be considered adequate.

This is reflected in responses to question 2.14, where 88% of respondents reported that they didn't receive enough rest breaks during flights. A higher proportion of mixed (94%) and short-haul respondents (87%) reported this, compared to long-haul respondents (60%). The relationship between the employing airline and the number of breaks was statistically significant ($p < 0.01$). Furthermore, there was a positive correlation between the number of hours spent on the aircraft and the number of rest breaks taken (correlation coefficient = 0.249; $p < 0.01$). This may reflect the longer flight times on long-haul flights, which may increase the chance of having one or more rest breaks. Some of the comments are shown below:

Q127

Even if we do manage to have a break, we still have passengers coming into the galleys and pushing their call bells. Consequently, we never have a proper break – only 30 seconds to gulp down some food.

Q118

We always seem to work against the odds. Time factors are always a constraint as we struggle to complete services. I'm absolutely fed-up with flying with a reduced crew complement and flying out of rank. Equipment always defective or missing altogether and we are still expected to carry on and make do.

Q87

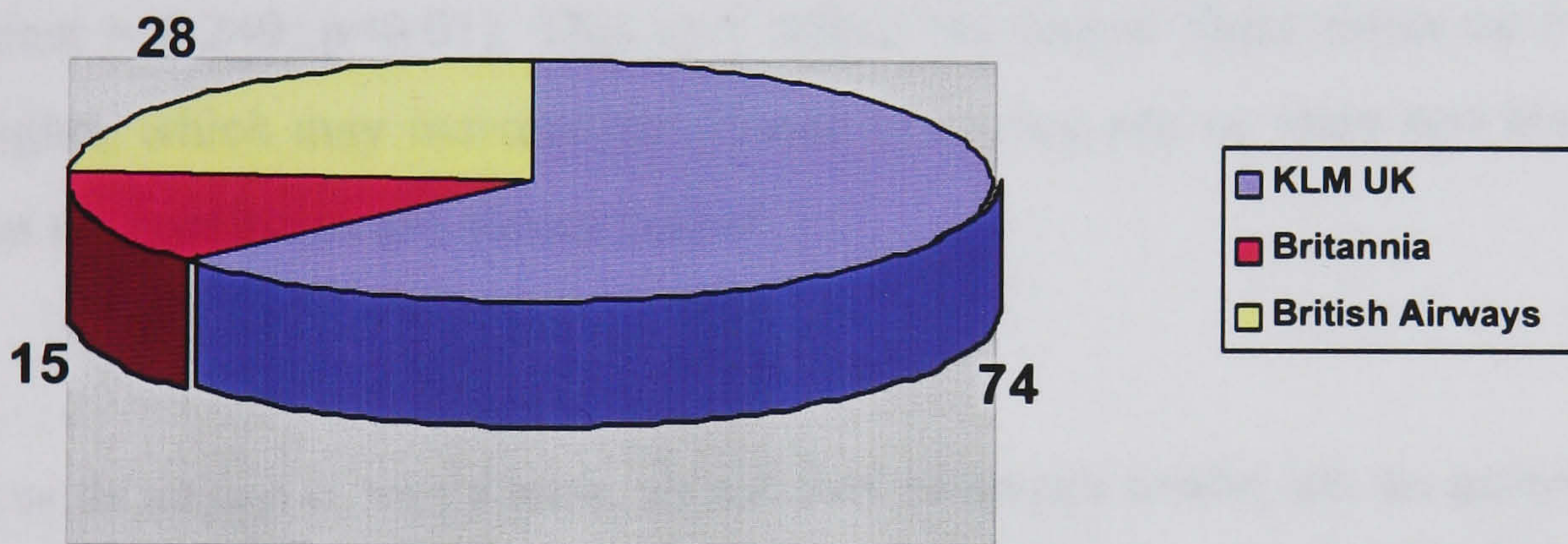
The short-haul operation matches organized chaos - we spend 8 out of 10 services running around like headless chickens. During turnaround we are treading on cleaners and caterers while getting the aircraft ready for the next sector. Our endeavour to satisfy the passengers means that we compromise safety. I frequently finish work looking and feeling like I have been dragged through a hedge backwards.

Q263

I think the Company places unreasonable emphasis on trying to achieve onboard sales targets at the expense of crew breaks, health and morale. Crews usually have to gulp a couple of mouthfuls of remaining passenger meals as there is no time to cook crew meals never mind eat them. I would question crews' reliability to successfully perform an emergency evacuation when they are so tired.

Almost three-quarters of KLM UK respondents received no crew break, compared to 28% of BA respondents and 15% of Britannia respondents. This is shown on the chart below:

Chart 1 Differences between airlines: % of respondents with no crew breaks taken during flights



Other comments about crew rest breaks are shown below:

Q59

Too often crews go without a hot meal because it is not provided. If in a hotel, few crew can afford to buy a meal or afford losing out on sleeping time to go out and eat. A recent 4-day trip, crew received a sandwich per day. This is inadequate for our high workload.

Q897

Crew breaks should be priority on long flights. During a duty of 12hrs only 10mins each way is allowed, which is always interrupted by passenger call bells etc. The company keeps introducing more services – scratch-cards, ice creams, theme park tickets, magazines...with little regard to crew welfare.

Respondents' comments illustrate how the intensity of work may prevent crew from taking rest breaks. Since cabin crew are exempt from the Working Time Regulations (1998), they have no legitimate right to demand a rest break during work. Instead, business priorities come first – service schedule, passenger demands etc. Shorter turnaround periods eradicate the possibility for 'quiet time', essential for mental and physical recuperation. Some respondents reported that they would sometimes lock themselves in the toilet just to get away from the stress and pressure of work during flights. However, they found that any 'quiet time' was kept to a minimum due to passengers' demands. Increased productivity has also been pursued through more intensive service schedules, leading to higher workloads for crew. For airlines, increasing the number of services offered to passengers on flights may be considered to be an effective marketing tool and revenue booster. However, in reality it may mean that passengers are being constantly pestered during the flight by frantic crews rushing through the range of services.

d) Length of turnaround periods

Key questions:

- **How long are turnaround periods?**
- **Are there any differences between airlines?**
- **Is there time for crew to take rest/meal breaks as management assume?**

Long-haul flights are not subject to frantic turnaround periods. When the plane lands at the destination, the crew leave the aircraft. For this reason BA crews experience longer turnaround periods than Britannia and KLM UK crews. Short-haul crews operate multiple sectors and must perform a range of turnaround duties (e.g. load ovens with meals, check catering, clean seatpockets, 'dress' toilets, carry out security checks) in between each sector. Crew representatives reported that generally, it takes ten to fifteen minutes to disembark the passengers and a further ten to fifteen minutes to seat the next load of passengers. Up to thirty minutes is therefore required to disembark and 'reload'

passengers. 18% of respondents reported turnaround times of less than thirty minutes, while 75% reported times of between thirty minutes and one hour (a response was given for each turnaround time option). Given the short turnaround times and the number of duties that have to be carried out, there may be little free time during turnarounds to relax or eat a meal. The rushed nature of the job is illustrated by the following comments from respondents:

Q371

All crew are under pressure from the Company to achieve on time departures – pre-departure is very stressful - climbing over cleaners, trying to clear cabin of equipment. Some days you can go 6-7 hrs without having a chance to go to the toilet or have anything to eat.

Q483

On turnaround when the inbound aircraft is late, cabin crew are still expected to dress seat pockets, prepare the cabin, check catering and carry out security checks in “5 minutes”. This results in possible catering discrepancies and safety or security issues.

Q566

Turnarounds are quicker than ever - cabin crew don't even have time for a drink. It's just constant hassle and pressure.

e) Changes to Work

Key questions:

- **Has the volume/speed/intensity of work increased in the past year?**
- **Have stress and pressure at work and the number of abusive/disruptive passengers increased in the past year?**
- **Are there any differences in reports between airlines, gender, age, grade, length of service, designation?**
- **Is there any evidence of the intensification of emotional labour?**

The literature suggests that airline cabin crews are subject to a range of productivity strategies, which may result in work intensification. Respondents' comments suggest that both physical and emotional labour are of key concern:

Q127

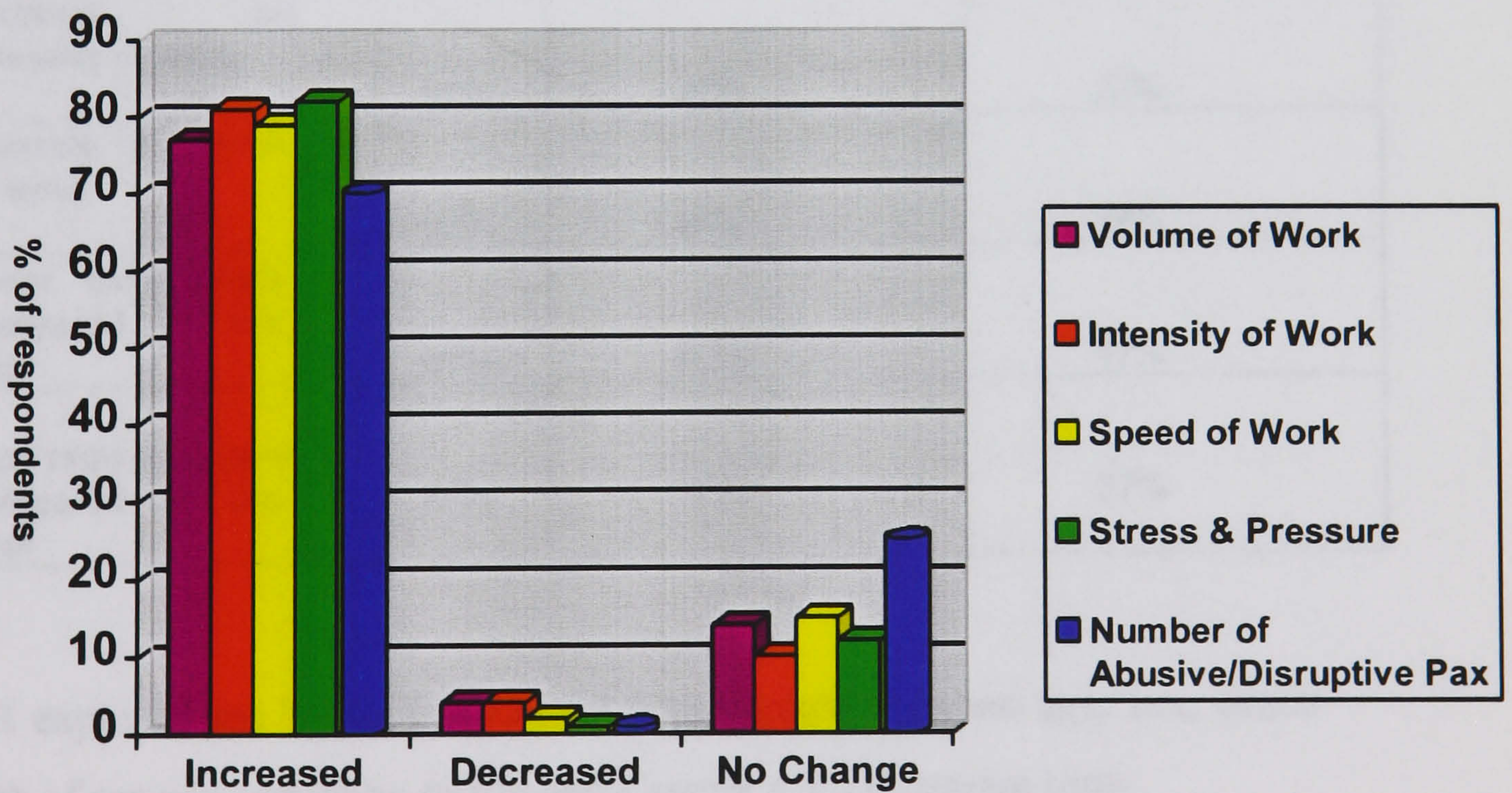
The amount of services we offer is increasing all the time. It is becoming more and more stressful and it seems to have been forgotten that we are primarily there for safety reasons. We are treated like slaves by the passengers and are spoken to like dogs.

Interview transcript

Passengers really annoy me. They just don't get that we are here to save their ass not to kiss it. I feel that our service schedules are so jam packed that we look totally unprofessional tearing up and down the cabin, flinging out meals, drinks whatever. To passengers we are stupid girls, they have no idea of what we're really there for and certainly don't treat us with any respect. I'm sick of being treated like an idiot and a slave.

In measuring changes to work we explore a number of dimensions, such as changes to the intensity of work. Chart 2 details the findings. Correlations, crosstabulations and chi-square tests are also used to explore the relationships and associations between a range of variables.

Chart 2 - % of Respondents Experiencing Changes to Work



(The above chart refers to question 3.4 in appendix 1)

The findings show that a high majority of respondents reported an increase in the speed, volume and intensity of work as well as an increase in the level of stress and pressure at work.

Table 6.1 shows a ubiquity of perceived work intensification across the airlines. A high proportion of respondents in each airline report an increase in the volume, speed and intensity of work, as well as an increase in the number of abusive/disruptive passengers. More duty hours and fewer crews on flights are considered to be further elements of work intensification.

Table 6.1: Changes to Work (by airline)

Changes to Work	British Airways (N=283)	Britannia (N=499)	KLM UK (N=142)
Increase in abusive/disruptive passengers	64%	75%	64%
Increase in speed of work	71%	89%	61%
Increase in stress and pressure at work	79%	87%	70%
Increase in intensity of work	82%	89%	52%
Increase in volume of work	82%	80%	59%
More duty hours compared to last year	69%	67%	47%
Less crew on flights compared to last year	47%	80%	87%

Table 6.2 explores the level of statistical significance between age, sex, grade and length of service according to Phi and Cramer's V chi-square tests.

Table 6.2: Statistically significant relationships between variables relating to changes at work and personal and work characteristics (n.s = not significant)

	Sex	Age	Grade	Length of Service
Change in Volume of Work	n.s	P<0.05	P<0.01	P<0.01
Change in Intensity of Work	n.s	P<0.01	P<0.01	P<0.01
Change in Speed of Work	n.s	P<0.05	P<0.01	P<0.01
Change in stress and pressure at work	n.s	P<0.01	P<0.01	P<0.01
Change in the number of abusive passengers	n.s	n.s	n.s	P<0.01

Table 6.2 shows that no statistically significant relationships were found between changes to work and gender. A high level of significance is found for relationships between grade and length of service and the dimensions of work intensity ($p < 0.01$). Changes in the number of abusive passengers showed a high level of significance with length of service. As grade was not statistically significant, longer serving crew may be more likely to report an increase in the number of abusive passengers based on their wider frame of reference.

This supports the view that over the years, the number of abusive passengers on aircraft has increased. This may in turn relate to the increased popularity and accessibility of air travel, meaning that people from a wide variety of backgrounds are travelling. Overall, the findings suggest that longer serving and

more senior crews are more likely to experience work intensification (as categorized in the questionnaire). Based on the research findings, we can assert that work intensification (both physical and emotional) is experienced by a high majority of respondents. One exception is however apparent. The significantly lower proportion of long-haul crews reporting an increase in the speed of work may reflect the longer period of time in which services are delivered. Table 6.3 shows the results.

Table 6.3: Changes to work (by designation)

Changes to Work	Long-haul (all respondents) (N=67)	Mixed long/short-haul (all respondents) (N=476)	Short-haul (all respondents) (N=377)
Increase in abusive/disruptive passengers	67%	75%	65%
Increase in speed of work	48%	89%	73%
Increase in stress and pressure at work	76%	87%	77%
Increase in intensity of work	72%	90%	73%
Increase in volume of work	73%	80%	76%
More duty hours compared to last year	64%	66%	63%
Less crew on flights compared to last year	19%	79%	70%

The Intensification of Emotional Labour

In chapter four, we identified emotional labour as a key component of cabin crew work. As already mentioned, Deery et al's (2000) study of emotional labour and emotional exhaustion identified the potential of the customer to increase the demand made upon employees' emotional labour through making demands or being abusive to staff. For cabin crews, emotional labour is utilized when they are compelled to manage their emotions for the benefit of the company, despite any misgivings or different feelings they might have. Based on

Deery et al's (2000) study, we proposed that the perception of an increased incidence of abusive passengers would represent the intensification of emotional labour. Deery et al (2000) also identify high workloads and the speed or intensity of work as key factors in increasing the risk of experiencing emotional exhaustion as a result of high demands on emotional labour. As we have already shown, these additional factors feature strongly.

One could argue that maintaining 'a cool head' simply shows professionalism and is 'part of the job'. Nonetheless, the emotional strain associated with the experience of regular episodes of verbal (or other types of) abuse, may be considerable. In addition there is the emotional strain of containing one's feelings in a workplace where there is 'no escape'. Being reduced to screaming silently in the confines of the aircraft toilet while passengers knock impatiently on the door (as described by one respondent), conjures up a quite unacceptable image of the emotional strain that cabin crew may experience on a daily basis. The day-to-day experience of dealing with the public and their general frustrations, while containing those which you feel and experience is emotional labour by any account, a considerable strain. As one interviewee explains,

Passengers are a health and safety risk. I was on a flight recently where a guy pushed one of the crew and told her to 'fuck off'. He was drunk and difficult to calm down. Nobody appreciates the shit we take. I feel sorry for the families with children who at the beginning of their holiday are exposed to this. It's usually too much alcohol or long delays. I dread getting on the aircraft following a delay...you just know it's going to be hassle from start to finish.

The survey found that 70% of respondents reported an increase in the number of abusive passengers. A statistically significant ($p < 0.01$) positive correlation was identified between changes in the intensity of work and changes in the number of abusive passengers. In other words, as the number of abusive passengers, so too do reports of an increase in work intensity. Respondents appear therefore, to associate increased work intensity with increased numbers of abusive or

disruptive passengers. The propensity for respondents' to suffer from emotional exhaustion is also highlighted (Deery et al 2000).

The majority of respondents reported that the number of abusive and/or disruptive passengers has increased in the past year with no statistically significant differences between airlines or type of flight. This can be explained when we consider the factors influencing 'disruptive passenger syndrome' or 'air rage'. Many of these are applicable to any flight, for example, delays and alcohol consumption before the flight. Furthermore, the only statistically significant factor showing a relationship to reports of changes in the number of abusive passengers is length of service, as shown in table 6.2. This suggests that factors such as age, gender and grade do not affect cabin crews' personal experience of abusive or disruptive passengers, which contradicts research findings in other industries (Mayhew and Quinlan 1999, TUC 1999a).

Table 6.3 also suggests that the experience of changes to work is more pronounced for crews who operate a combination of long and short-haul flights. Most of these respondents worked for Britannia, and the same pattern of responses is seen in table 6.1. This may be explained by the fact that during the period in which the research was carried out, Britannia experienced one of their worst years for flight delays. We explore the relationships between these dimensions of work organization and respondents' health in the next chapter.

f) Duty Hours/Crew Complement

Key questions:

- **Has there been any change to the number of duty hours and/or crew complement in the past year?**
- **Are there any differences between airlines?**
- **Is there evidence of work intensification?**
- **Is health and safety undermined by productivity pressures?**

While all crews report an increase in the number of duty hours in the past year, significant differences between long and short-haul were apparent with regard to

crew complement (see table 6.3). It would appear that long-haul routes are not subject to the same cost reduction in terms of labour, or alternatively fewer crew are absent on these routes. Crew representatives commented that crew almost never called in sick for long-haul flights for two reasons. Firstly, long-haul trips are usually lucrative in terms of pay and the opportunity to spend a few (paid) days on the beach, and secondly on the return sector, crew would rather fly home than be ill in a foreign destination. Some of the respondents' comments further demonstrate the extent of work intensification in the case study airlines.

Q509

Every year we are expected to carry out more services, more flights with less crew, minimum hours off in between - how long do management expect us to continue working to a high standard of service without cracking up?

Q374

Today my report time was 04 20. Every flight that went out his morning was a crew member down. Working at a large base I am sick and tired of working doubly hard to make up for a missing person. I really do not need the stress, headache and unreasonable working conditions. In this 8 hr 45min duty today we took a 10 minute break to eat our breakfast standing up. I feel very disheartened and generally fed up of the way we are treated and the conditions we have to work in.

The data analysis therefore, suggests that a number of factors contribute to reports of increase work intensity, speed and volume, and increased stress and pressure at work including: **more services offered to passengers during flights, turnaround times, inadequate breaks, crew complement on flights and duty hours.**

In terms of crew complement, junior staff may 'stand in' for senior members of staff on flights, without having received the correct training to do so. The extent to which this type of 'empowerment' has a positive effect on an individual's health and job satisfaction is dependent on a range of factors. However, where the individual lacks sufficient training to cope effectively with added

responsibilities, it could be argued that the overall effect would be negative. The safety implications are also obvious, yet apparently ignored by management.

The research findings also indicate that respondents are concerned with how well they would perform in an emergency situation given their working patterns and working hours. Equally, safety appears to be a major oversight when reducing turnaround times, illustrated by reports from respondents of not having enough time to carry out essential security checks after the cleaners and caterers have left the aircraft, and before passengers arrive. These concerns are mirrored in other responses:

Q566

I'm so tired with early mornings and night flights in the same week that I'm afraid I'll miss something safety related. How do you cope with working 43 hours in 4 flights on minimum rest?

Q566

Britannia is now compromising safety standards at work because their only concern is to get the aircraft off the ground in time. I have operated too many flights with 5 or 6 crew where I have been the ONLY experienced crew member. If there had been an emergency, I wouldn't like to say how my crew would have coped due to their inexperience.

g) Teamworking / Quality of Service

- **Is teamworking supported by HR policies and working practices?**

A key finding from the survey is that teamworking was the most commonly cited factor of work that respondents enjoyed. Respondents' comments suggest that the teamworking environment provides an important support mechanism for coping with the day-to-day strains and pressures of the job. There was also some evidence that teamworking fulfilled a range of social needs for respondents. These findings relate directly to the literature²⁰ that describes a range of organizational and psychological benefits associated with teamwork (e.g. Herzberg 1966, 1968; Hackman *et al* 1975). However, in light of the findings on

²⁰ A full discussion of teamworking is provided in chapter four.

increasing workloads and the pressure to meet financial targets, we propose that the benefits currently enjoyed may be under threat by 'hard' people management strategies.

As well as having clear benefits to cabin crew, the crucial role that effective teamwork has in passenger safety, should not be forgotten. The teamworking aspect of the job is crucial both from a service and safety perspective. Many of the principles of effective teamworking are incorporated in the cabin crew labour process (Hackman et al 1975). Effective communication between crew members is vital for safety and service, while the ability to focus on the team's objectives rather than personal grievances or other distractions, is essential. However, the reality of the cabin crew labour process is one where CSDs are under increasing pressure to meet growing service requirements and revenue targets. This often means that time for crew rest breaks are sacrificed, which may in turn, undermine team cohesiveness and effectiveness. Particular concern should be given to this point when the level of dependence on effective teamwork in an emergency situation is considered. According to one CSD,

The most worrying thing is the lack of time there is to give the crew a break. As a cabin services director, that means I'm in charge of the cabin crew, I make sure my crew get a meal break, but I know it's not the same for every CSD. We're under pressure to make as much cash as possible.....we've got targets that we need to achieve to avoid hassle. Often it's a choice between the crew getting ten minutes to eat something, or doing a drinks service which might bring in around £200. At the end of the day, if we had to do an emergency evacuation on landing, we need food and a chance to gather our wits during a 10 or 12 hour day (interview transcript).

For CSDs, preventing their colleagues from taking a rest break may increase their experience of stress at work, given that they are likely to understand that crews need to eat and drink, and also they may have to deal with complaints from the crew when breaks are not given. A statistically significant ($p < 0.01$) negative correlation (-0.144) was generated between grade and suffering from stress (on at least some flights). Since CSDs were coded 1, and junior crew were

coded 4, the correlation shows a tendency for CSDs to suffer from/experience stress more often than junior crews.

As already mentioned, teamworking and the camaraderie amongst crews were reported by a high majority of respondents as the parts of the job that they most enjoyed. In terms of what they disliked most about their job, common responses were:

- no time to talk to passengers
- no time to have a break
- too many services during flights

These problems could be directly related to the airlines' policies on workloads and service schedules, which would in turn suggest that any benefits of teamworking (as well as safety) could be undermined by a 'hard' approach to managing work organization and workloads. The quality of service may also be affected since crews have little time to spend with passengers, and have less time to ensure that they deliver a high quality service.

4. Summary of Findings

This chapter set out to examine work organization in the case study airlines. The airlines' policies relating to working hours, working patterns, workloads, and disruptive passengers were explored by way of respondents' reports of their experiences in these areas. The findings suggest that work intensification as a result of productivity maximization strategies, is the reality of work for cabin crews. The existence of productivity drives which generate exhausted, overworked crews, hardly suggests the existence or realization of 'people/employee-centred' concerns.

Table 1.1 proposed that in terms of flexibility strategies, a 'soft' approach would be characterized by mutual benefits in flexible working hours, working patterns and contracts, while 'hard' HRM would be characterized by one-sided benefits

in the same areas, and by work intensification. The survey finds that respondents' working patterns appear to be unlike those of any other sector in that mixed, flexible shift patterns are the norm, for the summer season at least. Working patterns arguably take flexibility to the extreme, and in some cases respondents regularly experienced multiple changes to their rosters, meaning that family and social life was significantly disrupted.

We also examined the assertion that a 'soft' approach would be characterized by teamworking where mutual benefits are achieved, while 'hard' HRM would be characterized by peer pressure and management-by-stress (see table 1.1). The survey found that teamworking and the camaraderie amongst crews was one of the factors of the job most liked by respondents. However, the benefits of teamworking appeared to be undermined by the pressure of work. Respondents noted that there was little time to talk to passengers/have a break, and that there were too many services crammed into flights. This suggests that the 'soft' benefits of teamworking may be eroded by the 'hard' approach to managing work organization and workloads. Teamwork and camaraderie may also be undermined when the team leader (CSD) does not allow a crew-break during work because the service schedule must take priority. All the negative aspects of teamwork appear to be at liberty to override many of the positive aspects.

Thirdly, in terms of quality strategies (as shown in table 1.1), 'soft' HRM would be characterized by high quality, customer-focused service, whereas, 'hard' HRM would focus on management-led and tightly controlled service agendas which were business focused rather than customer focused. The survey findings suggest that the quality of service is detrimentally affected by time pressures and the number of services (many of which generate revenue for the airline). As already mentioned a 'soft' approach emphasizes high quality, customer-focused service, while a 'hard' approach emphasises high quality, business-focused service. The danger exists that management-dictated service schedules. Respondents' comments indicate that services are "thrown out" to passengers

while the crews are running around like “headless chickens”. This further exposes an element of conflict and tension between what crews are taught in training (and assessed against in performance appraisals), and the reality of time-pressures and cost-pressures when actually carrying out the job. Management’s control over service schedules also illustrates the Taylorization of cabin crew work, where individual discretion and the opportunity to utilize individual skills and attributes are squeezed out as cabin crews’ role becomes increasingly standardized, repetitive and intensive. The next chapter goes on to explore the range and extent of OHS risks experienced by respondents, and any relationships between these risks and the airlines’ people management policies.

Chapter Seven

Employee Health and the Management of Health and Safety

This chapter continues our analysis of developments in cabin crew OHS. The previous chapter identified evidence of work intensification in the cabin crew labour process, and this chapter goes on to explore the range of OHS risks identified by respondents and how these issues relate to the airlines' people management policies and strategies. This chapter addresses our second and third research questions:

2. Which factors impinge upon cabin crew OHS, and how do these relate to airline companies' HRM strategies and policies?

3. To what extent have airline companies overlooked or underestimated health and safety risks related to the cabin crew labour process?

In terms of the second research question, we explore respondents' reports on health, illness and key OHS concerns. This offers an insight into the range and extent of possible OHS risks that are experienced by respondents. We then relate these findings to airlines' policies on the quality of the working environment (e.g. cabin air quality, hygiene standards), turnaround times (affecting rest breaks and hygiene standards), training provisions (the areas in which training is provided).

This analysis goes some way to addressing our third research question. Earlier, we asserted that cabin crew OHS is not fully understood because of missing data and disinterest on the part of the AAIB, CAA and HSE. While this thesis is not concerned with objective measurements of cabin crew absence and injury, it *is* concerned with developing a broader understanding of the range of OHS risks in the cabin working environment, as well as the range of symptoms experienced

by cabin crews. As already mentioned, cabin crew comfort or ergonomic issues are of no concern to the AAIB or CAA (their words). This thesis may go some way to raise the profile of cabin crew OHS and show the extent to which cabin crew OHS is underestimated and overlooked by airlines and the regulatory bodies.

We assess the following areas (the question in the survey is indicated in brackets):

1. **Perceived health effects of work organization and workloads (questions 2.9 and 4.1)**
2. **Type and occurrence of symptoms suffered while at work (question 4.2)**
3. **Factors that symptoms are attributed to (question 4.3)**
4. **Ratings of the quality of the working environment (questions 4.4 and 4.11)**
5. **Other health complaints suffered in the last year (question 4.10)**
6. **Health and safety concerns (question 3.1)**
7. **Factors complained about and regularity of complaints (question 4.5)**
8. **Recipients of complaints and reason why complaints wouldn't be taken to either management/trade union representative or colleagues (questions 4.6 and 4.7)**
9. **Rating of management commitment to health and safety at work (question 4.12)**
10. **Training Received (question 3.2)**
11. **Requests for more information/training (question 3.3)**
12. **Employee Commitment**

1. Perceived Health Effects

Q797

When I joined Britannia 4 years ago, I was in perfect health. Since then I've had severe ear problems, kidney infections and an unidentified blister rash that covered my whole body. Five hospital doctors did not know what it was. I now have constant back pains through lifting heavy atlas boxes/moving carts – even the catering men struggle with these! I have a constant cough and chest infections. I am covered in bruises from either carts or passengers, so much so that when I was wearing my swimsuit the other day, people thought that I had been beaten-up by my boyfriend!

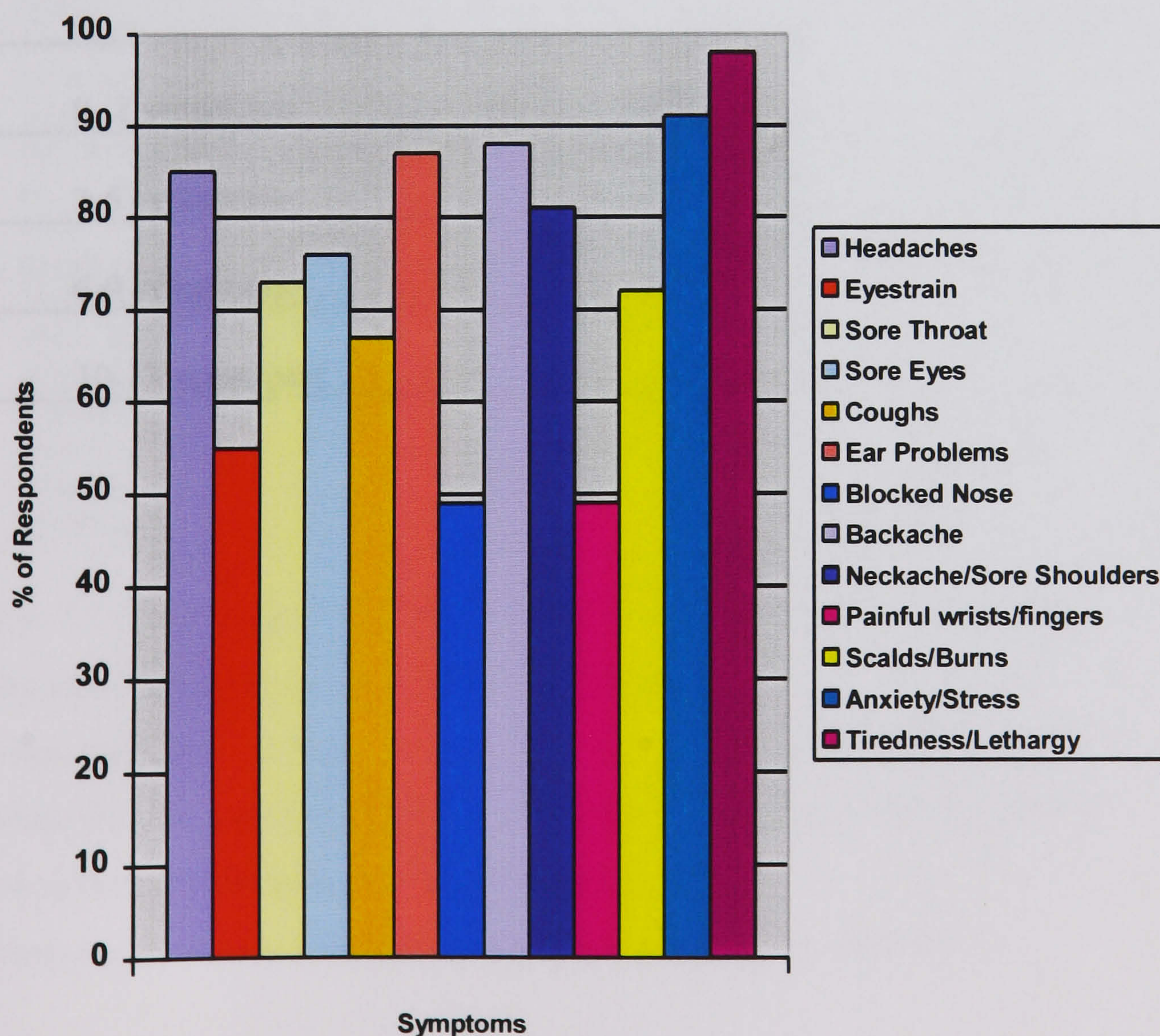
We have already discussed the evidence on high workloads and mixed shift patterns. We asked respondents how they felt the job had impacted upon their

We have already discussed the evidence on high workloads and mixed shift patterns. We asked respondents how they felt the job had impacted upon their health and well being. In terms of shift working, 84% of respondents reported that they felt less healthy as a consequence of mixed shift patterns, and 89% said that they needed more sleep. In terms of the impact of the job on their health, 76% believed that their health had deteriorated since they began flying.

2. Type and occurrence of symptoms

Chart 3 shows the proportion of respondents that suffer from the various symptoms on a regular basis. A high proportion of respondents have reported a wide range of symptoms, many of which are related to the use of recirculated air, as discussed in previous chapters.

Chart 3 Symptoms Suffered by Respondents on either 'some', 'most' or 'every' duty



The mean number of symptoms reported was ten. Neither age, sex or grade were statistically significantly related to the number of symptoms suffered. This may be explained by the general assumption that older people suffer more illnesses. However, the finding that individuals aged between 22-25 suffer from an average ten symptoms on at least some duties, does suggest that age is not a main factor in understanding the levels of illness. However, length of service correlated with the number of symptoms suffered, showing a tendency for the longer serving cabin crews to suffer from a greater number of symptoms ($p < 0.01$). When organized into four categories, 65% of respondents suffered between 10 and 13 symptoms on at least some duties.

The table below shows the clustering of symptom reports in these categories.

Table 7.1: Categories of Symptoms Suffered/Reported (% of respondents; N=926)

0- 2 symptoms	2%
3-5 symptoms	8%
6-9 symptoms	25%
10-13 symptoms	65%

Table 7.2: Statistical Analysis of the correlation between the number of symptoms suffered and dimensions of work organization (n.s = not significant).

Independent Variable	Correlation Coefficient	Level of Significance	F ratio and the level of significance
Hours on aircraft	.172	P<0.01	F=15.262 0.001
Changes in crew complement	0.54	n.s	F=2.596 n.s
Changes in duty hours	0.125	P<0.01	F=8.125 0.001
Change in volume of work	0.080	P<0.01	F=12.690 0.001
Change in speed of work	0.089	P<0.01	F=5.527 0.01
Change in stress and pressure at work	0.181	P<0.01	F=20.492 0.001
Change in intensity of work	0.146	P<0.01	F=15.136 0.001
Regularity of mixed shift patterns	0.107	P<0.01	F=6.376 0.002
Number of rest breaks taken	.034	n.s	F=3.064 0.05
Change in number of abusive passengers	0.157	P<0.01	F=14.944 0.001

Table 7.2 shows a tendency for the number of symptoms to increase as:

- the number of hours on the aircraft increases
- when respondents are working more duty hours compared to last year
- when the volume/speed/intensity of work is reported to have increased
- when mixed shift patterns are more regular
- when an increased number of abusive passengers is reported

▪ **no statistically significant relationship was found between the number of rest breaks taken by crews and the number of symptoms suffered.**

The analysis suggests that a strong relationship between the number of symptoms suffered and dimension of work intensification, namely longer working hours, increased work intensity, regular mixed shift patterns and increased demands placed on emotional labour in dealing with more disruptive passengers. Respondents' health can therefore be directly related to the airlines' policies on work organization.

Other Symptoms Suffered

From content analysis we identified a series of pattern codes for 'other' symptoms reported:

- **Aching feet and legs**
- **Irritable bowel syndrome**
- **Bloated stomach/ painful stomach**
- **Dehydration**
- **Skin problems e.g. dry skin**
- **Swollen ankles**
- **Sinusitis**
- **Constant tiredness**

We now explore the relationship between the number of symptoms reported and respondents' ratings of the quality of the working environment, hygiene and management's commitment to their health and safety.

Table 7.3: Statistical analysis of the correlation between the number of symptoms suffered and respondents' ratings.

<i>Dependent variable = the number of symptoms suffered</i>	Correlation coefficient and level of significance	F ratio and level of significance
Rating of Management Commitment	-0.236 p<0.01	F=22.389 0.001
Rating of Hygiene	-0.226 p<0.01	F=20.765 0.001
Rating of the Quality of the Working Environment	-0.293 p<0.01	F=35.487 0.001

Table 7.3 shows statistically significant ($p < 0.01$) negative correlations that indicate that as the number of symptoms increases, the ratings of the management's commitment health and safety decrease. This is also true of ratings for the quality of the working environment and hygiene. The strong significance levels shown for the f ratio, indicate that these relationships exist throughout the sample, meaning that respondents will attach lower ratings to the above factors when they suffer a greater number of symptoms.

3. Attributable Factors

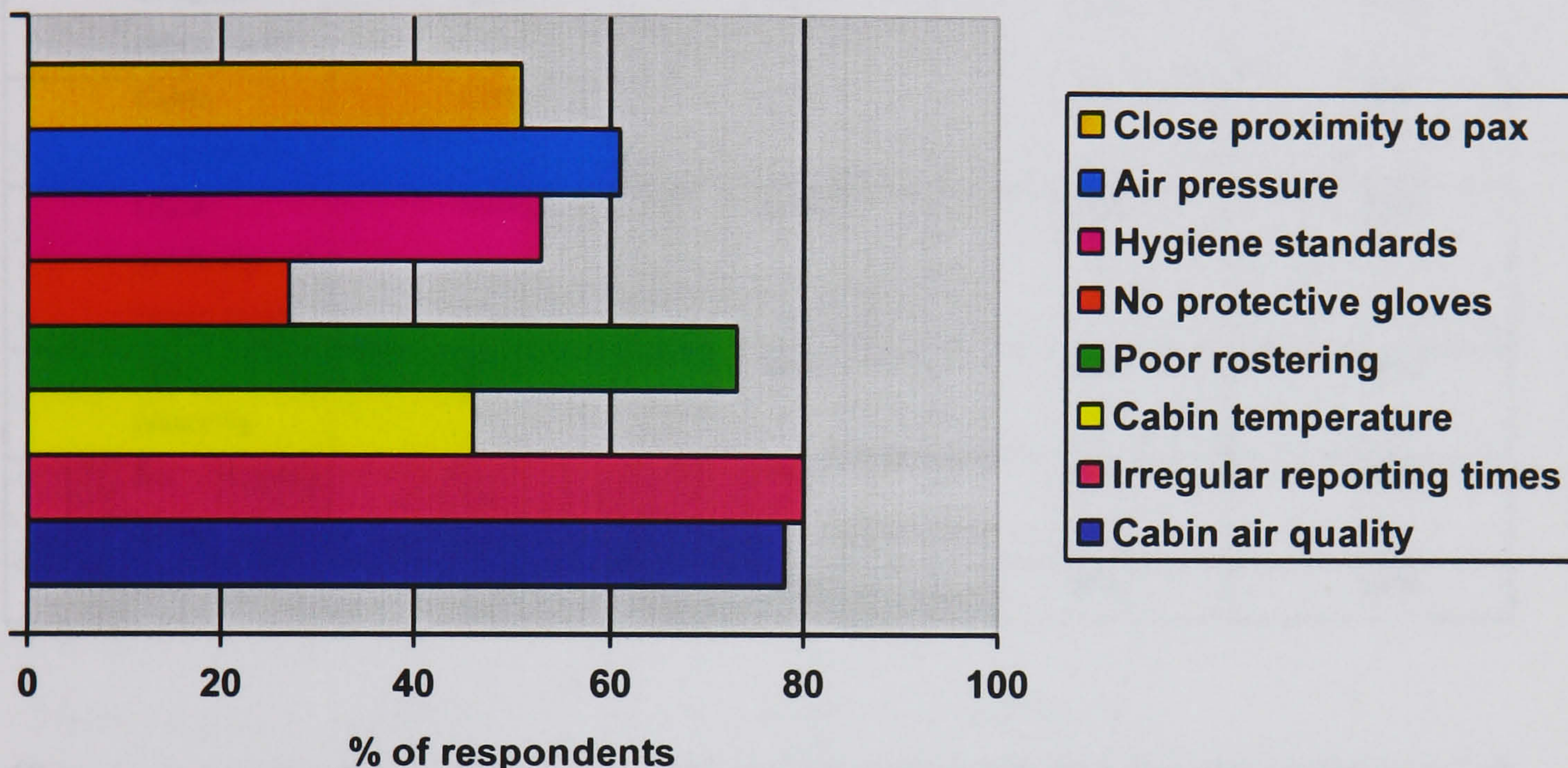
Key Questions:

- **To which factors do respondents attribute their symptoms?**
- **Do respondents suffering from a higher number of symptoms attribute their symptoms to a wider range of factors, or to different factors, compared to those suffering from a lower number of symptoms?**

Table 7.4: Causes of Symptoms

From the literature on air quality and working patterns we provided a range of factors that respondents might attribute their symptoms to. 'Other' factors were also reported. The results are shown below.

Chart 4 : Factors to which symptoms are attributed to



(The above chart refers to question 4.3 in appendix 1)

We can analyze whether differences exist between the different experience of symptoms and what these are attributed to (more than one cause could be given). Table 7.4 shows that respondents suffering from more than three symptoms predominately blamed irregular report times, cabin air quality and poor rostering for their symptoms. We will shortly explore this further by comparing health and safety concerns with the number of symptoms suffered.

Table 7.4: Causes of Symptoms according to the number of symptoms suffered (on at least some duties).

Cause	0-3 Symptoms (n=22)	4-6 Symptoms (n=77)	7-9 Symptoms (n=227)	10-13 Symptoms (n=600)
Cabin air quality	31%	54%	74%	84%
Cabin air pressure	23%	47%	58%	66%
Irregular report times	36%	66%	73%	86%
Cabin temperature	27%	34%	41%	50%
Close proximity to passengers	14%	29%	46%	57%
Poor rostering	36%	56%	65%	79%
Not wearing gloves	-	1%	13%	22%
Poor hygiene	14%	21%	39%	63%

Chi-square tests showed high significance levels ($p < 0.01$) for the existence of relationships between the category of symptoms suffered and the following factors to which the symptoms were attributed:

- poor hygiene ($p < 0.01$)
- cabin air quality ($p < 0.05$)
- irregular report times ($p < 0.01$)
- poor rostering ($p < 0.01$)

This indicates that there is a relationship between the number of symptoms suffered and which factor it will be attributed to. Crosstabulations between the factor blamed (e.g. air quality) and the symptom suffered (e.g. headache), indicates that headaches, sore throat, cough and tiredness are predominately blamed on cabin air quality and irregular report times. This provides some support for the literature on the health effects of recirculated air and shiftworking.

The number of symptoms reported correlated with the number of factors complained about ($p < 0.01$). This indicates that as the number of symptoms increase, individuals attribute the symptoms to a wider range of factors.

The qualitative data further informs of the other factors to which respondents attributed the symptoms suffered.

Pattern codes for ‘Other’ causes of symptoms were:

- Stress and pressure from having too much work to do in the time allowed
- Working with less than full crew complement
- Poor quality management
- Aircraft noise
- Working on minimum rest/not enough sleep between duties
- No crew breaks
- Heavy trolleys/ pushing, pulling and lifting heavy equipment
- Cramped working conditions

These pattern codes further support the proposition that poor working conditions and work intensification will have a detrimental affect on employee health.

Some of the respondents’ comments on factors affect health and safety are shown below:

Q601

My main concerns are poor rostering - you cannot sleep on demand. Switching between mornings/afternoons/nights is not feasible.

Q671

The aircraft fly for days with technical problems and it's often temperature and pressure problems, which make crews feel ill when working.

Q669

I suffer from light-headedness due to poor air quality - the air conditioning system in the F100 aircraft was designed for the F28 aircraft that has over 25 less passenger capacity. The system is not adequate and it is often extremely hot and uncomfortable.

Q737

Equipment on the aircraft is often faulty and makes our job harder, for example, a broken boiler at the front meant we had to trapse 150ft back and forth to fill tea/coffee pots. Will they be fixed for the next sector? Hardly, the aircraft aren't on the ground long enough. It's all money, money, money and take, take, take. Cabin crews are at the bottom of management's priority list and always will be.

Q841

I have hurt my back 4 times in the last 6 months because of carts that are unserviceable. I have also badly cut my hand and injured my ankle because of US trolleys and faulty catering equipment. I've been reporting incidents like this for years but still nothing happens.

4. Ratings

Key Question:

▪ **How will respondents rate the quality of the working environment; hygiene standards and management's commitment to health and safety?**

The cabin environment has been described as cramped, overcrowded, noisy and stuffy. We asked respondents to rate the quality of their working environment on an average flight. 37% rated it as 'poor', while 16% rated it as 'very poor'. Clearly, the cabin working environment is very different to an office or factory. One important difference is toilet facilities and hygiene standards. 52% of respondents rated hygiene on board aircraft as 'poor'. As already noted, lower ratings of hygiene were correlated to a greater number of symptoms suffered by respondents.

One consequence of more services, fewer breaks, reduced crew numbers and shorter turnaround times, is that crew sometimes do not have enough time or opportunity to go to the toilet. Firstly, the service schedule may be so busy that

there is literally no time to go to the toilet. Secondly, when time is found, the toilet facilities may be unavailable due to passenger use. During follow-up interviews, the issue of adequate toilet breaks was of major concern. Respondents also highlighted that even when they do find time to use a vacant toilet, it is often filthy due to constant use during flights. The comments below highlight respondents' concerns:

Q536

I suffer from digestive problems due to being unable to use the toilet during flights because it is too busy with passenger use and also the workload – I don't have time to stop. Sometimes 4 or 5 hours have lapsed and nobody has been to the toilet, despite consuming food and liquid during that period.

Q737

Cabin crews should be provided with a staff toilet. Every other large company has one. You can't even get to the toilet sometimes because of the queues. When you do get in, passengers are knocking on the door to get in!

Q639

I suffer from kidney infections through not having enough time to drink sufficient water on flights or having time to visit the toilet.

Q607

Cabin crew should have a separate toilet from passengers. The toilets are so disgusting that you don't want to use them. We should have crew rest areas on flights over 4 hours.

5. Health Complaints

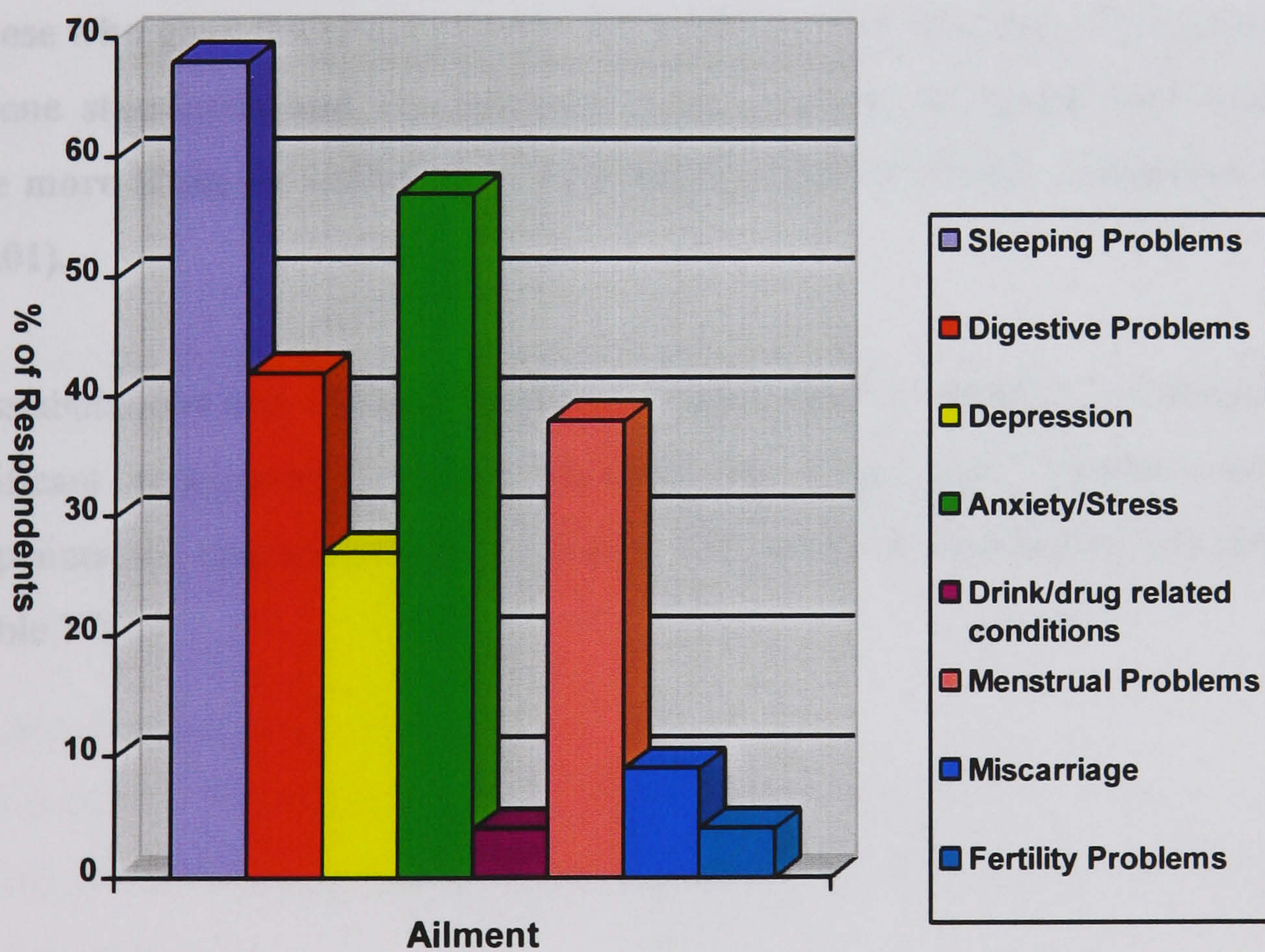
Key Questions:

- **What type of health complaints were reported by respondents?**
- **What are the most common types of complaints suffered?**
- **Are there any differences between age, gender, grade, length of service and airline?**

- Is the number of health complaints associated with the number of symptoms reported?
- Is the number of health complaints related to changes to work?
- Is the number of health complaints related to ratings of the quality of the working environment ; hygiene standards and management's commitment to health and safety?

The literature on radiation exposure, stress and shift working listed a variety of associated health complaints. We asked respondents if they had suffered from any of these in the past year. The results are shown in chart 5.

Chart 5 Ailments Suffered in the Last Year



(The above chart refers to question 4.10 in appendix 1)

Kendall's tau correlation identified a number of statistically significant relationships as shown below:

- **As the number of health complaints increased, so too did the regularity of mixed shift patterns (coefficient = 0.019) ($p < 0.01$).**
- **Longer serving respondents were more likely to suffer from more health complaints than respondents with a shorter length of service (coefficient = 0.099)($p < 0.01$).**
- **Older respondents were more likely to suffer from more health complaints than younger respondents (coefficient = 0.091) ($p < 0.01$.)**
- **More health complaints were likely to be suffered by those who reported an increase in the intensity of work ($p < 0.01$).**
- **More health complaints were likely to be suffered by those who reported an increase in the volume of work (coefficient = 0.071) ($p < 0.05$).**
- **More health complaints were likely to be suffered by those who reported an increase in duty hours (coefficient = 0.094) ($p < 0.01$).**
- **Those who gave lower ratings for the quality of the working environment; hygiene standards and management's commitment to health and safety, were more likely to suffer from a higher number of health complaints (all $p < 0.01$).**

Crosstabulations and Phi and Cramer's V were used to identify if statistically significant relationships existed between the three most common health complaints and respondent characteristics. The levels of significance are shown in table 7.5:

Table 7.5: Level of significance between the three most common health complaints and respondent profile (n.s = not significant p<0.05)

	Sleeping Problems	Digestive Problems	Anxiety/stress
Gender	.010	.463 (n.s)	.155 (n.s)
Age	.079 (n.s)	.387 (n.s)	.000
Grade	.473 (n.s)	.055	.000
Length of Service	.652 (n.s)	.147 (n.s)	.000
Airline	.022	.003	.033
Long/short/mix haul	.029	.127 (n.s)	.057 (n.s)

Table 7.5 suggests that relationships exist between the airline of employment and the likelihood of suffering from sleeping and digestive problems, and stress and anxiety.

A highly significant relationship is shown between grade / length of service and the experience of anxiety and stress. Chi-square does not tell us about the strength or direction of this relationship, only that the relationship exists in the sample. Correlations provide the mechanism to explore the relationship further.

Further analysis finds that:

- **age is correlated to the experience of anxiety and stress (coefficient = 0.163 ; p<0.01), which indicates that older crew are more likely to report suffering from anxiety and stress.**
- **Grade is correlated to anxiety and stress (coefficient -0.139 ; p<0.01). Since senior grade is coded 1, this indicates that senior grades are more likely to report anxiety and stress.**

▪ **Length of service is also correlated to anxiety and stress (coefficient 0.181; $p < 0.01$), indicating a tendency for longer serving crews to suffer from anxiety and stress during the past year.**

These findings suggest that long-term employment in the occupation (length of service and seniority) is strongly linked to the experience of anxiety and stress.

Further correlations were found between sleeping problems, anxiety and stress and digestive problems ($p < 0.01$), which suggests that respondents who suffer from one of these complaints is likely to suffer from the other two.

The qualitative data adds context to these findings. Some of respondent' comments on health are presented below:

Q923

Whilst the company does pay lip service to our 'well being', facts are kept under wraps - we hear nothing about the effects of radiation, breast cancer, deafness etc. Because of the low salary and health effects I won't stay in this job much longer as I'm too scared of radiation and damage to my immune system.

Q337

Over the last year the increasingly long days have taken a toll on my health. I constantly feel tired and my first day off I walk around like a zombie. I keep getting sore throats and niggly little illnesses. Due to the stress of being tired small things become major things.

Q341

Cabin air quality is my main concern. I often have colds and sore throats and a sore, dry nose (inside).

Q32

I've been flying for 10 years and feel my health has deteriorated a lot recently. Management don't consider the impact of mixed shifts on the body. I have just spent 10 days of my leave in bed with suspected pneumonia – according to my doctor, it was caused by stress.

Q300

Over my 25yrs of flying I have suffered the following: severe back injury, tendinitis in the thumb, kidney stone, sinus problem - all of which I feel could have been prevented by better management of crew health and safety.

Q578

I have never been so unhealthy since I joined an airline. I was mortified to discover recently that I had extensive scarring on my lungs due to tuberculosis, which was contracted within the last ten years. I joined the airline in 1988.

Q213

I lost a baby while at BA due to a high blood pressure related condition. My doctor suggested that if I want more children I should stop flying.

Q 83

Since starting flying I have had a tumor removed from my thyroid and pre-cancerous cells removed from my cervix.

Q333

The amount of radiation that we are exposed to worries me greatly – future concerns regarding fertility prey on my mind.

6. Health and Safety Concerns

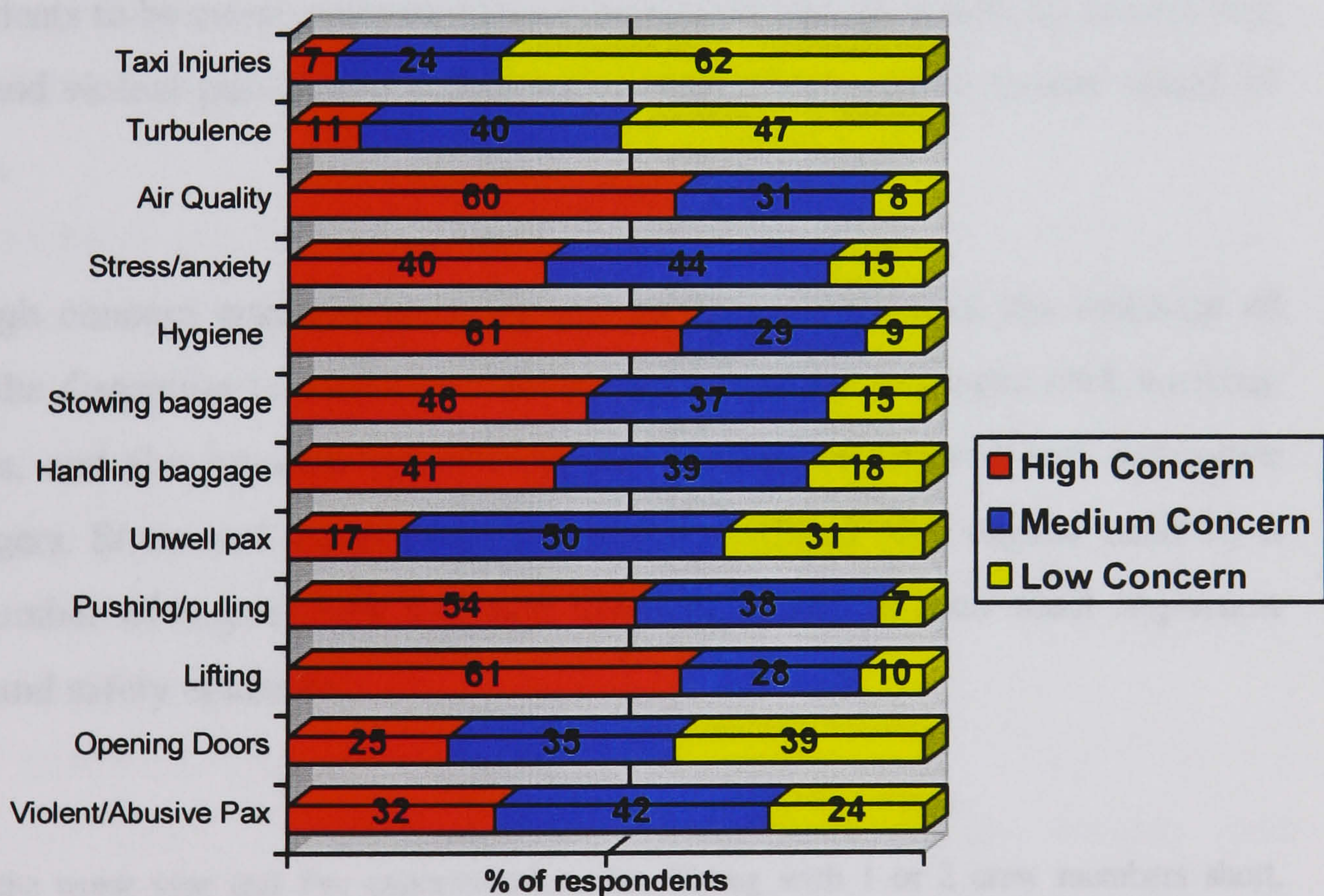
Key Questions:

- **What are the key health and safety concerns?**
- **Are health and safety concerns related to the number of symptoms/health complaints reported?**
- **Are health and safety concerns related to the type of factors respondents complained about (e.g. hygiene)?**
- **Are health and safety concerns related to ratings attached to the quality of the working environment; hygiene standards and management's commitment to health and safety?**

During the formulation of the questionnaire, cabin crew representatives' opinions, and the literature on the cabin environment were considered when deciding which factors of cabin crew work and the working environment, may be of concern. Space was provided for 'any others'. Our analysis focuses on identifying the level of concern over each issue. The qualitative data broadens our focus to include other key health and safety concerns not incorporated in the questionnaire.

Chart 6 shows the key findings.

Chart 6 Health and Safety Concerns



(The above chart refers to question 3.1 in appendix 1)

Statistically significant relationships are found between (kendall's tau):

- **Grade and the level of concern over stress and anxiety (p<0.01)**

▪ **Grade and the level of concern over handling and stowing baggage (p<0.01)**

The direction of the correlation showed a tendency for senior grade respondents to express a higher level of concern about the aforementioned issues.

▪ **Length of service and the level of concern over manual handling (pushing carts, lifting bar boxes, handling and stowing baggage) and level of concern over stress and anxiety (all p<0.01).**

▪ **Length of service was also correlated to the level of concern over violent passengers (p<0.05).**

The direction of the correlations showed a tendency for longer serving respondents to be more concerned about aspects of manual handling, anxiety and stress and violent passengers, compared to respondents with a shorter length of service.

The high concern attached to stress and anxiety may reflect the intensity of work, the disruption to social and home life as a result of erratic shift working patterns, and the reported increase in the number of abusive and disruptive passengers. Stress and anxiety was a symptom suffered on a regular basis by a high number of respondents, and now features as one of their most important health and safety concerns.

Q750

This is the worst year that I've experienced so far. Flying with 1 or 2 crew members short, crewing changing your rosters at the last minute, rosters with no pattern. Requested days off are not considered. I feel rostering do not have any consideration for crew – let them try to work these rosters!

Q632

Through the pressures put on us by both management and passengers, and the lack of quality of life due to bad rostering, something eventually gives and in most cases its a person's health, either physical or mental. The body can only put up with so much.

Cabin temperature attracts the highest proportion of complaints from cabin crews. 59% of respondents complained about temperature either 'often' or on 'every flight'. Respondents complained of galley temperatures being very draughty and cold, especially on long-haul or night flights where crew "huddle together trying to keep warm while sitting on cold bar boxes". The other extreme for crews is high cabin temperatures. While temperatures may suit sedentary passengers, crews engaged in physically demanding work during services might find the temperature too high. According, to the TUC, high temperatures cause injuries and illness at work, including dehydration, tiredness leading to accidents, irritability and higher stress levels, with enhanced risks of mental and physical illness (TUC 1997).

A further health and safety concern was handling cabin baggage. Cabin baggage creates confusion and mayhem in the cabin, and can delay on time departures as oversized bags are squeezed into a limited amount of space. The incidence of verbal abuse from passengers is thought to increase significantly with disputes over cabin baggage, while crews are placed at further risk from suffering an injury while lifting or handling passengers' baggage.

'Other' health and safety concerns included:

- **Personal health – infectious diseases, cosmic radiation, fertility and miscarriage, fatigue, eating food in close proximity to the toilets and full rubbish bags**
- **Ergonomics – bending a lot and twisting movements, heavy carts and double stacked bars**
- **Cleaning seat pockets – coming into contact with used needles and dirty nappies**

- Crew injuries resulting from faulty equipment e.g. warped oven trays causing burns, trolleys with stiff wheels.

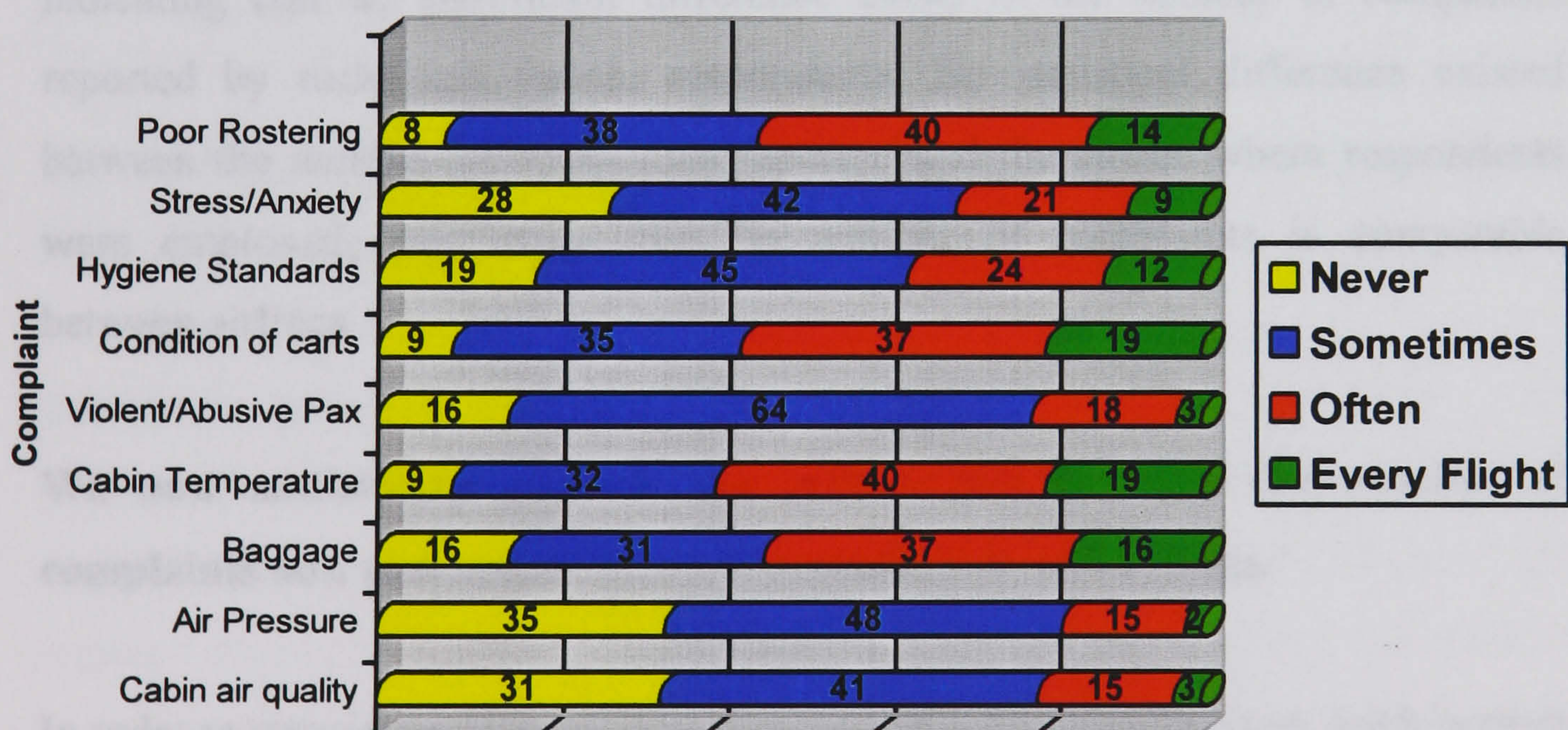
7. Factors Complained About

Q670

No matter how much I complain (on flight reports) about the aircraft being too hot, which causes crew to feel dizzy and lose their balance, I have not once had a reply or explanation as to why these aircraft are still flying unchecked. Safety is out the window when there is a schedule to meet.

This question is linked to respondents' main health and safety concerns. It also provides an insight into the key health and safety areas that should be addressed by management. The results are shown in the chart below:

Chart 7 Regularity of Complaints - % of respondents complaining either 'sometimes', 'often', 'every flight' or 'never' for each factor (refers to question 4.5, appendix 1)



The top four issues complained about most frequently (i.e. 'often' or on 'every flight') are cabin temperature, the condition of carts, poor rostering and cabin baggage. A positive correlation coefficient (0.107) indicated that as age

increased, so did the number of complaints ($p < 0.01$). This was also true of grade (coefficient 0.169), where as seniority increased, so too did the number of complaints ($p < 0.01$). With respect to health and safety concerns and faulty equipment on board aircraft, one interviewee commented,

The cabin is totally crap...smelly, overcrowded, noisy and faulty equipment and missing equipment doesn't help. One of our aircraft in Bristol operated for nearly two months you know with serious faults that were logged in the maintenance book but never fixed because the aircraft was never on the ground long enough for the engineers to repair it. It's terrible. The oxygen mask cover, you know, just above the passengers' heads, was held closed by cellotape for nearly 3 weeks! What must passengers think?

The number of complaints also increased linearly with length of service (coefficient 0.181; $p < 0.01$). This may reflect increasing confidence from older, more senior and longer serving respondents to voice their complaints. A means test with f ratios and a test for variance found that age, grade and length of service were statistically significant ($p < 0.01$), indicating that this trend exists in the cabin crew population as a whole. Gender was not statistically significant, indicating that no significant difference exists in the number of complaints reported by male and female respondents. No statistical difference existed between the number of complaints reported and the airline where respondents were employed, suggesting that the number of complaints is comparable between airlines.

We now statistically analyze the relationship between the number of complaints and dimensions of work organization and ratings.

In order to strengthen propositions about which areas of cabin crew work present the most significant health and safety risks, we correlate the level of concern for each issue, with the regularity of complaint about each issue. According to the ITF, aviation workers are the most valuable health and safety watchdogs, since they are on the 'front-line' and experience the work itself. Respondents' beliefs

should therefore be regarded as well informed and realistic. The correlations and their level of statistical significance are shown in table 7.6.

Table 7.6: Correlations between the level of concern attached to health and safety issues and the regularity of complaints (shown as correlation coefficient and level of significance)

	Level of concern over violent passengers	Level of concern over handling baggage	Level of concern over hygiene	Level of concern over cabin air quality
Complained about violent passengers	0.222 p<0.01			
Complained about baggage		0.254 p<0.01		
Complained about hygiene			0.344 p<0.01	
Complained about cabin air quality				0.192 p<0.01

The findings indicate that respondents' tend to complain most often about issues that they regard as significant OHS risks.

Interviews with respondents confirmed that they were not provided with information on the proportion of recirculated air used in aircraft or any of the suggested health risks related to a heavy reliance of recirculated air. As far as the author is aware, the airlines in question have no plans to reduce the proportion of recirculated air in the cabins. There appears to be a strong case to argue that cost-savings resulting from recirculating cabin air, take priority over cabin air quality.

A strong relationship between the regularity of complaints about hygiene standards, and the level of concern over hygiene standards. The qualitative data adds context to this finding:

Q284

Cabin crew need a separate toilet to the passengers. Most flights, passengers have stomach upsets and we have to use the same toilet as 200 passengers have used. We should be supplied with a disinfectant hand wash.

Q25

The cleaners never clean the a/c fully. The toilets are a joke - they smell very bad and the galley floor is disgusting. It makes our job very difficult.

Q591

The level of cleanliness and hygiene concern me - the galleys are not fit for food preparation. There are no sinks or soap for handwashing (can't get into the toilet because it is busy); the galley is often opposite the toilet, which is not very pleasant on long flights.

Q709

The toilets are never cleaned properly - just wiped with a dirty rag the same as the seat tables.

Poor hygiene would therefore appear to be a consequent of quick turnarounds and the lack of facilities for cabin crew due to inconsiderate aircraft design. The space for another toilet would of course mean at least two less seats for passengers and therefore, difficult to justify if a management-accountancy perspective of profit is taken. Further exploration of the data highlights relationships between the number of factors complained about and dimensions of work organization, and ratings of management's commitment to health and safety; hygiene and the quality of the working environment.

Table 7.7 on the next page, shows that strong relationships exist between the number of factors complained about and:

▪ **Changes in duty hours (as duty hours increased, so too do the number of factors complained about)**

- Changes in intensity and volume of work (as these increase, so too does the number of factors complained about)
- Regularity of mixed shift patterns (the more prevalent mixed shift patterns, the more factors are complained about)
- Changes in the number of abusive passengers (as the number of abusive passengers increase, so too does the number of factors complained about)
- As the ratings of the quality of the working environment, hygiene standards and management's commitment to health and safety worsen, the number of factors complained about increases.

Table 7.7: Statistical Analysis of the correlation between the number of factors complained about and variables of work organization (dependent variable = number of symptoms)

Independent Variable	Correlation Coefficient	Level of Significance	F ratio and the level of significance
Hours on aircraft	0.060	P<0.05	F=2.818 0.038
Changes in duty hours	0.124	P<0.01	F=12.979 0.001
Change in volume of work	0.143	P<0.01	F=16.280 0.001
Change in speed of work	0.080	P<0.01	F=5.662 0.01
Change in intensity of work	0.094	P<0.01	F=13.278 0.004
Regularity of mixed shift patterns	0.109	P<0.01	F=6.663 0.001
Change in stress and pressure	0.169	P<0.01	F=21.148 0.001
Number of rest breaks taken	-0.029	n.s	F=0.486 n.s
Change in number of abusive passengers	0.174	P<0.01	F=19.546 0.001
Rating of management's commitment to health and safety	-0.222	P<0.01	F=25.203 0.001
Rating of hygiene	-0.219	P<0.01	F=15.923 0.001
Rating of the quality of the working environment	-0.245	P<0.01	F=21.220 0.001

The analysis suggests that dimensions of work intensification (increased volume/intensity of work; increased number of abusive passengers; regular mixed shift patterns) relate strongly to the number of work-related factors that respondents consider unsatisfactory. The previous analyses suggest that the same work-related factors are considered to be health and safety concerns and are also linked to a higher number of symptoms suffered by respondents. Furthermore, these same factors are linked to lower ratings for the quality of the working environment; hygiene standards and management's commitment to health and safety.

Work organization in terms of workloads and working patterns appear therefore, to be key areas affecting the health and safety of cabin crews (and by implication, passengers). According to one interviewee,

I'm worried about being so tired at work that I'm not performing as well as I should. I'm completely knackered just now. I've been on to crewing three times in the past month for rostering me illegal duties. I know my duty limits, but they argue with me and tell me that it's 'legal' and the flight deck back them up. These arseholes should try working the rosters they give us. That computer thinks I'm a relative – robo-steward.

8. Recipients of Complaints

Respondents were asked to whom they would complain about any of the above factors. 78% said that they would complain to colleagues, 38% said they would complain to the trade union, and 36% would complain to management (more than one response could be given). An important point to make is that despite all respondents being trade union members, they were as likely to communicate their complaints to management as to the trade union. To some extent this may reflect the fact that initial complaints are usually made to first line supervision on the flight, and that trade union representatives are not always available during, or at the end of flights. Another factor may be the level of trust between employees, management and trade unions.

Some differences were apparent for gender and airline as shown below:

Gender Differences	Male (N=158)	Female (N=760)
I would take complaints to colleagues	70%	79%
I would take complaints to management	40%	36%
I would take complaints to the trade union	50%	35%

Complaints	British Airways	Britannia	KLM UK
I would take complaints to colleagues	74%	85%	61%
I would take complaints to management	34%	33%	52%
I would take complaints to the trade union	50%	34%	27%

The results shown above indicate a greater tendency for males to report complaints to trade union representatives compared to females. The likelihood of complaining to management was similar for both sexes. It is also evident that BA respondents are more likely to make take their complaints to the trade union compared to Britannia and KLM UK respondents, while Britannia and BA respondents were least likely to make any complaints directly to management. This may be due to the availability of union representatives in each airline, and the type of relationship respondents has with the trade union and management respectively.

We explored the relationships between dimensions of respondents' personal profiles using crosstabulations and chi-square (Phi and Cramer's V). Table 7.8 shows the results.

Table 7.8: Relationship between recipients of complaints and respondent profile (n.s = not significant p<0.05)

	Complain to Management (level of significance)	Complain to the Trade Union (level of significance)	Complain to Colleagues (level of significance)
Airline	.001	.000	.000
Gender	.286 (n.s)	.000	.012
Age	.000	.000	.073 (n.s)
Grade	.000	.345 (n.s)	.000
Length of Service	.000	.000	.088 (n.s)
Long/short-haul/mixed	.045	.042	.000

The high levels of significance shown above suggest that the airline worked for, the respondent's gender, grade, age and length of service are related to the choice of whom respondents take their work-related complaints.

9. Management's Commitment to Health and Safety

Q224

The state of the aircraft and the equipment we have to contend with is nothing short of outrageous. There is no commitment to health and safety, just lip service and adherence to the minimum legal requirements.

The research explored the reasons why respondents would not complain to either management or the trade union. Respondents' testimonies reveal levels of dissatisfaction and low trust relations with management. Generally speaking respondents felt that management was not aware of the demands and pressures

faced by crews, and that complaining would only lead to reprisals. In terms of health and safety, the survey found that 71% of respondents rated management commitment to their health and safety as either ‘low’ or ‘very low’. There were some differences between the three airlines as shown below:

Ratings	British Airways	Britannia	KLM UK
Management commitment to cabin crew health and safety is low / very low	71%	75%	56%

It is interesting to note that fewer KLM UK respondents rate management’s commitment to their health and safety as low compared to respondents from the other airlines. The relatively recent merger with Air UK may have had some influence, or perhaps it may be related to cultural factors within the organization. It is still significant however, that over half of KLM UK respondents rated management’s commitment to health and safety as either low or very low. As already mentioned lower ratings are associated with increases in intensity, speed and volume of work, the regularity of mixed shift patterns, increased duty hours, an increased number of abusive passengers, the number of factors complained about and the number of symptoms and health complaints suffered by respondents. Management appears to be held accountable for changes to work and the quality of the working environment. According to one interviewee:

My base manager (in Amsterdam) is the biggest risk to my health. She is a complete witch who is no support at all. There’s no trust or confidentiality. I can’t wait to get back to the UK. Management are totally unprofessional and pick on you for the stupidest reasons, but when there’s something serious they just don’t want to know. It’s depressing.

The qualitative data provides some insight into respondents’ perceptions of management and trade unions. Their comments are shown below:

Management

Q875

I sometimes feel that the management have no understanding of what the cabin crew actually go through each day so many of the things we complain about appear to be petty to them.

Q86

Management do not want to listen and change anything. As a cabin manager I feel it's like banging our head against a brick wall. As long as an aircraft departs they DON'T care what else happens. They may keep sending glossy literature telling us how wonderful we are but there is no real commitment to the staff.

Q233

The Company's lack of interest in its staff in every department gets progressively worse every year and affects morale all around, even new people leave within a few weeks because they can't handle the pressure and hassle, for which they are not paid enough for.

Q395

Sometimes it seems we are bashing our heads against a brick wall. We highlight problems that seem irrelevant to those in charge. We say there is problem and people think we are over reacting or suffering from mass hysteria. Eventually we are proven right.

We are the frontline staff and get the brunt of passenger problems but seem to have no back-up. It's a "them and us" situation. Management listen but never seem to do anything – it is very wearing and frustrating.

Q510

Duty managers on the whole are unapproachable and are avoided by most cabin crew. Britannia seems to have forgotten that we are human beings, not machines.

Q692

Britannia cover themselves to the minimum legal requirements. Management are unsympathetic, unhelpful and out of touch with what we do. Honesty from crew is perceived as negativity and is discouraged by management.

Trade Union

Q452

I have been a member of the TandG for 20 years and they have been our only tool in clinging by a fingernail to standards in the industry. BASSA have fought long and hard on fairness, rights and equality, but like the Liverpool Dockers, we have been let down by the TGWU...the results will be the demise of one of Britain's premier industries and the loss of thousands of jobs...

Q360

I feel very let down by both management and the union as nothing ever changes.

Findings suggest that communication structures within the organizations, both airlines and the trade union, have significant gaps. The main method of communication between 'rank and file' crew members and management is

through flight reports, which are completed by the senior cabin crew member at the end of each flight. Some respondents said that recording crew problems or complaints in flight reports was generally a waste of time. Base trade union representatives appeared to form the main channel of communication between members and the union. Some respondents explained that they did not have access to a union representative at their base or during foreign/long-haul trips.

Given the key factors reported by respondents as health and safety concerns and areas about which they regularly complain to management/trade union representatives, we now assess management responses in terms of the training provisions in three key areas: manual handling, dealing with body fluids and dealing with violence.

10. Training Received

Key questions:

- **What level of training is provided on key areas associated with areas of employee health and safety?**
- **Is more training in key areas requested?**
- **Is the level of training in key areas related to respondents' ratings of management's commitment to their health and safety?**
- **Do the areas where no training has been received correlate with respondents' key health and safety concerns?**

Q190

British Airways training for everything is the absolute minimum.

Q345

No real proactive health and safety programme appears to be in place for cabin crew. Most colleagues do not seem to have received any health and safety awareness training, not even during the induction course.

Training is one of the key areas that can be subject to cost-cutting in a fiercely competitive climate. In the absence of uniform regulations around the world for

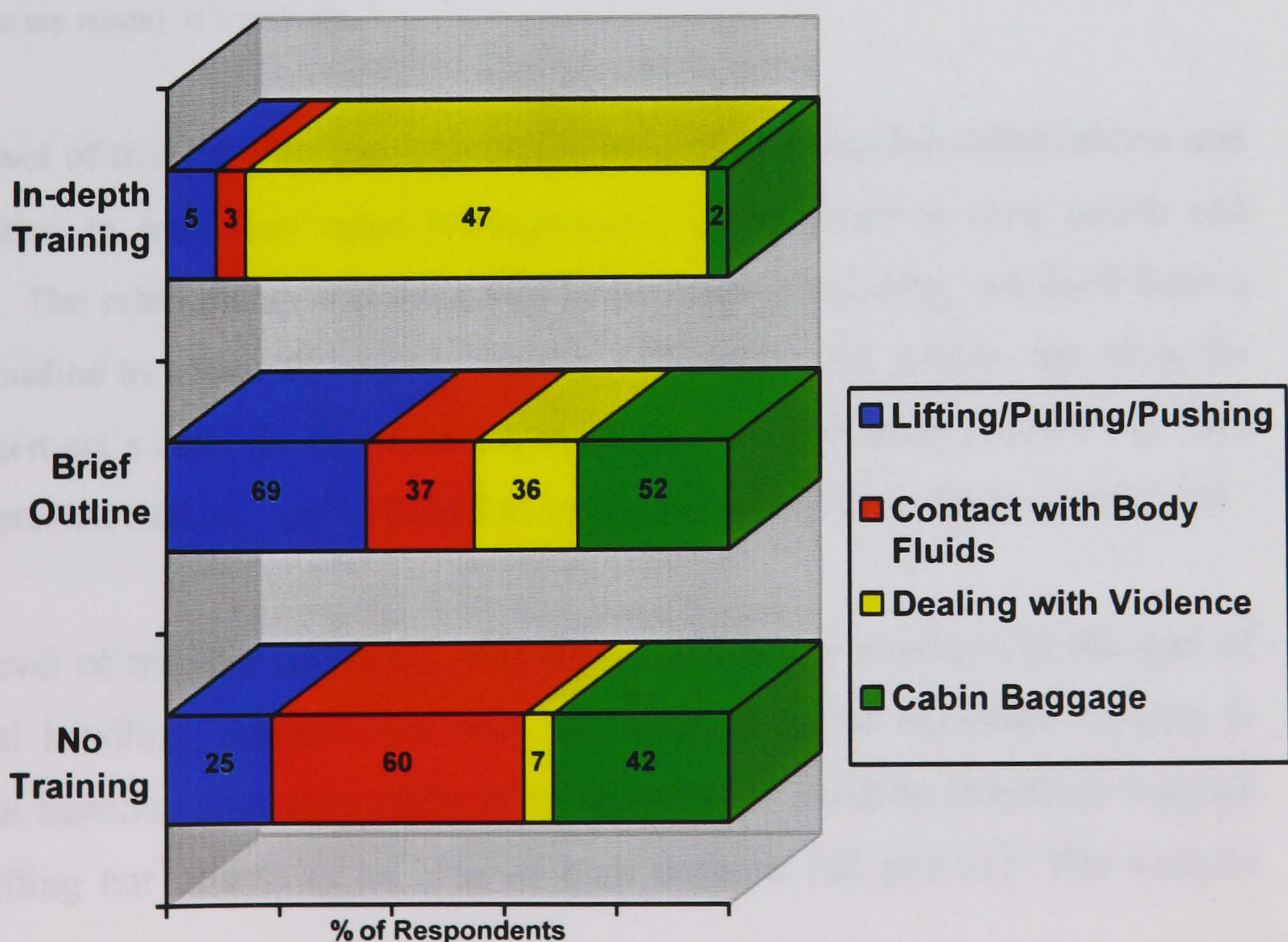
minimum training standards, the safety of crews and passengers could be at risk. Given that crews regard lifting/pulling/pushing carts and opening doors as key health and safety concerns, we gauge whether these and other concerns already expressed are addressed in training. Effectively, does training provide mutual-benefits or one-sided benefits? One-sided benefits may also demonstrate the short-sightedness of management in that they fail to link employee health and safety to business performance.

We asked respondents if they had received training (brief e.g. as part of an induction course; in-depth e.g. a specific training course), in the following areas:

- manual handling (lifting/pulling and pushing; cabin baggage)
- dealing with body fluids
- dealing with violence

The results are shown on chart 8.

Chart 8 Training Received



(The above chart refers to question 3.2 in appendix 1)

Remarkably, in an occupation where much of the work is concentrated on lifting baggage/bar boxes, pulling and pushing carts, attending to sick passengers (involving regular contact with blood, vomit etc) and dealing with passengers, some of them abusive or violent, many respondents have received no training in these areas. 60% of respondents have received no training in dealing with body fluids, while 69% have only received a brief outline on safe lifting/pulling/pushing techniques.

Although restraint courses were given by British Airways and Britannia, many of the recipients criticized the course as being unrealistic on the grounds that recommended techniques did not account for restrictive uniforms and crowded, cramped aircraft cabins. One respondent considered the course dangerous as some cabin crew might enter situations under a false sense of security. As one interviewee explains,

We just had a restraint course to show us how to deal with trouble. It was a total waste of time. The idiots who took it had no idea about the cramped space in an aircraft aisle. A waste of my time. I got reported for complaining to the course organizer about the content of the course. Now that's on my record. It's pathetic.

The level of training that respondents received in the areas mentioned above was correlated to how they rated management's commitment to their health and safety. The relationship was such that as the level of training increased from a brief outline to a specific training course dedicated to the subject, the rating for management's commitment to health and safety also increased (all $p < 0.01$). This suggests that training can be linked to employee perceptions about management.

The level of training correlated with health and safety concerns in the area of manual handling. Respondents who had received no or minimum training in manual handling showed a tendency to rate manual handling (handling baggage and lifting bar boxes) as an area of high concern (all $p < 0.01$). The analysis

suggests that as the level of training increases, the level of concern expressed about that area, reduces.

Training requirements are regulated and monitored by the CAA in the UK. The majority of the training is focused on safety and emergency procedures (SEPs) such as inflating slides and rafts, operating doors, evacuation procedures, and dealing with fire and first aid emergencies. At least two-weeks of full-time training courses were operated by the airlines in this study. Annual refresher courses on SEPs (usually up to 5 days per year²¹) are also required. While SEP training is essential, the broader picture of cabin crew work necessitates the inclusion of training on safe manual handling, contact with body fluids and the skills required to defuse and manage a hostile or violent passenger. The survey findings show disregard for all of these areas.

Reinforcing the argument that training takes on a business-focused agenda is the finding that at least five days are dedicated to cabin service training. However, the techniques taught and the standards of service delivery demanded, are unrealistic since they do not reflect the complications of passenger service in the air. Unfortunately, passengers do not sit in their seats throughout the flight. They walk around blocking aisles, delaying the movement of trolleys up and down the aisle; they press their call bells and make requests, further delaying the delivery of services. Respondents complained that they had so much to do in so little time they were left virtually “throwing things at passengers”. Others reported that previously, a key part of the job (and one they enjoyed) had been chatting to passengers, but now there was no time for this. While the quantity of service may frustrate some cabin crews because it forces them to give up a part of the job they once enjoyed (i.e. chatting to passengers), levels of job satisfaction may also be directly or indirectly affected by the increasing intensity of their work. Management’s quality strategies appear to be directed more towards increasing their *control* over quality. It appears that the airlines’ approach leads to an

²¹ The three airlines in the study said that cabin crew receive at least five days training per year.

increasingly uniform service quality, free from any level of individual discretion or personalized service – a trend which can be found in a variety of other industries in the service sector.

11. Requests for More Information/Training

Key questions:

- **Do the areas that respondents request more information on correlate with their health and safety concerns?**

In anticipation of a low profile given to many of the areas which affect cabin crew (and by implication) passenger health and safety, we asked respondents about areas they would like more training or information on. The results suggest that current training provisions in the identified areas are inadequate since the majority of respondents asked for more information/training in these areas (cabin baggage and manual handling are combined). The results are shown in table 7.9.

TABLE 7.9: % of Respondents Requesting More Information

AREA	% REQUESTING MORE INFORMATION
CONTACT WITH BODY FLUIDS	70
STRESS/ANXIETY	62
DEALING WITH VIOLENCE	59
MANUAL HANDLING	39

(The above table refers to question 3.3 in appendix 3)

Respondents also commented on areas that they would like more information/training. The following comments are representative of the cumulative responses:

- **all the information in the world cannot alter the fact that we have to lift heavy bar boxes in extremely confined areas.**
- **It is not so much training we need, but a larger, workable environment where it's safer to manoeuvre carts etc. I've been off for 4 months with an arm injury due to this.**
- **If the Company give us information, it's not followed through. They say that two people must pull a trolley, yet we operate with reduced crew, so it's impossible to do this.**
- **Even if we were given more information, it would be junior management reading word for word out of a book to us.**
- **Having enough crew would help deal with some of the anxiety and stress. So would having the correct equipment.**
- **I'd like more information on how to physically cope with the number of sectors we do.**

Statistical analysis using crosstabulations and chi-square found that the areas that respondents asked for more information were related to whether they rated this area as a health and safety concern (all $p < 0.01$). This adds weight to the suggestion that important areas of health and safety related to job design and work organization are being overlooked by management.

Considering the apparent risks inherent in the occupation, it might be assumed that substantial training and information would be given to cabin crews on issues such as radiation/ozone exposure, coping with shift working and erratic shift patterns, and managing occupational violence. Such an emphasis would be comparable to the intensive and thorough emergency and survival training undertaken by all UK cabin crews. However, little recognition is given to

‘workplace issues’ such as air quality, ergonomics, manual handling and occupational violence. These issues assume a ‘hot potato’ status as they are passed to and from the CAA and HSE, with neither body taking on full responsibility. As already indicated, these gaps suggest that either airlines and regulatory bodies are avoiding the cost of additional training, or that they simply underestimate the OHS risks associated with cabin crew work. In either case, the obvious gaps in training do not suggest that the airlines are adopting a ‘soft, people-centred’ approach. It could be argued that the airlines in question have adopted a clear strategy based on cost-minimization and profit-maximization.

12. Absence Management

Key Questions:

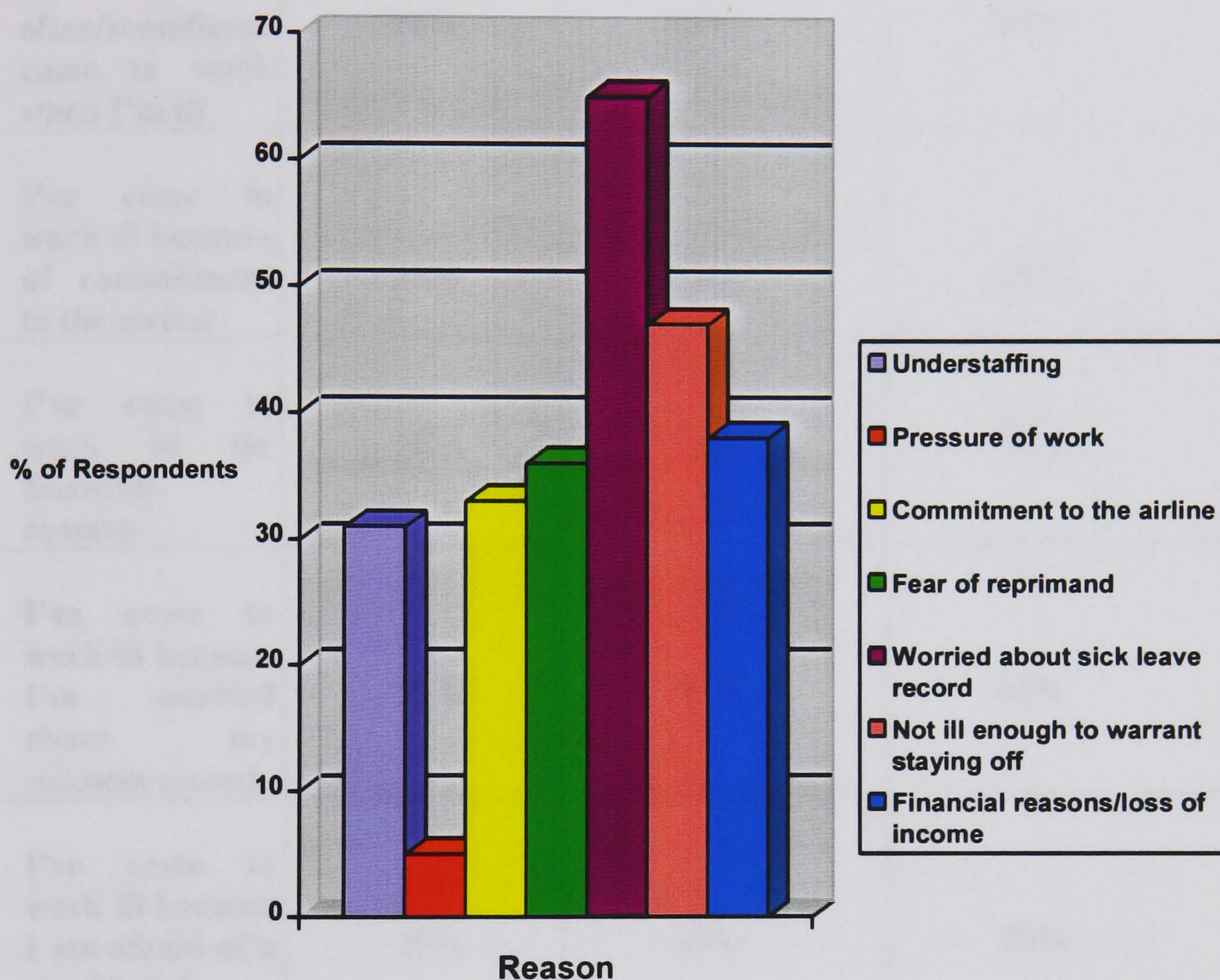
- **Do respondents regularly come to work when ill, and if so, for what reasons?**
- **How do respondents’ justifications for coming to work when ill relate to company absence management policy?**
- **To what extent is commitment to the airline a factor in explaining why crews come to work even when ill?**
- **What is the profile of respondents who say that they attend work when ill because of their commitment to the airline?**
- **If respondents come to work when ill because they are worried about their sick leave and they fear reprisals, how does this affect respondents’ rating of management’s commitment to their health and safety?**

In our earlier review of absence management in the UK, we suggested that employees are increasingly finding themselves under pressure to come to work when ill. This was related to a range of punitive absence management policies that have been implemented to address the rising financial cost of absence. It has been argued that such policies address the outcome rather than the root causes of the problems that lead to employee illness and absence. Furthermore, it could be

argued that such as strategy diverts attention away from factors of job design and work organization and instead places the onus on the individual's capabilities.

Overall, 93% of respondents said that they came to work when ill either sometimes or often. There was no statistically significant difference for age or grade. However, statistical analysis found that the likelihood of coming to work even when ill, increased in line with respondents' length of service ($p < 0.01$) and gender ($p < 0.05$). Longer serving, female respondents are therefore, more likely to come to work when ill, compared to their younger, female colleagues. One of the key reasons for coming to work when ill was commitment to the airline. Subsequently, the profile of respondents that stated 'commitment to airline' as their reason for coming to work when ill, was analyzed. No statistically significant relationship was found for age, gender, sex or length of service. Tables 7.10 and 7.11 detail the statistically significant relationships. The combined responses are shown in the chart nine, while the differences between airlines are shown in table 7.10.

Chart 9 Reasons for reporting for work when ill



(The above chart refers to question 4.9 in appendix 1)

Table 7.10: Reporting for Work When Ill (by airline)

Reporting for Work when Ill	British Airways	Britannia	KLM UK
I often/sometimes come to work when I'm ill	88%	96%	92%
I've come to work ill because of commitment to the airline	24%	40%	27%
I've come to work ill for financial reasons	46%	34%	33%
I've come to work ill because I'm worried about my sickness record	59%	69%	65%
I've come to work ill because I am afraid of a reprimand	29%	40%	30%
I've come to work ill because of the pressure of work	18%	29%	27%
I've come to work ill because of understaffing	21%	38%	30%

Table 7.11: Statistical analysis of the relationship between the reasons for attending work when ill and respondent profile (chi-square)

Reporting for Work when Ill	Gender	Age	Grade	Length of Service	Airline
I've come to work ill because of commitment to the airline	n.s	n.s	n.s	n.s	P<0.01
I've come to work ill for financial reasons	P<0.01	P<0.05	n.s	P<0.05	P<0.01
I've come to work ill because I'm worried about my sickness record	P<0.01	P<0.01	P<0.01	P<0.01	P<0.05
I've come to work ill because I am afraid of a reprimand	n.s	P<0.01	n.s	n.s	P<0.01
I've come to work ill because of understaffing	P<0.05	n.s	P<0.01	P<0.01	P<0.01

A statistically significant relationship was found between coming to work because of understaffing and grade and airline ($p<0.01$). This could be another expression of commitment to the airline, or alternatively, respondents do not want to let their colleagues bear the burden of extra work during periods of understaffing.

Long-haul crews were less likely to report for work when ill compared to short-haul or mixed long/short-haul crews. The relationship between designation (long/short/mixed haul) was statistically significant ($p<0.01$). The airline where they were employed was statistically significant ($p<0.01$).

The statistical analysis shows that there is a statistically significant relationship between commitment in this context, and the airline of employment. British

Airways fared worst, which may indicate a failure of their ‘high commitment’ policies. The success of absence policies is however, indicated by the statistically significant relationship shown for loss of income and being worried about sickness records as reasons for attending work when ill. It is also interesting to note that being worried about sickness records was statistically significant for gender, age, grade, length of service and the airline of employment, suggesting the high effectiveness of whatever ‘stick’ strategies are in place. While punitive absence management policies and performance appraisals may go some way to reduce absence and promote quality of service, it is unlikely that individuals suffering from the range of symptoms described will perform to maximum potential. Equally, the effectiveness of culture management programmes, and any other attempts to secure employee commitment, may be reduced. An underlying rationale is found in Maslow’s (1943) hierarchy of needs, where basic human requirements must firstly be met before individuals can progress to more sophisticated levels of emotional states (e.g. attitudinal commitment).

Other reasons for coming to work even when ill cluster in 5 main areas:

1. **Guilt about a colleague being called out in their place**
2. **Loss of forward roster**
3. **Detrimental to promotion prospects**
4. **Attitude of crewing (to whom intended absence is reported)**
5. **New entrants – detrimental to prospects of being kept on or asked back next season**

In chapter one, we asserted that ‘soft’ people management techniques may generate high levels of employee commitment, whereas, ‘hard’ people management techniques may generate low levels of commitment. Little evidence of ‘soft’ people management techniques was found, and where it was evident

(e.g. teamworking), its benefits appeared to be eroded by a 'hard' approach (e.g performance targets). We take the position that 'soft' and 'hard' HRM, manifest in various people management techniques, may act as triggers for 'commitment' and 'compliance' respectively. We now consider three areas of work organization that may be shaped by 'hard' or 'soft' HRM. Where 'hard' HRM is found to dominate over 'soft' HRM, we propose that superficial behavioural commitment (compliance) to the company is more likely to be generated than attitudinal commitment.

a) **Increasing flexibility**

Business objectives are best served by flexible working patterns and multi-skilling. Covering for absent members of staff is considered to be representative of flexible, adaptable working, and employees may be expected to take on extra responsibility in such cases. Our research found that it was quite common for flights to have a reduced crew complement and in some cases, junior crew were 'covering' for senior crew members. A level of dissatisfaction was expressed over this type of 'empowerment', particularly when safety and workloads were considered. We suggest therefore, that respondents displayed a grudging acceptance of such situations, which would better qualify for 'compliance' than 'commitment'.

b) **Increasing productivity**

Maximizing duty hour limitations via the utilization of new technology in the form of computer software packages was highly visible as a means to increase crew productivity. This in turn meant that crews' rosters were crowded with duties that allowed only 'minimum rest' for up to seven consecutive days. Erratic shift working patterns also appeared to be the norm. Testimonies from respondents on the theme of rosters were highly critical of "the punishing schedules" which treated crew "like machines instead of humans". Again, we

suggest that respondents displayed attitudes more characteristic of ‘compliance’ than ‘commitment’. This is further evidenced in the punitive absence management techniques which penalized crew for taking time off to the extent where over ninety per cent of respondents reported that they ‘sometimes’ or ‘often’ came to work when ill.

c) Increasing quality

Airlines’ slant on increasing quality focused on the number of services offered to passengers during flights. The service schedules were monitored by the flight report system. This system involves the completion of a written report about the exact services that were carried out on each flight. This form is completed by a senior crew member at the end of each flight. Revenue targets were also reported upon. The emphasis on completing the expected service schedule and the pressure to reach sales targets is argued to put crews in the position of “running around like headless chickens”; “throwing services out to passengers”; “fighting the clock and always rushing”. Ultimately, it would appear that the *quality* of services is detrimentally affected by the *quantity* of services.

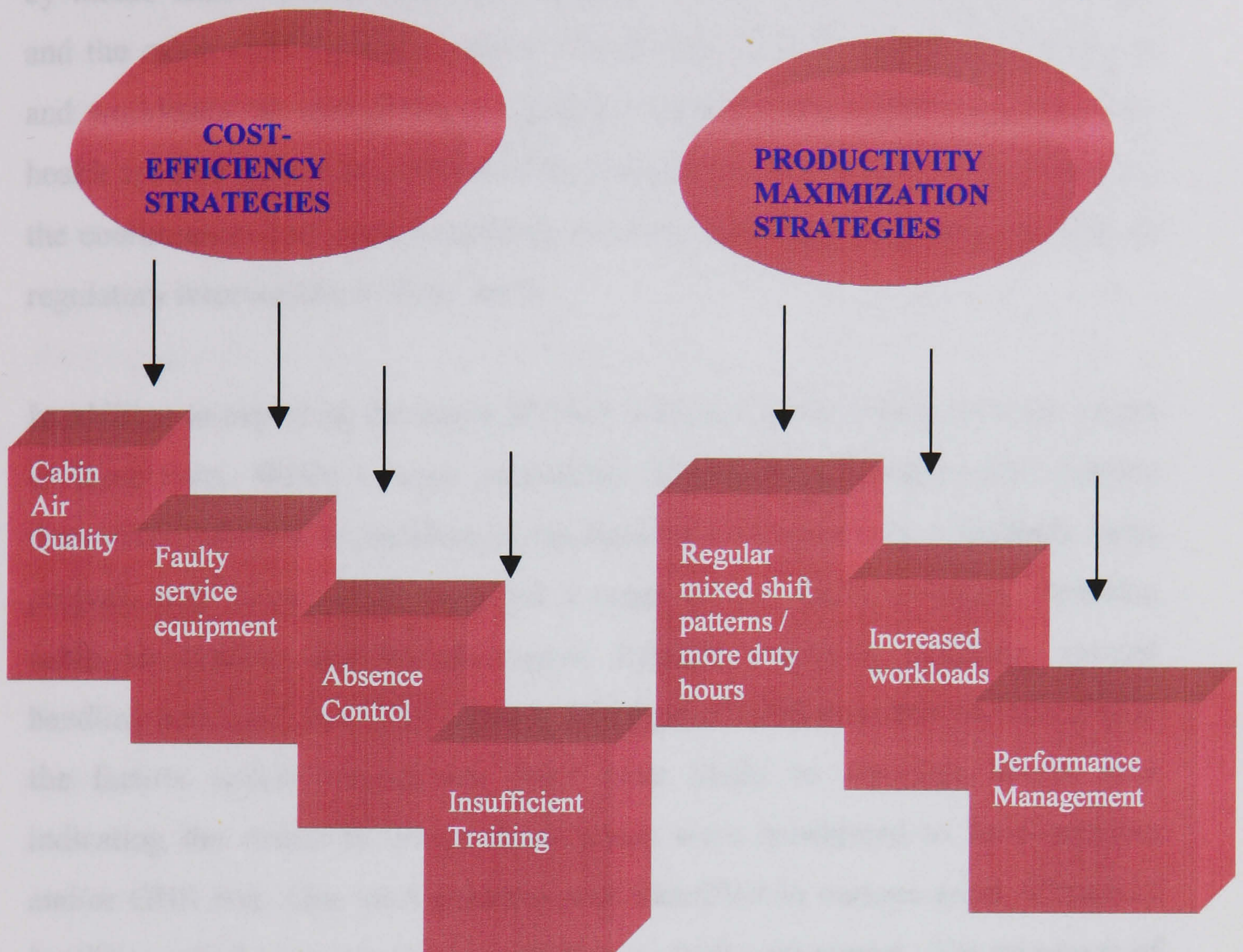
We suggest, therefore, that low levels of employee commitment in the studies airlines could be expected, based on the finding that airlines fail to provide even the most basic working rights to the cabin crews – rest breaks, clean toilet facilities, clean working areas and good air quality. However, they show some recognition of their failure in achieve employee commitment, illustrated by the punitive control measures in place (e.g. flight reports, absence management).

Further obviating cabin crew levels of commitment is the propensity towards invidious absence management programmes. While absence figures and the cost of absence are demonized, and sick employees are punished through an array of punitive ‘absence management’ measures, it follows that the pressure on employees to maintain ‘clean’ attendance records will falsify the true work-related sickness figures in the UK. Although cabin crew sickness absence figures

were comparable with national averages (around 4%), the overwhelming majority of respondents reported that they 'often' or 'sometimes' came to work when ill due to fear of reprisals. It is therefore, unlikely that airlines' approach to managing absence is conducive to either employee commitment or health. Instead, the general atmosphere amongst respondents hung heavily of a sense of powerlessness and alienation. Low trust relationships were also visible in terms of respondents' willingness to communicate their grievances with management representatives. This supports other evidence suggesting that management have failed to secure employee commitment and to break out of the low-trust dynamic intrinsic to UK employee relations (Scott 1994, Fox 1974). The observed approach is also highly unrepresentative of a 'soft, people centred' approach to people management.

We have discussed an array of airlines' strategies aimed at increasing cabin crew productivity and reducing operating costs. These strategies can be seen to affect a number of key areas of cabin crew work organization as shown in diagram 7.1.

Diagram 7.1: The impact of cost and productivity strategies on cabin crew work organization



It appears that economic and productivity pressures affect cabin crew work organization to the extent where health and safety is seriously undermined. Airlines' approach to managing their human resources and so-called 'most important asset' appears to be opportunistic and pragmatic, and in terms of health and safety, it is arguably ineffective and pernicious.

13. Conclusions

In this chapter we addressed our second and third research questions. In a continuation from chapter six, we explored the range and extent of OHS risks. The findings point to a range of issues that are not currently included or

adequately covered, by existing regulations. These include training provisions, cabin air quality standards, hygiene standards and working patterns/hours. According to a large majority of respondents, their health is adversely affected by mixed shift working patterns, longer working hours, increasing workloads and the cabin working environment. The impact of intensive working patterns and workloads, as well as a poor quality working environment, on cabin crew health appears to be underestimated by airlines and regulatory bodies, based on the continuance (and even extension) of current policies, as well as the lack of regulatory intervention in these areas.

In addition to exploring the range of OHS risks, the research examined the extent of these risks. While a large proportion of respondents experienced various dimensions of work intensification (as detailed in chapter six), a similarly large proportion of respondents recorded a range of key OHS concerns, including cabin air quality, abusive passengers, hygiene standards, rostering, manual handling and condition of equipment. The type of OHS concerns correlated with the factors which respondents were most likely to complain about, thus indicating the extent to which these issues were considered to be a problem and/or OHS risk. One such problem was identified in various areas of manual handling, which may be related to broken or faulty equipment. The provision of poor quality equipment contradicts the heavy emphasis placed on quality of service by airlines. Adding to the obstacles which may make cabin crews' job even harder, is a poor quality cabin environment, evidenced by a large number of respondents complained about cabin temperature, cabin air quality and hygiene standards.

This chapter also explored relationships and/or links between the identified OHS risks and the airline companies people management policies. Diagram 7.1 illustrates the possible relationships between airlines' people management policies and the range of OHS problems and risks that have been identified in the study. On the whole, cost and productivity strategies can be related to a range of

OHS risks experienced by respondents. The airlines' approach can therefore, be regarded as one which is based on 'hard', cost-centred concerns, rather than on 'soft', people-centred concerns. Despite a range of HR techniques (normally associated with 'soft' HRM) being in place, the airlines translation of these appears to be more resonant of 'hard' HRM. It may be the case that original 'soft' techniques have shifted their emphasis to the 'hard' form following increasing competitive pressures. Alternatively, it may be the case that the airlines are just being 'found out'. The bulk of literature on cabin air quality and work-related stress for example, makes it unlikely that airlines are not aware of the risks associated with the cabin working environment and job design. It could be argued that the public image of a 'people-centred' management approach, supported by a range of corporate rhetoric, serves to conceal the reality of work and working conditions in the cabin crew labour process, thus protecting airlines from the expense associated with the reorganization of work.

So far, the picture of cabin crew work is one where individuals suffering from a lack of recuperation following mixed shift patterns and long working hours, carry out their duties inside a sealed metal tube where the air is dry and stuffy and temperatures may be too hot or too cold. During an average ten hour day (often without any rest breaks), these individuals haul service carts, which may have faulty wheels, up and down the aircraft aisle, covering a cumulative distance of approximately two miles. While absorbing constant passenger and service demands, these individuals may be suffering from a range of symptoms and illnesses including headaches and eye/nose/throat irritations. The opportunity to take time off work to recuperate is not available since absence would result in financial loss or other sanctions. We now progress to the next chapter which considers the influential role of OHS in overall business performance and attempts to make a 'business case' for awarding OHS a higher profile in HRM policy formulation and implementation.

Chapter Eight

Making Health and Safety Count

The primary research presents a vivid picture of health and safety malpractice, and has attempted to address our three research questions. While out-with our research objectives, this chapter attempts to pull together some of the key issues highlighted in previous chapters relating to health and safety practice. This is considered an important move since it provides further context and explanation to some of the key assertions in the thesis. For example, we asserted that the airlines should review the emphasis and nature of various policies that have been shown to affect cabin crew OHS, and that OHS should be given greater priority in the formulation and implementation of HRM policies and strategies. This chapter will add breadth to this argument by illustrating the range of financial and other incentives for doing so. In short, this chapter is charged with making a business case for good health and safety practice.

Based on our findings, a business case can be made on a number of counts. The high prevalence cabin crew illness and overall dissatisfaction with their working environments may have considerable cost implications in terms of absence and reduced service quality. The apparent lack of strategic integration of OHS into wider decision/policy making processes may cost the airline more than it realizes. Improvements in various areas and the strategic integration of OHS could potentially lead to improved business performance. This chapter explores the key areas identified in the research including absence, workloads and physical working conditions, and argues that management's interests lie more in addressing these shortfalls rather than in perpetuating the situation with 'low-cost' safety and 'hard' HRM.

In chapter three, we highlighted one of the central questions in health and safety debates namely, the relationship between good practice and the financial performance of capitalist enterprises. Good health and safety management is regarded as contributing to sound financial performance (as promoted by the Government and the CBI). However, this ideological stance is compromised by the common reality that profit imperatives often undermine good health and safety practice, as highlighted by a variety of case studies (Nichols and Armstrong 1973, Baker et al 1991, Cutler and James 1996). The research findings suggest that this is also true of the airline industry, where the reality of work contradicts the keen ambitions of airlines to improve business performance. The utilization of policies that lead to the intensification of cabin crews' work and create impoverished environmental working conditions, arguably undermine cabin crews' service and safety performance.

While organizations at large promote the workforce as their most precious asset, the style in which they choose to manage this asset and the working conditions they provide, serves to expose cracks in the illusion so painstakingly created. One hypothesis for this behaviour is that management's reality of good health and safety practice differs from that of employees. Airline management and cabin crews immediate working environments differ substantially and consequently, different interpretations of risk and hazard are likely to be made, and different sets of priorities, created. It remains unclear whether management is actively involved in the strategic exploitation of workers, where they knowingly put employee health and safety at risk, or alternatively, management may simply underestimate the centrality of good health and safety practice to improved business performance.

Management's understanding of health and safety arguably appears purely superficial, with no particular interest shown in developing a fuller understanding of the causes of occupational injury and illness. As already mentioned, it is impossible to say how far employees would go and how

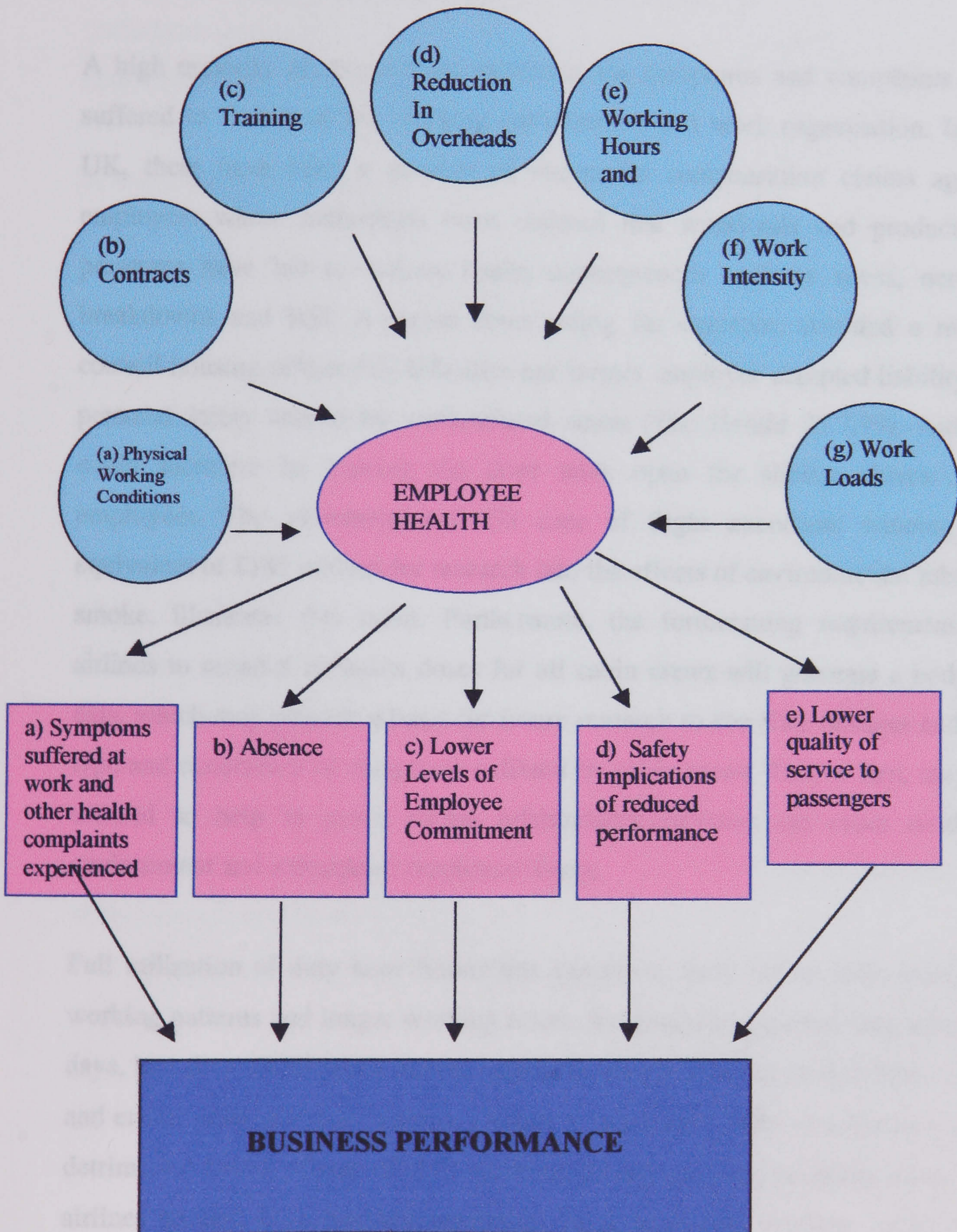
abundant the resources would be for investigating all possible causes of injury or illness. However, it is not clear whether managements' apparent ignorance is intentional, or whether profit and cost is the only language they understand.

Blyton and Turnbull (1998:328) criticize employers' demands for higher productivity from employees. They argue that if the defining features of many jobs continue to be insecurity, low pay, inadequate representation, poor training and unsatisfying work, then any attempt to build employee commitment will be undermined. This argument can be extended to the provision of a safe and healthy working environment, where profit strategies are allowed to take priority over the safety and the health of employees. The CBI and the IPD promote good health and safety practice as central to improved business performance. They link health and safety to employee commitment, lower absence costs, reduced risk of compensation claims from employees, higher job satisfaction and increased employee morale (CBI 1990; IPD 1998). Arguably, good health and safety practice is becoming a virtual reality – everybody knows what it is and what it is for, but does it exist?

Profit and cost is a major theme in the 1996 HSE report, "The Costs of Accidents at Work", where arguments centre on the assumption that the cost of accidents is often greater than the expenditure on precautionary measures to prevent such accidents from taking place. The financial costs of absence, illness and injury are highlighted, suggesting that improvements to health and safety practice require the backing of cost-rational arguments and justification. As already discussed, one problem is that this brings into play the arguably unethical practice of 'cost-benefit analysis', which may force decisions on the price of a human life or debilitating injury, compared to the probability and cost of legal action and compensation claims. A strong business case can be made for good health and safety, based on the assumption that it cannot be taken for granted no matter how assuring company health and safety statements are.

Diagram 8.1 depicts the research findings where the chain reaction started by poor health and safety management can be seen to impact upon business performance. A business case for effective health and safety can be made when the potential financial costs of employee illness, absence, low employee commitment, safety implications and quality of service, are considered.

Diagram 8.1: Factors Affecting Employee Health and Well -Being



1. Illness suffered by employees

Q241

The Company expects us to be healthier than the average person and frowns upon sickness, when our very job provides a very unhealthy working conditions - very early starts, long duties, lack of quality breaks, working all night, traveling from boiling to freezing temperatures. I am very concerned about the long-term effects of flying.

A high majority of respondents attributed the symptoms and complaints they suffered to factors of the working environment and work organization. In the UK, there have been a number of successful compensation claims against employers where individuals have claimed that workloads and productivity pressures have led to serious health consequences such as stress, nervous breakdowns and RSI. A recent court ruling for example, awarded a retired council housing officer £67 000 after her former employer accepted liability for personal injury caused by work-related stress (The Herald 21.7.99). Airlines could therefore be leaving the door wide open for similar claims from employees. The aforementioned US case of flight attendants winning the equivalent of £185 million for research into the effects of environmental tobacco smoke, illustrates this point. Furthermore, the forthcoming requirement for airlines to monitor radiation doses for all cabin crews will generate a body of data, which may provide a basis for future research to correlate dosages and the type and occurrence of symptoms suffered by cabin crews. This in turn, may be utilized to help to prove causal relationships between the cabin working environment and subsequent employee illness.

Full utilization of duty hour limitations appears to have led to more intensive working patterns and longer working hours. Respondents reported long working days, less time off between duties, regular bouts of 'working on minimum rest', and erratic shift working patterns. Despite a substantial body of evidence of the detrimental health effects of shift working, jet-lag and long working hours, the airlines studied have pursued maximum value strategies. Airlines could once again be vulnerable to compensation claims from employees where work

organization can be linked to work-related illness or injury. A recent sex discrimination case further demonstrates how excessively long working hours may cost airlines in the long-term. A female employee of South African Airways, who was sacked for refusing to work 16 hour shifts, was awarded three years salary when an employment tribunal found that the long hours discriminated against her on the grounds of her sex. The ruling criticized the “wholly unreasonable demands” over hours, which left the employee unable to care for her child (The Guardian, 3.8.99).

2. Work-Related Stress

In the UK and elsewhere, there has been a recent surge of interest in occupational stress, sparked by the dramatic figures on the financial costs to business and the economy (IPD 1998). A range of organizational and environmental factors were identified as contributing to the situation such as shiftwork, high or low work demands, poor social relationships at work, low autonomy, physical danger, conflict between domestic and work roles and poor physical working conditions (Cooper 1985; Mackay and Cooper 1987; Schuler 1980). Individual factors linked to reduced stress resistance include limited job experience, insufficient training, ineffective coping strategies and poor diet (Mackay and Cooper 1987, Schuler 1980). Many of these factors are standard features of cabin crew work as indicated by our research findings. When cabin crew work is analyzed against the framework of Cooper’s (1985) classification of the sources of stress (cited by Bohle and Quinlan 2000), the high-risk nature of the job is clear (shown in table 8.1).

Table 8.1: Stress variables in Cabin Crew Work

Category/Variable	Factor of cabin crew work
<p>Intrinsic to the job</p> <p>Poor Physical Working Conditions</p> <p>Shiftwork</p> <p>Work Overload</p> <p>Physical Danger</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>
<p>Relationships at work</p> <p>Lack of support from managers</p>	<p>✓</p>
<p>Role in the organization</p> <p>Conflicting demands between different aspects of the job</p> <p>Responsibility for peoples' safety</p>	<p>✓</p> <p>✓</p>
<p>Career Development</p> <p>Over-promotion</p> <p>Lack of job security</p>	<p>✓</p> <p>✓</p>
<p>Organizational structure and climate</p> <p>Insufficient participation in decision-making and lack of autonomy (service schedules)</p>	<p>✓</p>
<p>Home/work interface</p> <p>Conflict between domestic and work roles, especially in terms of time</p>	<p>✓</p>

Stress is therefore considered to be a major OHS issue, and it is clearly perceived as such by respondents. A strong case exists for arguing that management have failed to address the causes or sources of work-related stress, illustrated by the fact that there is little evidence of any effort being made to reduce any of the factors associated with work-related stress (e.g long working hours, high workloads, shiftworking, extra responsibility). Instead, it would appear that working hours and workloads have increased, while extra responsibilities may be forced onto some cabin crew when fewer crew members are on flights.

While BA offered stress counselling, it is clearly not enough to address stress at work. Stress counselling is aimed at dealing with the symptoms and effects of stress, rather than the cause of stress. Furthermore, stress counselling initiatives offer no ameliorative action. Instead, stress is treated as a function of individual employee perceptions and/or weaknesses. This approach fails to attach any blame on factors of work organization, such as workloads, and instead the onus is placed on the individual's inability to cope. Learning to cope and manage basically increases an individual's workload as they add something new to their repertoire of skills. Meanwhile, the stressor or risk has not disappeared. Anecdotes were provided in the interviews and testimonies about coping strategies. Locking oneself in the toilet and silently screaming came up several times. Poking fun at passengers either to their face or behind the galley curtains was another popular method for 'letting off steam'. Although lacking in sophistication, such strategies may be the only option staff have for keeping their sanity intact.

The potential for passengers to add to the experience or risk of work-related stress (or 'emotional exhaustion', Deery et al 2000) is illustrated by the finding that 70% of respondents reported an increase in the number of abusive/disruptive passengers. In addition, a large number of respondents identified abusive disruptive passengers as a key health and safety concern. As already mentioned, the growth in abusive incidents has been linked to a variety of factors, many of

which boil down to airlines' attempts to reduce running costs (e.g. reducing refresher rates in cabin leading to increased CO2 levels), and competitive strategies (e.g. the confusion over cabin baggage policies). It could be argued that crews' ability to diffuse potentially violent situations might be hampered by fatigue subsequent of long working hours, jet-lag, intensive service schedules and inadequate rest during work.

To date, much effort has gone into identifying the 'trigger points' from the passenger perspective (e.g. fear of flying, alcohol consumption, seat pitch). However, where crews have not had the time or opportunity for a rest/meal/toilet break during busy flights, it could be argued that their perceptions and behaviour may be affected by tiredness, hunger, thirst and the pressure to complete service schedules. This in turn, may influence their perceptions of passenger behaviour, as well as their ability (and/or motivation) to handle potentially disruptive situations in the prescribed (and time consuming) fashion. Ultimately, listening patiently with understanding nods and phrases in response to passenger complaints may take a backseat when crews are under pressure. It is surprising therefore, that such an oversight is present when the level of financial resources invested into conflict training, is considered.

3. Absence

Q588

I feel very little can be done about our working environment on the aircraft but more control over our rosters and days off/leave would help with our health and personal lives, which may cut sickness and increase our commitment to the job.

At a recent ITF conference, trade union representatives from Cabin Crew '89 and BASSA claimed that the absence rate amongst cabin crew was as high as 21% (ITF 1999b). The financial costs for airlines will be substantial and the high absence rates suggest that punitive absence management policies are simply not working. The combination of a poor quality working environment, and management pressure to come to work when ill, does not favour well for

securing employee commitment. Given airlines' desire to reduce absence, a rational approach would involve minimizing the stress factors inherent in the occupation. Instead, their policy of imposing punitive absence management techniques may simply add a further stress factor for cabin crews to manage.

4. Lower Levels of Employee Commitment

Q640

If we had more understanding from management and crewing about working conditions and sleep patterns then morale would be very much higher. How many other people work a 12 hour day and have 30mins break? Or, work a 6 day week getting up at 04 00 and ending their week going to bed at 06 00?

Q595

Cabin crews are at a low just now and feel undervalued. We don't want a pat on the back from management, we want improved conditions in lots of areas at work.

A heavy emphasis on employee commitment is evident in the HRM literature. Employee commitment is depicted as the cherry on the icing on top of the cake! It is linked to improved business performance through increased retention, reduced absence levels, higher and sustained levels of quality and increased productivity. This is also true of good health and safety practice. Fashionable and expensive culture management programmes are heavily promoted, along with 'open-management', 'high-commitment policies' and 'people-centred' policies. The research findings suggest that when attempting to secure employee commitment or improve employee performance, management may do better to examine the impact of their HR policies and strategies on employee health and working conditions.

Good health and safety practice makes guest appearances in the literature and like employee commitment, it is difficult to find, but unlike employee commitment, it does not require massive financial input – or does it? In terms of the airline industry, the organization of work would mean a massive increase in

labour costs (to allow sensible shift working patterns and workloads), the redesign of aircraft interiors, the purchase of better designed aircraft, the upgrade of service equipment, and more extensive training. Airlines' approach may therefore be indicative of a cost-avoidance strategy, in relation to the expensive improvements listed above.

5. Safety Implications

Q578

My main concern is how I would react in an emergency situation, like the one at Manchester airport in the 80s, when I'm on my seventh duty with minimum rest between each duty. This working pattern happens all the time.

Q693

I feel something has got to happen in the industry - conditions are just getting worse and nobody cares. More fatal accidents will happen.

Q281

Working consecutive long duty days with early starts is very draining. We often operate 4 in a row some of which we sit in a taxi for up to 5 hrs before or after the flight. This goes against the idea of us being alert and efficient to handle any emergency situation that may happen.

In the aftermath of tragedies, investigations often reveal an escalation of incidents leading up to the eventual disaster (e.g. Piper Alpha, the ValuJet crash, Clapham rail crash). The fact that airlines in this study did not carry out any risk assessments of the cabin working environment, suggests their ignorance about a number of serious health and safety risks (e.g. air quality, faulty safety equipment, crew fatigue, inexperienced crew in senior roles). Significant risks to employee health and wider health and safety implications are present where cost pressures force down overhead costs. Competitive pressures have led airlines down the path of mass outsourcing. Reducing overheads through outsourcing a variety of services – from baggage handling to ownership of aircraft and crews – has been heavily criticized and is argued to present serious safety risks (ITF 1998). Apart from the tragedy of loss of human life, the ValuJet disaster

demonstrates the magnitude of the effect on profits and brand image, when cost cutting strategies go wrong. It would appear that a major disaster is required before health and safety in UK airlines is reviewed. A cynic might argue that depending on how much blame the unfortunate airline manages to off-load onto others, the fines they face may fall short of what improvements and/or precautionary measures would have cost.

6. Lower quality of service

Q162

As a charter airline we are money-motivated, therefore more and more services are squashed into every flight. Job satisfaction goes out of the window. We have done flights where less is more - slower work pace with proper crew levels and breaks and much, much happier passengers as a consequence.

As already discussed, airlines may choose to compete on the basis of cost and service. The focus of the service will depend on the type of passenger being catered for, for example a low-cost domestic flight compared to a business class long-haul flight. For passengers, the perception of quality and value will be greatly influenced by their interaction with the cabin crews, for example, how well they deal with passenger enquiries, concerns and/or complaints. Where meal and refreshment services are provided, “throwing services at passengers” is likely to affect passengers’ level of satisfaction with the flight and the airline. The implementation of policies that effectively intensify work and lead to worsening working conditions for cabin crews are clearly at odds with enhancing the service provided to passengers.

In an attempt to balance our perspective, we now consider management views. One criticism of this research may be that it is based wholly on cabin crews’ perspectives. However, the objective of the research was to explore and analyse the social reality of cabin crew work and health based on a cabin crew perspective. Our understanding of the environment within which cabin crews operate, is based on the bulk of literature on the airline industry, much of which

has been generated from analyses of BA. Specific information about the three airlines has been gathered in terms of the management techniques employed (based on WERS 1998 'new management practices'), health and safety, performance management and absence management policies. To this data, we now add the airlines' views on training, work organization and employee commitment. Telephone interviews were conducted with two of the case study airlines. KLM UK refused to cooperate on the grounds that they did not agree with the focus and content of the research. One cabin crew manager from British Airways and one from Britannia answered a range of questions, which are detailed in appendix five.

According to airline management representatives, good health and safety practice and a quality working environment is very important if organizations wish to secure employee commitment. There appears to be some consensus between both airlines that manual handling training is important, yet a specific training course on safe manual handling was not provided. According to the representative from BA, safe manual handling techniques may be an area that they will focus on more closely in the future. In terms of training, cabin service and culture management training share top ratings for importance with violence training. This is likely to be a reflection of the recent media coverage of 'air rage'.

In terms of employee commitment, both airlines attached a high level of importance to a good quality working environment and good health and safety practice. In response to criticism about the quality of the working environment, the manager from Britannia said that the nature of the cabin environment restricted the type of amenities and comforts that could be provided for cabin crews. There was also some recognition that the aircraft working environment did not provide certain amenities and facilities that are normally available in offices for example, but this appears to be acceptable to management since "there's only so much you can do with an aircraft cabin". This of course, does not excuse poor hygiene and poor air quality.

Both managers thought that cabin crew workloads had increased over the past year, in terms of passenger demands and the number of services offered. The manager from BA added that passengers have very high expectations and cabin crew have to work very hard to ensure customer satisfaction. According to the BA manager, longer working hours were related to more long-haul flights, which effectively lengthen crews' working days. Contrary to the survey's overall findings, the BA manager reported that there was more crew on flights. This was explained by the extra crew member that is required by CAA regulations on the 747-400 aircraft, which BA use for many of its long-haul routes. However, when BA long-haul crews are isolated, almost three-quarters (73%) reported the same number of crew on flights compared to last year, and 21% reporting more crew on flights.

Both airline representatives commented that administrative workloads for senior crew had increased. This was explained by performance and quality initiatives, which created a range of reports for senior crew members to complete, both during and after flights.

Overall, both airlines appear to be aware of the importance of good health and safety practice and adequate training in a range of areas, yet the research shows a contradictory picture. Furthermore, management in both airlines were aware of increased workloads, both physical and emotional, as well as an increased administrative burden for senior crews. However, there appeared to be little concern over this in terms of work intensification presenting a health and safety hazard. Both management representatives rated increasing workloads and customer demands as only a moderate health and safety risk.

7. Summary

A symbiotic relationship appears to exist between health and safety management, and business performance. A shortsighted approach may mean that any mission to achieve higher profit and productivity may be undermined by the lack of recognition and value afforded to health and safety. This chapter has shown that the strategic integration of OHS into wider business decision making processes (and HRM) can be justified on a financial, as well as an ethical basis. However, it is clear from the literature and this research that the apparently sound business case for good health and safety practice is not adequately reflected in management policies. Arguably, economic pressures may make business immoral when choosing priorities. An empathic approach might argue that employers are faced with difficult choices. Investment in health and safety may mean less investment somewhere else, and if a cost-benefit analysis finds that a lower return is imminent, then health and safety may take second prize. The loose regulations in the airline industry make such choices easier for management. On this basis therefore, a strong case for greater regulation can be made. Air quality for example, is not monitored or policed. Airlines are 'trusted' (on the back of 'goodwill', no doubt) to stay within the guidelines for the proportion of recirculated air or carbon dioxide levels in the cabin. The only police officers on board aircraft are the cabin crews and the passengers, whose complaints about air quality, cramped seating are steadily rising (but appear so far, to be ignored). In light of the research findings and the wider literature review, tighter regulations and monitoring of compliance are urgently required in the airline industry. Public health and safety does not appear to be assured or safeguarded by 'goodwill' or 'market forces'. As Nichols and Armstrong demanded over 25 years ago, the public and employees must be given the power to ensure that their health and safety is put first.

Legislation can provide such power, and trade unions can provide the representative bodies, which can act to ensure employers' compliance. However, by remaining out-with HASAWA and other European health and safety regulations, airlines enjoy a level of immunity from demands for improvements.

A further impetus for improvements may be the possible financial costs to airlines subsequent of compensation claims from employees suffering from work-related stress or injury, and even sex discrimination claims over the length of shifts. The litigation frenzy in the US is presently filtering into the UK and the rest of Europe, and this may force organizations to close the gap between the rhetoric and reality of their people management and OHS policies. Airlines' strategic planning should therefore, in the future involve a comprehensive analysis of the costs of ineffective health and safety management, as highlighted in this study. Moreover, the incorporation of a cabin crew perspective in identifying and evaluating the range and extent of OHS risks could be regarded as essential, while the need for greater regulation may assist in taking health and safety out of competition.

Chapter Nine

Conclusions

Airlines have been depicted as organizations that are dependent on their cabin crews in terms of the delivery of their product – the flight. Effectively, cabin crews are the ambassadors of the airline, and in delivering the company's product, they engage in a prolonged interaction with customers. Based on the evidence that customers' perceptions of service quality are affected by the nature of the interaction with front line staff (Ashforth and Humphrey 1993, Peccei and Rosenthal 1997), it is understandable that some airlines describe their people management policies along the lines of treating employees as their 'most important asset' and caring about 'not just how they work, but how they live'. The implication is that people are the key to improved organizational performance, and only by implementing people-centred, 'high-commitment' policies, will organizations succeed in securing a competitive edge. HRM, as a management philosophy, is founded on such an assertion. Based on the rhetoric, it would be easy to assume that under HRM, 'good' health and practice is assured. This thesis challenges such an assertion in one of the world's largest interactive service industries, where the key emphasis is (or should be) on public and employee safety.

Using OHS as the prism through which case study airlines' approach to people management is examined, the thesis explored developments in cabin crew OHS and used these developments to assess the nature of shifts that have been occurring in airline companies' HR strategies and policies. Based on cabin crew respondents' perceptions and experiences, we examined the nature and extent of OHS risks faced by airline cabin crews and the factors that influence these risks (chapters 1, 2 and 4). We then explored the connection between these risks and the approach adopted by three airlines, where we argued that the identified risks can be linked to airlines' HR strategies and policies (chapters 6 and 7). We listed

our main research objectives as firstly, to assess the extent to which airlines' HR strategies and policies mirror 'soft' or 'hard' HRM. Secondly, to explore any relationships between airlines' HR strategies and cabin crew health and safety, and thirdly to explore the breadth of cabin crew OHS. In this concluding section of the thesis we seek to fulfil three objectives: firstly to summarize our key findings and relate these back to our research questions; secondly, to review the relevance of OHS in HRM in light of the research findings; and thirdly, to discuss future prospects.

1. The Rhetoric and Reality of HRM and OHS

On first sight, airlines appear to embrace a 'soft' approach to HRM (or people management). However, closer scrutiny reveals a number of discrepancies. Our focus on cabin crew OHS allowed us to assess the nature and focus of airlines' HR policies, where we examined key areas including working patterns, workloads, physical working conditions and training provisions. The primary research strongly suggests that the airlines' approach, despite the corporate rhetoric, is not founded on a people-centred, 'soft' HRM. Instead, their approach to people management appeared to be geared towards extracting the maximum value from cabin crews, which mirrors the 'hard' form of HRM. These findings sit uncomfortably with their public image and virtuous mission statements and raises questions about the position and value of OHS in HRM agendas. We discuss this point in more detail later in the chapter.

With reference to our second research question, the findings detailed in chapter seven show that respondents' attributed their illness(es) to a range of factors that can be linked to the airlines' policies on for example, air recirculation, turnaround times and work organization. The strong relationships between HR policies/working practices, respondents' reports about their health, and the nature of their health and safety concerns, serves to underline the importance of considering OHS outcomes when designing and implementing HR policies/strategies. While many of the airlines' policies made short-term

economic sense, from a long-term strategic perspective, they could be damaging to overall business performance. The airlines' companies approach suggests that OHS is given little consideration when HR policies are being devised and implemented. Implicit in this suggestion is that they place minimal value on OHS and consequently employee health, well-being and safety.

Our third research question focused on the breadth of cabin crew OHS. Respondents provided a valuable insight into the range and extent of OHS risks in the cabin working environment and the level of concern attached to many of these. The view that current regulations for cabin crew health and safety, and current airline interventions are inadequate, is strongly validated by the recorded range and extent of health and safety risks. In addition to respondents' experience and views on health and safety risks, the high incidence of a wide range of symptoms and illnesses further demonstrates the failure of current regulations covering the health of cabin crews. OHS is therefore a subject area that requires much greater scrutiny and attention in terms of the complex range of issues that it embraces. This is particularly true of the demands made on emotional labour, which as discussed may lead to a higher risk of stress, anxiety and emotional exhaustion (Deery et al 2000, Cooper 1985).

2. HRM and The Relevance of OHS

The 'hard' strategic approach to HRM appears to dominate in the airlines, which can be understood on the basis of the market environment where airlines are competing within tight profit margins (Storey 1987, Milkman 1999). However, rather than accepting that 'hard' HR/people management strategies set the airlines on a 'low road' to survival (Milkman 1999, Wood 1998), the airline companies appear to pursue a range of so-called 'high commitment' policies. While this fits with the concept of a dual-adoption approach (Truss et al 1997), a number of conflicts and contradictions are highly visible subsequent of this research. The view that HRM is riddled with conflicts and contradictions (Legge

1995a, 1995b) is well documented, but the influence of OHS in creating these conflicts and contradictions, has until now, received little attention.

These conflicts and contradictions are illustrated by a variety of questions such as, 'what value do culture management programmes offer when cabin crews are subject to draconian working conditions? How can airlines shift from 'compliance to commitment' (Walton 1985, Lawler 1986) when cabin crews rate management's commitment to their health and safety so poorly and are subject to invidious absence management programmes? How can high quality be achieved when cabin crews are given impossible performance objectives? Will cabin crews 'appear happy, nice and glad to serve the customer in spite of any private misgivings or any different feeling they may have' (Erickson and Wharton 1997:188), while they are possibly jet-lagged, suffering from a range of symptoms, and attempting to cope with unrealistic workloads?' It appears therefore, that the key objectives of HRM (Guest 1987, Storey 1987) are unlikely to be achieved when OHS is given such a low priority. At the same time while the airlines' approach is clearly 'hard', it does not appear to very 'strategic', in terms of the policies 'fit' with wider organizational objectives. The business/performance costs in doing so have been made evident throughout this thesis.

The findings also allude to the nature and impact of 'hard' HRM. Just as 'asset management' (Cappelli and McKersie 1987) has no place in 'hard' HRM, it appears that 'good practice' in OHS is also disqualified. Moreover, implicit in the low value awarded to OHS, is the suggestion that employees also qualify for a similar level of disregard. In terms of its impact, 'hard' HRM may serve to support and legitimize an approach to OHS that is void of employee-centred concerns, ethics and morals.

While management's views and explanations for their approach to OHS was not accounted for, it could be argued that in some cases, actions speak louder than words.

We propose that our analysis of developments in cabin crew OHS represents a demystification of cabin crew work, and shatters the illusion created by corporate hype such as ‘people are our most important asset’. It has also identified a broader range of OHS risks specific to the cabin crew labour process, many of which can be linked to airlines’ people management strategies and policies. Cabin crews’ workplace is considered to be a chamber of horrors, in that one can be exposed to excessive radiation doses, high ozone concentrations, organophosphate hazards, infectious diseases and high carbon dioxide levels. The airline industry’s persistent denial of the existence of hazards such as organophosphate mists in the cabin, suggests a conspiracy theory of management behaviour. The evidence suggests that airlines have been aware of oil leaks leading to organophosphate mists for at least a decade, yet have failed to take any corrective action. This aligns with the position of tobacco companies, who for decades buried the evidence of smoking-related cancers. What other risks are cabin crews and passengers exposed to that we don’t yet know about? The agenda is therefore set for future research.

Further illustrating the airline industry’s disregard for public and employee health and safety, is the fact that many of the identified hazards could be minimized if the required interventions were made. For example, ozone could be controlled if catalytic converters were fitted on all aircraft and cabin air quality could be improved by reducing the proportion of recirculated air and increasing ventilation rates. But all of this costs money and the unwillingness of airlines to install any of these features, arguably demonstrates a hard-line cost-orientated approach to the management of health and safety.

Overall, the research presents a picture of cabin crew work that is contrary to the image created by the rhetoric of policy statements, marketing and corporate culture. Cabin crew work, perceived by some as an ‘exotic’ form of service work (Thompson and Warhurst 1999) has been depicted in the research, as an

intensive and demanding occupation where tight management controls over performance prevail. The combining forces of deregulation, the unequal distribution of power in the employment relationship and an insatiable mission for profit, has had a destructive impact on the once preferential pay, benefits and working conditions enjoyed by cabin crews and other aviation employees. During this period, airlines' people management policies can be seen to shift from an approach likened to 'soft' HRM, to one more resonant of the 'hard' form. Consequently, the reality of cabin crew work, health and safety as depicted by the research findings, clashes quite spectacularly with airlines' professed approach to people management.

Our findings support critiques which point to the opportunistic nature of HRM, based on the finding that health and safety policies were not realized in actual practice, creating a virtual reality for workplace health and safety. Management's approach to managing their 'most important asset' does not appear to fit with the classical, orthodox definitions of HRM. The apparent failure of the airlines to practice what they preach in policy statements communicates a disheartening message about the actual position of health and safety in management agendas. Based on our findings, we propose a broad definition of HRM: that it is,

Formulated to utilize employees in the 'most appropriate way' to enhance both individual and business performance, where the 'most appropriate way' will be dependent on management style, business objectives and available resources.

Based on the observed trends in this thesis, we argue that similar trends will be found in the international airline industry. As discussed in previous chapters, the same pressures of deregulation, competition and cost pressures resonate throughout the international airline industry, and such cost pressures may be fiercer in the low-cost airline sector. Consequently, the identified trends of work intensification, poor quality working conditions, employee illness, will prevail as manifestations of 'hard' HRM's apparent disregard for OHS.

Our findings also allows us to suggest a number of explanations for the airlines' approach to managing their 'most important assets'. Management behaviour could in part be explained on the basis of economic pressures inciting short-termist strategies, which in turn disqualify airlines from honouring their health and safety policy statements; or, that economic pressures simply reinforce an existing ideology of strategic exploitation. Alternatively, management behaviour could be understood on the grounds that they misunderstand, and so undervalue the integral role of good health and safety in improved business performance. Identifying the correct explanation would be wholly company and circumstances specific, and would be complicated by the various actors at different levels within the organization's motives and actions. Such complexity means that we cannot offer a single explanation for our findings, and instead suggest that each explanation has some merit.

3. Future Prospects

The literature on the cabin working environment and the findings of this research all serve to underline the urgent need for adequate regulations covering 'comfort' issues such as good air quality and hygiene. In the absence of regulations and effective policing, airlines may be on a mission of 'profits at any cost'. Without the necessary legislative muscle (Nichols and Armstrong 1973), employees are faced an upward struggle in securing any improvements. With management dominating OHS agendas nationwide (Nichols 1997, WERS 1998), it would be foolish to assume that OHS inventions were excluded from cost-benefit style analyses. As already mentioned, in 1995 the government provided a macabre role model by announcing that although the train warning protection system could save 52 "equivalent" fatalities over 20 years, the cost of £14-15 million per life saved was too expensive (HSB 263, November 1997). Despite further rail disasters and the massive loss of life, the present Labour government has made no noticeable impact on promoting employee and the public's health and safety above profit imperatives. This does not bode well for the airline

industry, suggesting that there is little prospect of government intervention in cabin crew OHS.

The findings show that respondents do not appear to passively accept the impoverished working conditions evidenced by the high incidence of regular complaints about various issues, in particular, working patterns and physical working conditions. However, despite this there was little or no evidence of impending improvements. While trade unions at an international level have enjoyed some success in achieving various OHS improvements for cabin crews, as detailed in chapter three, it is clear that there is still a lot of work to be done. But what of the non-unionized airlines? The growing low-cost airline market is dominated by low or non-unionized airlines (e.g. Virgin, Easyjet). A clear danger exists that the range and extent of health and safety issues will remain concealed by management rhetoric such as ‘enjoy an exciting and rewarding lifestyle’, as promised by Virgin Airlines in a recent advertisement (Cosmopolitan, June 1999). The advertisement made no mention of poor air quality, minimal manual handling training, punishing work schedules and a high risk of experiencing extreme stress and emotional exhaustion. It could be argued that Virgin Airlines did not feature in the research, but given the fact that most European airlines operate the same types of aircraft and adhere to the same (albeit minimal) regulations, it is countered that the very same conditions are likely to be found. The international dimension of the research findings is thus evident.

Airlines and regulatory bodies may choose to acknowledge and address the broader range of risks identified by this study, either in response to some of the discussed implications for overall business performance, or just to live up to their pious claims about the value they attach to their employees. An obvious expression of this would be the provision of a safe and healthy workplace – a basic right perhaps, but one which appears to be missing in the cabin crew labour process. However, our analysis strongly suggests that airline managements are

unlikely to make voluntary improvements to OHS standards for cabin crews, meaning that the gauntlet is thrown down to aviation trade unions and cabin crew representative bodies to seek and achieve improvements. Almost thirty years on, Nichols and Armstrong's words are as relevant today as they were at the birth of HASAWA:

“...in a society deeply divided between those who control and those who are controlled, goodwill, however much of it exists, is simply not enough...people who do the producing must have the power to ensure that *their* safety is put first” (Nichols and Armstrong 1973:30).

Undeniably, this thesis has underlined the failure of a laissez-faire approach to OHS and the equal failure of HRM to address differences in interests between the employer and the employed. In addition, the extent of airline companies' abuse of the freedoms afforded to them only serves to further support calls for extensive policy reviews in the area of aviation regulation.

BIBLIOGRAPHY

Abercrombie N (1991) 'The privilege of the producer' in R Keat and N Abercrombie (eds.) *Enterprise Culture*, 175-185, London: Routledge

Ackroyd S and Fleetwood S (eds.) (2000) *Realist Perspectives on Management and Organizations*, Routledge

Adler, P. S. (1993) 'The Learning Bureaucracy: New United Motor Manufacturing Inc.,' in L. L. Cummings and B. M. Staw (eds.) *Research in Organisational Behaviour*, 15,111-194

Akerstedt T, Kecklund G, Olsson B, Lowden A, Andersson G (1999) 'New Working Time Arrangements, Health and Wellbeing', Working Paper, National Institute of Working Life, Sweden, *Health Hazards in the New Working Life Conference*, 11-13 January 1999, Stockholm

Air Transport World, January 1996

Air Transport World, May 1997

Airliner Cabin Air Quality, Hearings Before the Subcommittee on Aviation of the House Committee on Public Works and Transportation 1994.

Anthony P D (1994) *Managing Culture*, Open University Press:Milton Keynes

Ashford B E and Humphrey R H (1993), 'Emotional labour in service roles: the influence of identity', in *Academy Management Review*, 18:88-115

Association of Flight Attendants 1997 <http://www.flightattendant-afa.inter.net/>

Atkinson J (1984) 'Manpower strategies for flexible organizations', in *Personnel Management*, August:28-31

BBC Online Health, 'Flights Radiation Warning', 29 June 1999

Bach S (1994) "The Working Environment", in K Sisson (ed.) *Personnel Management* (1994), 2nd edition, Blackwell:London

Bagshaw M (1998), Untitled Presentation to the *Cosmic Radiation, Electromagnetic Fields and Health Among Crews*, Medical University of South Carolina, Environmental Hazards Assessment Conference, February 5-7, 1998-12-17

Bagshaw M, Irvine D and Davies D M (1996), 'Exposure to cosmic radiation of British Airways flying crew on ultralonghaul routes', in *Occupational and Environmental Medicine*, 53 (7):495-498

Bain P (1997), 'Human resource malpractice: the deregulation of health and safety at work in the USA and Britain', in *Industrial Relations Journal*, 28(3): 176-189

- Bain P and Baldry C (1995) 'Sickness and control in the office – the Sick Building Syndrome', in *New Technology, Work and Employment*, 10 (1):19-31
- Bain P and Taylor P (1999) 'Employee Relations, Worker Attitudes and Trade Union Representation in Call Centres', *Paper presented to the 17th Annual International Labour Process Conference, 29-31 March 1999, Royal Holloway College, University of London*
- Baker C (1984), 'Health and safety: an agenda for change', *Trade Union Studies Journal*, No.10, Winter, pp. 4-6
- Baker S, Myers A and Smith P (1991) 'Injury Prevention in the Workplace', in G Green and F Baker (eds.) *Work, Health and Productivity*, London, HMSO
- Baldry C and Bain P (1994) 'Trade Unions and Sick Building Syndrome', April, *Trade Union Report No.2*, University of Strathclyde
- Baldwin R (1996), 'Regulatory Legitimacy in the European Context', in G Majone (ed.) *Regulating Europe*, London:Routledge
- Band P R, Spinelli J J, Ng T Y, Moody J, Gallacher R P (1990) 'Mortality and Cancer Incidence in a Cohort of Commercial Airline Pilots', in *Aviation, Space and Environmental Medicine*, 61:299-302
- Barish R J (1999) 'Human Resource Manager Responsibilities with Respect to Business Frequent Flyer Radiation Exposure', unpublished paper
- Barker, J. R. (1993) 'Tightening the iron cage: Concertive control in self-managing teams', in *Administrative Science Quarterly*, 38, 408-437
- Beer M, Spector B, Lawrence P, Mills Q and Walton R (1984) *Managing Human Assets*, New York: Free Press
- Beer M and Spector B (1985) 'Corporate wide transformations in human resource management', in R W Walton and P R Lawrence (eds.), *Human Resource Management, Trends and Challenges*, Boston, Harvard Business School Press
- Benders, J. and Van Hootehem, G. (2000) 'How the Japanese got teams', in S Proctor and F Mueller (eds.), *Teamworking*, Macmillan
- Benders, J. and Van Hootehem, G. (1999) 'Teams and their context: moving the team discussion beyond existing dichotomies', in *Journal of Management Studies*, 36, 5, 609-328
- Blair A, Hartge P, Stewart P A, McAdams M and Lubin J (1998) 'Mortality and cancer incidence of aircraft workers exposed to trichloroethylene and other organic solvents and chemicals', in *Occupational and Environmental Medicine*, 55 93):161-171
- Bloom B L (1988) *Health Psychology: A Psychological Perspective*, Englewood Cliffs, NJ:Prentice Hall
- Blyton P (1995) 'Workforce Flexibility' in B Towers (ed.) *The Handbook of Human Resource Management 2nd edition*: Blackwell
- Blyton P and Morris J (1991) 'A flexible future: aspects of the flexibility debates and some unresolved issues', in P Blyton and J Morris (eds), *A Flexible Future?: Prospects for employment and organization. Berlin:De Gruyter*

Blyton P and Turnbull P (eds.) (1992) *Reassessing Human Resource Management*, London: Sage

Blyton P and Turnbull P (1994) *The Dynamics of Employee Relations*, London: McMillan

Blyton P and Turnbull P (1998) *The Dynamics of Employee Relations*, 2nd Edition, London: McMillan

Blyton P, Lucio M M, McGurk J and Turnbull P (1998) *Contesting Globalization: airline restructuring, labour flexibility and trade union strategies*, Cardiff University and the International Transport Workers Federation.

Bohle P (1993) 'Work Psychology and the Management of Occupational Health and Safety: An Historical Overview', in M Quinlan (ed.), *Work and Health: The Origins, Management and Regulation of Occupational Illness*, Macmillan:Australia

Bohle P and Quinlan M (2000) *Managing Occupational Health and Safety: A Multidisciplinary Approach*, Macmillan Australia, Melbourne

Bolton S (1997) 'Emotion here, Emotion there, Emotional Organizations Everywhere', paper to the 15th Annual International Labour Process Conference, University of Edinburgh

Bosworth D L and Dawkins P J (1980) 'Shiftworking and unsocial hours', in *Industrial Relations Journal*, 11:32-40

Bowen D E and Schnieder B (1988) 'Services marketing and management: implications for organizational behaviour' in *Research in Organization Behaviour*, 10:43-80

Boyd C (1996) 'A Sick Environment in the Sky?: Aircraft and Sick Building Syndrome', unpublished BA Dissertation, University of Strathclyde

Boyd C and Bain P (1998) "'Once I get you up there where the air is rarified": health safety and the working conditions of airline cabin crews', in *New Technology, Work and Employment*, 13 (1):16-28

Boyd C and Bain P (1999) 'Fighting the clock and always rushing': airline cabin crews and the intensification of work', paper presented to the Annual International Labour Processes Conference, 29-31 March 1999, London

Braverman H (1974) *Labour and Monopoly Capital: The Degradation of Work in the Twentieth Century*, New York: Monthly Review Press

Briner R B (1995) 'The Experience and Expression of Emotion at Work', *Proceedings of the British Psychological Society Occupational Psychology Conference*, pages 229-234

Briner R B (1999) 'The Neglect and Importance of Emotion at Work', forthcoming in *European Journal of Work and Organizational Psychology*

Bryman A (1995) *Research Methods and Organizational Studies*. Routledge: London

Bryman and Cramer (1999) *Quantitative Data Analysis with SPSS for Windows*, Routledge: London

Buchanan D and Huczynski A (1997) *Organizational Behaviour: an introductory text*, Prentice Hall

Burgess J and Strachan G (1999) 'The Expansion in Non-Standard Employment in Australia and the Extension of Employers' Control', in A Felstead and N Jewson (eds.) *Global Trends in Flexible Labour*, Macmillian

Burrell G and Morgan G (1979) *Sociological Paradigms and Organizational Analysis* Heinemann, London.

Burrows N and Woolfson C (1998), 'Business friendly procedures and enforcement in an era of deregulation', University of Glasgow

Burnard K (1999) quoted in The Sunday Times, 29.7.1997. Study of 2000 passengers on long flights suffering clots during travel between Britain and Australia, Guy's and St Thomas's hospitals, London

Byrne J L S (1995), *Diversification Strategies for Regulated and deregulated industries: Lessons from the airlines*, Penguin

Cabin Crew Safety Representatives Quarterly Inspection Report, Heathrow, April 1997

Caldwell P, Croucher R, Eva D and Oswald R (1980) *What's Happened to Safety? How Unions Are Using the Safety Representatives Regulations*, Workers' Educational Association – Studies for Trade Unionists, 6(23), October

Campbell-Smith D (1986) *The British Airways Story: Struggle for Take-Off*, London: Coronet Books

Cappelli P (1985) 'Competitive Pressures and Labor Relations in the Airline Industry', in *Industrial Relations* 25 (3):316-38

Cappelli P (1987) 'Airlines', in D B Lipsky and C R Donn (eds.) *Collective Bargaining in American Industry*, Lexington Books

Cappelli P (ed.) (1995) *Airline Labor Relations in the Global Era*, ILR Press/Cornell

Capelli P and McKersie R B (1987) 'Management strategy and the redesign of work rules', in *Journal of Management Studies*, 24 (5): 441-62

Carey A (1976) 'Industrial Psychology and Sociology in Australia', in P Boreham, Pemberton A, and Wilson P, *The Professions in Australia: A Critical Appraisal*, St Lucia: University of Queensland Press

Carpenter J and Cazamin P (1977) *Nightwork*, Geneva: International Labour Organization

Casey B, Metcalf H and Millward N (1997) 'Employers use of flexibility', Policy Studies Institute, in IRS 641, September 1997:3

Cauldwell J A Jnr. (1997) 'Fatigue in the aviation environment: An overview of the causes and effects as well as the recommended countermeasures', in *Aviation, Space and Environmental Medicine*, 68 (10):932-938

Cauldwell P, Croucher R Eva D and Oswald R (1980) 'What's Happened to Safety? How Unions Are Using the Safety Representatives Regulations', Workers' Educational Association – Studies for Trade Unionists, 6 (23), October

Chappell D and Di Martino V (1999), *Violence At Work*, International Labour Organization (ILO), Geneva

Civil Aviation Authority (CAA) (1999) Notes from an interview with Cpt. Mike Vivan, Flight Safety

Clark J, McLoughlin I, Rose H and King R (1988) *The Process of Industrial Change*, Cambridge: Cambridge University Press

Clegg C and Wall T(1990) 'The Relationship between Simplified Jobs and Mental Health: A Replication Study', in *Journal of Occupational Psychology*, 63: 289-96

Colling (1993) *The Foundations of Corporate Success*, Oxford Press

Colling T (1995) 'Experiencing Turbulence: Competition, Strategic Choice and the Management of Human Resources in British Airways', in *Human Resource Management Journal*, 5 (5):18-33

Confederation of British Industry (CBI) (1990) *Developing a Safety Culture*, CBI:London

Cooper C L (1985) 'The Stress of Work: An Overview', in *Aviation, Space and Environmental Medicine*, 56 (70):627-32

Corke A (1986) *British Airways: The Path to Profitability*, London: Frances Pinter

Cosmopolitan, June 1999:42

Cousins C (1999) 'Changing Regulatory Frameworks and Non-Standard Employment: A Comparison of Germany, Spain, Sweden and the UK', in A Felstead and N Jewson (eds.) *Global Trends in Flexible Labour*

Cully M, O'Reilly A, Millward N, Woodland S, Dix G, Bryson A (1998) *Employee Relations Survey (WERS), First Findings*, HMSO

Cunningham M (1987) 'Safety Representatives: Shopfloor Organization for Health and Safety', Workers Educational Association – Study for Trade Unionists, 4(13), March

Cutler T and James P (1996) "Does Safety Pay? A Critical Account of the Health and Safety Executive Document: 'The Costs of Accidents'", in *Work Employment and Society*, 10 (4).

Danford, A. (1998) 'Teamworking and Labour Regulation in the Autocomponents Industry', in *Work, Employment and Society*, Vol.12, 3, 409-431

Daniel W E, Vaughan R L, Millies B A (1990) 'Pregnancy outcomes among female flight attendants', in *Aviation, Space and Environmental Medicine*, September, 840-844

Dawson P (1998) 'The Rhetoric and Bureaucracy of Quality Management: a totally questionable method?', in *Personnel Review*, 1998, 27 (1):5-9

Dawson S, Willman P, Bamford M and Clinton A (1988) *Safety at Work: The Limits of Self-Regulation*, Cambridge:Cambridge University Press

Dawson P and Webb J (1989) 'New production arrangements: the totally flexible cage?' in *Work, Employment and Society*, 3 (2): 221-38

Deery S, Iverson R and Walsh J (2000) 'Work Relationships in Telephone Call Centres: Understanding Emotional Exhaustion and Employee Withdrawal', paper to the International Industrial Relations Conference, February 2000.

Delbridge R and Turnbull P (1992) 'Human Resource Maximization: The Management of Labour Under Just-In-Time Manufacturing Systems', in P Blyton and P Turnball (eds.) *Reassessing Human Resource Management*, Sage Publications

Delloitte and Touche (1998) *Management solutions: business success and human resources management survey*, October 1998, Leeds

Deming W E (1982) *Quality, Productivity and Competitive Position*. Cambridge, MA.:MIT Press

Department of Transport, *Formal Investigation of the Herald of Free Enterprise: Report of Court 8074*, HMSO 1987

Department of Transport, *Formal Investigation of the Clapham Junction Rail Accident*, HMSO 1989

Department of Energy, *Public Enquiry into the Piper Alpha Disaster*, HMSO 1990

Department of Health , 'The Healthy Workplace Initiative', April 1999

Dispatches, Channel 4, 6.2.98

Dorgan J F, Brock J W, Rothman N, Needham L L, Miller R, Stephenson H E Jnr, Schussler N and Taylor P R (1999) 'Serum organochlorine pesticides and PCBs and breast cancer risk', in *Cancer Causes and Control*, 10 (1):1-11

Driver C R, Valway S E, Morgan W M, Onorato I M and Castrol K G (1994) 'Transmission of M. tuberculosis associated with air travel', in *JAMA* 272:1031-5

DTI (1994), *Thinking about Regulation: A Guide to Good Regulation*, London

du Gay P (1996) *Consumption and Identity at Work*, London:Sage

Dubin R (1978) *Theory Building*, revised edition, New York: Free Press

Employment Department, *Deregulation Task Force Report*, 1994-5:1-3, London

Erickson R J and Wharton A S (1997), 'Inauthenticity and depression: assessing the consequences of interactive service work', in *Work and Occupations*, 24 (2): 188-213

European Commission (EC) (1993) *Growth, Competitiveness, Employment: the challenges and ways forward into the 21st century*. Brussels: Commission of the European Communities

European Commission (EC) (1997) *Air Transport*, Report prepared by Cranfield University, London:Kogan Page

European Foundation for the Improvement of Living and Working Conditions (EFILC) (1997), '*Preventing absenteeism in the workplace*', European Foundation

FAA Advisory Circular AC 120-38 1980

Fairbrother P (1996), 'Organize and survive: unions and health and safety – a case study of an engineering unionized workforce', in *Employee Relations*, 18 (2)

Feigenbaum, A. V (1956) "Total Quality Control", *Harvard Business Review*, Vol. 34 No. 6, pp. 93-101.

- Feigenbaum A V (1983) *Total Quality Control*, New York: McGraw-Hill
- Felstead A and Jewson N (1999) *Global Trends in Flexible Labour*, Macmillan
- Fernie S and Metcalf D (1995) 'Participation, contingent pay, representation and workplace performance: evidence from Great Britain', in *British Journal of Industrial Relations*, 33 (3): 379-415
- Ferrie J (1998) 'Labour market status, insecurity and health', in *Journal of Health Psychology*, 2 (3)
- Filby M (1992) 'The Figures, The Personality and The Bums: Service work and sexuality', in *Work, Employment and Society*, 6 (1):23-42
- Fineman S (1995) 'Stress, Emotion and Intervention', in Newton T (ed.) *'Managing' Stress: Emotion and power at work*, London: Sage
- Flournoy A C (1990) 'Selected Legal Issues Related to Sound and Vibration in Pregnancy', in *Seminars in Perinatology*, 14:334-339
- Foucault, M. (1977) *Discipline and Punish: The Birth of a Prison*. London: Allen and Lane
- Fox A (1974) *Beyond Contract: Work, Power and Trust Relations*, London: Faber
- Fox Piven F (1991) 'The decline of Labour Parties: an overview', in F Fox Piven (ed.) *Labour Parties in Post Industrial Societies*. Cambridge: Polity Press
- Friedberg W, Faulkner D N, Snyder L, O'Brien K (1989) 'Galactic cosmic radiation exposure and associated health risk for air carrier crew members', in *Aviation, Space and Environmental Medicine*, 60:1104-08
- Friedberg W, Faulkner D N, Synder L, Darden E B and O=Brien K (1992) Radiation exposure of air carrier crewmembers II, Washington, DC: Federal Administration Report DOT/FAA/AM-92/2
- Fuller L and Smith V (1991) "'Consumers" Reports: Management by customers in a changing economy', in *Work, Employment and Society*, 5 (1):1-16
- Gall G (1996) 'Converging on Conflict? A Further Comment on Warhurst', in *European Journal of Industrial Relations*, 2 (2):255
- Ganster C D and Fusilier M R (1989) 'Control in the Workplace', in C L Cooper and I T Robertson (eds.), *International Review of Industrial and Organizational Psychology*, John Wiley and Sons
- Garrahan P and Stewart P (1992) *The Nissan Enigma: Flexibility at Work in a Local Economy*, London: Cassell
- Gennard J and Kelly J (1997) 'The Unimportance of Labels: The Diffusion of the Personnel/HRM Function', in *Industrial Relations Journal*, 28 (1): 27-42
- Gilbert N (1993) (ed) *Researching Social Life* Sage, London.
- Gillespie (1991) *The Price of Health: Australian Governments and Medical Politics 1910-1960*, Cambridge: Cambridge University Press

- Goodstein L D (1990) 'A Case Study in Effective Organizational Change Toward High Involvement Management', in D B Fishman and C Cherniss (eds.), *The Human Side of Corporate Competitiveness*, Newbury Park CA: Sage
- Goodwin T (1996), 'Cabin Crew Maternity Policy, The Health and Safety Issues', www.aeronet.co.uk
- Gordon D (1996) *Fat and Mean: the Corporate Squeeze of Working Americans and the Myth of Managerial 'Downsizing'*, New York: Free Press
- Gordon S L (1989) 'Institutional and impulsive orientations in selectively appropriating emotions to self', in Franks D D and McCarthy D (eds.) *The Sociology of Emotion: Original Essays and Research Papers*, Greenwich. CT:JAI
- Gramsci A (1971) *Selections from Prison Notebooks*, London: New Left Books
- Gregory K L (1983) 'Native vie paradigms: Multiple cultures and culture conflicts in organizations', in *Administrative Science Quarterly*, 28 (3):359-76
- Guest D (1984) 'Social Psychology and Organizational Change', in M Grundberg and T Wall, *Social Psychology and Organizational Behaviour*, Chichester: John Wiley and Sons
- Guest D E (1987) 'Human Resource Management and industrial relations', in *Journal of Management Studies*, 24 (5): 302-21
- Guest D E (1989) 'Personnel and HRM: can you tell the difference? In *Personnel Management*, 21 (1): 149-76
- Guest D E (1990a) 'Have British workers been working harder in Thatcher's Britain?', A re-consideration of the concept of effort, in *British Industrial Relations*, 28 (3):293-312
- Guest D E (1990b) 'Human resource management and the American Dream', in *Journal of Management Studies*, 27 (4):378-97
- Guest D (1991) 'Personnel Management: the end of orthodoxy?' in *British Journal of Industrial Relations*, 29 (2): 149-76
- Guest D E (1992a) 'Employee Commitment and Control', in J F Hartley and G M Stephenson (eds), *Employment Relations*, Blackwell:Oxford
- Guest D E (1992b) 'Right enough to be dangerously wrong: an analysis of the *In Search of Excellence* phenomenon', in G Salamon et al (eds.) *Human Resource Strategies*, London and Milton Keynes: Sage/Open University
- Guest D E (1995) 'HRM in the UK', in B Towers (ed.) *The Handbook of Human Resource Management, second edition*, London: Blackwell
- Guest D E and Hoque K (1993) 'Are greenfield sites better at human resource management?', LSE, CEP *Discussion Paper*, 435, London
- Guest D E and Hoque K (1994) *Human Resource Management in Greenfield Sites: preliminary survey results*, Working Paper no.530, London School of Economics

Hackman, J. R. and Oldham, G., Janson, R. and Purdy, K. (1975) 'A New Strategy for Job Enrichment', *California Management Review*, 17, 57-71

Hakim C (1990) 'Core and periphery in employers' workforce strategies: evidence from the 1987 ELUS survey', in *Work, Employment and Society*, 4 (1):157-88

Hammersley M and Atkinson P (1993) (eds.) *Social Research; Philosophy, Politics and Practice* Open University, Sage Publications, London.

Hansard, Vol 875, 21May 1973

Härkäinen-Sörri A (1988) 'Occupational Noise During Pregnancy: A Case Control Study', in *Occupational and Environmental Health*, 60:279-283

Harley. B, (1999) 'The Myth of Empowerment: Work Organisation, Hierarchy and Employee Autonomy in Contemporary Australian Workplaces', in *Work, Employment and Society*, 13, 41-66

Härma M, Suvanto S and Partinen M (1994) 'The effect of four-day round trip flights over 10 time zones on the sleep-wakefulness patterns of airline flight attendants', in *Ergonomics*, 37 (9):1461-1478

Harris W and Mackie R R (1972) *A study of the relationships among fatigue, hours of service and safety of operations of truck and bus drivers*. Report 1727-2 Human Factors Research Inc. Goleta, California

Hart T M (1993) 'Human resource management: time to exorcise the militant tendency', in *Employee Relations*, 15 (3): 29-36

Häugli L, Sköglstad A and Lellesöy, O H (1994) 'Health, Sleep, and Mood Perceptions Reported by Airline Crews Flying Short and Long-hauls,' in *Aviation, Space and Environmental Medicine*, 65:27-34

Haworth N (1995) 'The role of fatigue research in setting driving hours regulations', in L Hartely (ed.), *Fatigue and Driving: Driver Impairment, Driver Fatigue and Driving Simulation*. London: Taylor and Francis

Hazards, 54, 1997

Hazards, 63, 1998

Hazards, 64, 1998

Hazards, 65, 1999

Hazards, 66, 1999

Health and Safety Bulletin 261, Industrial Relations Services, September 1997

Health and Safety Bulletin 262, Industrial Relations Services, October 1997

Health and Safety Bulletin 263, Industrial Relations Services, November 1997

Health and Safety Executive (HSE) (1995) 'Stress at work: a guide for employers', London

Health and Safety Executive (HSE) (1996) 'The Costs of Accidents', London

- Hendry C (1995) 'Human Resource Management: a strategic approach to employment', Butterworth Heineman
- Hendry C and Pettigrew A (1986) 'The practice of strategic human resource management', in *Personnel Review*, 15 (5); 3-8
- Hendry C and Pettigrew A (1990) 'Human resource management: an agenda for the 1990s', in *International Journal of Human Resource Management*, 1(1): 17-44
- Herald, 3.1.95
- Herald 7.6.97
- Herzberg F (1966) *Work and the Nature of Man*, New York: Staples Press
- Herzberg F (1968) 'One More Time: How do you Motivate Employees?', *Harvard Business Review*, 46 (1):53-62
- Herzberg F (1987) 'Workers needs the same around the world', in *Industry Week*, (21): 29-32
- Hill S (1991) 'Why quality circles failed but total quality management might succeed', in *British Journal of Industrial Relations*, 29 (4): 541-68
- Hochschild A R (1979) 'Emotion work, feeling rules, and social structure', in *American Journal of Sociology*, 85:551-75
- Hochschild A R (1983) *The Managed Heart: Commercialization of Human Feeling*, Berkeley
- Holloway W (1991) *Work Psychology and Organizational Behaviour: Managing the individual at work*, London: Sage
- Holtzman W H, Evans R I, Kennedy S and Iscoe I (1987) 'Psychology and Health: Contributions of Psychology to the Improvement of Health and Health Care', in *Bulletin of the World Health Organization*, 64:913-35
- Höpfl H G (1993) 'Culture and commitment: British Airways', in D Gowler, K Legge and C Clegg (eds.) *Case Studies in Organizational Behaviour and Human Resource Management*, London: Paul Chapman
- Höpfl H J, Smith S and Spencer S (1992) 'Values and valuations: corporate culture and job cuts,' in *Personnel Review*, 21 (1): 24-38
- Hunter L and MacInnes J (1992) 'Employers and labour flexibility: the evidence from the case studies', in *Employment Gazette*, June issue:307-15
- Hyman R (1995) 'The Historical Evolution of British Industrial Relations', in P Edwards (ed.) *Industrial Relations: Theory and Practice in Britain*, Oxford: Blackwell
- IDS Study, 622, "Safety at Work", March 1997
- IDS Study, 650, "Managing Absence", June 1998
- IDS Study Summer Plus, 'Employee Counselling Schemes', Summer 1999
- Institute of Personnel and Development (IPD) (1998) *Stress at Work*, September 1998

Institute of Personnel and Development (IPD) (1996) *Occupational Health and Organizational Effectiveness*, September 1996

IRS 545, October 1993

IRS Employment Trends, 620, IRLB 527, 1996

IRS Employment Trends, 631, May 1997

IRS Employment Trends, 643, November 1997

IRS 677, Employee Health Bulletin 8 April 1999

IRLB 579, October 1997

ITF News 1, 1997, Journal of the International Federation of Transport Workers: London

ITF News 2, 1998, Journal of the International Federation of Transport Workers: London

ITF News 3, 1998, Journal of the International Federation of Transport Workers: London

ITF News 4, 1998, Journal of the International Federation of Transport Workers: London

ITF News 6, 1998, Journal of the International Federation of Transport Workers: London

ITF News, 1, 1999, Journal of the International Federation of Transport Workers: London

ITF News, 4, 1999, Journal of the International Federation of Transport Workers: London

ITF Media Release, 8.7.97, <http://itf.org.uk>

International Transport Workers Federation (ITF) (1995), *Cabin Crew: safety professionals*, ITF publications, London

International Transport Workers' Federation (ITF) (1997a), *Civil Aviation Review*, ITF publications, London

International Transport Workers' Federation (ITF) (1997b) *Safe Skies*, ITF publications, London

International Transport Workers' Federation (ITF) (1998a), *Asian crisis threatens aviation safety – staff under pressure*, September 1998

International Transport Workers' Federation (ITF) (1998b) *Open Skies, Global Alliances and Labour Relations in the 21st Century*, ITF Publications, London

International Transport Workers' Federation (ITF) (1999a), *Air Rage: the prevention and management of unruly passenger behaviour*, Safety in Practice, No.1, London

International Transport Workers' Federation (ITF) (1999b) Conference on Air Rage, Amsterdam, 20-22 April 1999

James N (1989) 'Emotional Labour: Skill and work in the social regulation of feelings', in *Sociological Review*, 37 (1):15-42

- Kahn F (1999), telephone conversation, The Aviation Health Institute, Oxford.
- Kamoche K (1994) 'A critique and proposed reformulation of strategic human resource management', in *Personnel Review*, 4 (4):29-43
- Karube H, Aizawa Y, Nakamura k, Maeda A, Hashimoto K and Takata T (1995), 'Oil Mist Exposure in Industrial Health – A Review', in *Sangyo Eiseigaku Zasshi*, 37 (2):113-122
- Keenoy T (1990a) 'HRM: rhetoric, reality and contradiction', in *International Journal of Human Resource Management*, 1 (3): 363-384
- Keenoy T (1990b) 'HRM: a case of the wolf in sheep's clothing', in *Personnel Review*, 19 (2):3-9
- Keenoy T (1991) The roots of metaphor in the old and new industrial relations, in *British Journal of Industrial Relations*, 29 (2): 313-28
- Keenoy T (1997) 'HRMism and the Languages of Re-presentation', in *Journal of Management Studies*, 34 (5)
- Keenoy T and Anthony P (1992) 'HRM: metaphor, meaning and morality', in Blyton P and Turnbull P (eds.) *Reassessing Human Resource Management*, Sage Publications
- Kelly J (1978) 'A Reappraisal of Socio-technical Systems Theory', in *Human Relations*, 31 (12): 1069-99
- Kelly J E and Kelly C (1991) 'Them and us: social psychology and the "new industrial relations"', in *British Journal of Industrial Relations*, 29 (1): 25-48
- Kenyon T A, Valway D M D, Ihle W W, Onorato I M and Castro K G (1996) 'Transmission of Multidrug-resistant tuberculosis during a long airplane flight', in *The New England Journal of Medicine*, 334 (15)
- Klein J A (1989) 'The human cost of manufacturing reform, in *Harvard Business Review*, March – April:60-6
- Kochan T and Dyer L (1993) 'Managing Transformational Change: The Role of HRM Professionals', in *International Journal of Human Resource Management*, 4 (3): 569-91
- Korczynski M (1999) 'What a Difference a Union Makes: The Impact of partnership Unionism on the Work Organization of Call Centres', *Paper to Centre for Economic Performance, LSE*, (March)
- Krislov J (1988) 'Representation Elections in the Railroad and Airline Industries, 1955-1984', in *Labor Law Journal*, 39 (April):242-46
- Knights R (1929) 'Work and Rest', in C S Myers (ed.), *Industrial Psychology*, London:Thornton Butterworth
- Kyotani E (1999) 'New Managerial Strategies of Japanese Corporations', in A Felstead and N Jewson (eds.) *Global Trends in Flexible Labour*, Macmillan
- Labour Market Trends, 'Temporary Workers in Great Britain', September 1997
- Labour Research Department (LRD) (1990) 'A guide for negotiators: Working Time'

Labour Research, August 1999

Labour Research (1990), 'Safety at all Costs?', pages 15-16

Labour Research, October 1995

Labour Research (1997), "Putting Safety Back Into Politics", April 1997, page 19-20

Lalande N M (1986) 'Is Occupational Noise Exposure During Pregnancy a Risk Factor of Damage to the Auditory System of the Foetus?' in *American Journal of Industrial Medicine*, 10: 427-435

Lawler E E (1976) 'Should the Quality of Working Life be Legislated?', in *Personnel Administrator*. January:17-21

Lawler E E (1986) *High Involvement Management: Participative Strategies for Improving Organizational Performance*, San Francisco: Jossey-Bass

Lawler E E , Mohrman S A and Ledford G E Jr (1995) *Creating High Performance Organizations*. San Francisco: Jossey-Bass

Leather P, Brady C, Lawrence C, Beale D and Cox T(eds.) (1999), *Work-Related Violence: Assessment and Intervention* , Routledge: London

Lebuser H J, Krasher E , Nubohm E (1995), 'Exposure of Aircraft Crews and Frequent Fliers to Radiation', in *Cockpit*, July:14-19

Legge K (1989) 'Human resource management – a critical analysis', in *J Storey (ed.) New Perspectives on Human Resource Management*, London: Routledge

Legge K (1994) 'Managing culture: fact or fiction', in K Sisson (ed.) *Personnel Management* (2nd edition), Oxford: Blackwell

Legge K (1995a) *Human Resource Management: rhetoric and reality*, London:McMillan

Legge K (1995b) 'HRM: rhetoric, reality and hidden agendas', in *J Storey (ed.) Human Resource Management: a critical text*, London: Routledge

Lengnick-Hall C A and Lengnick-Hall M L (1990) *Interactive Human Resource Management and Strategic Planning*, Westport, CT:Quorum Books

Lin T, Jovanis P and Yang C (1993) 'Modeling The Safety of Truck Driver Service Hours Using Time-Dependent Logistic Regression', *Transport Research Record*, 1407

Lin T, Jovanis P and Yang C (1994) 'Time of Day Models of Motor Carrier Accident Risk', *Transport Research Record*, 1467

Lowden A, Kecklund G, Axelsson J, Akerstedt T (1999) 'Effects of 8 and 12 hours shifts on sleep and sleepiness and performance', Working Paper, National Institute of Working Life, Sweden, *Health Hazards in the New Working Life Conference*, 11-13 January 1999, Stockholm

Lowden A and Akerstedt T (1999) 'Eastward long distance flights, sleep and wake patterns in air crews in connection with a two-day layover,' in *Journal of Sleep Research*, 8 (1):15-24

Lynge E (1996) 'Risk of breast cancer is also increased among Danish female airline cabin attendants', in *British Medical Journal*, 312(7025):253

MacDonald C L and Sirianni C (1996) 'The service society and the changing experience of work', in MacDonald C L and Sirianni C (eds.), *Working in the Service Society*, Philadelphia: Temple University Press

MacDuffie J P (1995) 'Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry', in *Industrial and Labor Relations Review*, 48:197-221

Mackay C J and Cooper C L (1987) 'Occupational Stress and Health: Some current Issues', in C L Cooper and I T Robertson (eds.), *International Review of Industrial and Organizational Psychology*, John Wiley and Sons, Chichester, UK

McGregor D (1960) 'Theory X and Theory Y'. In Pugh D S (ed.) *Organizational Theory: Selected Readings*. London:Penguin

McIllroy J (1998) 'Trade Unions and the Making of New Labour, 1994-1997, in *British Journal of Industrial Relations*, 36 (4):537-564

McIntosh I B, Swanson V, Power K G, Raeside F and Dempster C (1998) 'Anxiety and health problems related to air travel,' in *Journal of Travel Medicine*, 5 (4): 198-204

McLaughlin C and Rasmussen E (1998) "Freedom of choice" and "flexibility" in the retail sector?', in *International Journal of Manpower*, 19 (4)

Mcfarland J W, Hickman C, Osterholm M T and McDonald K L (1994) 'Exposure to Mycobacterium tuberculosis during air travel', in *Lancet* 342:112-3

Mason J (1996) *Qualitative Researching*, Sage:London

Mason K T (1994), *Pregnancy and Flying Duties*, Aircrew Protection Division, United States Army, Aeromedical Research Laboratory, Fort Rucker, Alabama, Report No. 94, August 1994

Management, Auckland, 1996

Managing Service Quality, 1994:13-16

Manufacturing, Services and Finance Union (MSF) (1997) *Work-Related Illness*, London

Marchington M (1993) 'Close to the customer: employee relations In food retailing', in D Gowler, K Legge and C Clegg (eds.), *Case Studies in Organizational Behaviour and Human Resource Management*, London: Paul Chapman

Marchington M, Wilkinson A, Ackers P and Goodman J (1992) 'The influence of managerial relations on waves of employee involvement', in *British Journal of Industrial Relations*, 31 (4): 553-76

Marginson P, Armstrong P, Edwards P, Purcell J and Hubbard N (1993) *The Control of Industrial Relations in Large Companies: an initial analysis of the second company level industrial relations survey*, Warwick Papers in Industrial Relations, No.45, University of Warwick

Martin J (1992) *Cultures in Organizations: Three Perspectives*, Oxford University Press: Oxford

Maslow A H (1943) 'A Theory of Human Motivation', in *Psychological Review*, 50:376-96

Mathiassen S and Winkel J (1992) 'Can occupational guidelines for work-rest schedules be based on endurance time data?' in *Ergonomics*, 35:253-259

Mawson A R (1998) 'Breast Cancer in female flight attendants', in *Lancet*, 352

Mayhew C and Quinlan M (1999) 'The Relationship Between Precarious Employment and Patterns of Occupational Violence: Survey Evidence From Thirteen Occupations', paper presented at *The Health Hazards and Challenges in the New Working Life Conference*, 11-13 January 1999, Stockholm

Melton C E (1982) 'Effects of long-term exposure to low levels of ozone and acid chlorides', in *Aviation, Space and Environmental Medicine*, 53:105-11

Mercer A and Brown J D (1998) 'Venous thromboembolism associated with air travel', in *Aviation, Space and Environmental Medicine*, 69 (2):154-157

Miles G H and Eyre A B B (1929) 'Ease and Speed of Work', in C S Myers (ed.), *Industrial Psychology*, London:Thornton Butterworth

Milkman R (1999) *The New American Workplace: High Road or Low Road?*, in P Thompson and C Warhurst (eds.), *Workplaces of the Future*, Macmillan

Millward N (1994) *The New Industrial Relations*, PSI:London

Millward N, Stevens M, Smart D and Hawes W (1992) *Workplace Industrial Relations in Transition*. Aldershot: Dartmouth

Moody K (1987) 'Go-It-Alone Mentality Hurts Airline Unions in Era of Deregulation', in *Labor Notes*, June:8-9

Morgan G (1983) (ed.) *Beyond Method: Strategies for Social Research* Sage Publications, London.

Morgan G (1986) *Images of Organization*, Sage: London

Morris J and Burgoyne J (1973) *Developing Resourceful Managers*, London: Institute of Personnel Management

Morris T, Lydka H and Fenton O'Creevy M (1993) 'Can Commitment be Managed? A longitudinal analysis of employee commitment and human resource practices', in *Human Resource Management Journal*, 3 (3), 21-42

Morrison S A and Winston C (1995) *The Evolution of the Airline Industry*, ILR Press

Moser C and Kalton G (1971) *Survey Methods and Social Investigation* Heinemann, London.

Muchinsky P M (1987) *Psychology Applied to Work: An Introduction to Industrial and Organizational Psychology*, Chicago:The Dorsey Press

Muscio B (1917) *Lectures on Industrial Psychology*, London:Thornton Butterworth

Nagda N, Koontz M D, Konheim A G and Hammond S K (1992) 'Measurement of Cabin Air Quality Aboard Commercial Airliners', in *Atmospheric Environment*, 26A (12):2203-2210

Nagda N (1989) 'Airliner cabin environment: contaminants measurement, health risks and mitigation options', US Department of Transport Report, DOT-P-15-89-5

National Board for Prices and Incomes (NBPI) (1970) *Hours of Work, Overtimes and Shiftworking*, Report No. 161, Cmnd 4554. London:HMSO

National Institute for Occupational Safety and Health (1998) '*Stress at work*', *NIOSH Publications*

Nayler P (1984) 'Bringing home the lessons of Japanese management', in *Personnel Review*, March: 34-7

Neuman W L (1997) *Social Research Methods: qualitative and quantitative methods, third edition*. Allyn and Bacon

Newell R (1993) Questionnaires in Gilbert (ed) *Researching Social Life* Sage, London.

Newsome K (1998) *Beyond the point of production: Just-in-Time, changing buyer-supplier relations and the labour implication for suppliers*, unpublished PhD thesis, University of Hertfordshire

Nichols T (1986) 'Industrial Injuries in British Manufacturing in the 1980s', in *The Sociological Review*, 34(2): 290-206

Nichols T (1997), *The Sociology of Industrial Injury*, Mansell:London

Nichols T and Armstrong P (1973) *Safety or Profit: Industrial Accidents and the Conventional Wisdom*, Bristol:Falling Wall Press

Niven M (1967) *Personnel Management 1913-63*, London: Institute of Personnel Management

Noon M (1992) " HRM: A Map, Model or Theory", in P Blyton and P Turnbull (eds.) *Reassessing Human Resource Management*, Sage Publications

Northwest Coalition for Alternatives to Pesticides (NCAP) Report on Airline Sprays (1999), <http://www.efn.org/~ncap/AirlineSpray.pdf>

Ogbonna E (1992) 'Organization Culture and Human Resource Management: Dilemmas and Contradictions', in Blyton and Turnbull, *Reassessing Human Resource Management*, Sage:London

Ogbonna E and Wilkinson B (1988) 'Corporate strategy and corporate culture: the management of change in the UK supermarket industry', in *Personnel Review*, 17 (6):10-14

Ogbonna E and Wilkinson B (1990) 'Corporate Strategy and Corporate Culture: The view from the checkout', in *Personnel Review*, 19 (4): 9-15

Oldaker G B and Conrad R C (1987) 'Estimation of effects of environmental tobacco smoke on air quality within passenger cabins of commercial aircraft', in *Environmental Science Technology*, 1987 (21):994-99

Organization for Economic Co-operation and Development (OECD) (1989), *Labour Market Flexibility: Trends in Enterprises*. Paris:OECD

Organization for Economic Co-operation and Development (OECD) (1997), *The OECD Jobs Study: unemployment in the OECD area, 1950-1995*. Paris:OECD

OSHA hearings on Indoor Air Quality, Washington DC, 1994-5 – testimony of Alice Evans

OSHA hearings on Indoor Air Quality 1994-5, Christopher Witkowski, Director of Safety and Health, AFA

Otto R (1985) 'Health Damage through Work Stress: Is "Stress Management" the Answer?', in *New Doctor*, 35, March:13-15

Ouchi W (1981) *Theory Z*, Addison-Wesley: Reading MA

Pascale R T and Athos A G (1981) *The Art of Japanese Management*, Penguin: New York

Peccei R and Rosenthal P (1997) 'The antecedents of employee commitment to customer service: evidence from a UK service context', in *International Journal of Human Resource Management*, 8 (1):66-86

Peters T J and Waterman R H Jr. (1982) *In Search of Excellence, Lessons from America's Best Run Companies*, New York: Harper and Row

Pettigrew A and Whip R (1991) *Managing Change for Competitive Success*, Oxford: Blackwell

Personnel Management, 8.8.96:7

Poole M (1990) 'Human resource management in an international perspective', in *International Journal of Human Resource Management*, 1 (1): 1-15

Porter M E (1990) *The Competitive Advantage of Nations*, New York:Free Press

Pukkala E, Auvinen A and Wahlberg G (1994) 'Incidence of cancer among Finnish airline cabin attendants, 1967-92', in *British Medical Journal*, 311, September 1995:649-651

Purcell J and Ahlstrand B (1994) *Human Resource Management in the Multi-divisional Company*. Oxford:OUP

Quinlan M (1993), *Work and Health: The Origins, Management and Regulation of Occupational Illness*, Macmillan:Australia

Quinlan M and Bohle P (1991) *Managing Occupational Health in Australia*, Macmillan: Australia

Ramsay R E (1991) 'The Community, the Multinational, its Workers and Their Charter: A Modern Tale of Industrial Democracy?', in *Work, Employment and Society*, 5 (4):541-66

Ramsay R E (1995) 'Involvement, Empowerment and Commitment', in B Towers (ed.) *The Handbook of Human Resource Management*, Blackwell

Raw G (1992) *Sick Building Syndrome: A Review of the Evidence on Causes and Solutions*, HSE Contract Research Report, No.42/1992, London: HSE

Reilly B, Pierella P and Hall P (1995) 'Unions, safety committees and workplace injuries', in *British Journal of Industrial Relations*, 33 (2):276-88

Reynolds S and Shapiro D (1991) 'Stress Reduction in Transition: Conceptual Problems in the Design, Implementation and Evaluation of Worksite Stress Management Interventions', in *Human Relations*, 44 (7)

Ribier B, Zizka V, Cysique J, Danalien Y, Glaudon G and Ramialison C (1997) 'Venous thromboembolic events following air travel', in *Revue de Medecine Interne*, 18 (8):601-604

Riley B (1999) ' Report highlights risk of pesticides used on aircraft', *Pesticide News*, 43:16

Robens Report (1972) *Safety and Health at Work*, Cmnd.5034. HMSO:London

Robbins S P (1983) 'The theory Z organization from a power-control perspective', in *California Management Review*, 25 (2): 67-75

Roethlisberger G and Dickson W (1939) *Management of the Worker*, Cambridge, Mass:Harvard University Press

Romano E, Ferrucci L, Nicolai R, Derme V and De Stefano G F (1997), 'Increase of chromosomal aberrations induced by ionising radiation in peripheral blood lymphocytes of civil aviation pilots and crew members', in *Mutation Research – Fundamental and Molecular Mechanisms of Mutagenesis*, 377 (1):89-93

Rosen S D (1995) 'Corporate Restructuring: A Labor Perspective', in P Cappelli (ed.) *Airline Labor Relations in the Global Era: The New Frontier*

Rosenthal P, Hill S and Peccei R (1997) 'Checking Out Service: Evaluating Excellence, HRM and TQM in retailing', in *Work, Employment and Society*, 11 (3):481-503

Salamon M (1998) *Industrial Relations: theory and practice*, 3rd edition, Prentice Hall

Sathe V (1983) *Culture and Related Culture Realities*, Hoomwood, ILL:Irwin

Sayer A (1992) *Method in social science: A realist approach*, 2nd edition. Routledge:New York

Scheid W, Weber J, Traut H, Gabriel H W (1993), Institut fur Strahlenbiologie der Univeristat Munster, *Naturwissenschaften* 80: 530-538

Schonberger R J (1982) *Japanese Manufacturing Techniques: Nine Hidden Lessons in Simplicity*, New York: Free Press

Schuler R (1980), 'Definition and Conceptualisation of Stress in Organizations', *Organizational Behaviour and Human Decision Processes*, 25:184-215

Schuler R S and Jackson S E (1987) 'Linking competitive strategies with human resource management practices', in *Academy of Management Executive*, 1 (3):209-13

Scotland on Sunday 24.9.95

Scotland on Sunday 27.6.99

Scotland on Sunday 15.8.99, 'Flying the flag or BA humbug?':4

Scott A (1994) *Willing Slaves? British Workers Under Human Resource Management*, Cambridge: Cambridge University Press

Sewell, G. (1996) "Be Seeing You: A rejoinder to Webster and Robbins and to Jenkins", in *Sociology*, 30, 785-797

Sewell, G. (1998), "The Discipline of Teams: The Control of Team-based Industrial Work through Electronic and Peer Surveillance, in *Administrative Science Quarterly*, 43, 397-428

- Sewell G and Wilkinson B (1992) 'Empowerment or Emasculation? Shopfloor Surveillance in a Total Quality Organization', in Blyton and Turnball, *Reassessing Human Resource Management*, Sage:London
- Sherif M (1936) *The Psychology of Group Norms*, Harper and Row: New York
- Silverman D (1985) *Qualitative Methodology and Sociology* Gower, Aldershot.
- Sisson K (1994) 'Personnel Management: Paradigms, Practice and Prospects', in K Sisson (ed.), *Personnel Management: A Comprehensive Guide to Theory and Practice in Britain*, Oxford: Blackwell
- Singh R (1996) 'Human Resource Management: a Sceptical Look', in B Towers (ed.) *The Handbook of Human Resource Management*, 1996, 2nd edition, Blackwell:London
- Smirchich L (1983) 'Concepts of culture and organizational analysis', in *Administrative Science Quarterly*, 28 (3):339-58
- Smith C (1989) 'Flexible specialization, automation and mass production', in *Work, Employment and Society*, 3 (2):203-20
- Smith A J (1996) 'Cabin Air Quality: What is the Problem? What is Being Done or What Can be Done About It? Who Can Do It and How?', in *Journal of Air Law and Commerce* 61 (3), February 1996
- Society of Radiographers (1991), *Preventing Darkroom Disease*, London
- Spillane R (1984) 'Psychological Aspects of Occupational Stress and Workers', in *Journal of Industrial Relations*, 26 (4):496-503
- Standing G (1986) *Unemployment and Labour Market Flexibility: the United Kingdom*. Geneva: International Labour Organization
- Storey J (1987) 'Developments in the management of human resources: an interim report', *Warwick Papers in Industrial Relations*, 17, IRRU, School of Industrial and Business Studies, University of Warwick
- Storey J (ed.) (1989) *New Perspectives in Human Resource Management*. London:Routledge
- Storey J (1992) *Developments in the Management of Human Resources*. Oxford: Blackwell
- Storey J (1995) *Human Resource Management: a critical text*, London: Routledge
- Stranks J and Dewis M (1986) *Health and Safety Practice*, HMSO:London
- Sturdy A (1994) 'Smiling But Not (Always) Meaning It', paper to the 12th Annual International Labour Process Conference, University of Aston, Birmingham
- Sundstrom, E., De Meuse, K. P. and Futrell, D. (1990) 'Work teams. Applications and Effectiveness'. *American Psychologist*, 45, 2, 120-33
- Sutton R I (1991) 'Maintaining the Norms About Expressed Emotions: The case of bill collectors', in *Academic Science Quarterly*, 36:245-268

Suvanto S, Partinen M, Harma M, Ilmarinen J (1990) 'Flight Attendants Desynchronosis after rapid time zone changes, in *Aviation, Space and Environmental Medicine*, 61:543-7

Taylor F W (1947) 'The Principles of Scientific Management', in F W Taylor, *Scientific Management*

Taylor S (1998) 'Emotional Labour and the New Workplace', in Thompson P and Warhurst C (eds.), *Workplaces of the Future*, Macmillan

Tichy N (1983) *Managing Strategic Change*, New York:Wiley

Tillsley C (1994) 'Employee involvement: employees' views', in *Employment Gazette*, June:211-16

The European 28.9.998

The Guardian 12.9.95

The Guardian 5.8.97

The Guardian 2.8.99 "Fighting For Breath":13

The Guardian 3.8.99 "Single Mother wins Case over 16-hour shifts": 6

The Healthy Workplace Initiative, Department of Health, April 1999

The Herald, 3.1.95

The Herald, 7.6.97

The Herald, 'Importance of Monitoring Work-Related Stress', 21.7.99: 21

The Independent 26.7.97

The Observer 19.5.96

The Scotsman 22.3.97

The Scotsman 10.7.98

The Financial Times 28.5.84

Thompson P and Warhurst C (eds.) (1998) *Workplaces of the Future*, Macmillan

Thurley K (1981) 'Personnel management in the UK: a case for urgent treatment', in *Personnel Management*, 13 (8): 24-9

Tompkins, P. K. and Cheney, G. (1985) 'Communication and unobtrusive control in contemporary organisations', in R. D. McPhee and P. K. Tompkins (eds.), *Organisational Communication: Traditional Themes and New*

Torrington D (1989) 'Human resource management and the personnel function', in J Storey (ed.) *New Perspectives on Human Resource Management*, London: Routledge

- Torrington D, Mackay L and Hall L (1985) 'The Changing Nature of Personnel Management', in *Employee Relations*, 7 (5): 10-16
- Transport and General Workers Union (TGWU) (1998) Information provided during consultation over cabin crew survey
- Truss C, Gratton L, Hope-Hailey V, McGovern P and Stiles P (1997) 'Soft and Hard Models of Human Resource Management: A Reappraisal', in *Journal of Management Studies*, 34 (1):53-73
- TUC (1995) 'Absence', TUC, London
- TUC (1996) '*Stress at work: Trade union action in the workplace*', TUC, London
- TUC (1998) '"No More 'men only' health and safety', TUC, London
- TUC (1999a) '*Violent Times*', January 1999, London
- TUC (1999b) '*Work Stress: a case for a code*', January 1999, London
- Turner G and Myerson J (1998) *New Workspace, New Culture: office design as a catalyst for change*, Gower
- Tyler M and Taylor S (1997) "'Come Fly With Us": Emotional Labour and Sexual Differentiation Within the Airline Industry', paper to the 15th *International Labour Processes Conference*, University of Edinburgh
- Tyson S (1995) *Human Resource Strategy: towards a general theory of human resource management*. Pitman:London
- UNISON (1998) *Control or Management*, London
- Vasak V (1986) *The airliner cabin environment, air quality and safety*, National Research Council Study, Washington DC, 1986
- Vaughan T L , Daling J R, Starzyk P M (1984) 'Fetal Death and Maternal Occupation; an analysis of birth records in the state of Washington', in *Journal of Occupation Medicine*, 26:676-8, 1984
- Vogel U, Jurgeleit M P and Bultmann B (1998) 'The economy class syndrome. Deep vein thrombosis and pulmonary embolism after prolonged air travel', in *Munchener Medizinische Wochenschrift*, 140 (29-30): 421-423
- Waddington J and Whitson C (1996) 'Empowerment versus intensification: union perspectives of change at the workplace', in P Ackers, C Smith and P Smith (eds.), *The New Workplace of Trade Unionism*, Routledge:London
- Walsh D J (1995) 'Toward a "Seamless" Workforce? Interunion Cooperation in the Airline Industry', in P Cappelli (ed.) *Airline Labor Relations in the Global Era*, ILR Press/Cornell
- Walton R E (1985) 'Toward a strategy of eliciting employee commitment based on policies of mutuality', in R W Walton and P R Lawrence (eds.), *Human Resource Management, Trends and Challenges*, Boston, Harvard Business School Press
- Warhurst W (1995) 'Converging on HRM? Change and Continuity in European Airlines Industrial Relations', in *European Journal of Industrial Relations*, 1(2): 266

Warhurst C and Thompson P (1999) 'Hands, Hearts and Minds: Changing Work and Workers at the End of the Century', in Thompson P and Warhurst C (eds.) *Workplaces of the Future*, Macmillan

Wharton A S (1996), 'Service with a smile: understanding the consequence of emotional labor, in MacDonald C L and Sirianni C (eds.), *Working in the Service Society*, Philadelphia: Temple University Press

Watson T J (1994) Managing, Crafting, and Researching: Words, Skill and Imagination In Shaping Management Research *British Journal of Management*, Vol 5 special Issue S77-87

Wheelan B (1999) 'Cosmic Radiation, Electromagnetic Fields and Health Among Crews', working paper presented at the Medical University of South Carolina, Environmental Hazards Assessment Conference, February 5-7, 1998

Wickens P (1987) *The Road to Nissan*, London:Macmillan

Wilkinson A and Marchington M (1994) 'TQM: instant pudding for the personnel function?' In *Human Resource Management Journal*, 5 (1), 33-49

Wilkinson A, Marchington M Goodman M and Ackers P (1992), 'Total quality management and employee involvement', in *Human Resource Management Journal*, 2 (4): 1-20

Witkowski C (1999), 'Organophosphate Hazards', Working Paper presented at *the International Transport Workers Federation Cabin Crew Health and Safety Conference*, 20-22 April 1999, Amsterdam

Wolf S M (1995) 'Where Do We Go From Here? A Management Perspective', in P Cappelli (ed.) *Airline Labor Relations in the Global Era*, ILR Press/Cornell

Wood S (1999) 'Getting the Measure of the Transformed High-Performance Organization', in *British Journal of Industrial Relations*, 37 (3):391-417

Wood S (1998) 'Human Resource Management and performance', Mimeo, London School of Economics

Woolfson C and Beck M (1998) 'From Self-Regulation to Deregulation: The Politics of Health and Safety in Britain', University of Glasgow/University of St Andrews

Yang C, Jovanis P and Lin T (1992) *Assessing Motor Carrier risk using Cox's Semi-parametric model with multiple stop effects*. ITS-Davis Research Report 92-10, University of California, Davis, California

Yoshioka T, Narusawa M, Nagami K (1982) 'Effects of Relative Metabolic Rate and Heart Rate Variation on the Performance of flight attendants', in *Aviation, Space Environmental Medicine*, 53: 127-32.

Young D (1989) *British Airways: putting the customer first*, Ashridge Strategic Management Centre (July)

APPENDIX ONE

The Key Findings of the British Airlines Stewards and Stewardesses Association (BASSA) Safety Inspection Report, Heathrow, April 1997

**a) Cranebank Building (Cabin crew customer service and safety training)
(Items 1-30)**

- the certificate of employer's liability insurance on display in all areas, without exception, had expired
- there was missing and conflicting information on fire notices and procedures
- fire doors were wedged open
- evacuation routes were obstructed
- there was no medical facility offered (despite being heavily used and relied upon prior to its closure)
- No first-aiders were named on green first aid notices
- At one fire point beside a 'do not obstruct' sign, two chairs were located despite the fire brigade having repeatedly asked for these to be removed. On inspection the chairs were removed, but reappeared two hours later in the same spot.
- Various trip and fall hazards in training rooms
- Evidence of poor housekeeping in training rooms
- Electrical hazards in training rooms
- Missing test certificates for various pieces of electrical equipment
- Poor air conditioning and lighting
- Faulty toilets (not flushing/missing toilet seats)
- Inadequate rest facilities
- Unclean drinking water dispensers
- Lack of training provided to trainers: no training had been received on several key areas such as verbal briefings on fire procedures for the building. Moreover, trainers had no training in the key areas such as manual handling, dealing with violence and cabin baggage policies.
- No risk assessments had been carried out
- No health and safety inspections by management had been carried out
- No health and safety committee
- No Health and safety noticeboards
- Accident reporting book could not be located by the Duty Manager

- No written (or verbal) structure for health and safety responsibility in the department was available
- No health and safety training records available
- No fire training records available.

b) The Compass Centre (Items 31-55)

- No electrical equipment register
- No COSHH assessment records
- Safety Inspection Reports could not be located by management
- No risk assessments were available and there was no knowledge of any having been completed for manual handling and VDUs
- Out of date employers' liability insurance certificate
- Incomplete fire information on notices
- Blocked fire exits and escape routes
- Serious trip and fall hazards
- Unclean drinking water facilities
- Unhygienic toilets
- No clear understanding of who was responsible for health and safety at all levels of cabin service management. Management at all levels thought that it was someone else's responsibility
- The health and safety committee was criticized for the lack of management representation, no study of accident statistics, no examination of safety audits, insufficient resources in time and money made available.

The report also examined 'Aircraft Issues' (Items 87-105):

c) Aircraft Issues

Key health and safety concerns were identified in the report including, manual handling, lack of health and safety management, violence and stress at work, washing facilities, risk assessments and the cabin environment.

Manual Handling

- crew are expected to lift bags often in excess of 15kgs
- overloading of stowage areas
- injuries caused by falling baggage from lockers
- risk of serious injury or death from falling from aircraft whilst opening doors without airbridge or steps in place.
- Injuries frequently occur from opening doors due to the weight of doors
- No risk assessments in the area of door opening or manual handling in general
- Crews are often mobile during taxi due to various duties (e.g collecting/distributing coats, collecting glasses). All aircraft occupants should be seated during taxi.
- Crews are expected to move trolleys during ascent and descent. No risk assessments have been conducted, despite many injuries such as back, shoulder and neck strains have resulted from handling trolleys during ascent and descent.
- Provision of gloves for clearing in trays and hot towels. Common complaints from crews include: passengers picking or blowing their nose into hot towels or napkins; passengers spitting into their cups or trays; passengers handling soiled nappies to crew for disposal (crew were eventually provided with gloves in 1998).

Lack of Health and Safety Management

- Approaching 300 dangerous occurrence reports had been filed, yet management had failed to address the problems leading to the incidents.

Violence and Stress at Work

- Neither violence nor stress at work has been properly addressed. Crew were concerned about violent and drunk passengers; confrontations on a daily basis over cabin baggage; passengers with known psychiatric problems travelling unaccompanied; lack of training in diffusion of dangerous situations; apparent lack of support for crew involved in violent incidents; lack of information given to crew.
- Crews were not given guidance on avoiding stress, while there was no apparent management awareness of stress issues.
- No evidence of any risk assessments on stress

Washing Facilities

- No hand washing facilities in galley areas
- Too few toilets ; toilets always busy

Cabin Environment

- Cabin crew and their safety representatives not fully briefed on the hazards
- Noise: complaints of temporary hearing loss after flying

APPENDIX TWO

Interviews with Cabin Crews

The Interviews

Subjects

In a follow-up to the questionnaire responses, 10 one-to-one interviews were conducted with BASSA representatives and cabin crews, all of whom had completed a questionnaire. The interviews took place in August 1998. The interviews were directed at key health and safety concerns and work organization issues.

Structure of the Interviews

Interviewees were asked the following questions:

1. What do you consider to be the greatest risk to your health and safety at work?
2. Have you raised this issue with your trade union representative or management representative? If so, what feedback/response did you get?
3. Did you experience roster changes last month? If so, how many.
4. Is the job disruptive to your personal/social life? If so, to what extent?
5. Do you expect to be in this job next year?

The questions are directed at four themes which showed up during the data collection process. Firstly, with the array of potential health and safety hazards, it was considered interesting to discover what individual's rated as the greatest risk. Secondly, a reluctance to communicate problems or complaints to the trade union or management was apparent, and the reasons for this were further explored. Thirdly, a high number of completed questionnaires criticized the amount of short-notice changes to their working schedules and we attempted to gain a better understanding of the regularity of last-minute changes and the effect they had on the individual's social and personal life. Fourthly, a gauge of the intention to stay in the job was of interest, given the reports of illness and regularity of symptoms suffered, and the apparent extent of work intensification.

The notes were not tape-recorded due to participants' reluctance to have the interviews tape-recorded. Written notes were taken.

Interview one

BASSA crew member and union representative

1. The terrible working conditions – cramped galleys and carts that don't work. I've been injured on several occasions, once a cart toppled on top of me and I broke a rib.
2. Yes, but nothing ever gets done.
3. Loads, can't remember how many ... more than four anyway.
4. Definitely, I never see my family.
5. Probably, it's a lot quieter during winter and the job doesn't seem that bad after all.

Interview two

BASSA crew member and union representative

1. How long have you got? The cabin is totally crap...smelly, overcrowded, noisy and faulty equipment and missing equipment doesn't help. One of our aircraft in Bristol operated for nearly two months you know with serious faults that were logged in the maintenance book but never fixed because the aircraft was never on the ground long enough for the engineers to repair it. It's terrible. The oxygen mask cover, you know, just above the passengers' heads, was held closed by cellotape for nearly 3 weeks! What must passengers think?
2. No point. It's logged in the book – it's up to them.
3. Yes, about five. Britannia really mucked up their recruitment this year and we've been really understaffed. We're the ones that suffer of course.
4. This job is your life at least for the summer season. Sometimes you can't even keep a doctor's appointment..no matter what it's for.

5. Yes, I still enjoy the laugh with the other crew and it beats a nine to five number.

Interview three

BASSA crew member and union representative

1. The stuff I've read about cabin air quality scares me a lot...especially when you hear of colleagues coming down sick with weird bugs and colds they can't shift. Is the TB thing true?

2. No. I don't feel like I can bring something like that up.

3. No, not too many. It's OK for crewing to change your roster at the last minute, but try and get a roster change organized if you've got something special on.

4. Yes, there's no flexibility

5. I'm planning to go part-time in time for next summer to avoid a repeat of this year.

Interview four

BASSA crew member and union representative

1. Angry passengers are a worry.

2. We just had a restraint course to show us how to deal with trouble. It was a total waste of time. The idiots who took it had no idea about the cramped space in an aircraft aisle. A waste of my time. I got reported for complaining to the course organizer about the content of the course. Now that's on my record. It's pathetic.

3. Yes, a few

4. Yes, but it's still nice to get days off during the week. The shops are quiet then.

5. Yes, I enjoy the trips away and it's something different.

Interview five

BASSA crew member and union representative

1. I think that junior crew are promoted far too quickly. I know someone who'd flown six times and she was promoted to a number two. There's no way she's got the flying experience to do the job. It's only because they're short of staff this summer. It's ridiculous.
2. Management – you're kidding. I'd just be a 'trouble-maker' and I'd be watched after that.
3. No, last month was OK.
4. A bit, but you just look forward to winter when you're flying just a couple of days a week.
5. I love my job and it's a great laugh.

Interview six

BASSA crew member and union representative

1. I'm worried about being so tired at work that I'm not performing as well as I should. I'm completely knackered just now. I've been on to crewing three times in the past month for rostering me illegal duties. I know my duty limits, but they argue with me and tell me that it's 'legal' and the flight deck back them up. These arseholes should try working the rosters they give us. That computer thinks I'm a relative – robo-steward.
2. They wouldn't undermine crewing. I'm just keeping a record of it all.
3. Don't start me. It's ridiculous. I don't remember how many....too many.
4. Oh god, yes. Forget having a social or personal life in this job.
5. I don't know ... this has been a terrible summer. I'll see how it goes.

Interview seven

BASSA crew member and union representative

1. Passengers are a health and safety risk. I was on a flight recently where a guy pushed one of the crew and told her to 'fuck off'. He was drunk and difficult to calm down. Nobody appreciates the shit we take. I feel sorry for the families with children who at the beginning of their holiday are exposed to this. It's usually too much alcohol or long delays. I dread getting on the aircraft following a delay ... you just know it's going to be hassle from start to finish.
2. Yes, they tell us to fill out a flight report which probably gets filed in the bin.
3. One or two.
4. It's hard to keep a steady relationship. I know loads of divorced people in this job.
5. I think so. I do enjoy it ... it's just getting harder.

Interview eight

BASSA crew member and union representative

1. My base manager (in Amsterdam) is the biggest risk to my health. She is a complete witch who is no support at all. There's no trust or confidentiality. I can't wait to get back to the UK. Management are totally unprofessional and pick on you for the stupidest reasons, but when there's something serious they just don't want to know. It's depressing.
2. Like I said, they're totally unapproachable. You know they all went on a teambuilding weekend. What a waste of money ... they're still useless. How did they get those jobs?
3. Loads, I'm sick of it. I can't plan anything in advance.
4. It's a nightmare. I've had to cancel three dental appointments.
5. Yes, but at a different base. I'm done with Amsterdam.

Interview nine

BASSA crew member and union representative

1. The most worrying thing is the lack of time there is to give the crew a break. As a cabin services director, that means I'm in charge of the cabin crew, I make sure my crew get a meal break, but I know it's not the same for every CSD. We're under pressure to make as much cash as possible..we've got targets that we need to achieve to avoid hassle. Often it's a choice between the crew getting ten minutes to eat something, or doing a drinks service which might bring in around £200. At the end of the day, if we had to do an emergency evacuation on landing, we need food and a chance to gather our wits during a 10 or 12 hour day.

2. Yes, all the time. I've made sure that there is a report book in the crew room for crew to fill in when they come back from flights where they didn't get a meal break. The last one disappeared mysteriously, but I'll make sure this one doesn't.

3. Yes, a lot this year. We're really short of senior crew.

4. It's just part of the job. You get used to it.

5. Yes. It's addictive – the lifestyle, the trips, the people.

Interview ten

BASSA crew member and union representative

1. Passengers really annoy me. They just don't get that we are here to save their ass not to kiss it. I feel that our service schedules are so jam packed that we look totally unprofessional tearing up and down the cabin, flinging out meals, drinks whatever. To passengers we are stupid girls, they have no idea of what we're really there for and certainly don't treat us with any respect. I'm sick of being treated like an idiot and a slave.

2. All management are interested in is bringing in money.

3. Quite a few, much more than last year.

4. It's really hard, especially when you've got kids.
5. I'm thinking of switching to part-time. It's all getting a bit much.

APPENDIX THREE

CABIN CREW QUESTIONNAIRE AND RESULTS

CABIN CREW HEALTH AND WORKING ENVIRONMENT SURVEY

*Carried out on Behalf of the Transport & General
Workers' Union/BASSA*

**All survey respondents are guaranteed
confidentiality and anonymity.**

**Please answer the questions as honestly and
accurately as possible.**

**The Questionnaire should take about 15 minutes
to complete.**

**PETER BAIN & CAROL BOYD
Lecturer Researcher**

**DEPARTMENT OF HUMAN RESOURCE MANAGEMENT
UNIVERSITY OF STRATHCLYDE, GLASGOW**

Date: May 1998

SECTION ONE - PERSONAL DETAILS

1.1 Are you male or female? Please tick.

- MALE 17%
- FEMALE 82%

1.2 What is your age? Please tick.

- Under 21 1%
- 22-25 13%
- 26-30 32%
- 31-35 26%
- 36-40 12%
- 41-45 9%
- 46-50 5%
- 51-55 1%
- 56+ -

1.3 What is your job grade? Please tick.

- Inflight Director/Cabin Services Director/No.1 31%
- Purser/ No.2 34%
- No.3/No.4 31%
- No.5 3%

1.4 How long in total, have you been employed as cabin crew? Please tick.

- 0-2 years 15%
- 3-5 years 22%
- 6-8 years 19%
- 9-11 years 19%
- 12-15 years 9%
- 16-20 years 8%
- 21-25 years 5%
- 26-30 years 2%
- 31+ years -

1.5 What type of contract do you have? Please tick.

- Full-time Permanent 84%
- Part-time Permanent 12%
- Full-time Temporary 4%
- Part-time Temporary -

If temporary, how many temporary contracts with airlines have you had in the past 5 years?

SECTION 2 - WORKING PATTERN

2.1 How many working days were rostered in your last full roster (including SBYs & training days)? Please tick.

- | | | |
|--------------------------|-------|-----|
| <input type="checkbox"/> | 0 | - |
| <input type="checkbox"/> | 1-4 | 12% |
| <input type="checkbox"/> | 5-11 | 52% |
| <input type="checkbox"/> | 12-16 | 8% |
| <input type="checkbox"/> | 17-20 | 16% |
| <input type="checkbox"/> | 21+ | 9% |

2.2 How many sectors did you operate in the last full roster (including positioning flights)? Please tick.

- | | | |
|--------------------------|-------|-----|
| <input type="checkbox"/> | 0 | 1% |
| <input type="checkbox"/> | 1-4 | 13% |
| <input type="checkbox"/> | 5-11 | 40% |
| <input type="checkbox"/> | 12-16 | 15% |
| <input type="checkbox"/> | 17-20 | 8% |
| <input type="checkbox"/> | 21+ | 21% |

2.3 Do you have a specific designation? Please tick.

- | | | |
|--------------------------|------------|-----|
| <input type="checkbox"/> | Long haul | 7% |
| <input type="checkbox"/> | Short haul | 51% |
| <input type="checkbox"/> | Mixed | 41% |

2.4 What type of flights do you normally operate? Please tick.

- | | | |
|--------------------------|-----------|-----|
| <input type="checkbox"/> | Scheduled | 32% |
| <input type="checkbox"/> | Charter | 66% |
| <input type="checkbox"/> | Mixed | 1% |

2.5 In this roster, how many duties required you to report between 04 00 and 10 00 hours? Please tick.

- | | | |
|--------------------------|------|-----|
| <input type="checkbox"/> | None | 12% |
| <input type="checkbox"/> | 1-3 | 39% |
| <input type="checkbox"/> | 4-7 | 31% |
| <input type="checkbox"/> | 8-11 | 11% |
| <input type="checkbox"/> | 12+ | 4% |

2.6 In this roster, how many duties required you to report between 10 00 and 19 00 hours? Please tick.

- | | | |
|--------------------------|------|-----|
| <input type="checkbox"/> | None | 18% |
| <input type="checkbox"/> | 1-3 | 43% |
| <input type="checkbox"/> | 4-7 | 27% |
| <input type="checkbox"/> | 8-11 | 8% |
| <input type="checkbox"/> | 12+ | 3% |

2.7 In this roster, how many duties required you to report after 19 00 hours? Please tick.

- | | | |
|--------------------------|------|-----|
| <input type="checkbox"/> | None | 52% |
| <input type="checkbox"/> | 1-3 | 36% |
| <input type="checkbox"/> | 4-7 | 8% |
| <input type="checkbox"/> | 8-11 | 1% |
| <input type="checkbox"/> | 12+ | - |

2.8 How often does your working week consist of irregular report times, e.g. morning, afternoon and evening report times? Please tick.

- | | | |
|--------------------------|-----------|-----|
| <input type="checkbox"/> | Never | 1% |
| <input type="checkbox"/> | Sometimes | 22% |
| <input type="checkbox"/> | Often | 76% |

2.9 How well do you cope with irregular report times/working hours? Please tick which statements you agree with.

- | | | |
|--------------------------|---------------------------------|-----|
| (a) | | |
| <input type="checkbox"/> | I need more sleep | 89% |
| <input type="checkbox"/> | I need less sleep | - |
| <input type="checkbox"/> | No change in sleep requirements | 7% |
| (b) | | |
| <input type="checkbox"/> | I feel less healthy | 84% |
| <input type="checkbox"/> | I feel about the same | 12% |
| <input type="checkbox"/> | I feel healthier | - |

2.10 How many hours do you spend ON the aircraft on an average duty? Please tick.

- | | | |
|--------------------------|-------------|-----|
| <input type="checkbox"/> | Less than 5 | 2% |
| <input type="checkbox"/> | 5-8 | 36% |
| <input type="checkbox"/> | 9-12 | 60% |
| <input type="checkbox"/> | 12 + | 1% |

2.11 How many breaks are you normally rostered on an average duty? Please tick.

- | | | |
|--------------------------|---------------|-----|
| <input type="checkbox"/> | None | 61% |
| <input type="checkbox"/> | One | 28% |
| <input type="checkbox"/> | Two | 10% |
| <input type="checkbox"/> | More than two | - |

2.12 How many breaks do you actually take? Please tick.

- | | | |
|--------------------------|---------------|-----|
| <input type="checkbox"/> | None | 28% |
| <input type="checkbox"/> | One | 56% |
| <input type="checkbox"/> | Two | 12% |
| <input type="checkbox"/> | More than two | 1% |

2.13 How long do these breaks normally last? Please tick.

- | | | |
|--------------------------|----------------|-----|
| <input type="checkbox"/> | Not applicable | 24% |
| <input type="checkbox"/> | 0-5 minutes | 9% |
| <input type="checkbox"/> | 5-10 minutes | 32% |
| <input type="checkbox"/> | 10-15 minutes | 22% |
| <input type="checkbox"/> | 15-30 minutes | 5% |
| <input type="checkbox"/> | 30+ minutes | 7% |

2.14 Do you feel that you have enough rest breaks during a flight? Please tick.

- Yes **10%**
- No **88%**

2.15 In the last full roster, how often have you experienced turnaround times of (please circle):

	Never	Often	Sometimes
Less than 30 mins	21%	12%	6%
30 mins – 1 hour	12%	20%	55%
1- 1.5 hours	13%	33%	31%
1.5 – 2 hours	36%	27%	7%
More than 2 hours	48%	2%	19%

Comments (if any) _____ see appendix 2 _____

Please turn over page to Section 3

SECTION 3: WORK CONTENT

3.1 What are your main health and safety concerns? Please circle your level of concern for any of the following where applicable.

	Low	Medium	High
Violent/Abusive Pax	24%	42%	32%
Opening Aircraft Doors	39%	35%	25%
Lifting bar boxes	10%	28%	61%
Pushing/Pulling trolleys	7%	38%	54%
Unwell passengers	31%	50%	17%
Handling Cabin Baggage	18%	39%	41%
Stowage of Cabin Baggage	15%	37%	46%
Hygiene Standards on Aircraft	9%	29%	61%
Stress/Anxiety	15%	44%	40%
Air Quality	8%	31%	60%
Turbulence	47%	40%	11%
Taxi Injuries	62%	27%	7%
Any others? _____ see appendix 2 _____			

3.2 What training have you received in the following areas? Please circle.

	None	Brief Outline (e.g. during induction course)	In-Depth Training (e.g. specific training course)
Lifting/Pulling/Pushing	25%	69%	5%
Contact with body fluids	60%	37%	3%
Dealing with Violence	17%	36%	47%
Cabin Baggage	42%	52%	2%

Any others? _____ see appendix 2 _____

3.3 In which of these areas would you like more information (if any)? Please tick.

- | | |
|--|------------|
| <input type="checkbox"/> Manual Handling (Correct and safe handling of trolleys/doors etc) | 39% |
| <input type="checkbox"/> Contact with body fluids | 70% |
| <input type="checkbox"/> Dealing with Violence | 59% |
| <input type="checkbox"/> Cabin Baggage | 37% |
| <input type="checkbox"/> Stress/Anxiety | 62% |

Comments _____ see appendix 2 _____

3.4 Do you feel that any of following aspects of your job have changed over the past year? Please circle.

	Increased	Decreased	No Change
Volume of Work	77%	4%	14%
Intensity of Work	81%	4%	10%
Speed of Work	79%	2%	15%
Stress & Pressure	82%	1%	12%
Number of abusive/ Disruptive passengers	70%	1%	25%

Comments (if any) _____ see appendix 2 _____

3.5 Which of these statements do you agree with? Please tick.

- (a)
- | | |
|---|------------|
| <input type="checkbox"/> I work the same duty hours compared to last year | 24% |
| <input type="checkbox"/> I work more duty hours compared to last year | 64% |
| <input type="checkbox"/> I work less duty hours compared to last year | 7% |
- (b)
- | | |
|--|------------|
| <input type="checkbox"/> There is the same number of crew on flights compared to last year | 22% |
| <input type="checkbox"/> There are more crew on flights compared to last year | 3% |
| <input type="checkbox"/> There are less crew on flights compared to last year | 71% |

3.6 What two things do you LIKE most about your job?

1. ____ see appendix 2 _____

2. _____

3.7 What two things do you DISLIKE most about your job?

1. ____ see appendix 2 _____

2. _____

Please turn over to Section 4

SECTION 4 – HEALTH

4.1 Since commencing flying do you feel that your state of health has (please tick):

- Stayed the same **22%**
- Improved **1%**
- Deteriorated **76%**

4.2 While at work do you suffer from any of the following symptoms? Please circle how often, if at all, you suffer from any of the listed symptoms.

	Every Duty	Most Duties	Some Duties	Never
Eyestrain	3%	10%	42%	N
Headaches	2%	11%	72%	N
Sore Throat	1%	10%	62%	N
Sore Eyes	5%	18%	53%	N
Coughs	1%	7%	59%	N
Ear Problems	3%	17%	67%	N
Blocked Nose	4%	10%	35%	N
Backache	12%	32%	44%	N
Neckache/Sore Shoulders	13%	28%	40%	N
Painful wrists/fingers	4%	10%	35%	N
Scalds/ Burns	-	5%	67%	N
Anxiety/Stress	14%	25%	52%	N
Tiredness/Lethargy	23%	38%	37%	N

Any others? _____ see appendix 2 _____

4.3 What do you think could be the cause of any of the symptoms you have suffered? Please tick all that apply.

- Cabin air quality 78%
- Aircraft pressure 61%
- Irregular reporting times 80%
- Cabin temperature 46%
- Close proximity to passengers 51%
- Poor rostering 73%
- Not wearing protective gloves during service 27% (ex. KLM UK)
- Hygiene standards on aircraft 53%

Any others? _____see appendix 2 _____

4.4 How would you rate the working environment on the average flight? Please tick.

- Very Good -
- Good 8%
- Average 38%
- Poor 37%
- Very Poor 16%

4.5 Which factors (if any) have you complained about and how often? Please circle.

	NEVER	OFTEN	SOMETIMES	EVERY FLIGHT
Cabin air quality	N	15%	41%	3%
Cabin air pressure	N	15%	48%	2%
Cabin baggage	N	37%	31%	16%
Cabin temperature	N	40%	32%	19%
Violent/Abusive Pax	N	18%	64%	3%
Condition of Service Carts	N	37%	35%	19%
Hygiene Standards	N	24%	45%	12%
Stress/ Anxiety	N	21%	42%	9%
Poor rostering	N	40%	38%	14%

Any others? _____see appendix 2 _____

4.6 Who would you be most likely to complain about any of these factors to?

- | | |
|---|------------|
| <input type="checkbox"/> Trade Union representative | 38% |
| <input type="checkbox"/> Management | 36% |
| <input type="checkbox"/> Colleagues | 78% |

4.7. Is there any reason why you wouldn't complain to any of the above people?

___see appendix 2_____

4.8 Have you ever come to work feeling ill? Please tick.

- | | |
|------------------------------------|------------|
| <input type="checkbox"/> Never | 5% |
| <input type="checkbox"/> Sometimes | 72% |
| <input type="checkbox"/> Often | 21% |

4.9 If you answered 'sometimes' or 'often', please give a reason why. Please tick.

- | | |
|---|------------|
| <input type="checkbox"/> Understaffing | 31% |
| <input type="checkbox"/> Pressure of work | 25% |
| <input type="checkbox"/> Commitment to the airline | 33% |
| <input type="checkbox"/> Fear of reprimand | 36% |
| <input type="checkbox"/> Worried about sick leave record | 65% |
| <input type="checkbox"/> Not ill enough to warrant staying off work | 47% |
| <input type="checkbox"/> Financial reasons/Loss of income | 38% |

Any other reason? ___see appendix 2_____

4.10 Have you suffered from any of the following complaints in the past year? Please tick all boxes which apply.

- | | | |
|--|------------|-----------------------|
| <input type="checkbox"/> Menstrual problems | 38% | (females only) |
| <input type="checkbox"/> Fertility problems | 9% | |
| <input type="checkbox"/> Miscarriage | 4% | |
| <input type="checkbox"/> Sleeping problems | 68% | (all) |
| <input type="checkbox"/> Drink/drug related conditions | 4% | |
| <input type="checkbox"/> Digestive problems | 42% | |
| <input type="checkbox"/> Depression | 27% | |
| <input type="checkbox"/> Anxiety/Stress | 57% | |

4.11 How would you rate hygiene standards on the aircraft you normally work on? Please tick.

- | | |
|------------------------------------|-----|
| <input type="checkbox"/> Excellent | - |
| <input type="checkbox"/> Good | 5% |
| <input type="checkbox"/> Average | 42% |
| <input type="checkbox"/> Poor | 52% |

4.12 How do you rate management's level of commitment to your health and safety at work? Please tick.

- | | |
|------------------------------------|-----|
| <input type="checkbox"/> Very high | - |
| <input type="checkbox"/> High | 4% |
| <input type="checkbox"/> Medium | 24% |
| <input type="checkbox"/> Low | 40% |
| <input type="checkbox"/> Very low | 31% |

Please feel free to make any further comments below.

_____ see appendix 2 _____

Thank you very much for your help and co-operation.

Peter Bain & Carol Boyd

APPENDIX FOUR

COMMENTS FROM THE CABIN CREW HEALTH AND WORKING ENVIRONMENT SURVEY

Comments on Work Intensity

Q274

Quality service cannot be achieved when we are flying with too few crew or out of rank. We are also exhausted because of our workload.

Q237

Lately I have been on too many flights with less crew due to bad rostering but we are still required to carry on with usual service and speed.

Q924

Compared to schedule airlines, the charter industry definitely overworks its staff - especially those on short routes. Regularly flying short of crew and not enough rest can have a hard impact on your health.

Q371

All crew are under pressure from the Company to achieve on time departures – pre-departure is very stressful - climbing over cleaners, trying to clear cabin of equipment. Some days you can go 6-7 hrs without having a chance to go to the toilet or have anything to eat.

Q374

Today my report time was 04 20. Every flight that went out this morning was a crew member down. Working at a large base I am sick and tired of working doubly hard to make up for a missing person. I really do not need the stress, headache and unreasonable working conditions. In this 8 hr 45min duty today we took a 10 minute break to eat our breakfast standing up. I feel very disheartened and generally fed up of the way we are treated and the conditions we have to work in.

Q382

We always experience delays then have too short turnarounds so crew don't have time to eat a crew meal or have a drink. It's like working in a sweatshop – something has to be done.

Q311

Due to the volume of work and speed of work, crews are getting stressed and tired. The pressure is becoming too much – a lot of people are finding it hard to handle.

Q312

Standards are rapidly going downhill. Management is more concerned that you wear red lipstick and a hat, than whether crew have adequate rest. On almost every flight something is broken- ovens, toilets, in-flight entertainment. We are also understaffed and more often than not fly with 1 or 2 crew missing. We have more and more services to fit in to less time, while being expected to work up to 10 hours without a proper break. When we do get a chance to stop we have no area to sit – we eat our meals perched on metal boxes next to the toilet.

Q318

Although we choose to do the job, we are pushed to do more and more on a flight. It sometimes means that we work for 12 hrs without a break.

Q297

As safety is our prime concern whilst on the a/c it is important that cabin crew do get proper breaks onboard to at least have a glass of water every now and again. I do fear that if a serious incident did occur cabin crew would be too tired/weak to respond as quickly as they might otherwise do.

Q281

Working consecutive long duty days with early starts is very draining. We often operate 4 in a row some of which we sit in a taxi for up to 5 hrs before or after the flight. This goes against the idea of us being alert and efficient to handle any emergency situation that may happen.

Q270

Recently I worked a 12 hr of which 9hrs were in the air. During this time I had a breaks of 25min. This is a common occurrence caused by increased workload and environmental factors. Combined with very unsociable working hours, continually adjusting to world time differences, the detrimental effects on the well being of crew must be significant. Our job requires us to be fully fit yet the working environment contributes to ill-health.

Q208

Our working areas is very small and cramped. We are squeezed into an area no larger than an average toilet. On short flights we never seem to get a seat for even 5 mins with working day on average over 8 hours.

Q188

Everyone is working much harder, more links and longer days. Much more early morning check-ins which after 5 mornings getting up 04 00 - 05 00 is a stress, mentally and physically, but no-one cares. No-one wants to help or show any flexibility.

Q192

BA wants to reduce costs. At EuroGatwick we are openly a low cost carrier. Our management's priority is to work crew as hard as the law allows.

Q175

I feel that the airline industry is happy to stay in a time warp, giving the impression to the outside that being cabin crew is glamorous and rewarding, while treating us with no respect. We experience long hours, no breaks, poor staff facilities, minimum rest on most long-haul, bringing in more services on flights to boost sales and putting us in danger (violent/drunken passengers). The airline industry is out of date and happy to stay that way in order to cream the profits.

Q162

In 1991, the job was fun, busy and enjoyable. Now it is hectic, manic and stressful. We work at the speed of light.

We work in a high pressure environment. As a charter airline we are money-motivated, therefore more and more services are squashed into every flight. Job satisfaction goes out of the window. We have done flights where less is more - slower work pace with proper crew levels and breaks and much, much happier passengers as a consequence.

Q127

Even if we do manage to have a break, we still have passengers coming into the galleys and pushing their call bells. Consequently, we never have a proper break – only 30 seconds to gulp down some food.

Q127

The amount of services we offer is increasing all the time. It is becoming more and more stressful and it seems to have been forgotten that we are primarily there for safety reasons. We are treated like slaves by the passengers and are spoken to like dogs.

We are not there to kiss your ass, but to save it! (quote from an interview)

Q118

We always seem to work against the odds. Time factors are always a constraint as we struggle to complete services. I'm absolutely fed-up with flying with a reduced crew comp and flying out of rank. Equipment always defective or missing altogether and we are still expected to carry on and make do.

Q87

The short-haul operation matches organised chaos-we spend 8 out of 10 services running around like headless chickens. During turnaround we are treading on cleaners and caterers while getting the aircraft ready for the next sector. Our endeavour to satisfy the passengers means that we compromise safety. I frequently finish work looking and feeling like I have been dragged through a hedge backwards.

Q431

My main concern is that breaks are not given a set time. It's presumed breaks are taken during turnaround, but there's not enough time. You end up with indigestion. Meals are only provided if you work 4 sectors regardless if you experience long delays.

Q267

It is a basic need to eat and drink during dedicated breaks on long flights. However this is not possible due to hectic service schedules. Cabin crew managers incur the wrath of management for not achieving service targets so 99% of the time crew miss out on breaks.

Q263

I think the Company places unreasonable emphasis on trying to achieve onboard sales targets at the expense of crew breaks, health and morale. Crew usually have to gulp a couple of mouthfuls of remaining passenger meals as there is no time to cook crew meals never mind eat them. I would question crews' reliability to successfully perform an emergency evacuation when they are so tired.

Q180

On Britannia there are no adequate resting areas for the crew during long haul flights. Breaks are taken on bar boxes or gash bags. Even during breaks we do not really rest as passengers are constantly entering the galley to request drinks etc. On short haul we rarely get a chance to sit down at all. Crew meals are eaten standing up while doing other duties (eg filling coffee pots). I resent this aspect of the job most.

Q59

Too often crews go without a hot meal because it is not provided. If in hotel, few crew can afford to buy a meal or afford losing out on sleeping time to go out and eat. A recent 4-day trip, crew received a sandwich per day. This is inadequate for our high workload.

Q407

The company has become so committed to higher profits that they have lost the good will of their staff. They work us into the ground with no consideration for our well-being. As long as it's legal, it's OK by them.

Q452

I work on average 20 hours more each month for £200 less each month. Stress and pressure flows into your private life exacerbating the scenario.

Q536

Breaks are at the discretion of the cabin manager who often tells you to grab something on the run. With so many services and duties, let alone attending to individual passenger needs, there is no time left for breaks, since passenger constantly interrupt the crew in the galleys wanting more drinks etc. If someone is sick or a call bell goes off then you have to abandon everything and attend to them.

Q536

Cabin crews are demoralised due to a heavy workload and with no attention by management to look after crew welfare.

Q397

In nine and a half years I have never felt so physically and mentally exhausted.

Q483

On turnaround when the inbound aircraft is late (delayed in arriving), cabin crew are still expected to dress seat pockets, prepare cabin, check catering and carry out security checks in "5 minutes". This results in possible catering discrepancies and safety or security issues.

Q484

There are too many services on short flights leaving us just "throwing out" the minimum to our passengers. There is a real sense of failure when almost always we have to chop out some service to get finished in time. We are always fighting the clock and always rushing. Management are not realistic on the actual working time available and more paperwork from other departments is sending our workload through the roof.

Q484

One aspect of the job that has changed is that there is too much pressure to sell and less time given to safety and security

Q489

The number of services on short flights is too high. This leads to a very stressful working day trying to get the services completed. Also, risks of injury are increased because of rushing moving carts and bar boxes.

Q490

I dislike having to work with inexperienced crews all summer where there are too many services to complete with too little time and often too few crew. Working at speed means more accidents such as strains and burns.

Q500

Working standards have fallen in my company because of poor rostering, lack of crew on standby, accepting passengers who are intoxicated, pressure to carry out more services, lack of crew breaks and general poor working conditions. The HSE would have a field day on board most aircraft.

Q513

How many other jobs can one work in doing 12-15 hours without a crew break? It seems that more services are put on every year - if we do our job quicker, another service is expected of us.

Q541

I wish people would listen to what cabin crews have to say as we are the front line of everything. We are not behind a desk or in the office so we know first hand about violent passengers for example. It would be nice to know that we weren't just a number.

Q554

The stress associated with achieving on-time departures is becoming greater, while we have more to do and less time to do it. I feel under constant scrutiny with this and also achieving target revenue per passenger on flights.

Q557

I dislike being made to feel guilty for needing to eat during a flight!

Q559

On 4 sector days crew should be given a full 20 minute break to sit down and eat a proper meal because this is often an 8 hour day. On the ground people would have a lunch hour, so why should we be different?

Q566

Turnarounds are quicker than ever - cabin crew don't even have time for a drink. It's just constant hassle and pressure.

Q568

I feel we are in desperate need of a legal break system similar to that in shops and offices ie 10 mins in 4hrs;1hour in 8 hours. We seem to be expected to work more irregular shift patterns, carry out more services at work and have less rest as if we were machines

Q578

Airlines place importance on passenger care and quite rightly so, but hardly any importance is placed on crew care - we are treated like robots.

Q581

We are as overworked as we are understaffed. There is often only minimum rest between flights which is not enough time to get even 8 hours sleep by the time you travel home, eat, shower etc.

Q593

Each crew member should have a 30 minute break in peace instead of having to answer call bells. We shouldn't have to sit on cold bar boxes, beside draughty doors, toilets and rubbish bags.

Q595

There are no facilities to wash our hands in the galleys. We can't always get to the toilet. Sometimes we don't manage to go the loo itself for a whole flight, never mind just to wash your hands!

Q595

Cabin crew are at a low just now and feel undervalued. We don't want a pat on the back from management, we want improved conditions in lots of areas at work.

Q280

I had to go part time because of all the roster changes and longer days. After working with Air UK for 8 years in a senior position, when I complained I was told that if I didn't like it, leave!

Q600

Unfortunately the extremely long duies we work are premissable under CAA rulings. Until this changes, the airlines will continue to make us work totally unreasonable hours. Today I worked 15.75 hours.

Q626

I dislike having to work so fast all the time without a break on many occasions. No time to spend talking to passengers. We hardly have time to chat to each other these days!

Q630

Working conditions are becoming worse e.g. hygiene suffers when turnarounds are so quick due to having to achieve on-time departures. Consequently, galleys are often filthy when we take off. The lack of crew breaks concerns me. We work 6 and 7 days in a row with no actual break during the day. The stress is too much.

Q631

Turnarounds are always under an hour, always rushed and probably never done correctly because of time limitations and pressure on crew.

Q638

The human factor or care for crew health doesn't exist at top management level. We are just a number in a computer system. We do an excellent job under stress but are not recognised for it. This leads to a feeling of worthlessness. It's a shame when I think that pride is what I had but have now lost.

Q655

My job was totally different when I joined in 1982. We worked 3 flights a week and morale was much higher. Now crews work too long, unsociable hours with rosters being changed at short notice. Crews now work 4-5 days a week. We all gave a much better service to passengers when we not tired or worked into the ground. After a 12-16 hour duty and shiftworking, we need a decent rest period.

Q659

People don't realise that this job really takes a lot out of you compared to for example, an office job. Sometimes you are physically and mentally exhausted.

Q704

We don't even have time to use the toilets or replenish lipstick at turnarounds

Q704

The job has become unbearably harder to the point where I am thinking of leaving.

Q705

In a normal office job, after 6 hours of work, you must take a 15mins break! We hardly ever get a complete 15 mins break all day! On turnaround, we should have time to sit and eat/drink/smoke in peace. Not enough time or consideration is given for smokers.

Q708

All summer long, cabin crews have been mucked about. You're lucky to fly with a full crew. Crewing/rostering don't seem to have a clue what's going on. It gets to the ridiculous stage at times, but we're still expected to go out there and offer a wonderful service.

Q733

On a recent night flight we had a 4 hour delay overseas because of technical problem with the aircraft. At midnight, the captain took us 'off duty' for 3 hours, which was 'rest' we were to take on the aircraft, therefore once the aircraft was mended we could carry on working because we had supposedly taken rest!! The next day was a day off followed by an 07 00 report for a 12 hour duty. We were told that although this was not good practice, that it was legal!.

Q622

I used to enjoy my job. Now, I only go to work because I have a mortgage to pay. I never used to go sick but now I take time off regularly. I don't mind work hard, but find duty patterns impossible to rest for eg early mornings into nights, nights into earlies etc. Tomorrow for example, I go to work at 6am, fly to Spain and back then get into a coach and travel to Gatwick. I arrive back at approximately 10pm. We go into a hotel and sleep. I'll wake up about 9am and I'll be awake all day, but will have to go to work at 11pm, just when I'll be ready for bed again. How do I rest for that kind of duty pattern? The night flight is a 12 hour duty – how will I drive home safely afterwards? These sorts of rosters never used to be around, and people used to enjoy the job. Not anymore I'm sad to say.

Q768

The amount of pressure cabin managers are put under to achieve all services and high revenue to meet targets means that breaks are forfeited. Some crew must survive on little more than a lettuce leaf.

Q785

The company want to give more to passengers but won't put extra crew on to cover demands. Therefore, you end up so tired trying to complete all services - you hardly ever get a break. When you do have a break it is always interrupted by passengers. I've worked 11 weekends in a row – I requested a weekend off 4 months in advance and still didn't get it!

Q791

We are working a 10-14 hour day and when time counting the money then travelling home are accounted for its more like 15-16 hours with only a maximum of 25 minutes break. It is absolutely exhausting and inhumane to work these duties with such short breaks

Q792

I have never had a break during any flight where I've been able to switch off from passengers - any break is always interrupted by call bells etc

Q795

A crew member without food is like a car without petrol

Q799

All we ask is for people to realise that we are only human and can only do so much in the time given. These people who dream up services no longer fly and have lost touch with reality.

Q897

Crew breaks should be priority on long flights- during a duty of 12hrs only 10mins each way which is always interrupted by passenger call bells etc. The company keeps introducing more services – scratch-cards, ice creams, theme park tickets, magazines...with little regard to crew welfare. The junior crew do all these services – when are we supposed to rest? We are always in the cabin, walking up and down the cabin all day long.

Q924

Increased stress and pressure is caused by increased volume and intensity of work which in turn is due to poor rostering and lack of rest. Also, passengers have generally less respect for staff and this can result in disruption.

Q924

Compared to schedule airlines, the charter industry definately overworks its staff - especially those on short routes. Regularly flying short of crew and not enough rest can have a hard impact on your health. Not enough consideration is given to staff who are genuinely ill – allowances should be made for the illnesses we pick up whilst working in such a confined space, breathing recirculated air.

Comments on Working Conditions

Q 410

Although we crew are the ones that make every flight happen we are never seen as vitally important to the company. It seems like every step towards more effective operations is to the detriment of our working conditions. How can we care for passengers when we are hardly cared for?

Q329

Why should we have to eat our meals next to toilets and rubbish bags? There are no other industries where this is acceptable. Also it is difficult to wash our hands as often as we should.

Q312

Standards are rapidly going downhill. Management is more concerned that you wear red lipstick and a hat, than whether crew have adequate rest. On almost every flight something is broken- ovens, toilets, in-flight entertainment. We are also understaffed and more often than not fly with 1 or 2 crew missing. We have more and more services to fit in to less time, while being expected to work up to 10 hours without a proper break. When we do get a chance to stop we have no area to sit – we eat our meals perched on metal boxes next to the toilet.

Q316

The working conditions are abysmal – it is very dangerous working in confined spaces with hot liquids and sharp metal edges in the tiny galleys.

Q270

Recently I worked a 12 hr of which 9hrs were in the air. During this time I had a breaks of 25min. This is a common occurrence caused by increased workload and environmental factors. Combined with very unsociable working hours, continually adjusting to world time differences, the detrimental effects on the well being of crew must be significant. Our job requires us to be fully fit yet the working environment contributes to ill-health.

Q235

The last year has seen greater deterioration in crew care: poor rostering and understaffing. There is pressure to make sales targets when we're flying on minimum rest, with less than full crew compliment. Our immediate management only seem to criticize.

Q241

The Company expects us to be healthier than the average person and frowns upon sickness, when our very job provides a very unhealthy working conditions - very early starts, long duties, lack of quality breaks, working all night, traveling from boiling to freezing temperatures. I am very concerned about the long-term effects of flying.

Q224

The state of the aircraft and the equipment we have to contend with are nothing short of outrageous. One gets the impression that the airline is all about image but has no substance! Also there is no commitment to H&S - just lip service and adherence to minimum legal requirements.

Q208

Our working areas is very small and cramped. We are squeezed into an area no larger than an average toilet. On short flights we never seem to get a seat for even 5 mins with working day on average over 8 hours.

Q180

On Britannia there are no adequate resting areas for the crew during long haul flights. Breaks are taken on bar boxes or gash bags. Even during breaks we do not really rest as passengers are constantly entering the galley to request drinks etc. On short haul we rarely get a chance to sit down at all. Crew meals are eaten standing up while doing other duties (eg filling coffee pots). I resent this aspect of the job most.

Q177

To be more health & safety aware it is essential that crew breaks be made legal, irrespective of flight duration. Our working conditions are like that of battery hens. I cannot understand how some aircraft (767-300) front galleys get clearance for 4 people to work in.

Q166

The RSPCA would not allow animals to suffer the cramped working conditions that we do.

Q384

Management only cares about making money. As far as they are concerned, cabin crew are ten a penny and until something serious happens e.g. someone becoming ill and proving it is due to working conditions, nothing will change. The a/c galleys are filthy and the toilets are disgusting – the diseases that could be spread in these are endless.

Q284

Cabin crew need a separate toilet to the passengers. Most flights, passengers have stomach upsets and we have to use the same toilet as 200 passengers have used. We should be supplied with a disinfectant hand wash.

Q25

The cleaners never clean the a/c fully. The toilets are a joke - they smell very bad and the galley floor is disgusting. It makes our job very difficult.

Q137

Our starting salary of £8k is unacceptable. The Chairman and shareholders are becoming richer at the expense of our health and safety. It is basically cheap labour. We work through illness because we cannot financially afford to be off.

Q413

The cabin temp on F-100 is ridiculous. The Company just operate these aircraft with no APU/air conditioning etc, with no regard for passengers or crew. Passengers do not read the safety card because they have to fan themselves with it. In order to save time we offload bags and buggies through the service doors which is highly dangerous as it is a head first drop onto the tarmac if someone lost their balance.

Q396

Since we got F100 a/c there has been a problem with the air conditioning Today on board it was 35 degrees in the rear galley. There have been countless complaints from passengers and crew but still nothing has been done.

Q504

Working out of a small base, I feel we get overlooked. A big problem is cabin temperature in winter when we are preparing the aircraft. At 5am it is freezing and both doors are open. The APU is not turned on until the flight deck come on or an engineer is around. We have to prepare the cabin for passengers arriving in freezing temperatures in order to meet time targets.

Q536

I suffer from digestive problems due to being unable to use the toilet during flights because it is too busy with passenger use and also the workload – I don't have time to stop. Sometimes 4 or 5 hours have lapsed and nobody has been to the toilet, despite consuming food and liquid during that period.

Q591

The level of cleanliness and hygiene concern me - the galleys are not fit for food preparation; there are no sinks or soap for handwashing (can't get into the toilet because it is busy); the galley is often opposite the toilet, which is not very pleasant on long flights.

Q607

Cabin crew should have a separate toilet from crew. The toilets are so disgusting that you don't want to use them. We should have crew rest areas on flights over 4 hours.

Q639

We should have adequate breaks and more backup from management when things go wrong. We should have a proper rest area on longhaul instead of sitting on bar boxes in cold galleys - what other human being is subjected to these conditions and expected to carry out their duties to a professional and efficient standard? We are not machines!

Q640

If we had more understanding from management and crewing about working conditions and sleep patterns then morale would be very much higher. How many other people work a 12 hour day and have 30mins break? Or, work a 6 day week getting up at 04 00 and ending their week going to bed at 06 00?

Q641

Working conditions every year seem to get worse. Management don't want to know about any problems.

Q704

I would be nice to have a stable home environment ie no roster changes every 5 minutes so we could plan ahead like we used to. It would also be nice if we could go back to working 3 days a week instead of 6 or 7. Basically, the job isn't as glamorous as it used to be and the benefits keep getting taken away eg overtime, discounted holidays and other perks.

Q712

I wish someone would bring a thermometer to work, especially on longhaul. We often have to sit huddled with blankets and use an empty mineral water bottle filled with hot water as a makeshift hot-water bottle. Why can't it be warm in the galley as it is in the cabin?

Q737

Management don't care about our working environment. They have no concept of the conditions we have to put up with - not just 9-5 but for 14-17 hour stretches at a time.

Q737

Cabin crews should be provided with a staff toilet. Every other large company has one. You can't even get to the toilet sometimes because of the queues. When you do get in, passengers are knocking on the door to get in!

Q744

I dislike eating meals sitting on a bar box in cramped conditions with nowhere to wash hands except for in the toilets.

Q754

I feel this is the worst summer ever - no longhaul, unfair rosters, lack of promotion. The general feeling amongst cabin crew is that no-one seems to care.

Q800

Although I realise that aircraft cannot have ideal working conditions, I feel more could be done regarding working patterns. Bad rosters contribute to being run down along with poor cabin air quality.

Q831

Our aircraft are neither passenger or crew friendly - with so many rows crammed in, passengers are crushed and we have to deal with so many complaints about legroom.

Q865

Not having the APU on aircraft causes excessive heat leading to frayed nerves between crew and passengers. There doesn't seem to be any rule to say what the maximum temperature should be for us to work in.

Q888

Hygiene standards are a disgrace. I always feel filthy after work.

Q669

I suffer from light-headedness due to poor air quality - the air conditioning system in the F100 aircraft was designed for the F28 aircraft that has over 25 less passenger capacity. The system is not adequate and it is often extremely hot and uncomfortable.

Q670

No matter how much I complain (on flight reports) about the aircraft being too hot, which causes crew to feel dizzy and lose their balance, I have not once had a reply or explanation as to why these aircraft are still flying unchecked. Safety is out the window when there is a schedule to meet.

Q671

The aircraft fly for days with technical problems and it's often temperature and pressure problems, which make crew feel ill when working. The cleaners don't do a good job and often the toilets don't work.

Comments on Safety

Q480

Cabin baggage is getting to be a big problem for safety. Cabin crew are hurting themselves because a lot of the baggage is too heavy for lockers. The baggage would probably fall out in an emergency landing.

Q480

Increasing numbers of abusive passengers may be due to airlines "herding" passengers onto aircraft and long delays on the ground. As a result, passengers become aggressive and frustrated and take it out on crew. It's a form of 'road-rage'.

Q522

We have been flying out of rank with inexperienced crew and less than full crew compliment. In the event of an emergency the CAA would ask why.

Q525

We are frequently pressured into accepting passengers boarding before cleaning of aircraft is completed or catering has been completed and before cabin crew have completed security checks. Proper security checks are supposed to be done when all ground staff have left the aircraft and before passengers board.

Q565

I am not happy about doing seat pockets as in the past, I have found items such as hypodermic needles and dirty nappies. Seatpockets are unhygienic and dangerous but no-one listens to us.

Q566

I'm so tired with early mornings and night flights in the same week that I'm afraid I'll miss something safety related. How do you cope with working 43 hours in 4 flights on minimum rest?

Q566

Britannia is now compromising safety standards at work because their only concern is to get the aircraft off the ground in time. I have operated too many flights with 5 or 6 crew where I have been the ONLY experienced crew member. If there had been an emergency, I wouldn't like to say how my crew would have coped due to their inexperience.

Q578

My main concern is how I would react in an emergency situation, like the one at Manchester airport in the 80s, when I'm on my seventh duty with minimum rest between each duty. This working pattern happens all the time.

Q578

Passengers are drinking a lot more before the flight, which we have no control over. During the flight we offer up to 3 bar services!

Q422

A high level of safety is unattainable when Britannia have new entrants with 8 or less flights operating in senior cabin crew positions. This is unacceptable especially when the 'cabin manager' is a newly promoted senior cabin crew member. Why are our standards falling?

Q401

Senior crew are very worried about the experience levels on many flights. It is not unusual for a new entrant with between 2 weeks and 2 months experience to fly in a senior position.

Q202

One of my main concerns is that since no smoking was introduced, passengers are smoking in the toilets and are going un-noticed because the smoke detectors NEVER go off!

Q281

Working consecutive long duty days with early starts is very draining. We often operate 4 in a row some of which we sit in a taxi for up to 5 hrs before or after the flight. This goes against the idea of us being alert and efficient to handle any emergency situation that may happen.

Q670

No matter how much I complain (on flight reports) about the aircraft being too hot, which causes crew to feel dizzy and lose their balance, I have not once had a reply or explanation as to why these aircraft are still flying unchecked. Safety is out the window when there is a schedule to meet.

Q693

I feel something has got to happen in the industry - conditions are just getting worse and nobody cares. More fatal accident will happen.

Q696

In my opinion the rules and regulations for health and safety in the airline industry have gone completely out the window. We have no solid guidelines on breaks and our working conditions are cramped and often unhygienic.

Q224

The state of the aircraft and the equipment we have to contend with are nothing short of outrageous. One gets the impression that the airline is all about image but has no substance! Also there is no commitment to H&S - just lip service and adherence to minimum legal requirements.

Q263

I think the Company places unreasonable emphasis on trying to achieve onboard sales targets at the expense of crew breaks, health and morale. Crew usually have to gulp a couple of mouthfuls of remaining passenger meals as there is no time to cook crew meals never mind eat them.

I would question crews' reliability to successfully perform an emergency evacuation when they are so tired.

Q484

One aspect of the job that has changed is that there is too much pressure to sell and less time given to safety and security

Q490

I dislike having to work with inexperienced crews all summer where there are too many services to complete with too little time and often too few crew. Working at speed means more accidents such as strains and burns.

Q500

Working standards have fallen in my company because of poor rostering, lack of crew on standby, accepting passengers who are intoxicated, pressure to carry out more services, lack of crew breaks and general poor working conditions. The HSE would have a field day on board most aircraft.

Q899

Turbulence should be taken more seriously. How many times have the crew been out in the cabin doing the services whilst passengers are strapped securely in their seats during turbulence?!

Comments on Health

Q353

Sometimes when reporting at 4-5 am one can suffer from a "sicky tummy" i.e. am I hungry? Do I feel sick? Basically, having got out of bed at 2.30-3 am, your body doesn't know what the hell to do!

Q480

No one should fly with a cold. If most cabin crew adhered to this, they would only work half of the year!

Q566

I suffer from stomach cramps on every flight due to the fact we have to wear a size of uniform that looks good on the ground but doesn't allow for swelling when flying – especially for periods of 11 hours or more!

Q573

The hygiene standards are absolutely deplorable in galleys where food is stored and laid on surfaces.

Q578

I have never been so unhealthy since I joined an airline. I was mortified to discover recently that I had extensive scarring on my lungs due to tuberculosis, which was contracted within the last ten years. I joined the airline in 1988.

Q213

I lost a baby while at BA due to a high blood pressure related condition. My doctor suggested that if I want more children I should stop flying.

Q 83

Since starting flying I have had a tumor removed from my thyroid and pre-cancerous cells removed from my cervix.

Q45

Cabin crew should wear gloves when clearing in. I became ill after a trip and I've been off now for 6 weeks. I feel that hygiene standards could be improved.

Q143

BA crew should wear plastic gloves when clearing in dirty dishes. The amount of germs on other peoples' used plates is unimaginable!

Q333

The amount of radiation that we are exposed to worries me greatly – future concerns regarding fertility prey on my mind.

Q632

Through the pressure put on us by both management and passengers, and the lack of quality of life due to bad rostering, something eventually gives and in most cases its a person's health, either physical or mental. The body can only put up with so much. I have noticed over the past 10 years that my personal sick record has increased as my workload has increased. When you do complain about rosters there is no sympathy and you are told it is legal and there is no-one else available to work due to lack of staff.

Q639

I suffer from kidney infections through not having enough time to drink sufficient water on flights or having time to visit the toilet.

Q659

People don't realise that this job really takes a lot out of you compared to for example, an office job. Sometimes you are physically and mentally exhausted.

Q671

The aircraft fly for days with technical problems and it's often temperature and pressure problems, which make crew feel ill when working. The cleaners don't do a good job and often the toilets don't work.

Q676

Like other jobs, this one has its draw backs. We should have more information on the effects of working in a pressurised environment. We should be given healthier food for crew meals. Some of the meals given you wouldn't feed to your favorite pet.

Q689

If the irregular hours we worked were compensated with proper rest (not 11 hours) and not 2 days off after working 6 early mornings, I would feel generally in better health and more able to cope with the problems that arise on flights.

Q706

I feel that management ignore problems related to the air quality in the cabin due to financial costs. I feel strongly about radiation problems- the company do not take it seriously enough to investigate the longterm effects on cabin crew.

Q709

The toilets are never cleaned properly - just wiped with a dirty rag the same as the seat tables.

Q717

I am concerned about the lack of time crews get to drink water, visit the toilet, wash hands thoroughly as pax always seem to occupy the toilets. In an ideal world, there would be a staff only toilet.

Q720

How many cabin staff have had some form of cancer, for example I can think of several crew members, myself included. What part does radiation and passive smoking play in this?

Q729

A few months ago, following a series of long flights, I suffered a mild form of encephalitis which has been very debilitating

Q729

I believe that management's commitment to 'profits' and 'being competitive', is at the expense of crew and passengers health and safety. I am particularly concerned about the deterioration in air quality in order to reduce fuel costs.

Q730

Night flights and very early report times turn my body system upside down. I feel physically shattered and there is never enough recovery time after a series of these duties.

Q923

whilst the company does pay lip service to our 'well being', facts are kept under wraps - we hear nothing about the effects of radiation, breast cancer, deafness etc. Because of the low salary and health effects I won't stay in this job much longer as I'm too scared of radiation and damage to my immune system.

Q297

As safety is our prime concern whilst on the a/c it is important that cabin crew do get proper breaks onboard to at least have a glass of water every now and again. I do fear that if a serious incident did occur cabin crew would be too tired/weak to respond as quickly as they might otherwise do.

Q337

Over the last year the increasingly long days have taken a toll on my health. I constantly feel tired and my 1st day off I walk around like a zombie. I keep getting sore throats and niggly little illnesses. Due to the stress of being tired small things become major things.

Q300

Over my 25yrs of flying I have suffered the following: severe back injury, tendinitis in the thumb, kidney stone, sinus problem - all of which I feel could have been prevented by better management of crew health and safety.

Q84

The damage that flying does to your health seems to be kept very quiet. I think we as staff, have a right to know what the long-term effects could be.

Q341

Cabin air quality is my main concern. I often have colds and sore throats and a sore, dry nose (inside). Sometimes I feel short of breath onboard and I'm not unfit as I follow fitness programme.

Q152

Cabin air quality worries me most – it can't be healthy breathing recycled air.

Q103

I think we would all feel better if the air quality on the a/c was improved. I know I wouldn't feel so tired if I could breathe decent air.

Q536

I suffer from digestive problems due to being unable to use the toilet during flights because it is too busy with passenger use and also the workload – I don't have time to stop. Sometimes 4 or 5 hours have lapsed and nobody has been to the toilet, despite consuming food and liquid during that period.

Q558

Having previously worked in the catering industry I am concerned that aircraft do not come under any environmental or hygiene checks, considering the amount of people passing through the galley areas (crew, ground staff and pax) where the food is stored.

Q591

The level of cleanliness and hygiene concern me - the galleys are not fit for food preparation; there are no sinks or soap for handwashing (can't get into the toilet because it is busy); the galley is often opposite the toilet, which is not very pleasant on long flights.

Q797

When I joined Britannia 4 years ago, I was in perfect health. Since then I've had severe ear problems, kidney infections and an unidentified blister rash that covered my whole body. Five hospital doctors did not know what it was. I now have constant back pains through lifting heavy atlas boxes/moving carts – even the catering men struggle with these! I have a constant cough and chest infections. I am covered in bruises from either carts or passengers, so much so that when I was wearing my swimsuit the other day, people thought that I had been beaten-up by my boyfriend!

Q899

We have to do a lot of lifting above head level, which is extremely dangerous, especially if we hit turbulence. Bar boxes containing 12 litres of whiskey tend to be stacked at this height. A lot of the time carts are very difficult to manoeuvre and it's easy to twist your back. Two people should be on carts – on the 767 sole crew use the carts. If you hit turbulence there is no way that one person could stop the cart from falling over.

Q32

I've been flying for 10 yrs and feel my health has deteriorated a lot recently. Management don't consider the impact of mixed shifts on the body. I have just spent 10 days of my leave in bed with suspected pneumonia – according to my doctor, it was caused by stress. Comments on Absence

Q573

My duty manager has told me that if I had anymore sickness I would have to be examined by the company doctor to check my fitness and health for this job. I was so scared that I came to work when I was ill with the flu,

Q584

I sometimes come to work when I am ill because our rosters are 'erased' if we are off sick so you lose future trips and days off

Q584

There is pressure from management when one is sick to still come to work. We are reprimanded and penalised if we do take sick leave, for example, future trips on the roster will be erased.

Q584

I sometimes come to work when I am ill because our rosters are 'erased' if we are off sick so you lose future trips and days off

Often equipment is defective hindering safe use eg metal trays in bar boxes stuck inside therefore we are unable to remove trays before lifting a bar box down from its stowage. Lack of working space also hinders safety.

Q661

I feel like a number worked to the maximum allowed. We are reluctant to go sick as the company is hassling us on how they are trying to cut down on sickness. Most of us if we stayed off when we were ill would have double the sickness records that we have.

Q694

Increased volume, speed and intensity of work are all reflected in absenteeism from work due to fatigue/exhaustion arising from the heavy workload, short crew breaks (if any), poor crew food quality and lack of sleep.

Q711

Along with many of my colleagues I am sure that we are all worried about being of duty when sick. There is always pressure to come in to see the duty manager when you are off on sick leave - even after an operation!

Q758

Morale at this small base is rock bottom. People come to work feeling unwell because they are frightened to suffer right hand of the duty manager who is a real dragon.

Q105

The Company has sacked 3 people recently who have had lots of sick days

Q152

It is inevitable we will go down with colds, viruses and the like if we are working closely with 300 odd passengers every day and so this results in a high rate of sickness amongst cabin crew.

I also feel that when I have a cold, it doesn't justify going sick, however, I have to because it always affects my ears. Working on aircraft is not the same as working in an office where one could manage with a cold.

Q363

I have been refused promotion due to sick record – even when I had been signed off by a doctor!

Q192

In BA mainline, only 3 sicknesses in 6 months are allowed

Q348

I wouldn't stay off sick because I want to get a permanent contract

Q841

We are constantly rostered to legal maximums and I often go into discretion. I have gone sick twice in the last 2 months with fatigue but have written 'migraines' on sick form because we have been told not to write 'fatigue' incase the Company gets in trouble with the CAA.

Q860

KLM UK do not care about their staff's welfare - all they are concerned about is that you turn up for work. They have introduced a point system to record sick days.

Q862

Sickness is taken extremely seriously despite the work environment. Every day off has to be justified. This year I had a total of 5 sick days and it was reported to the head boss.

Q902

At my airline, sickness is a mortal sin but often it is difficult to avoid bugs, colds, flu etc that passengers bring into the cabin. You seem to pick up everything that is around.

Q923

I was off ill for 3 weeks due to contact with a baby that sneezed in my face

Q924

Compared to schedule airlines, the charter industry definitely overworks its staff - especially those on short routes. Regularly flying short of crew and not enough rest can have a hard impact on your health. Not enough consideration is given to staff who are genuinely ill – allowances should be made for the illnesses we pick up whilst working in such a confined space, breathing recirculated air.

Q241

The Company expects us to be healthier than the average person and frowns upon sickness, when our very job provides a very unhealthy working conditions - very early starts, long duties, lack of quality breaks, working all night, traveling from boiling to freezing temperatures. I am very concerned about the long-term effects of flying.

Q573

My duty manager has told me that if I had anymore sickness I would have to be examined by the company doctor to check my fitness and health for this job. I was so scared that I came to work when I was ill with the flu.

Comments on Faulty Equipment

Q737

Equipment on the aircraft is often faulty and makes our job harder, for example, a broken boiler at the front meant we had to trapse 150ft back and forth to fill tea/coffee pots. Will they be fixed for the next sector? Hardly, the aircraft aren't on the ground long enough. It's all money, money, money and take, take, take. Cabin crews are at the bottom of management's priority list and always will be.

Q343

The trolleys are a danger to us to and passengers. Passengers complain all the time that they are being knocked by us when we are moving trolleys down aisles. This is due to faulty wheels.

Q36

It is not so much training or information we need but a larger, workable environment in which to manoever carts etc. to enable safe use. I have just had 4 months off with an injury due to unsafe working conditions.

Q311

Faulty atlas box trays, wheels and brakes on trolleys cause back and arm injuries. Oven racks are so bent it is difficult to pull them out of oven causing burns on arms and hot meals falling onto feet.

Q224

The state of the aircraft and the equipment we have to contend with is nothing short of outrageous. There is no commitment to health and safety, just lip service and adherence to the minimum legal requirements.

Q353

The galleys are small and seem to get smaller as aircraft design advances, causing stress and accidents because there is no room to move comfortably, especially on short flights.

Q108

Faulty trolleys and wheels cause back problems. Carrying 2 tea/coffee pots causes wrist strain.

Q42

Every flight we work to set service guidelines. However we are often forced to operate in sub-standard aircraft ie engineering faults. We are expected to take the passengers abuse and apologise for the faults – that is the engineering faults we know about! How many are un-noticed and un-fixed, in order to achieve “on-time departures”?

Q565

Cabin defects are not repaired for weeks on end due to lack of parts/facilities. For example, no flap in a toilet; no drain facility in galley for disposing of tea/coffee. We are now told to dispose of tea/coffee down the toilets. This causes inconvenience to passengers and crew.

Q571

We have been flying recently with a considerable amount of cabin defects e.g. toilets and sinks out of use. This went on for days until a Captain refused to take the aircraft out, resulting in a large delay which allowed the engineers time to correct the problems.

Q841

I have hurt my back 4 times in the last 6 months because of carts that are unservicable. I have also badly cut my hand and injured my ankle because of US trolleys and faulty catering equipment. I've been reporting incidents like this for years but still nothing happens.

Q853

If some time and money was spent on keeping aircraft in full working condition eg air conditioning, door seals fitted properly to stop crew from feeling dizzy, we would all feel better while working.

Q859

The standard of equipment we have to use onboard is very poor. The air conditioning and temp are particularly bad on the F100 aircraft.

Comments on Management

Q395

Sometimes it seems we are bashing our heads against a brick wall. We highlight problems that seem irrelevant to those in charge. We say there is problem and people think we are over reacting or suffering from mass hysteria. Eventually we are proven right.

We are the frontline staff and get the brunt of passenger problems but seem to have no back-up. It's a “them and us” situation. Management listen but never seem to do anything – it is very wearing and frustrating.

Q381

Basically management don't give a damn about H&S issues. They don't want complaints and if you do you are viewed as a trouble maker. Management is shockingly poor – they walk past uniformed crew and ignore them.

Q309

The health and welfare of crew comes a very long way down British Airways priorities list

Q303

I do not believe that senior BA management care about cabin crews' low morale and heavy workloads. My health is a matter of total indifference to Mr Ayling. Only profits matter.

Q251

The standards of our care from management have dropped substantially. All the Company is interested in is saving money. There is no compassion or consideration for those of us who are working parents. Rostering is appalling causing tiredness and illness. They want every penny out of us – this cannot continue.

Q233

The Company's lack of interest in its staff in every department gets progressively worse every year and affects morale all around, even new people leave within a few weeks because they can't handle the pressure and hassle, for which they are not paid enough for.

Q221

BA management are an intimidating and threatening group of people.

Q160

This airline has become a nightmare to work for-insufficient tools/crews and time to complete expected standards/tasks. They don't care about the workforce, their health or morale. We are the face of Britannia and they should take care of us, our false faces of happiness are wearing down – the passengers will soon be going elsewhere. Delaying flights for 24 hours due to lack of crew is not a good way to treat customers.

Q137

The management is obsessed with achieving cost-related savings. Cabin crews are at the sharp end of these cuts – wages, job security, working conditions and even the quality and quantity of crew food.

Q125

Our airline needs to be fully investigated. As long as the aircraft takes off and lands, the immediate management do not give a monkeys. The higher management do not even know what goes on. Communication between departments is really terrible.

Q110

Although lower management are aware of the problems and are usually helpful, mid/upper management do not seem to have any concept of what it's like on the line or seem to care about any of the day to day problems that occur

Q105

I inquired as to why we were not trained in H&S on other issues away from aircraft emergencies - I was told it was too expensive and cost prohibitive

Q101

I would leave tomorrow if I could find a job. The heart has gone out of the aviation industry. Morale is very low (BA). The mgt have their knives out for us all the time. The union fights really hard for us- they are the only ones who care about us.

Q55

The management of Britannia lives in the dark ages and treat their staff worse than animals in the zoo. I applaud this survey and hope it can bring us some very welcome and overdue changes.

Q34

Our job has changed very much in last few years. There is more pressure on making money for airline and less about cabin crews health & safety - rostering, crewing, sickness, abusive passengers and breaks. Our back-up is low and we depend on the trade union to solve issues.

Q32

I've been flying for 10 yrs and feel my health has deteriorated a lot recently. Management don't consider the impact of mixed shifts on the body. I have just spent 10 days of my leave in bed with suspected pneumonia - according to my doctor, it was caused by caused by stress.

Q15

Lip service is paid on a very high level to cabin crew health and safety

Q14

BA is a disgraceful employer. Low Pay, Maximum Duty hours, Bullying Management

Q8

Airline management personnel are more and more inclined toward performance management of the individual, attendance management and corporate policy, not in the competent delivery of the product within an efficient working environment.

Q86

Management do not want to listen & change anything. As a cabin manager I feel it's like banging our head against a brick wall. As long as an aircraft departs they DON'T care what else happens. They may keep sending glossy literature telling us how wonderful we are but there is no real commitment to the staff.

Q450

My company's only interest is in profit, profit and more profit. They have no regard whatsoever for the health of its cabin crew

Q452

I dislike management's poor priorities - aircraft interiors that are falling apart is not a problem, but a stewardess without a hat - crickey we need to talk!

Q875

I sometimes feel that the management have no understanding of what the cabin crew actually go through each day so many of the things we complain about appear to be petty to them. For example, strict turnaround times, fresh air, healthy crew meals. Maybe they should come out of their offices more often to get in touch with what is really going on!

Q101

I would leave tomorrow if I could find a job. The heart has gone out of the aviation industry. Morale is very low in British Airways. The management have their knives out for us all the time.

Q363

Morale is extremely low due to management's lack of concern and lack of action when problems occur. They do not fly as often and do not know exactly the extent of the problems.

Q192

BA management's priority is to work crew as hard as the law allows. Our union is small with no support from the rest of BA.

Q348

During your first year with an airline you cannot complain about anything to management. So if you want a permanent contract you tend to keep quiet.

Q473

We are so understaffed and cabin crews are paying the price. Management seem to be cutting corners everywhere apart from in their pay packets and company cares. Morale is extremely low

Q507

In general management have no idea at all of our working conditions. They don't listen to crews who are working directly with the passengers and they never give you a straight answer to any questions or worries.

Q509

Every year we are expected to carry out more services, more flights with less crew, minimum hours off in between - how long do management expect us to continue working to a high standard of service without cracking up?

Q510

The company constantly pile more and more work onto crew with no regard for human concern

Q510

Duty managers on the whole are unapproachable and are avoided by most cabin crew. Britannia seems to have forgotten that we are human beings, not machines. We need proper sleep patterns, proper meals and occasionally a social life - they ask why there is so much sickness and discontent!!

Q513

The number of abusive passengers has risen dramatically in the past year. Management do not realise the amount of abuse we take and are expected to take from passengers – is this taken for granted in other jobs?

Q536

Britannia have less crews per aircraft than ever before. Costs seem to be their main priority, rather than crew welfare.

Q536

Temporary positions are used by the Company to promote staff temporarily in the busy summer season. These people "yo-yo" in different positions for years on end. This is very demoralising, upsetting and most staff feel kicked in the teeth. As usual mgt have no concern or empathy.

Q546

Crews are expected to complete all services regardless of crew shortages and when anything goes wrong, crews get hauled over the coals. However when management or crewing mess we hear of no reprimand, only of their trips abroad for meetings some of which focus on team building – these teams must work for someone else!

Q549

It would appear that too much emphasis is given to on-time departures and revenue on flights at the detriment of crew welfare and morale. We have to perform and cope when there is no IFE; missing or broken equipment. Management do not respond to our reports of these faults and problems and instead take for granted that we will manage on the day.

Q573

I feel that the 'fat cat' management do not care about the crew. When I told my manager that I was continually being rostered 7 earlies on with 2 days off and that I was really tired, I was told "we are all in the same boat", which is untrue as some crew don't have enough work.

Q613

Management are only interested in making money. All the big airlines have got too greedy, in particular Britannia. They work with minimum staff, which results in very, very low morale. Crew don't care any more about Britannia's success. These companies keep looking for ideas to make them prosper, they are too stupid to realise that fairly treated crew are their answer. They work on a false economy consistently.

Q620

I realise management are under pressure to meet targets and achieve results. They receive a lot of complaints about equipment; crew shortages, flying out of rank etc but they won't complain to their superiors for the same reasons that stop us complaining – impression that you can't cope with the 'challenge'.

Q621

The company have good people working for them and rely 100% on the crews good faith to see them through every crisis that arises. The company must improve relations and crew morale.

Q622

Management don't have time to listen and they all wear the corporate blindfold, so they can't see what is wrong

Q626

I feel that Britannia have now earned a reputation of putting profit and on-time performance before any consideration towards their cabin crew. They just want a flight 'operated' and compromise everything else to do that. We are the 'front-line' and we suffer the consequence too often!

Q649

I think the management in our company are far too removed from everyday flying and the problems that we face day t day. They have no idea how it feels to fly as often as we do with staff shortages, little or no crew breaks and crazy roster patterns. I think the management in our company is far too removed from everyday flying and the problems that we face day t day. They have no idea how it feels to fly as often as we do with staff shortages, little or no crew breaks and crazy roster patterns.

Q650

Management appear to be in target mode - as long as the aircraft departs on time, makes enough duty free revenue and passenger questionnaire targets are achieved, they are not interested in how many crew operate flights or in what working conditions.

Q692

Britannia cover themselves to the minimum legal requirements. Management are unsympathetic, unhelpful and out of touch with what we do. Honesty from crew is perceived as negativity and is discouraged by management.

Q757

The perception is that middle mgt and higher mgt, who have never done the job, do not care about the health and safety of crew. They just care about making more more money, more seats, more services, more products.

Q758

Our duty manager isn't very good at interpersonal skills. She has no compassion and is full of self-importance. Morale at this small base is rock bottom. People come to work feeling unwell because they are frightened to suffer right hand of the duty manager who is a real dragon.

Q784

The duty manager is renowned for her flippant remarks to crew when she is approached with a problem. Basically she is a bitch.

Q784

Our management are not properly trained. They have no empathy for our situation and we feel continuously lied to. We feel that we are never praised but always criticised.

Q844

KLM UK has changed to an almost 'low-cost' carrier from a business class airline. There is no communication between crew and management. Passengers and crew are disgruntled at the attitude of management. Our pride and goodwill has vanished. The union does little in the way of raising standards and is also guilty of poor communication and of letting its members down.

Q452

I have been privileged to work for BA for 21 years. My past and present have been through good and bad times, invested in the company, which I have helped to build and grown to love, but I now fear for my, and its, future. At BA we are managed by a melee of sociopaths whose only interest appears to be in their personal CVs.

Q452

I have been a member of the T&G for 20 years and they have been our only tool in clinging by a fingernail to standards in the industry. BASSA have fought long and hard on fairness, rights and equality, but like the Liverpool Dockers, we have been let down by the TGWU. I would bet that Bill Morris will be a peer by the turn of the century – he is friends with Tony. The results will be the demise of one of Britain's premier industries and the loss of thousands of jobs, thanks mostly to Mr Bill Morris.

Q360

I feel very let down by both management and the union as nothing ever changes.

Q701

I feel let down by the union due to a decrease in working conditions etc over the years.

Q249

All major companies present an image of care that doesn't reflect the truth. The onus is on the individual to be able to defend his/her rights. Working conditions are deteriorating and so are the rights of union recognition – soon we won't have any members to fill out surveys like these.

Q874

I tried to complain to Peter Allinson in May 1998 regarding contracts for AMS - on 3 occasions he was too busy to talk to me and never called me back. I will transfer to Cabin Crew 89 as soon as they are up and running.

Q874

I feel that the TGWU contact you when there is a ballot or a questionnaire to complete, but try to contact them direct and you get no response. They are a paid organisation to provide backup to their members. I am utterly disgusted with the way they dealt with the Amsterdam contracts. If you get no backup or cooperation from the company or the union, who is it you turn to?

Comments on Rosters/Crewing

Q230

Crewing's problem is that there is not enough staff. Crewing don't understand that if you are on six flights a week how difficult it is on your body. It is different from working in an office.

Q418

The quality of roster affects us greatly. The minimum rest of 11 hours between duties needs urgently reviewed. I need more rest than that.

Q418

I was called out on SBY (1000 - 18 00) to operate a 16 15 night flight. The duty time was around 20 hours when the beginning of the SBY is accounted for – this was legal!

Q134

Each year rosters are worse than ever. Rostering are not interested that you do earlys followed by nights and then onto afternoon except that 'It's legal'. On the Ovida or Luxor the duty time is horrendous and you feel so, so exhausted with only a 10min break in 13 hours. We fly into discretion so many times and also fly with reduced crew numbers and also fly out of rank frequently.

Q165

The "legal" duty hours governed by the CAA are unrealistic. I recently had to work a 17 hour duty period with no official break - apparently this is legal - I dread to think what my reaction to an emergency situation would have been

Q123

1998 has been the worst year in the 6 years I've been flying for bad rostering - irregular check-in times and lack of crews in the busiest summer causing delays, fatigue, tiredness. Something must change!

Q291

There has been a major problem at work with crewing trying to call us out for flights that are illegal for us to do eg too many early mornings in a row.

Q354

There are a lot of last minute roster changes making it impossible to plan your days off. There are no set patterns to work e.g. night flying followed by early mornings. We suffer from jet lag and are expected to recover from a 7 hour time difference with only one day off.

Q331

I believe the min rest period between duties (11hrs) is not enough- especially when you take into account travelling time to and from work.

Q419

This summer's flying program has put a great amount of stress on all staff. There are too many inexperienced crew on flights when a large amount of us have only just been promoted ourselves. I am fed up doing very irregular flight hours due to understaffing and poor rostering.

Q145

We are all concerned after recent events with crewing. They now have an answer machine and call waiting system on 24hrs a day. Recently, I spent \$268 and one and a half hours on the phone trying to get through to crewing to change illegal positioning but couldn't get through. This is constant.

Q184

EuroGatwick BA are now rostering illegal rosters 12+ hour days 4 and 5 sectors getting up at 4am four mornings in a row.

Q149

Rosters don't include the human element of work patterns. Company's comment is always "it's legal". Rosters are worse than ever before. I don't mind working hard but I would like more balanced rosters. The computer does not take into consideration that you are a human being.

Q154

Contacting crewing seems to be an escalating problem – they never answer the phone and if they do you are put on hold for up to 30 minutes. Flights are continually being delayed because there isn't enough crew to operate them.

Q96

When I first joined rosters were always out on time, now everyone has to call crewing. Always probs getting through which is no joke at 2am hanging on phone for 30mins.

Q510

Rostering need 'Integrated training' with cabin crew in order to appreciate how their ridiculous work patterns feel like and what it does to your body. Good rostering practice is rarely adhered to. The Company has just changed rules to extend our working hours – we can now work 2 hours longer ie right up to midnight before a day off. This day off could be the only one in 7 days. Crewing may even telephone you during that day off to make things worse.

Q538

This year is the worst year in my 12 years as cabin crew for being understaffed and having too many long flights in one roster. The shift patterns have been very irregular and it's not unusual to have your roster changed 3 times in one week, making your social and home life suffer.

Q578

I dislike the hectic, inhuman roster we have to work to. The crewing department have mostly never flown and could not give a dam about crew care if a roster is 'legal'. It may be legal but it's unfair.

Q578

Rosters pay no attention to sleep patterns, with early mornings going onto nights and nights onto earlies. Rosters are sometimes published only 2 weeks in advance, but we have to give 6 weeks notice for a day off with no guarantee of getting it!

Q588

I feel very little can be done about our working environment on the aircraft but more control over our rosters and days off/leave would help with our health and personal lives, which may cut sickness and increase our commitment to the job.

Q601

My main concerns are poor rostering - you cannot sleep on demand. Switching between mornings/afternoons/nights is not feasible.

Q632

Through the pressures put on us by both management and passengers, and the lack of quality of life due to bad rostering, something eventually gives and in most cases its a person's health, either physical or mental. the body can only put up with so much.

Q635

Rostering is absolutely terrible - I've never experienced anything like it in 11 years of flying. I don't mind working hard but I do object to working a mixture of early mornings, afternoons and nights all in one roster. It's very hard for the body to cope with.

Q701

Did you know that we have no restrictions on the amount of accumulative flying duty hours carried out in any 7 consecutive days - some people have been known to work up to 80 hours a week. However, in a 'roster' week ie Thurs to Wed, the maximum is 60 hours – what is the difference?! I think my body would like to know.

Q703

The minimum rest period between duties is nowhere near sufficient. The 11hr rest period is calculated from 10 mins after landing till the next duty. This is grossly inaccurate - after landing, crew have not even left the aircraft in that time period. It is generally around 45-1hr after landing that crew leave the crew room (after counting money etc). This leaves 10hrs from leaving the crew room to the next duty. After the time taken to travel home, this leaves around 8.5 hours at home to rest, eat, prepare for next duty (socialise?!). It is impossible to be alert and refreshed for the next duty. Crew are lethargic and unable to operated competently after such rest periods which are rostered OFTEN.

Also, after a day off, report time can be, and often is, as early as 06 00. CAA requirements state alcohol cannot be consumed 8hrs prior to a duty period. This infringes on rostered legal days off ie 22 00 hours on day off you must stop drinking any alcohol. What kind of day off is this?

Q732

I dislike not knowing flight duty hour regulations and my rights because I feel that crewing and rostering are not on my side and will take me for a ride if possible.

Q733

On a recent night flight we had a 4 hour delay overseas because of technical problem with the aircraft. At midnight, the captain took us 'off duty' for 3 hours, which was 'rest' we were to take on the aircraft, therefore once the aircraft was mended we could carry on working because we had supposedly taken rest!! The next day was a day off followed by an 07 00 report for a 12 hour duty. We were told that although this was not good practice, that it was legal!.

Q750

This is the worst year that I've experienced so far. Flying with 1 or 2 crew members short, crewing changing your rosters at the last minute, rosters with no pattern. Requested days off are not considered. I feel rostering do not have any consideration for crew – let them try to work these rosters!

Q797

I am on the phone so much to crewing (this is at crews own expense) that I have the number on my BT family and friends discount rate. Only 7 weeks and 3 days of summer season to go....

Comments on Passengers

Q540

Passengers think that because they have bought a holiday they can treat the cabin crew like dirt

Q298

Passenger behaviour is deteriorating. They seem to know that abusive or rude behaviour is difficult to reprimand properly eg police action.

Q151

There is a lack of support from the company when we have abusive passengers.

Q151

Passengers tend to think because a flight is 2 hours long, that this is all we have worked when in fact we could have been out of bed since 04 00 hours and already worked for 8 hours.

Q124

We are taking more and more abuse from passengers as they are packed in tighter and tighter in the aircraft. People now suffer from "seat rage" if someone reclines their seat – we have to deal with this.

Q321

Air traffic control delays cause passenger dissatisfaction, which they take out on cabin crew.

Q513

The number of abusive passengers has risen dramatically in the past year. Management do not realise the amount of abuse we take and are expected to take from passengers – is this taken for granted in other jobs?

Q632

The dealing with violence training is completely impractical. Unacceptable passengers should never get on the aircraft in the first place. Flight crew should be more willing to divert and offload violent passengers. The Company should publically prosecute and back up crew rather than apologizing to passengers and disciplining crew!

Q679

When I tried to move a passenger's jacket in an overhead locker so it wouldn't be crushed by a briefcase, the passenger grabbed my arm and pushed me out of the way and started to F and C at me. A lot of other staff have had the same problem with passengers and have reported this to management. In response, management have told us to be more respectful to passengers! We do not have the back up from management – no wonder the BA Captain decided not to offload the passenger who was smoking on his aircraft.

Q682

I may as well have a sign saying "Give me abuse".

Q709

I have been to court twice this year to give evidence against drunk and abusive passengers.

Q716

The more work we have, the more time we spend in the cabin, the more we get on passengers' nerves

Q733

Passengers are now very demanding and expect a lot more from an airline. To them cabin crew don't eat and don't go to the loo. We sit in the front galley trying to have something to eat while passengers stare at us - a little discerning and we tend to lose our appetite!

Q740

Abusive and violent passengers are on the increase. In one season, I have been involved in the prosecution of two such passengers.

Q769

Passengers think that they can treat us like dirt - they have no respect for us

Q864

People do not realise the stress factor involved in our job and indeed the element of danger involved due to very abusive passengers. We should get danger money.

Comments on Training

Q397

Training new recruits on the line who do not know anything is very frustrating and exhausting. It makes us all look totally incompetent and stupid in front of the passengers

Q629

I found the course in dealing with aggressive passengers dangerous and unrealistic. The restraint training shown is not practical for our working environment and would incite any violent passenger.

Q190

British Airways training for everything is the absolute minimum.

Q317

... you feel totally unprepared when you come online and on short flight, colleagues have not got time to show you what you should be doing, so by the end of the flight you feel totally demoralised.

Q345

No real proactive health and safety program appears to be in place for cabin crew. Most colleagues seem to have received any health and safety awareness training, not even during the induction course.

Q460

The restraint training we received I feel will cause more cabin crew to enter situations thinking they can handle it when they haven't got a chance. This will result in cabin crew getting injured. The restraint training should concentrate on how to calm a passenger down rather than physical restraint.

Q833

I have 20 years flying experience and a university qualification in teaching. Despite this I was not offered the job I applied for within the company as an internal trainer. The job was given to someone who had only flown for 2-3 years and had no teaching qualification! My career is being ruined by a handful of idiots who are bringing our industry into disrepute.

Comments on New Entrants

Q390

BA employ a ridiculous amount of europeans which has caused cultural and language problems.

Q405

The basic of £8000 pa for new recruits means they can't afford to eat or go out when on night stops so there's no atmosphere at work.

comments on Lifestyle

Q155

Cabin crew work and live in a false environment e.g. earn money while lying on a beach or sitting in a top-class hotel. Most of us are unable to have long lasting relationships because of the hours we work.

Q326

I have just returned from maternity. I now get very stressed every time I go to work because of my fear of being sent on extra sectors. In 2 months, I have only been home on time twice!

Q888

I don't mind shiftwork, but I do like to get home at night. Constant nightstops (3-4 a week) are too much - I have a husband and a life at home.

Q578

Rosters pay no attention to sleep patterns, with early mornings going onto nights and nights onto earlyies. Rosters are sometimes published only 2 weeks in advance, but we have to give 6 weeks notice for a day off with no guarantee of getting it!

Q588

I feel very little can be done about our working environment on the aircraft but more control over our rosters and days off/leave would help with our health and personal lives, which may cut sickness and increase our commitment to the job.

Q538

This year is the worst year in my 12 years as cabin crew for being understaffed and having too many long flights in one roster. The shift patterns have been very irregular and it's not unusual to have your roster changed 3 times in one week, making your social and home life suffer.

APPENDIX FIVE

STATISTICAL ANALYSIS

Telephone interviews were conducted with two of the case study airlines. KLM UK refused to cooperate on the grounds that they did not agree with the focus and content of the research.






Interviewees

- **One British Airways representative, Compass Centre, Heathrow: Position Cabin Crew Manager**
- **One Britannia Airways representative, Luton: Position Cabin Crew Manager**

The BA and Britannia representative were asked the following questions and their responses are shown below:

Key: British Airways (blue); Britannia (red)

1. Please rate the level of importance that the company attaches to Cabin crew training in the following areas:

	Very important	Important	Quite Important	Not Important	Don't know
a) Cabin Service					
b) Safety and Emergency Procedures					
c) Manual Handling					
d) Culture Management					
e) Violence Training					

2. Please rate the following in terms of their importance in helping to secure employee commitment?

	Very Important	Important	Quite Important	Not Important	Don't Know
a) Pay		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
b) Job Security	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
c) Good quality Working Environment	<input checked="" type="checkbox"/>				
d) Training	<input checked="" type="checkbox"/>				
e) Good health and safety practice	<input checked="" type="checkbox"/>				

3. Please rate level of change that has occurred in cabin crew work over the past year.

	Greatly Increased	Increased	Some Increase	No change	Reduction
a) Customer Demands	<input checked="" type="checkbox"/>				
b) Number of Services		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
c) Number of duty hours			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
d) Number of Crew on flights			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Administrative Workload for senior crews		<input checked="" type="checkbox"/>			

1. If workloads (customer demands, number of services) have increased, do you rate this as a health and safety risk?

Very Highly	High	Moderate	Low	Don't know
		<input checked="" type="checkbox"/>		

HUMAN RESOURCE MANAGEMENT IN UK AIRLINES

1. Are any of the following management practices in place or planned for the near future? (Please circle)

Management Practice	In place Planned for the near future	
Team briefings	(P)	F
Performance appraisal – most non-managerial employees	(P)	F
Performance appraisal – managerial employees	(P)	F
Problem solving groups (e.g. quality circles)	(P)	F
Regular meetings of the entire workforce	(P)	F
Profit-sharing for non-managerial employees	P	F
Workplace level joint consultative committee	(P)	F
Most supervisors trained in employee relations skills	(P)	F
Attitudinal test before making appointments		
Employee share ownership scheme for non-managerial employees	P	F
Most employees receive a minimum of 5 training Days per year	(P)	F
Individual performance-related pay scheme for non-managerial employees	P	(F)

3. What is the approximate number of employees in the organisation? Please tick

- 1-25
- 25-49
- 50-99
- 100-199
- 200-499
- 500 or more

6. Does your organisation have a mission statement? (please tick)

- Yes
- No

(Please enclose a copy if possible)

Thank you very much for your help and cooperation.

- Yes, I would like a copy of the results

APPENDIX SIX

STATISTICAL ANALYSIS

Chapter Six: The relationship between the source air and the number of breaks

source airline * number of actual breaks Crosstabulation

Count

		number of actual breaks				Total
		0	1	2	3	
source airline	British Airways	80	168	29	1	278
	Brittania	75	328	75	4	482
	KLM UK	105	23	9	3	140
	other				1	1
Total		260	519	113	9	901

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	294.433 ^a	9	.000
Likelihood Ratio	195.130	9	.000
Linear-by-Linear Association	18.306	1	.000
N of Valid Cases	901		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .01.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.572	.000
	Cramer's V	.330	.000
N of Valid Cases		901	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Correlations

		hours on the aircraft	number of actual breaks
Kendall's tau_b	hours on the aircraft	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	918
	number of actual break	Correlation Coefficient	.249**
		Sig. (2-tailed)	.000
		N	899

** Correlation is significant at the .01 level (2-tailed).

change in volume of work * sex

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.884 ^a	2	.143
Likelihood Ratio	4.377	2	.112
Linear-by-Linear Association	3.863	1	.049
N of Valid Cases	882		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.42.

change in volume of work * AGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.057 ^a	14	.045
Likelihood Ratio	27.590	14	.016
Linear-by-Linear Association	13.616	1	.000
N of Valid Cases	884		

a. 8 cells (33.3%) have expected count less than 5. The minimum expected count is .30.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.165	.045
	Cramer's V	.117	.045
N of Valid Cases		884	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in volume of work * GRADE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.584 ^a	6	.000
Likelihood Ratio	37.374	6	.000
Linear-by-Linear Association	2.470	1	.116
N of Valid Cases	884		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is .77.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.203	.000
	Cramer's V	.144	.000
N of Valid Cases		884	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in volume of work * length of service

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	73.888 ^a	16	.000
Likelihood Ratio	58.026	16	.000
Linear-by-Linear Association	25.079	1	.000
N of Valid Cases	886		

a. 9 cells (33.3%) have expected count less than 5. The minimum expected count is .04.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.289	.000
	Cramer's V	.204	.000
N of Valid Cases		886	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in intensity of work * sex

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.488 ^a	2	.288
Likelihood Ratio	2.746	2	.253
Linear-by-Linear Association	2.485	1	.115
N of Valid Cases	874		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.46.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.053	.288
	Cramer's V	.053	.288
N of Valid Cases		874	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in intensity of work * AGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.886 ^a	14	.002
Likelihood Ratio	35.827	14	.001
Linear-by-Linear Association	7.911	1	.005
N of Valid Cases	876		

a. 9 cells (37.5%) have expected count less than 5. The minimum expected count is .26.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.197	.002
	Cramer's V	.139	.002
N of Valid Cases		876	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in intensity of work * GRADE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.148 ^a	6	.000
Likelihood Ratio	31.167	6	.000
Linear-by-Linear Association	1.867	1	.172
N of Valid Cases	876		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is .64.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.195	.000
	Cramer's V	.138	.000
N of Valid Cases		876	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

change in intensity of work * length of service

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	81.741 ^a	16	.000
Likelihood Ratio	66.069	16	.000
Linear-by-Linear Association	7.710	1	.005
N of Valid Cases	878		

a. 9 cells (33.3%) have expected count less than 5. The minimum expected count is .04.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.305	.000
	Cramer's V	.216	.000
N of Valid Cases		878	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

change in speed of work * sex

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.045 ^a	2	.593
Likelihood Ratio	1.170	2	.557
Linear-by-Linear Association	.860	1	.354
N of Valid Cases	883		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.54.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.034	.593
	Cramer's V	.034	.593
N of Valid Cases		883	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in speed of work * AGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.911 ^a	14	.047
Likelihood Ratio	24.367	14	.041
Linear-by-Linear Association	.039	1	.843
N of Valid Cases	885		

a. 8 cells (33.3%) have expected count less than 5. The minimum expected count is .17.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.164	.047
	Cramer's V	.116	.047
N of Valid Cases		885	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in speed of work * GRADE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	45.555 ^a	6	.000
Likelihood Ratio	46.116	6	.000
Linear-by-Linear Association	.160	1	.689
N of Valid Cases	885		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is .43.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.227	.000
	Cramer's V	.160	.000
N of Valid Cases		885	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in speed of work * length of service

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.634 ^a	16	.000
Likelihood Ratio	32.464	16	.009
Linear-by-Linear Association	.206	1	.650
N of Valid Cases	887		

a. 12 cells (44.4%) have expected count less than 5. The minimum expected count is .02.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.276	.000
	Cramer's V	.195	.000
N of Valid Cases		887	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

change in stress and pressure at work * sex

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.999 ^a	2	.135
Likelihood Ratio	5.921	2	.052
Linear-by-Linear Association	.030	1	.861
N of Valid Cases	873		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.03.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.068	.135
	Cramer's V	.068	.135
N of Valid Cases		873	

- a. Not assuming the null hypothesis.
 b. Using the asymptotic standard error assuming the null hypothesis.

change in stress and pressure at work * AGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.833 ^a	14	.001
Likelihood Ratio	33.360	14	.003
Linear-by-Linear Association	11.085	1	.001
N of Valid Cases	875		

a. 10 cells (41.7%) have expected count less than 5. The minimum expected count is .10.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.205	.001
	Cramer's V	.145	.001
N of Valid Cases		875	

- a. Not assuming the null hypothesis.
 b. Using the asymptotic standard error assuming the null hypothesis.

change in stress and pressure at work * GRADE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	63.881 ^a	6	.000
Likelihood Ratio	61.701	6	.000
Linear-by-Linear Association	7.117	1	.008
N of Valid Cases	875		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.270	.000
	Cramer's V	.191	.000
N of Valid Cases		875	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

change in stress and pressure at work * length of service

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	97.677 ^a	16	.000
Likelihood Ratio	91.852	16	.000
Linear-by-Linear Association	25.846	1	.000
N of Valid Cases	877		

a. 12 cells (44.4%) have expected count less than 5. The minimum expected count is .01.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.334	.000
	Cramer's V	.236	.000
N of Valid Cases		877	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

change in number of abusive/disruptive pax * sex

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.292 ^a	2	.524
Likelihood Ratio	1.276	2	.528
Linear-by-Linear Association	.450	1	.502
N of Valid Cases	881		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.34.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.038	.524
	Cramer's V	.038	.524
N of Valid Cases		881	

- a. Not assuming the null hypothesis.
 b. Using the asymptotic standard error assuming the null hypothesis.

change in number of abusive/disruptive pax * AGE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.249 ^a	14	.196
Likelihood Ratio	14.179	14	.436
Linear-by-Linear Association	.499	1	.480
N of Valid Cases	883		

a. 10 cells (41.7%) have expected count less than 5. The minimum expected count is .06.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.144	.196
	Cramer's V	.102	.196
N of Valid Cases		883	

- a. Not assuming the null hypothesis.
 b. Using the asymptotic standard error assuming the null hypothesis.

change in number of abusive/disruptive pax * GRADE

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.713 ^a	6	.190
Likelihood Ratio	11.006	6	.088
Linear-by-Linear Association	.329	1	.566
N of Valid Cases	883		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .16.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.099	.190
	Cramer's V	.070	.190
N of Valid Cases		883	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

change in number of abusive/disruptive pax * length of service

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.776 ^a	16	.000
Likelihood Ratio	51.037	16	.000
Linear-by-Linear Association	.039	1	.843
N of Valid Cases	885		

a. 11 cells (40.7%) have expected count less than 5. The minimum expected count is .01.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.247	.000
	Cramer's V	.174	.000
N of Valid Cases		885	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Chapter Six: The relationship between the intensity of work and the number of abusive pax.

Correlations

			change in number of abusive/disruptive pax	change in intensity of work
Kendall's tau_b	change in number of abusive/disruptive pax	Correlation Coefficient	1.000	.172**
		Sig. (2-tailed)	.	.000
		N	888	876
	change in intensity of work	Correlation Coefficient	.172**	1.000
		Sig. (2-tailed)	.000	.
		N	876	881

** Correlation is significant at the .01 level (2-tailed).

Chapter Six: The relationship between grade and the experience of stress/anxiety at work

Correlations

			GRADE	I suffer from stress/anxiety
Kendall's tau_b	GRADE	Correlation Coefficient	1.000	-.144**
		Sig. (2-tailed)	.	.000
		N	920	834
	I suffer from stress/anxiety	Correlation Coefficient	-.144**	1.000
		Sig. (2-tailed)	.000	.
		N	834	839

** Correlation is significant at the .01 level (2-tailed).

Chapter 7: The relationship between length of service and the number of symptoms suffered.

Correlations

			length of service	number of symptoms suffered
Kendall's tau_b	length of service	Correlation Coefficient	1.000	.094**
		Sig. (2-tailed)	.	.000
		N	922	918
	number of symptoms suffered	Correlation Coefficient	.094**	1.000
		Sig. (2-tailed)	.000	.
		N	918	921

** . Correlation is significant at the .01 level (2-tailed).

Chapter 7: Table 7.2

Correlations

		number of symptoms suffered	hours on the aircraft	same/more/less flights compare last year	same/more/less duty hours compare last year	change in volume work	change in speed work	change in stress at work	change in intensity of work	how often mixed patterns	number of actual acts	change in number of abusive/disruptive acts
Kendall's	number of symptoms suffered	Correlation C	1.000	.172*	.054	.125*	.148*	.089*	.172*	.146*	.107*	.03
		Sig. (2-tailed)	.	.000	.063	.000	.000	.002	.000	.000	.000	.22
		N	921	914	878	876	885	886	876	877	916	89
	hours on the aircraft	Correlation C	.172*	1.000	.084*	.111*	.117*	.112*	.096*	.114*	-.011	.24
		Sig. (2-tailed)	.000	.	.011	.001	.000	.001	.004	.001	.745	.00
		N	914	918	876	874	883	884	876	875	916	89
	same/more/less flights compare year	Correlation C	.054	.084*	1.000	.090*	.080*	.221*	.181*	.112*	.043	.02
		Sig. (2-tailed)	.063	.011	.	.006	.015	.000	.000	.001	.193	.53
		N	878	876	882	875	871	872	863	863	878	86
	same/more/less hours compare year	Correlation C	.125*	.111*	.090*	1.000	.594*	.187*	.246*	.313*	.096*	.04
		Sig. (2-tailed)	.000	.001	.006	.	.000	.000	.000	.000	.003	.14
		N	876	874	875	880	869	871	861	861	876	86
change in volume work	Correlation C	.148*	.117*	.080*	.594*	1.000	.264*	.359*	.436*	.062	.01	
	Sig. (2-tailed)	.000	.000	.015	.000	.	.000	.000	.000	.061	.57	
	N	885	883	871	869	889	884	875	881	885	86	
change in speed work	Correlation C	.089*	.112*	.221*	.187*	.264*	1.000	.405*	.494*	.027	.07	
	Sig. (2-tailed)	.002	.001	.000	.000	.000	.	.000	.000	.417	.02	
	N	886	884	872	871	884	890	877	878	886	86	
change in stress pressure at work	Correlation C	.172*	.096*	.181*	.246*	.359*	.405*	1.000	.427*	.042	.07	
	Sig. (2-tailed)	.000	.004	.000	.000	.000	.000	.	.000	.209	.02	
	N	876	876	863	861	875	877	880	868	876	85	
change in intensity work	Correlation C	.146*	.114*	.112*	.313*	.436*	.494*	.427*	1.000	-.005	.14	
	Sig. (2-tailed)	.000	.001	.001	.000	.000	.000	.000	.	.869	.00	
	N	877	875	863	861	881	878	868	881	877	85	
how often mixed patterns	Correlation C	.107*	-.011	.043	.096*	.062	.027	.042	-.005	1.000	-.04	
	Sig. (2-tailed)	.000	.745	.193	.003	.061	.417	.209	.869	.	.12	
	N	916	916	878	876	885	886	876	877	920	89	
number of actual acts	Correlation C	.034	.249*	.020	.047	.018	.073*	.072*	.142*	-.048	1.00	
	Sig. (2-tailed)	.227	.000	.534	.140	.571	.023	.026	.000	.129		
	N	897	899	861	860	866	867	858	858	899	90	
change in number of abusive/disruptive acts	Correlation C	.157*	.082*	.199*	.170*	.209*	.163*	.259*	.172*	.033	.01	
	Sig. (2-tailed)	.000	.014	.000	.000	.000	.000	.000	.000	.317	.58	
	N	884	882	871	870	884	881	873	876	884	86	

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

Chapter 7: Table 7.3

Correlations

		number of symptoms suffered	rating of working environment	rate hygiene standard on aircraft	rate mgt commitment to your health and safety
Kendall's tau_	number of symptom suffered	1.000	-.293*	-.226*	-.236*
	Correlation Coefficient	.	.000	.000	.000
	Sig. (2-tailed)				
	N	921	916	914	910
	rating of working environment	-.293*	1.000	.491*	.422*
	Correlation Coefficient	.000	.	.000	.000
	Sig. (2-tailed)				
	N	916	920	914	910
	rate hygiene standard on aircraft	-.226*	.491*	1.000	.439*
	Correlation Coefficient	.000	.000	.	.000
	Sig. (2-tailed)				
	N	914	914	918	912
	rate mgt commitment to your health and safety	-.236*	.422*	.439*	1.000
	Correlation Coefficient	.000	.000	.000	.
	Sig. (2-tailed)				
	N	910	910	912	914

** Correlation is significant at the .01 level (2-tailed).

Chapter 7: The relationship between the causes for symptoms and the category of symptoms

cause of symptoms is poor hygiene onboard * CATCOMPS

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.203	.000
Nominal	Cramer's V	.203	.000
N of Valid Cases		913	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

cause of symptoms cabin air quality * CATCOMPS

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.083	.043
Nominal	Cramer's V	.083	.043
N of Valid Cases		914	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

cause of symptoms is irreg report times * CATCOMPS

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.137	.000
Nominal	Cramer's V	.137	.000
N of Valid Cases		913	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

cause of symptoms is poor rostering * CATCOMPS

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.251	.000
Nominal	Cramer's V	.251	.000
N of Valid Cases		912	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Chapter 7: The relationship between the number of symptoms & the no. of factors complained about

Correlations

			number of symptoms suffered	NUMBER OF FACTORS COMPLAINED OF EVERY/OFTEN
Kendall's tau_b	number of symptoms suffered	Correlation Coefficient	1.000	.264**
		Sig. (2-tailed)	.	.000
		N	921	909
	NUMBER OF FACTORS COMPLAINED OF EVERY/OFTEN	Correlation Coefficient	.264**	1.000
		Sig. (2-tailed)	.000	.
		N	909	913

** . Correlation is significant at the .01 level (2-tailed).

Chapter 7: The relationships for health complaints

Correlations

			number of complaints suffered in past yr	how often mixed shift patterns	length of service	AGE	change in intensity of work	change in volume of work	same more/ less dut ho a o las y
Kendall's tau	number of complaints suffered in past yr	Correlation Coeff Sig. (2-tailed) N	1.000 .000 847	.119* .000 843	.099* .000 844	.091* .001 843	.130* .000 813	.071* .020 820	
	how often mixed shift patterns	Correlation Coeff Sig. (2-tailed) N	.119* .000 843	1.000 .000 920	.111* .000 917	.068* .020 915	-.005 .869 877	.062 .061 885	
	length of service	Correlation Coeff Sig. (2-tailed) N	.099* .000 844	.111* .000 917	1.000 .000 922	.672* .000 920	.124* .000 878	.182* .000 886	
	AGE	Correlation Coeff Sig. (2-tailed) N	.091* .001 843	.068* .020 915	.672* .000 920	1.000 .000 920	.108* .000 876	.123* .000 884	
	change in intensity of work	Correlation Coeff Sig. (2-tailed) N	.130* .000 813	-.005 .869 877	.124* .000 878	.108* .000 876	1.000 .000 881	.436* .000 881	
	change in volume of work	Correlation Coeff Sig. (2-tailed) N	.071* .020 820	.062 .061 885	.182* .000 886	.123* .000 884	.436* .000 881	1.000 .000 889	
	same/more/less duty hours compared to year	Correlation Coeff Sig. (2-tailed) N	.094* .002 815	.096* .003 876	.130* .000 877	.075* .012 875	.313* .000 861	.594* .000 869	1
	rate hygiene standards aircraft	Correlation Coeff Sig. (2-tailed) N	-.196* .000 841	-.088* .006 913	-.152* .000 915	-.082* .005 913	-.178* .000 874	-.126* .000 882	
	rate mgt commitment your health and safety	Correlation Coeff Sig. (2-tailed) N	-.209* .000 838	-.190* .000 909	-.219* .000 911	-.151* .000 909	-.166* .000 870	-.168* .000 878	
rating of working environment	Correlation Coeff Sig. (2-tailed) N	-.217* .000 844	-.163* .000 915	-.184* .000 917	-.120* .000 915	-.137* .000 877	-.114* .000 885		

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Chapter 7: Table 7.5

sex * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.085	.010
Nominal	Cramer's V	.085	.010
N of Valid Cases		917	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.024	.463
Nominal	Cramer's V	.024	.463
N of Valid Cases		917	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.047	.155
Nominal	Cramer's V	.047	.155
N of Valid Cases		917	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.118	.079
Nominal	Cramer's V	.118	.079
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.090	.387
Nominal	Cramer's V	.090	.387
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.196	.000
Nominal	Cramer's V	.196	.000
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.052	.473
Nominal	Cramer's V	.052	.473
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.091	.055
Nominal	Cramer's V	.091	.055
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.155	.000
Nominal	Cramer's V	.155	.000
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.080	.652
Nominal	Cramer's V	.080	.652
N of Valid Cases		921	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.115	.147
Nominal	Cramer's V	.115	.147
N of Valid Cases		921	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.234	.000
Nominal	Cramer's V	.234	.000
N of Valid Cases		921	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.102	.022
Nominal	Cramer's V	.102	.022
N of Valid Cases		924	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.122	.003
Nominal	Cramer's V	.122	.003
N of Valid Cases		924	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.097	.033
Nominal	Cramer's V	.097	.033
N of Valid Cases		924	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * suffered from sleeping probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.099	.029
Nominal	Cramer's V	.099	.029
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * suffered from digestive probs in past yr

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.079	.127
	Cramer's V	.079	.127
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * suffered from anxiety/stress in past year

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.090	.057
	Cramer's V	.090	.057
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Chapter 7: The relationships for Anxiety/Stress

Correlations

		AGE	GRADE	length of service	suffered from anxiety/stress in past year
Kendall's tau ⁻ AGE	Correlation Coefficient	1.000	-.431*	.672*	.163*
	Sig. (2-tailed)	.	.000	.000	.000
	N	920	918	920	919
GRADE	Correlation Coefficient	-.431*	1.000	-.567*	-.139*
	Sig. (2-tailed)	.000	.	.000	.000
	N	918	920	920	919
length of service	Correlation Coefficient	.672*	-.567*	1.000	.181*
	Sig. (2-tailed)	.000	.000	.	.000
	N	920	920	922	921
suffered from anxiety/stress in past year	Correlation Coefficient	.163*	-.139*	.181*	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	919	919	921	925

** Correlation is significant at the .01 level (2-tailed).

Chapter 7: The relationships between health complaints

Correlations

		suffered from anxiety/stress in past year	suffered from sleeping probs in past yr	suffered from digestive probs in past yr	
Kendall's tau_b	suffered from anxiety/stress in past year	Correlation Coefficient Sig. (2-tailed) N	1.000 .000 925	.338* .000 924	.212* .000 924
	suffered from sleeping probs in past yr	Correlation Coefficient Sig. (2-tailed) N	.338* .000 924	1.000 .000 925	.197* .000 924
	suffered from digestive probs in past yr	Correlation Coefficient Sig. (2-tailed) N	.212* .000 924	.197* .000 924	1.000 .000 925

** Correlation is significant at the .01 level (2-tailed).

Chapter 7: Relationship between grade & handling/stowing bags/stress and anxiety

Correlations

		GRADE	level of concern over stress/anxiety	level of concern over handling baggage	level of concern over stowage of baggage	
Kendall's tau_b	GRADE	Correlation Coefficient Sig. (2-tailed) N	1.000 .000 920	-.174* .000 904	-.103* .000 903	-.132* .000 905
	level of concern stress/anxiety	Correlation Coefficient Sig. (2-tailed) N	-.174* .000 904	1.000 .000 909	.134* .000 900	.160* .000 902
	level of concern handling baggage	Correlation Coefficient Sig. (2-tailed) N	-.103* .000 903	.134* .000 900	1.000 .000 908	.727* .000 906
	level of concern stowage of baggage	Correlation Coefficient Sig. (2-tailed) N	-.132* .000 905	.160* .000 902	.727* .000 906	1.000 .000 910

** Correlation is significant at the .01 level (2-tailed).

Chapter 7: Relationships for grade and level of concern in key areas

Correlations

			length of service	level of concern over pushing carts	level of concern over lifting bar boxes	level of concern over handling baggage	level of concern over stowage of baggage	level of concern over stress/anxiety	level of concern over violent pax
Kendall's tau	length of service	Correlation Coef	1.000	.111*	.081*	.091*	.151*	.217*	.058*
		Sig. (2-tailed)	.	.000	.004	.001	.000	.000	.036
		N	922	916	911	905	907	906	905
	level of concern over pushing carts	Correlation Coef	.111*	1.000	.474*	.240*	.221*	.183*	.044
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.154
		N	916	919	912	907	909	906	904
	level of concern over lifting bar boxes	Correlation Coef	.081*	.474*	1.000	.076*	.111*	.140*	.136*
		Sig. (2-tailed)	.004	.000	.	.014	.000	.000	.000
	N	911	912	914	901	903	903	900	
level of concern over handling baggage	Correlation Coef	.091*	.240*	.076*	1.000	.727*	.134*	.052	
	Sig. (2-tailed)	.001	.000	.014	.	.000	.000	.083	
	N	905	907	901	908	906	900	895	
level of concern over stowage of baggage	Correlation Coef	.151*	.221*	.111*	.727*	1.000	.160*	.057	
	Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.059	
	N	907	909	903	906	910	902	897	
level of concern over stress/anxiety	Correlation Coef	.217*	.183*	.140*	.134*	.160*	1.000	.173*	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	
	N	906	906	903	900	902	909	895	
level of concern over violent pax	Correlation Coef	.058*	.044	.136*	.052	.057	.173*	1.000	
	Sig. (2-tailed)	.036	.154	.000	.083	.059	.000	.	
	N	905	904	900	895	897	895	908	

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

Chapter 7: Relationships for the number of complaints made

Correlations

			AGE	GRADE	length of service	number of factors complained about
Kendall's tau	AGE	Correlation Coeffi	1.000	-.431*	.672*	.107*
		Sig. (2-tailed)	.	.000	.000	.000
		N	920	918	920	909
	GRADE	Correlation Coeffi	-.431*	1.000	-.567*	-.169*
	Sig. (2-tailed)	.000	.	.000	.000	
	N	918	920	920	909	
	length of servi	Correlation Coeffi	.672*	-.567*	1.000	.181*
		Sig. (2-tailed)	.000	.000	.	.000
	N		920	920	922	911
	number of fact	Correlation Coeffi	.107*	-.169*	.181*	1.000
	complained ab	Sig. (2-tailed)	.000	.000	.000	.
	N		909	909	911	914

**Correlation is significant at the .01 level (2-tailed).

Chapter 7: Table 7.6

Correlations

		level of concern over violent pax	level of concern over handling baggage	level of concern over hygiene on board	level of concern over air quality	complained about cabin air quality	complained about baggage	complained about passengers	complained about hygiene standards
Kendall's	level of concern over violent pax	1.000	.052	.151*	.105*	.046	-.009	.222*	.124*
	Sig. (2-tailed)	.	.083	.000	.001	.256	.773	.000	.000
	N	908	895	898	903	533	768	766	738
	level of concern over handling baggage	.052	1.000	.081*	.193*	.147*	.254*	.053	.036
	Sig. (2-tailed)	.083	.	.008	.000	.000	.000	.116	.286
	N	895	908	899	903	536	774	765	743
	level of concern over hygiene on board	.151*	.081*	1.000	.286*	.080	-.035	.059	.344*
	Sig. (2-tailed)	.000	.008	.	.000	.052	.287	.090	.000
	N	898	899	910	907	538	772	765	740
	level of concern over air quality	.105*	.193*	.286*	1.000	.192*	.055	.034	.155*
	Sig. (2-tailed)	.001	.000	.000	.	.000	.100	.323	.000
	N	903	903	907	916	540	777	769	743
	complained about cabin air quality	.046	.147*	.080	.192*	1.000	.115*	.112*	.121*
	Sig. (2-tailed)	.256	.000	.052	.000	.	.006	.010	.004
	N	533	536	538	540	544	495	488	494
	complained about baggage	-.009	.254*	-.035	.055	.115*	1.000	.139*	.048
	Sig. (2-tailed)	.773	.000	.287	.100	.006	.	.000	.170
	N	768	774	772	777	495	781	694	672
	complained about passengers	.222*	.053	.059	.034	.112*	.139*	1.000	.138*
	Sig. (2-tailed)	.000	.116	.090	.323	.010	.000	.	.000
	N	766	765	765	769	488	694	776	677
	complained about hygiene standards	.124*	.036	.344*	.155*	.121*	.048	.138*	1.000
	Sig. (2-tailed)	.000	.286	.000	.000	.004	.170	.000	.
	N	738	743	740	743	494	672	677	750

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

Chapter 7: Table 7.7

Correlations

		hours on the aircraft	same/more/less duty hours compared last year	change in volume of work	change in speed of work	change in intensity of work	how often mixed ship patterns	change in stress and pressure at work	number of actual breaks	change in abusive/disruptive environment	rating of working conditions	rate hygiene standard in aircraft	rate mgt commitment to your health and safety	number of factors complained about
Kendall's tau	Correlation C	1.000	.111*	.117*	.112*	.114*	-.011	.096*	.249*	.082*	-.170*	-.151*	-.069*	.060*
	Sig. (2-tailed)	.	.001	.000	.001	.001	.745	.004	.000	.014	.000	.000	.024	.042
	N	918	874	883	884	875	916	876	899	882	913	911	907	907
same/more/less hours compared year	Correlation C	.111*	1.000	.594*	.187*	.313*	.096*	.246*	.047	.170*	-.143*	-.134*	-.176*	.124*
	Sig. (2-tailed)	.001	.	.000	.000	.000	.003	.000	.140	.000	.000	.000	.000	.000
	N	874	880	869	871	861	876	861	860	870	875	873	869	871
change in volume	Correlation C	.117*	.594*	1.000	.264*	.436*	.062	.359*	.018	.209*	-.114*	-.126*	-.168*	.143*
	Sig. (2-tailed)	.000	.000	.	.000	.000	.061	.000	.571	.000	.000	.000	.000	.000
	N	883	869	889	884	881	885	875	866	884	885	882	878	880
change in speed	Correlation C	.112*	.187*	.264*	1.000	.494*	.027	.405*	.073*	.163*	-.123*	-.174*	-.121*	.080*
	Sig. (2-tailed)	.001	.000	.000	.	.000	.417	.000	.023	.000	.000	.000	.000	.008
	N	884	871	884	890	878	886	877	867	881	885	883	879	881
change in intensity of work	Correlation C	.114*	.313*	.436*	.494*	1.000	-.005	.427*	.142*	.172*	-.137*	-.178*	-.166*	.094*
	Sig. (2-tailed)	.001	.000	.000	.000	.	.869	.000	.000	.000	.000	.000	.000	.002
	N	875	861	881	878	881	877	868	858	876	877	874	870	872
how often mixed patterns	Correlation C	-.011	.096*	.062	.027	-.005	1.000	.042	-.048	.033	-.163*	-.088*	-.190*	.109*
	Sig. (2-tailed)	.745	.003	.061	.417	.869	.	.209	.129	.317	.000	.006	.000	.000
	N	916	876	885	886	877	920	876	899	884	915	913	909	909
change in stress, pressure at work	Correlation C	.096*	.246*	.359*	.405*	.427*	.042	1.000	.072*	.259*	-.160*	-.154*	-.213*	.169*
	Sig. (2-tailed)	.004	.000	.000	.000	.000	.209	.	.026	.000	.000	.000	.000	.000
	N	876	861	875	877	868	876	880	858	873	876	873	869	871
number of actual breaks	Correlation C	.249*	.047	.018	.073*	.142*	-.048	.072*	1.000	.018	-.028	-.018	.060*	-.029
	Sig. (2-tailed)	.000	.140	.571	.023	.000	.129	.026	.	.589	.352	.560	.047	.312
	N	899	860	866	867	858	899	858	901	866	896	895	890	890
change in number abusive/disruptive	Correlation C	.082*	.170*	.209*	.163*	.172*	.033	.259*	.018	1.000	-.150*	-.169*	-.151*	.174*
	Sig. (2-tailed)	.014	.000	.000	.000	.000	.317	.000	.589	.	.000	.000	.000	.000
	N	882	870	884	881	876	884	873	866	888	884	881	877	879
rating of working environment	Correlation C	-.170*	-.143*	-.114*	-.123*	-.137*	-.163*	-.160*	-.028	-.150*	1.000	.491*	.422*	-.245*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.352	.000	.	.000	.000	.000
	N	913	875	885	885	877	915	876	896	884	920	914	910	911
rate hygiene standard aircraft	Correlation C	-.151*	-.134*	-.126*	-.174*	-.178*	-.088*	-.154*	-.018	-.169*	.491*	1.000	.439*	-.219*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.006	.000	.560	.000	.000	.	.000	.000
	N	911	873	882	883	874	913	873	895	881	914	918	912	907
rate mgt commitment your health and safety	Correlation C	-.069*	-.176*	-.168*	-.121*	-.166*	-.190*	-.213*	.060*	-.151*	.422*	.439*	1.000	-.222*
	Sig. (2-tailed)	.024	.000	.000	.000	.000	.000	.000	.047	.000	.000	.000	.	.000
	N	907	869	878	879	870	909	869	890	877	910	912	914	903
number of factors complained about	Correlation C	.060*	.124*	.143*	.080*	.094*	.109*	.169*	-.029	.174*	-.245*	-.219*	-.222*	1.000
	Sig. (2-tailed)	.042	.000	.000	.008	.002	.000	.000	.312	.000	.000	.000	.000	.
	N	907	871	880	881	872	909	871	890	879	911	907	903	914

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

Chapter 7: Table 7.8

source airline * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.171	.000
Nominal	Cramer's V	.171	.000
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.138	.001
Nominal	Cramer's V	.138	.001
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.210	.000
Nominal	Cramer's V	.210	.000
N of Valid Cases		921	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.117	.000
Nominal	Cramer's V	.117	.000
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.035	.286
Nominal	Cramer's V	.035	.286
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.083	.012
Nominal	Cramer's V	.083	.012
N of Valid Cases		914	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.226	.000
Nominal	Cramer's V	.226	.000
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.199	.000
Nominal	Cramer's V	.199	.000
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.119	.073
Nominal	Cramer's V	.119	.073
N of Valid Cases		916	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.060	.345
Nominal	Cramer's V	.060	.345
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.321	.000
Nominal	Cramer's V	.321	.000
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.170	.000
Nominal	Cramer's V	.170	.000
N of Valid Cases		916	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.237	.000
Nominal	Cramer's V	.237	.000
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.239	.000
Nominal	Cramer's V	.239	.000
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.122	.088
Nominal	Cramer's V	.122	.088
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * complain to trade union

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.094	.042
Nominal	Cramer's V	.094	.042
N of Valid Cases		926	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * complain to management

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.093	.045
	Cramer's V	.093	.045
N of Valid Cases		926	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * complain to colleagues

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.206	.000
	Cramer's V	.206	.000
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Chapter 7: Relationship between the rating for management's commitment to H&S and training

Correlations

		what training have you received in manual handling?	what training received on body fluids contact?	what training received on dealing with violence?	what training received on cabin baggage?	rate mgt commitment to your health and safety
Kendall's tau-b	what training have you received in manual handling?	1.000	.096*	.306*	.355*	.117*
	Correlation Coefficient		.003	.000	.000	.000
	Sig. (2-tailed)			.229	.000	.000
	N	920	919	919	916	909
	what training received on body fluids contact?	.096*	1.000	.037	.228*	.224*
	Correlation Coefficient	.003		.229	.000	.000
	Sig. (2-tailed)				.000	.000
	N	919	922	921	918	911
	what training received on dealing with violence?	.306*	.037	1.000	.166*	.106*
	Correlation Coefficient	.000	.229		.000	.000
	Sig. (2-tailed)				.000	.000
	N	919	921	923	918	912
	what training received on cabin baggage?	.355*	.228*	.166*	1.000	.195*
	Correlation Coefficient	.000	.000	.000		.000
	Sig. (2-tailed)					.000
	N	916	918	918	919	908
	rate mgt commitment to your health and safety	.117*	.224*	.106*	.195*	1.000
	Correlation Coefficient	.000	.000	.000	.000	
	Sig. (2-tailed)					.000
	N	909	911	912	908	914

**Correlation is significant at the .01 level (2-tailed).

Chapter 7: Relationship between request for more information on manual handling and the level of concern

Correlations

			more info on cabin baggage	level of concern over handling baggage	level of concern over lifting bar boxes
Kendall's tau_	more info on cabin baggage	Correlation Coefficient Sig. (2-tailed) N	. . 338	. . 336	. . 333
	level of concern over handling baggage	Correlation Coefficient Sig. (2-tailed) N	. . 336	1.000 . 908	.076* .014 901
	level of concern over lifting bar boxes	Correlation Coefficient Sig. (2-tailed) N	. . 333	.076* .014 901	1.000 . 914

*. Correlation is significant at the .05 level (2-tailed).

Chapter 7: Relationships between requests for more information and level of H&S concerns in the same area

Chapter 7: Relationships between respondent characteristics and coming to work when ill

Correlations

		length of service	AGE	sex	GRADE	ever come to work when ill?
Kendall's tau-	length of servi	1.000	.672*	-.058*	-.567*	.113*
	Correlation Coeffi	.	.000	.045	.000	.000
	Sig. (2-tailed)	922	920	918	920	902
AGE	Correlation Coeffi	.672*	1.000	-.105*	-.431*	.046
	Sig. (2-tailed)	.000	.	.000	.000	.116
	N	920	920	916	918	900
sex	Correlation Coeffi	-.058*	-.105*	1.000	.002	.074*
	Sig. (2-tailed)	.045	.000	.	.960	.024
	N	918	916	918	916	898
GRADE	Correlation Coeffi	-.567*	-.431*	.002	1.000	-.060
	Sig. (2-tailed)	.000	.000	.960	.	.051
	N	920	918	916	920	901
ever come to work when ill?	Correlation Coeffi	.113*	.046	.074*	-.060	1.000
	Sig. (2-tailed)	.000	.116	.024	.051	.
	N	902	900	898	901	905

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

Chapter 7: Table 7.11

sex * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.070	.034
Nominal	Cramer's V	.070	.034
N of Valid Cases		916	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

sex * came to work because of commitment to airline

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.007	.843
Nominal	Cramer's V	.007	.843
N of Valid Cases		917	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * came to work cos of fear of reprimand

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.016	.635
Nominal	Cramer's V	.016	.635
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.171	.000
Nominal	Cramer's V	.171	.000
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

sex * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.098	.003
Nominal	Cramer's V	.098	.003
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.124	.003
Nominal	Cramer's V	.124	.003
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.124	.003
Nominal	Cramer's V	.124	.003
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

source airline * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.100	.026
Nominal	Cramer's V	.100	.026
N of Valid Cases		925	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Chapter 7: Respondent characteristics and reasons for coming to work when ill

Chapter 7: Relationship between designation and reasons for coming to work when ill

long/short haul/mixed * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.156	.000
Nominal	Cramer's V	.156	.000
N of Valid Cases		924	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * came to work because of commitment to airline

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.124	.003
Nominal	Cramer's V	.124	.003
N of Valid Cases		926	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.112	.008
Nominal	Cramer's V	.112	.008
N of Valid Cases		926	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

long/short haul/mixed * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.118	.005
Nominal	Cramer's V	.118	.005
N of Valid Cases		926	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.102	.219
Nominal	Cramer's V	.102	.219
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * came to work because of commitment to airline

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.067	.759
Nominal	Cramer's V	.067	.759
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * came to work cos of fear of reprimand

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.149	.005
Nominal	Cramer's V	.149	.005
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.124	.048
Nominal	Cramer's V	.124	.048
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

AGE * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.189	.000
Nominal	Cramer's V	.189	.000
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.112	.009
Nominal	Cramer's V	.112	.009
N of Valid Cases		918	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * came to work because of commitment to airline

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.069	.219
Nominal	Cramer's V	.069	.219
N of Valid Cases		919	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * came to work cos of fear of reprimand

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.084	.093
Nominal	Cramer's V	.084	.093
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.087	.071
Nominal	Cramer's V	.087	.071
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

GRADE * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.120	.004
Nominal	Cramer's V	.120	.004
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * came to work because of understaffing

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.151	.007
Nominal	Cramer's V	.151	.007
N of Valid Cases		920	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * came to work because of commitment to airline

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.091	.463
Nominal	Cramer's V	.091	.463
N of Valid Cases		921	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * came to work cos of fear of reprimand

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.072	.784
Nominal	Cramer's V	.072	.784
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * came to work cos of loss of income

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.135	.033
Nominal	Cramer's V	.135	.033
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

length of service * came to work cos worried about sick record

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.169	.001
Nominal	Cramer's V	.169	.001
N of Valid Cases		922	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.