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Volume 1 — Main report

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The Department has an ongoing research programme on employment relations and labour market issues, managed by the Employment Market Analysis and Research branch (EMAR). Details of our research programme appear regularly in the ONS journal *Labour Market Trends*, and can also be found on our website: **http:/www.dti.gov.uk/er/emar**

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The views expressed in these publications do not necessarily reflect those of the Department or the Government. We publish them as a contribution towards open debate about how best we can achieve our objectives.

Grant Fitzner
Director, Employment Market Analysis and Research

Contents

Long hours working is more common in the UK than most other EU countries, but quite similar to the US, Australia and Japan. After a period of long-term decline the proportion of employees working over 48 a week rose through most of the 1990s (though it has since started to decline). Long hours working is mainly accounted for by overtime and is more common amongst men, managers, professionals, and operative and assembly workers. Manual workers usually get paid for overtime, while managerial and professional employees do not. Manual workers see the main benefit of long hours working in terms of increased earnings, while managerial and professional workers see it in terms of improved promotion prospects and greater job security. Excessive long hours working is associated with (though not proved to cause) lower productivity, poor work performance, health problems and low employee motivation.

1. Executive Summary

Background

The overall aim of this study is to bring together research which looks at working time patterns in the UK and makes comparisons with EU and other developed countries, with a view to explaining why the UK workforce has some of the longest working hours in Europe.

Interest in this topic was stimulated by the emerging debate within government, industry and other organisations about the effectiveness of long hours working, particularly with respect to organisational performance and increasing productivity. It was commissioned against the background of increasing demands for better work-life balance and new government measures to tackle long hours working; most notably the Working Time Regulations that came into force on 1 October 1998 (WTR).

Methodology

This report is based on a review of the research literature, secondary analysis of established social survey series: including, the 1998 Workplace Employee Relations Survey (WERS98); the Labour Force Survey (LFS) including the European Community Labour Force Survey (ECLFS); and the British Household Panel Survey (BHPS); and, case studies of UK firms that have been

'matched' with similar EU firms (from France, Germany and Sweden) to 'test-out' and 'contextualise' the findings from the survey evidence.

Caveats

The surveys provide evidence on patterns of working hours. However, comparing evidence from different surveys is not unproblematic, since there are often significant differences between them in how working hours are defined (*eg* whether it is based on actual or usual hours worked, whether it refers to the main job only or includes other jobs, whether it includes time working at home or in travel to and from work, *etc.*). There may also be differences in how information is collected (*eg* whether it is based on recall or on detailed work diaries). These, and other factors related to survey design, can make for difficulties in drawing comparisons, especially when the divergent findings are apparent. These difficulties are evident when comparing the findings of the UK surveys presented in this study. They are compounded in the case of cross-national surveys (and case study research) when linguistic and cultural factors are also brought into play. Notwithstanding, the overall findings show a great deal of consistency.

What are long hours?

The review of the research literature shows that what constitutes 'long hours working' is very much subject to debate. People's own assessments seem to be based upon their own direct experience, such that long hours working is perceived as a significant departure from their normal working week. However, for the purpose of this report, it is defined as more than 48 hours a week, in line with the WTR.

Most of the research literature and survey data reviewed pre-date the introduction of the WTR. The findings presented here should not, therefore, be used to draw conclusions either about employers' or employees' compliance with, or the impact of, the Working Time Regulations 1998.

Who works long hours?

- Eleven per cent of employees in the UK work long hours (over 48 hours a week).
- There are clear gender differences. Men are significantly more likely to work long hours than women.
- Men with children are slightly more likely to work longer hours than those without, while women with children are less likely to work long hours than those without.

- There are also clear life-cycle differences, with people aged between 30 and 49 being the most likely to work long hours.
- Managers, professionals and operative and assembly workers are those occupations most likely to work long hours. Amongst women who work long hours, two thirds are in managerial and professional occupations (23 per cent and 40 per cent respectively).
- There are significant differences in the incidence of long hours working across the managerial grades with top managers the most likely to be working over sixty hours a week.
- Over two thirds of managerial and professional long hours workers are neither paid nor given time-off in lieu. This contrasts sharply with craft and skilled, services, operative and assembly workers, where well over half are compensated in some way for working extra hours (WERS98).
- The sectors with a particularly high incidence of long hours working are construction, transport, communication and agriculture, forestry and fishing. The incidence of long hours working is higher in the private sector than the public sector.

Are things getting better?

- The proportion of UK employees working long hours has increased over the last decade, notwithstanding that between 1988 and 1998 the basic average weekly standard hours fell for both men and women (from 40.2 to 39.3 and 37.4 to 36.8, respectively).
- The increase in long hours working is primarily due to the increased use of overtime both paid and unpaid. The large rise in unpaid overtime among women is likely to reflect the increase in the numbers of women employed in managerial and professional occupations.
- Over one-third of men with children in the household worked more than 50 hours per week in 1998, which was a six per cent rise over the previous decade (Harkness, LFS).
- The incidence of long working hours increased over the decade 1988 to 1998 following a period of long term decline. Uniquely, in the UK this has been accompanied by a growing polarisation in working hours with some groups working longer and others working shorter hours.

Reasons given for long hours working

- Manual and non-manual workers give significantly different reasons for long hours working. The reasons given for long hours working depend greatly on whether overtime is paid or not paid (WERS98).
- Paid overtime is most commonly found amongst manual occupations. Where overtime is paid the main reason given for

overtime working is to 'increase pay', while the second most important reason is related to the need to meet the requirements of the job (WERS98).

- Unpaid overtime is most common amongst managerial and professional workers. Where overtime is unpaid the main reasons given for overtime working are related to the requirements of the job (WERS98).
- Amongst managerial and professional workers there is a clear association between the amount of overtime worked and current levels of pay. This lends support to the view that managers and professional staff work long hours in anticipation/expectation of higher earnings in the future (BHPS). (However, more detailed statistical analysis suggests that the link between hours worked and earnings may be more complex).
- The review of the research literature, backed up by the findings from the case studies, suggests that a major reason for long hours working, particularly when it is unpaid, is the volume of work. Factors perceived to be associated with increasing volumes of work relate to new organisational initiatives; including flattening organisational structures due to de-layering, increases in project based working, a greater emphasis on customer focus, meetings culture, staff shortages (including demands upon specialist staff), IT/email overload and increasing need for some employees to travel for their work.
- The review of the research literature suggests that the attitudes and expectations of managers and, in some cases, workgroup members can be critical in engendering a long hours culture where 'being present' is valued as a sign of commitment to work. The case studies suggest that cultural pressures are likely to be particularly prevalent amongst employers of non-manual workers, where the behaviour and attitudes of managers and work colleagues combine to push up the level of unpaid overtime.
- Other reasons given for long hours working include job insecurity, employee preference, occupational commitment and career enhancement.
- Overall, the research findings show that many people working long hours do so for a combination of reasons, which can be difficult to disentangle, especially in an organisation or part of an organisation where a long hours culture is perceived or is known to prevail.

The international context

EU member states

- Average working hours in the UK are mid-range across all EU member states when all employees (full-time and part-time employees) are included.
- However, simple international comparisons can be misleading. In particular, the UK position (mid-range) is distorted by the fact that, compared with most other EU states, the UK employs a high proportion of part-time women workers (working fewer than 30 hours a week).
- Amongst *full-time employees*, the UK shows high levels of long hours working (over 48 hours a week), especially amongst men where the UK has the highest level of long hours working in the EU. Just over one-fifth (22 per cent) of UK men working *full-time* work long hours compared with an average of one tenth (11 per cent) across the other EU member states.
- *Full-time male* managers work the longest hours in the UK and across the EU member states as a whole. However, (on average) UK managers do not work longer hours than their EU counterparts.
- In the craft, trade, operative and elementary occupations a significantly higher proportion of *full-time* male employees work over 48 hours than in any other EU member state.
- Professional women in the UK work a higher proportion of long hours than their EU counterparts, though EU women managers are more likely to work long hours than their UK counterparts.
- The UK has comparatively high concentrations of long hours working in the production sectors, in contrast to other EU states where it is more concentrated in the service sector, particularly hotels and catering.

Selected non-European developed economies (USA, Australia and Japan)

- In the USA a quarter of men and a tenth of women work more than 48 hours a week. These proportions have risen over recent decades. In common with EU member states, managers are the most likely to work long hours.
- In Australia around a third of men now work long hours, which represents a significant increase from one-fifth in 1984. Also fifteen per cent of women work more than 48 hours a week. As with the USA and EU member states, long hours work in Australia is concentrated amongst managers. However, it is also to be found amongst trades, sales and operative workers.

- In Japan 36 per cent of men and 15 per cent of women worked over 48 hours per week in 1994. For men this represented a significant cutback in long hours working over the previous decade, when over half of men worked over 48 hours per week in 1984.

Reasons for international differences

The USA, Australia and Japan have significantly higher proportions of long hours working than non-English EU speaking countries. The UK, (along with Ireland), appears to be mid-range, although tending more towards non-EU developed countries. Notwithstanding these generalised national differences, it is clear that long hours working is endemic amongst managerial and professional employees. Research suggests two main reasons for these inter-country variations:

- Income inequality. Where income inequality is high there is a higher incidence of paid long hours working amongst manual workers (arguably to compensate for relatively low hourly rates).
- Statutory and contractual regulation. In particular the existence of working hours legislation pre-dating the European Working Time Directive (Luxembourg, France, Netherlands and Spain) and collective contractual agreements (Germany and Sweden) reduce working hours.

Cultural factors have also been cited. However, here the research evidence is limited mainly to Japan.

Employee satisfaction with long hours

In the UK, research shows that dissatisfaction with long hours working and preferences for shorter working hours increases with the number of hours worked. However, this pattern conceals important differences. In particular:

- Women are less likely to be satisfied with their job overall, the more hours they work. The reverse is true for men. However, satisfaction with promotion prospects increases the more hours that are worked, particularly for women.
- Women, particularly those working long hours, are more likely to want to reduce their working hours.
- The UK case studies suggest that manual workers working long hours, who are able significantly to boost their pay through overtime working, are not only satisfied with their (long) hours but also are resistant to attempts to reduce working hours.

Impact of long hours on employers and employees

Employment and productivity

There are considerable theoretical and methodological difficulties in measuring the impact of long hours working on organisational performance. Overall, however, on the basis of the current evidence, it is not possible to establish conclusively whether long hours working has beneficial, detrimental or neutral overall effects. There is some recent evidence suggesting that reductions in long hours might be a factor associated with increases in employment or productivity. However, it is difficult to isolate the impact of reducing working hours per se, since reductions in long hours working are typically accompanied by other developments such as changes in work organisation, new capital investment, etc.

Work performance

The review of the research literature shows that long hours working, especially when coupled with sleep disruption, causes deterioration of task performance, because it has detrimental effects on such things as rates of error, pace of work and social behaviour. However, there is no conclusive evidence that long hours working leads to lower levels of overall work or organisational performance. Moreover, if it does, it is difficult to establish the working time duration thresholds at which any such effects set in, especially as this is likely to vary significantly according to individual characteristics. The UK case study research suggests that some employers have serious concerns about the adverse impact of long working hours on productivity and quality of output.

Health and safety

The review of the research literature shows clear grounds for concern about the adverse effect of long hours working and the (frequency of) health and safety incidents. However, most of this research focuses upon specific occupations (*eg* long-distance lorry drivers, the medical professions), which precludes more general conclusions being drawn.

Motivation, absence and turnover

The review of the research literature shows that there is little robust statistical evidence on the effects of long hours working on employee motivation, absence and turnover. However, self-reporting and organisational case studies suggest that long working hours has a negative effect on motivation, absence and turnover. The analysis of WERS98 reveals a significant association between long hours working and higher staff turnover. However, it is not clear whether long hours working leads to higher staff

turnover or whether high rates of staff turnover make it necessary for remaining employees to work longer hours. The UK case study research show that some employers are particularly concerned that working long hours may lead to higher levels of sickness absence and staff turnover.

Health

The review of the literature shows that there is a considerable body of research looking at the influence of work patterns on employee health, although most of this focuses on employees working unsocial hours or shift patterns, rather than long working hours per se. Here the cumulative research evidence shows that there are associations between long hours working and health outcomes, such as mental health and cardio-vascular problems. The UK case study research suggests a link between long hours working and minor ill-health problems, particularly for non-manual workers.

Work-life balance

The review of the research literature and the UK case studies suggest that many, but by no means all, long hours workers are unhappy with their work- life balance and that their working patterns have a negative impact on their domestic relationships. However, there is no robust statistical evidence that long hours workers are significantly more likely than employees with standard or alternative working hours (*eg* shift and rotating shift workers, flexible workers, *etc.)* to perceive that their working arrangements have a detrimental effect on their work-life balance.

Are women more likely to be disadvantaged by long hours working?

The review of the research literature suggests that in organisations characterised by systemic long hours working, women's careers may be restricted. However, there have been few systematic studies to try and establish such a link. The analysis of the BHPS suggests that:

- Partnered women who work long hours still carry the burden for the main household tasks of cleaning and cooking. This is rare for partnered men working long hours. This may be part of the explanation why women are more likely than men to be dissatisfied with long hours working.
- Women working long hours are much more likely than those who do not work long hours to report poor health. For women there is also an association between long hours working and higher levels of mental stress, especially if it is over a sustained period (over a year) and they have a partner. In contrast, men who work long hours report being healthier

than men who work shorter hours. However, this may be the result of healthier people being able to work longer hours and those with ill health having to work less hours, rather than long hours working leading to better health.

- Working people's satisfaction with various aspects of their lives, for example, health, social life and leisure pursuits, tend to decrease with the number of hours worked. Again, this negative effect is much more marked amongst women than men.

Overall, the findings suggest that long hours working puts women under greater amounts of pressure and has a greater negative impact on their health, well-being and satisfaction with life than it does for men.

Perceived benefits of long hours working

Little conclusive evidence is available on the benefits of long hours working. However, the review of the research literature and the case studies suggest that in, at least, some UK workplaces, manual workers see positive benefits from long hours working, in that it provides opportunities to increase their earnings, at least in the short term. Also, managers and professional staff see the benefits of long hours working in improved promotion prospects and / or in providing for greater job security.

Conclusions

- Long hours working is associated with (but is not proved to cause) various negative effects, such as decreased productivity, poor performance, health problems, and lower employee motivation.
- More men than women work long hours.
- Women are more likely than men to suffer health related problems, if they work long hours.
- The most common reasons for working long hours are to increase pay (where overtime is paid) or to meet the needs of the job (where it is not paid).

1. Background to the Study

1.1 Aims and objectives

The overall aim of the study is to provide an understanding of the particular working time pattern which is characteristic to the UK as compared to other developed countries. Statistics suggest that the UK workforce work some of the longest hours in Europe. More specifically, in the UK, there is a different pattern of working hours than in Europe as a whole, with a greater degree of polarisation where certain groups of employees work longer hours and others shorter ones.

There is increasing concern about this issue both within government and private industry. There is evidence that some organisations have begun to question the effectiveness of long working hours and in some cases are introducing measures to tackle long hours working. Furthermore, the European Working Time Directive, introduced in the UK on 1 October 1998 through the Working Time Regulations, has focused attention on working hours. It is recognised that working time issues may have important implications for the competitiveness of firms, equal opportunities in the labour market, and health and safety issues. It is these three issues, in particular, that this study aims to explore in relation to working time.

The research is examining the following questions:

- Who works long hours, and which groups are more likely to work long hours, such as men in certain occupations?
- What are the reasons for working long hours, for example is it because of organisational cultures of working long hours, or because of increasingly heavy workloads, changing technologies, the demands of the 24-hour society, or a matter of individual preference? Do these reasons vary according to context, for example by industrial sector?
- To what extent does a 'long work hours culture' prevail in Britain, and how do British practices compare to those in other European and developed countries?
- What impact does long hours working have upon employers, in particular upon their competitiveness and productivity?

- What effect does working long hours have upon individuals, in particular upon their health, income, careers and family life?
- What, if any, measures employers take to tackle long working hours and with what effect?

1.2 Methodology

The three elements of the project are:

- a review of existing UK and international research in this area
- data analysis of national surveys which include questions on working time: the Labour Force Survey; the 1998 Workplace Employee Relations Survey (WERS98); and the British Household Panel Survey (BHPS); and,
- in-depth case study research of eight organisations in the UK matched with six comparable organisations drawn from three Europe countries (France, Germany and Sweden).
- The literature review and data analysis were conducted during the winter / early spring of 2001. The case studies were conducted over the summer of 2001.

1.2.1 The literature review

The literature review provides an analysis of key findings of research on long working hours published in the UK, European Union and United States. To identify relevant literature searches have been conducted of a range of Internet sites of research organisations (national and international), government sites and libraries and the academic. A full list of the internet sites and databases searched, and the keywords used are provided in Volume 2, Appendix F.

The literature review helped to inform the focus the case studies (*e.g.* the countries, types of organisations, sectors and occupations chosen) and the design of the research instruments. It also enabled the identification of gaps in the literature and the scope for the secondary analysis of existing survey data.

1.2.2 Secondary data analysis

The report also presents the findings from secondary data analysis conducted specifically for this study; namely, Workplace Employee Relations Survey, 1998 (WERS98), the European Community Labour Force Survey, 1999 (ECLFS) and the British Household Panel Survey (BHPS). Each contribute to the study in the following ways:

- WERS (98) includes data on both employers and employees, and has been used to identify who works long hours, the reasons for working long hours and the implications of long working hours for employers.
- The ECLFS has been used to provide European comparisons of patterns of working hours, as well as some time series data.
- The BHPS is a longitudinal dataset, and has been used to provide some indication of the implications for individuals of working long hours, for example in terms of their pay, health and well-being over time in both the short and medium term.

The key characteristics of each of these surveys are summarised in Table 1.1 below.

Multi-variate analysis

These data sets provide the basis of the descriptive statistics provided in this report. In addition, the WERS98 and BHPS were subject to more detailed multi-variate analysis allowing for a more detailed investigation of the effects of various factors that are associated with long hours working. Details on the multi-variate techniques used are provided in Volume 2, Appendices A and C.

Table 1.1: Details of surveys analysed

Dataset	Sample	Frequ-ency	Sample size	International comparable data	Longitu-dinal	Key variables analysed
Labour Force Survey	Individuals	Quarterly	60,000 households in the UK (self-employed and employed)	Yes, compatible data collected in all EU countries	Yes (but not analysed in this report)	Hours worked (usual and actual), occupation, sector, earnings, sickness, well-being and satisfaction with employment and working hours
Workplace Employee Relations Survey	Employers, employees, worker represen-tatives	1998	1998: 2,000 workplaces 30,000 employees employed at the 2,000 workplaces (does not included self-employed)	Yes, 1990 to 1998 panel of 900 workplaces	A panel element but this is not analysed in this report	Working hours, workplace performance, staff turnover, staff absence, employee attitudes to work, training and skill development, employees' reasons for working long hours
British Household Panel Survey	Individuals and households	Eight waves since 1990	5,500 households 10,300 individuals (includes employed and self-employed)	No	Yes	Hours worked, occupation, sector, earnings, health and well-being, dependent children, attitudes to work

1.2.3 The case studies

Case studies provide for a more detailed understanding of the context of long hours working. For this study the cases were drawn from the communications, professional services, finance and banking, public administration, food processing and printing sectors. In the UK eight organisations were selected for detailed study and these were broadly matched with six European organisations based in France, Germany and Sweden. Table 1.2, below, provides a summary the key characteristics of the case study organisations. Information was collected through interviews with HR managers, line managers and selected employees. All those interviewed were also asked to complete a short questionnaire. The key findings from the case studies have been incorporated into this report.

The full case studies can be found in Volume 2, which also includes full details of the research methodology.

Table 1.2: Typology of organisations participating in the case study research

	UK	France	Germany	Sweden
Employer size	1 small 7 large + 2 extras	2 large	2 large	2 large
Multi-national	3 multi-national 3 national 2 public sector	2 multi-national	2 national	1 multi-national 1 national (ex public sector)
Employer sector	3 production 5 services	2 service	1 production 1 service	2 service
Occupation type, which the case study focused on	4 manual 4 non-manual	2 non-manual	1 manual 1 non-manual	1 manual 1 non-manual
Long hours cultures	3 long 4 mixed 1 short	2 mixed	2 mixed	1 short 1 mixed

Note: Small Company =180 employees, Large companies = more than 500 employees

Difficulties in recruiting case studies

The differing institutional and regulatory context in various countries provided for some difficulties in recruiting organisations for the case studies. This was most apparent in Germany which is highly regulated in terms working long hours but where regulations are not always translated into practice. In some cases

this provided for some difficulty in gaining access to organisations where managements were aware of infringements of the legal requirements and were consequently reluctant to discuss these issues openly with researchers. However, even in cases where access was allowed, employees appear to have been more circumspect about discussing these issues than their counterparts in other countries. Further discussion of the influence the legislative context in each European country can be found in Volume 2, Chapter 6.

1.3 The Working Time Regulations

On 1 October 1998, the Working Time Regulations came into force in the UK. A key element of the legislation is a limit of a 48-hour week that a worker can be required to work. Specifically, the Working Time Regulations set a maximum 48-hour working week, averaged over a default 17-week reference period. The reference period can be extended to 26 weeks in a range of special circumstances, or up to 52 weeks through a collective (union) or workforce agreement. The Regulations do allow workers to voluntarily opt-out of the working time limit by signing a written agreement. The option to opt-out in this way is to be reviewed by the European Commission by November 2003. Full details of the Working Time Regulations are provided in Appendix D.

The vast majority of the research literature reviewed in this report was conducted prior to the introduction of the Working Time Regulations. In addition, the WERS data, which have been further analysed as part of this project, were collected in 1998; the most recent BHPS data related to 1998 and the European LFS data to 1999. Therefore, the findings in this report cannot be used as a basis for drawing conclusions about compliance with the Regulations.

1.4 Focus and outline of the report

The findings from literature review and secondary data analysis showed that the two main occupational groups who work long hours in the UK are:

- managers and professionals; and
- craft, trade, operatives and elementary occupations.

This was confirmed by the findings from the case studies. It is also clear from the findings that the reasons given for working long hours differ between these two occupational groups. Therefore, in presenting the UK case that the distinction is made between employers that:

- employ predominantly manual workers, namely process operatives, drivers and printers in food processing companies,

a small manufacturing employer (case study D) and the Royal Mail (case study A), and

- employ mostly non-manual workers, namely, namely professional services, bank, a high-tech service sector company, and a public administration employer. The types of employees interviewed were in professional, managerial, technical, sales, administrative and clerical occupations.

1.4.1 Outline of the report

The findings from the study are presented as follow:

Chapter 2 discusses a range of issues relating to measuring working hours and defining long hours, which have been identified in the literature. It is important that these issues are understood prior to any detailed analysis of working long hours.

Chapter 3 starts with the presentation of the new evidence from WERS(98) showing the patterns and distributions of working long hours in the UK (e.g. the number of hours worked and who works long hours). This is followed by a review of existing evidence and concludes with the presentation of evidence from our UK case studies.

Chapter 4 starts with a review of the literature on reasons for working long hours and presents the existing survey evidence. This is followed by the presentation of new evidence from our analysis of WERS(98) and concludes with the findings from the case studies.

Chapter 5 presents the evidence from our analysis of the ECLFS and compares long working hours in the UK with those of the other 14 European Union (EU) member states. In doing so, it seeks to address not only the degree to which long hours working occurs within these countries, but also which sections of the workforce are prone to working long hours.

Chapter 6 extends our international analysis by drawing on findings from the literature on patterns of working hours in the United States, Australia and Japan; and, seeks to explain the difference in working hour patterns between these and the EU countries. It concludes with the evidence emerging from the European case studies and includes an outline of the regulatory context.

Chapter 7 starts with the findings from the a review of literature to identify the implications for employers of long hours in terms of labour productivity, employment, individual performance, health and safety, staff absence, turnover and morale. This is followed by evidence from WERS98 which provides for analysis of the characteristics of employers that experience a high incidence of long hours working and the relationship between the

proportion of employees working long hours and employee turnover, absence and productivity. It concludes with the presentation of the evidence from the UK case studies on the implications for employers of long working hours, the interventions taken by them to reduce working hours and the effectiveness of those interventions.

Chapter 8 presents the findings from the review of the literature on the effects of long hours working on employees; including, the implications and effects on equality of opportunity, personal and home life, and physical and mental health. And, is followed by the evidence from the case studies on employees' satisfaction with working hours and their views on how it effect them.

Chapter 9 presents the findings from the BHPS on the patterns of working hours (discussed in Chapter 3) and goes on consider five key aspects of the long hours debate: pay and prospects; job satisfaction; preferences over working hours; work-life balance and health and social well-being.

There are six Appendices to this report:

Appendix A: The Workplace Employee Relations Survey

Appendix B: The European Community Labour Force Survey

Appendix C: The British Household Panel Survey

Appendix D: The Working Time Directive. The full case study details are presented in a separate case study report

Appendix E: References

Appendix F: Literature Search

Appendix G: Research Instruments

These are published in a separate volume : Working Long Hours: Volume 2: case studies (and appendices). This volume has not been published in hard copy but can be accessed on the DTI website: www.dti.gov.uk/er/emar.

2. Measurement and Meaning of Long Working Hours

There are a number of ambiguities in measuring 'working hours' in general, and defining what is meant by 'long hours' in particular. This makes comparisons between countries, or between different surveys on the same country, difficult. This chapter examines a range of issues which have been identified in the literature, and which need to be considered prior to any detailed analysis of working long hours.

2.1 Annual and weekly working hours

When making international comparisons of working hours, hours are sometimes expressed as an average yearly total. Apart from the fact that national averages (as set out below) conceal differences between social groups, averages for individuals depend on the level of under-employment, and on the amount of holidays or sick leave taken, or days on strike. A number of reports (TUC, 1995a) compare UK and the rest of the EU with respect to number of public holidays, number of days paid leave, and amount of maternity / paternity leave available. Even when leave is taken into account, however, there are still difficulties in accurately collecting data on annual hours.

For this reason, individuals' hours are most commonly calculated as an average per week. Although this fits the pattern of most people in developed countries, there are those on shift rotas which cycle through fortnightly, or in multiples of days other than seven, and these can only be averaged to make them comparable with others. It is for this reason that the Working Time Directive, when enacted in the UK, took a weekly average over a period of 17 weeks. Annual figures, on the other hand, cope better with seasonal jobs, such as those within agriculture or tourism, or those, which peak at Christmas in the retail sector and the postal services. When comparing different sectors, it is important to take this into account, especially when using a quarterly survey such as the Labour Force Survey (LFS).

2.2 Basic, usual, actual and total working hours

Surveys ask respondents both about 'usual hours' and about 'actual hours'. 'Usual hours' may be interpreted as 'basic' or 'standard' hours (without overtime) or as 'typical'. The first is generally more precise, since it is likely to be laid down contractually, whereas the second relies more on memory and averaging. 'Actual hours' includes overtime, and is thus a more accurate reflection of long hours. Atypical weeks among some individuals will not bias statistics, if the sample is large enough. A difficulty arises among those who have no hours laid down by contract; some of these may still declare themselves to be working overtime, and these may need to be filtered out or analysed separately.

2.3 Travel to work, working off-site and 'working' breaks

Travel to and from work is not usually included in working hours, although commuters by train may be working during this time. Some studies, such as Dex *et al.* (1995) include a measure of 'work-related time', which includes travel. They find, for example, that for full-time married men, travel to and from work adds four hours, on average, to weekly work-related hours. Those who travel as part of their work (particularly those staying away from home overnight) pose particular definitional problems. Those who work from home (the self-employed small business person, home-workers, or those using telecommunications to reach their firm or clients, for example) pose additional measurement problems, as they may be interrupting their work to deal with personal matters. A similar issue arises when trying to assess whether long hours reduce productivity, since being present in the office does not guarantee that one is working. Lunch breaks (but not other breaks) are usually excluded in the major surveys such as the Labour Force Survey (LFS), although again many workers increasingly work through much of an official lunch break. Further ambiguities arise when workers are 'on call' but free to engage in their own pursuits (usually counted as not working) or those occupied in vocational training schemes (sometimes counted as working, but separately).

2.4 Who reports?

One of the key differences between major surveys is who provides the data. For example, the LFS collects data from the employee, and is thus able to record actual hours, although this may depend on the accuracy and honesty of the respondent. The New Earnings Survey (NES) collects data from employers, based on employers' records. While hours may be more accurately recorded by the employer, this method of data collection tends to reflect standard

hours as contracted, and miss out unpaid overtime. It is thus not so reliable for studying long hours, particularly since some social classes and occupations tend to work unpaid overtime more than others. A further accuracy issue arising from the LFS is that questions concerning absent respondents may be answered by proxies, whose knowledge of actual working hours is likely to be less reliable than that of the employee in person.

2.5 Recall or record

Among surveys collecting data from employees, there are those, which rely on the memory of respondents, and others, which ask them to complete a 'time diary'. The latter would appear more reliable, but even then respondents may become lax or bored with filling in the diary after a time, and thus become less accurate. Jacobs (1998) investigated a finding by Robinson and Godbey (1997) which appeared to show that respondents working more than 50 hours tend to exaggerate the time they spend at work, when measured against a time diary method. Jacobs finds that the phenomenon is the result of regression towards the mean,[1] and that the same data can show self-reporting or time-diaries to be over-estimating. He concludes that self-reporting may be taken as reasonably accurate.

2.6 Main job and other jobs

Surveys such as the LFS collect data about both respondents' main job, and any second job they do. It is important in comparing reports to check whether they refer just to hours worked in the main job, or to total hours. This particularly affects both low-paid and part-time workers, who may have several jobs to earn a living, and high-paid workers such as consultants and directors, who may work just a few hours each in many jobs. Voluntary work is not usually counted in conventional economic studies.

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[1] Regression towards the mean is a statistical phenomenon, established by the inventor of the term 'regression', Francis Galton in 1885. We might assume that, if self-recall is accurate, it would give exactly the same measure as a diary, and that the correlation between the two variables would be perfect. However, since both systems of measurement contain a degree of error, the correlation is less than perfect. Wherever correlation is imperfect, the effect at upper levels is to make regression predictions *lower* than a perfect correlation would, and at lower levels to make predictions *higher* than a perfect correlation would. The point is, the same effect pertains, regardless of which variable is predicted from the other. So, wherever there is error in two measurements of working hours, it will always appear that one group are under-estimating, and another over-estimating.

2.7 Which survey?

There are three principal national surveys referred to in the UK literature, which are large-scale, regular and which may therefore be relied upon as data sources: the LFS, the NES and the British Household Panel Survey (BHPS). Butcher and Hart (1995) give a good summary of the key features of the LFS, including how its questions have changed subtly over time, and how non-response is dealt with. The LFS is more reliable for studying long hours than the NES, because it:

- measures both usual and actual hours
- includes the self-employed, and
- excludes meal breaks from its measures.

Its weaknesses are that it has:

- a shorter time series
- a smaller sample
- a weaker panel element, and
- allows proxy responses.

Bell and Hart (1998) and Orchard and Sefton (1996) provide a useful comparison of LFS and NES statistics, with an evaluation of the technical approaches of the two surveys. For an example of the difference between them, the TUC (1995b) show a bar chart comparing 'usual hours worked' according to the LFS and the NES. The latter shows usual hours of 35 to 39 per week greatly more common than the LFS. For all groups working 40 hours per week or more, the LFS shows higher proportions than the NES.

2.8 Economic cycle

When reporting trends over time, or when comparing cross-sectional views of different countries, it is important to be aware of fluctuations in the economic cycle. Employment levels, or longer hours to meet increased demand, tend to rise when the economy booms, and fall when it is in recession. Comparing a peak year with a trough, or comparing countries at different stages of the cycle, may thus give a distorted picture.

2.9 Part-time hours

There are also definitions, not of 'working hours' but of related terms, which can make comparisons between surveys problematic. In particular, the definition of 'part-time' varies by survey. For example, the LFS allows respondents to define themselves as full- or part-time, whereas other surveys, such as the NES, categorise respondents working less than 30 hours per week as part-time.

2.10 What are long hours?

Having established a measure of 'working hours', one is still left with differing definitions of 'long hours'. The Working Time Regulations, which came into force in England, Wales and Scotland on 1 October 1998, set a weekly working hours limit of 48 hours (averaged over a 17 week period). The figure of over 48 hours per week is likely to become a common standard for defining long hours. Monthly tables in *Labour Market Trends* produced by the Office for National Statistics (ONS) give figures for over 45 hours per week. Other reports adopt arbitrarily over 50 or over 60 hours per week. Some use the number of hours overtime per week, which may not rest upon a common standard week.

Because (especially in the UK) so many more women than men work part-time, a few studies use a different definition of 'long hours' for men and women. For example, Dex *et al.* (1995) define 'long hours' as more than 60 per week for men, or more than 40 per week for women.

Thus far, definitions of a 'long hours culture' have been quantitative, but it is also possible to gain qualitative, or subjective definitions, which again may vary. Kodz *et al.* (1998) carried out a number of case studies, which produced some qualitative definitions of 'long hours'. This research described long hours as working more than contracted hours, on an ongoing and continual basis, with no time for recovery. Occasional peaks in working hours, for example to meet a specific deadline, were not perceived as a problem. How many extra hours constituted 'long hours', though, varied from person to person, and sometimes depended upon the norm for that type of work. In general, consistently working an additional ten hours per week (*i.e.* over and above contracted hours) was considered to be 'long hours'. The study also found that the most common times to be working extra hours were in the early evening, followed by early mornings or lunch times. Fewer people worked additional hours in the late evening or weekend.

Bell and Hart (1998) make the distinction between 'extensive' work (long hours) and 'intensive work' (working harder, faster or more efficiently). They suggest that workers working more intensively may be inclined to report suffering from 'long hours', merely because they are more tired, and would thus prefer shorter hours. Green (2001) also distinguishes intensive and extensive effort, and uses the NES and LFS to show that intensive effort has increased.

A number of studies on the UK report on the lengthening of standard working hours over time, or even on the amount of overtime hours worked, but not specifically on 'long hours', *e.g.* Labour Research Department (1995), Harkness (1999), Employment

Affairs Report (1995). Industrial Relations Services and Incomes Data Services produce annual reports on Hours and Holidays (IRS 616, (1996); IDS 677, (1999); IDS 697, (2000). Although these reports are a useful series of snapshots, they are not based upon representative surveys. These sections of the literature have not been reviewed for this study.

Finally there is an extensive literature on various aspects of 'work-life balance', studying alternative options to 'long hours', such as flexible hours, job-sharing, annualised hours, term-time working, options to work part-time, or the benefits of working shorter hours. Some of the literature relating to gender and division of labour in the home is considered under the section on households (Section 3.2), but for the most part this material does not deal directly with 'long hours', and has not therefore been reviewed. Equally, there is much literature on aspects of 'flexible working' such as night-work, shift rotas, weekend and holiday working; while these may count as unsocial hours, they are not directly pertinent to 'long hours', so again have not been addressed in detail in this report.

2.11 Conclusions

There are a number of measurement issues which need to be considered, prior to any analysis of long working hours. In particular, it is important to be clear about the definition of working hours, *i.e.* actual or usual, annual or weekly, for a main job or total hours and whether travel time is included. The method of data collection varies between surveys, such as the LFS and the NES. Reliance on memory to record working hours also has its pitfalls. Work intensity is also an issue; especially as an increasing proportion of the workforce now work remotely from their employer's premises. With regard to long hours, a number of definitions have been used. Throughout this report, however, the Working Time Regulations measure of over 48 hours per week has been used.

3. Working Long Hours in the UK

This chapter presents evidence of the patterns and distributions of working long hours in the UK based on the Workplace Employee Relations Survey, 1998 (WERS98). This is followed by a review of existing evidence. It concludes with the presentation of evidence from our UK case studies. Chapter 9 includes the corollary findings from the British Household Panel Survey.

3.1 Working long hours — evidence from the Workplace Employee Relations Survey, 1998

WERS 98 is the fourth in a series of workplace employment relations' surveys sponsored by DTI, ACAS, the Economic and Social Research Council and the Policy Studies Institute. Previous surveys were carried out in 1980, 1984 and 1990. WERS 98[1] is based on face-to-face interviews with over 3,000 managers and nearly 1,000 workplace employee representatives. And, for the first time in the series, included a self-completion employee questionnaire which nearly 30,000 employees returned. The large sample size and high response rate means that the data is statistically robust. The findings are statistically representative of all British workplaces with more than ten employees. For the purpose of this research the employee survey and the managers' survey have been analysed. Both sets of these data have been weighted to derive unbiased estimates from the samples of workplaces and employees[2] (Volume 2, Appendix A provides the technical details).

It should be noted that for the purpose of this report 'working long hours' has been defined as working for more than 48 hours

[1] The main volume of findings, *Britain at Work*, based on the cross-sectional survey, was published in September 1999. Its companion volume, *All Change at Work*, published in May 2000, provides analyses based on the panel survey and also draws on the findings from earlier WERS surveys.

[2] In some instances the weighted numbers in the analyses were very small. For this reason, some figures have not been put into the report but we have made reference to them, or advised that they must be treated with caution.

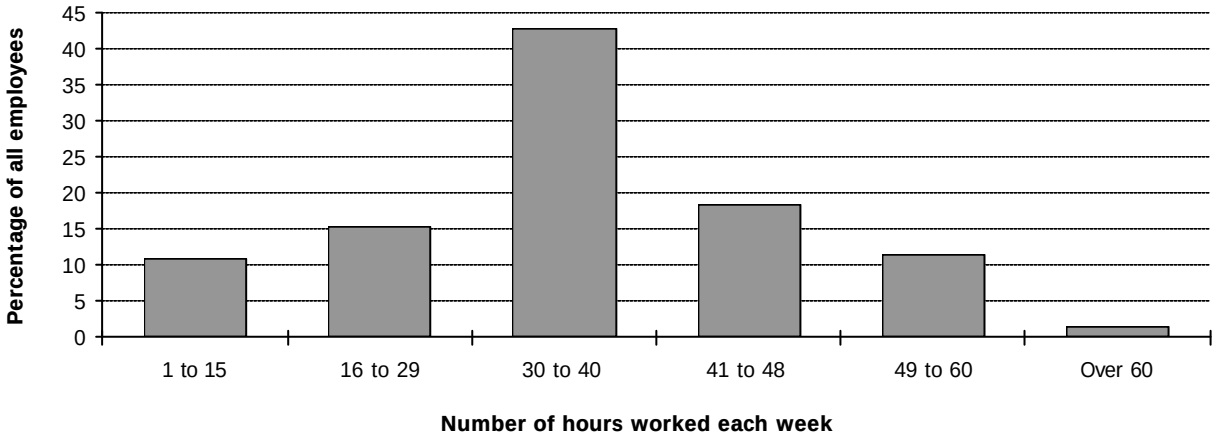
per week and that "all employees" provide the basis of the analysis. This is because the WERS questionnaire does not include a question that asks employees whether they work part-time or full-time. It also only asks about total usual hours worked including overtime, making it difficult to identify part-time employees. However, in a few incidences reference is made to those who work full-time, which has been defined to those working over 29 hours a week.

3.1.1. Who works long hours?

The distribution of working hours

Figure 3.1 shows the number of hours worked each week, including overtime and extra hours, by all employees in the sample. Although most people in the sample (41 per cent) work the average 31 to 40 hours per week, nearly one in nine employees (11 per cent) work 49 to 60 hours per week, with a small percentage (one per cent) working over 60 hours per week. In order to examine this pattern more clearly, gender was analysed to ascertain whether there was a difference between males and females working long hours.

Figure 3.1: How many hours do you usually work each week including overtime and extra hours? (all employees)

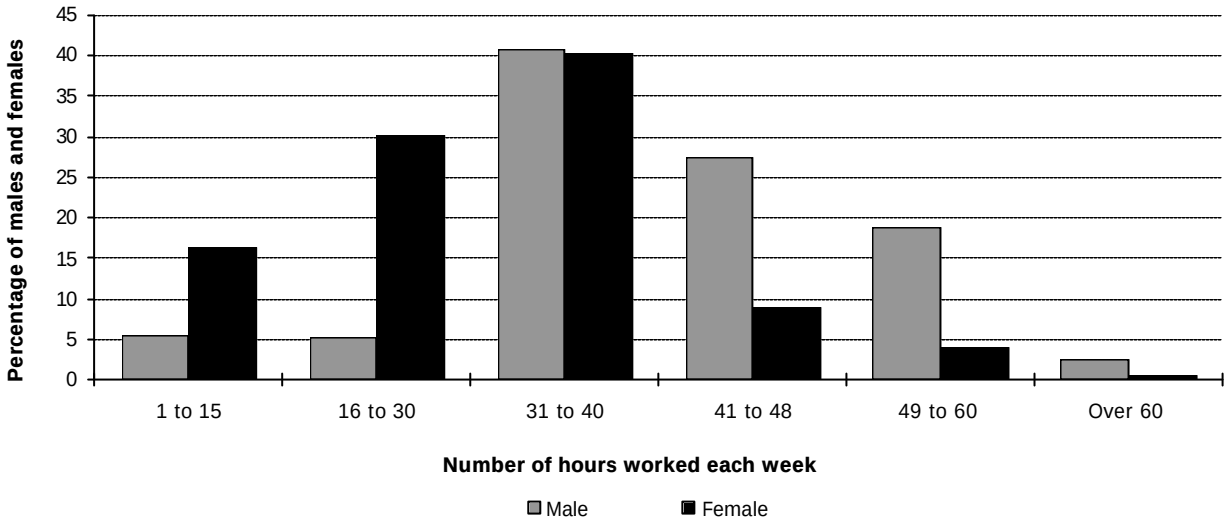


Source: Workplace Employee Relations Survey, 1998

Gender

There is clearly a gender difference in terms of long working hours, as Figure 3.2 shows. Again, most men and women work the standard 31 to 40 hours per week — 41 per cent and 40 per cent respectively. However, almost one in five (19 per cent) of males in the sample work 49 to 60 hours per week compared to one in 25 (four per cent) of women. When considering those who work over 60 hours per week only, this sub-group is made up almost entirely of males.

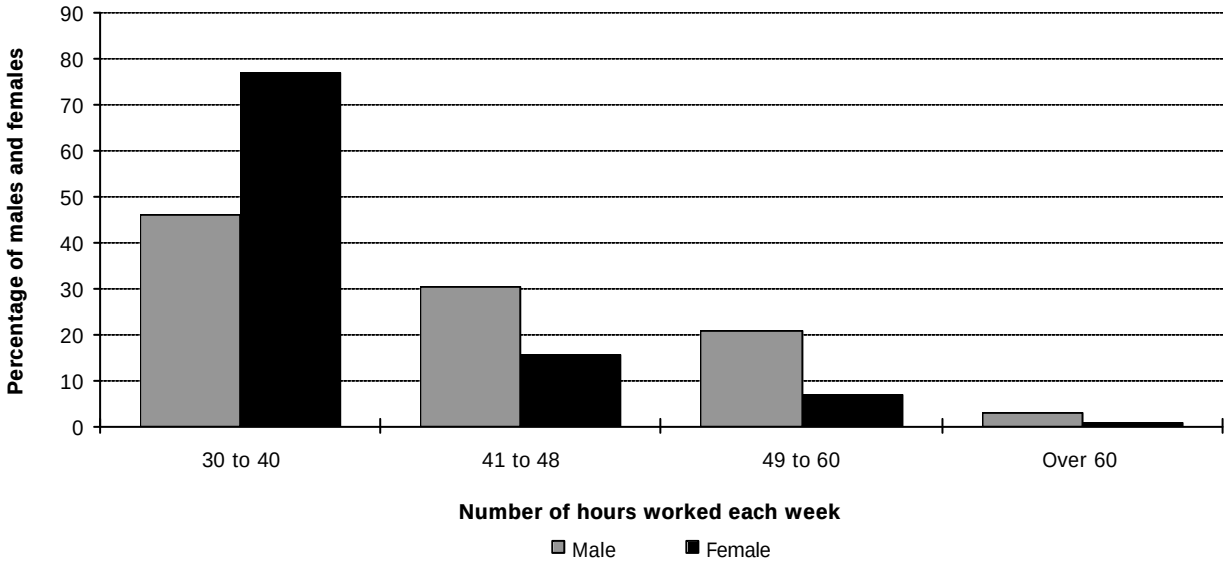
Figure 3.2: How many hours do you usually work each week, including extra hours and overtime? (by gender)



Source: Workplace Employee Relations Survey, 1998

Figure 3.3 shows how many hours males and females work each week for only those who work full time, *i.e.* over 29 hours per week. In a similar pattern, Figure 3.3 shows that more females than males work 30 to 40 hours per week. However, twice as many men as women work 41 to 48 hours (30 per cent and 15 per cent respectively) and three times as many men as women work 49 to 60 hours per week (21 per cent and seven per cent respectively).

Figure 3.3: How many hours do you usually work each week, including extra hours and overtime? (by gender for full-time employees)



Source: Workplace Employee Relations Survey, 1998

Marital status

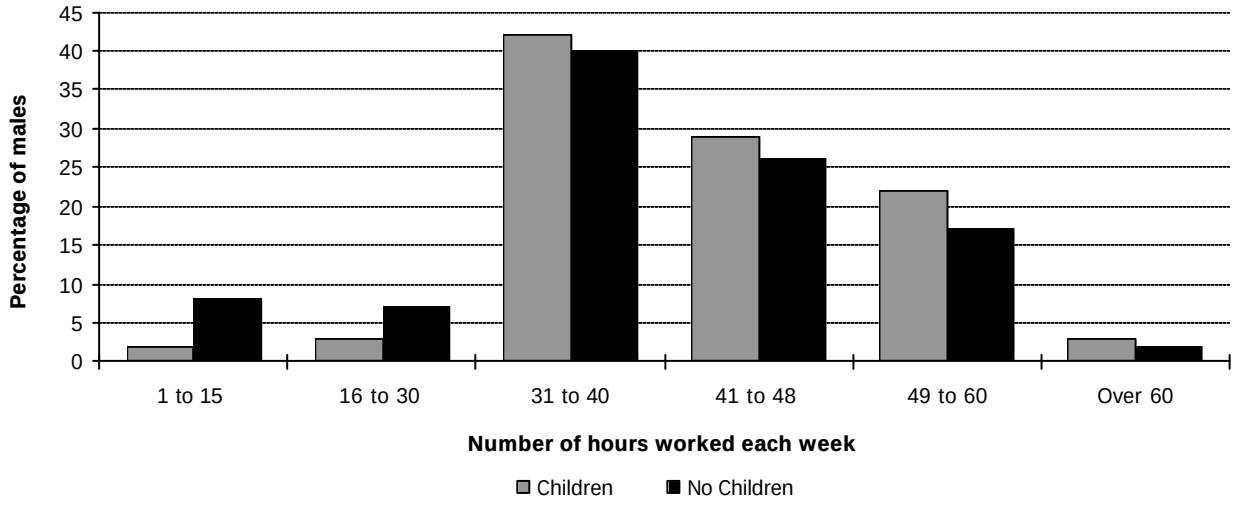
There is no real significant difference between marital status groups in the extent to which they work long hours, with only those who are widowed being slightly less likely to work long hours than the other groups. However, there are fewer employees in this sub-group in the sample than the other sub-groups analysed, with the weighted figures less than 50 in some cases (see Appendix A, Table A.4).

Caring responsibilities

Moving on to caring responsibilities, the WERS questionnaire includes only one question on caring responsibilities and this relates to whether the employee has any dependent children. There are no other questions concerning employees' caring responsibilities (*i.e.* elderly relatives or those with a disability). Therefore analysis is restricted to employees with dependent children.

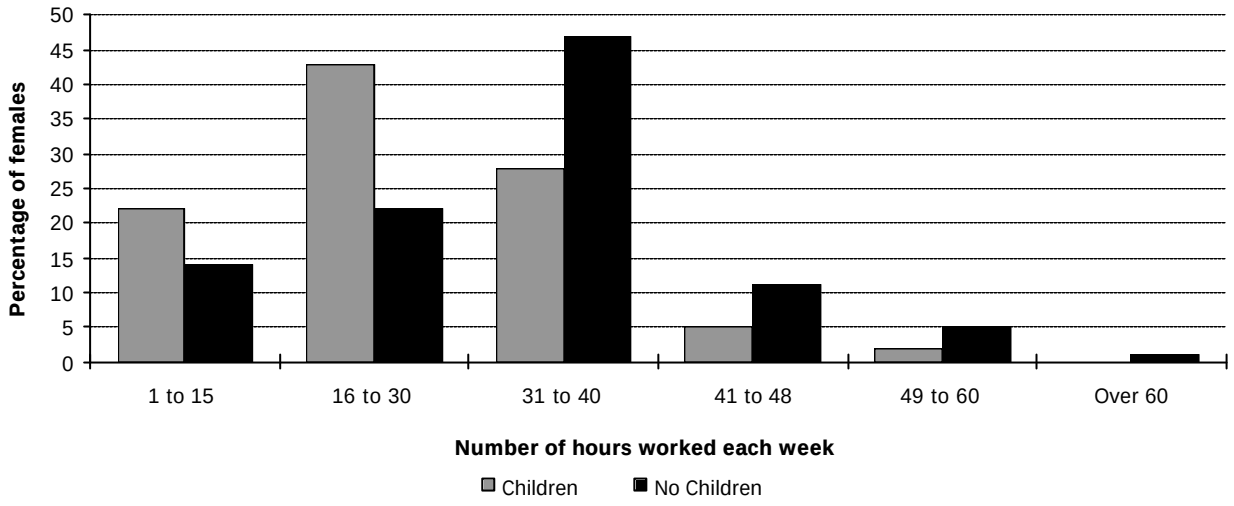
Looking first at whether having any dependants would make any difference to those working long hours, the data suggests that men with children are slightly more likely to work longer hours than those without. Nearly a quarter of men with children work over 48 hours per week, with 22 per cent working 49 to 60 hours per week (see Figure 3.4) and a further three per cent working over 60 hours. In contrast, among men without children, 17 per cent work between 49 and 60 hours per week and two per cent over 60 hours per week. Conversely, women with children are less likely to work long hours than those without: two per cent compared to five per cent of women with no children work 49 to 60 hours per week (Figure 3.5).

Figure 3.4: How many hours do you work each week including overtime and extra hours? (male employees with and without dependent children)



Source: Workplace Employee Relations Survey, 1998

Figure 3.5: How many hours do you work each week including overtime and extra hours? (female employees with and without dependent children)

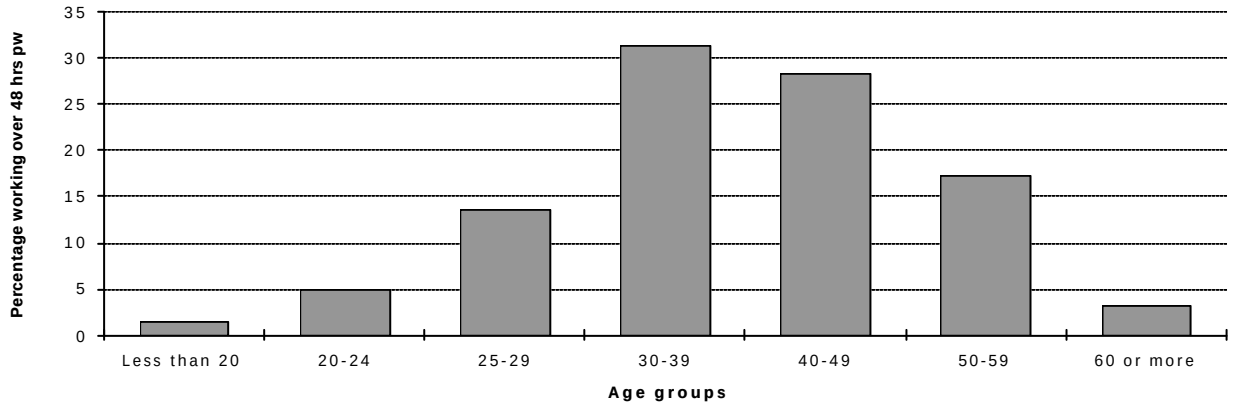


Source: Workplace Employee Relations Survey, 1998

Age groups

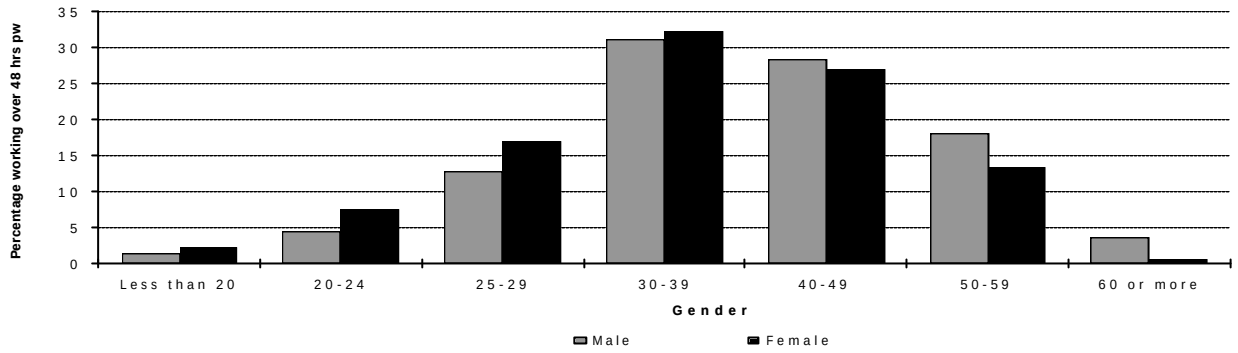
In Figures 3.6 and 3.7, the data are analysed slightly differently. This analysis shows all male and females who work over 48 hours per week by age. The likelihood of working long hours varies with age, with those who are most likely to work long hours in their job aged between 30 and 49 years old, with a peak in the 30 to 39 age group category (see Figure 3.6). Almost one-third (31 per cent) of 30 to 39 year olds work over 48 hours per week. In contrast, among those aged under 20, only one per cent work over 48 hours per week. Only five per cent of those aged between 20 and 24 work these long hours.

Figure 3.6: Employees who work over 48 hours per week (by age group)



Source: Workplace Employee Relations Survey, 1998

Figure 3.7: Employees who work over 48 hours per week (by age and gender)



Source: Workplace Employee Relations Survey, 1998

When working long hours by age group and gender is considered, this shows a similar picture (see Figure 3.7). The peak for both males and females is within the 30 to 39 age group, closely followed by those in the 40 to 49 age group. However, what is also interesting to note is that a higher proportion of women (as a percentage of all female employees) work longer hours when they are younger. Men, on the other hand, are more likely to work long hours in their 40s and 50s.

Health

Unsurprisingly, those with longstanding health problems or disabilities are slightly more likely not to be working long hours than those without (see Appendix A, Table A.7). However, the sample numbers of those with limiting longstanding health problems is too small to be able to draw any substantial conclusions and therefore they have not been included in the report.

Ethnicity

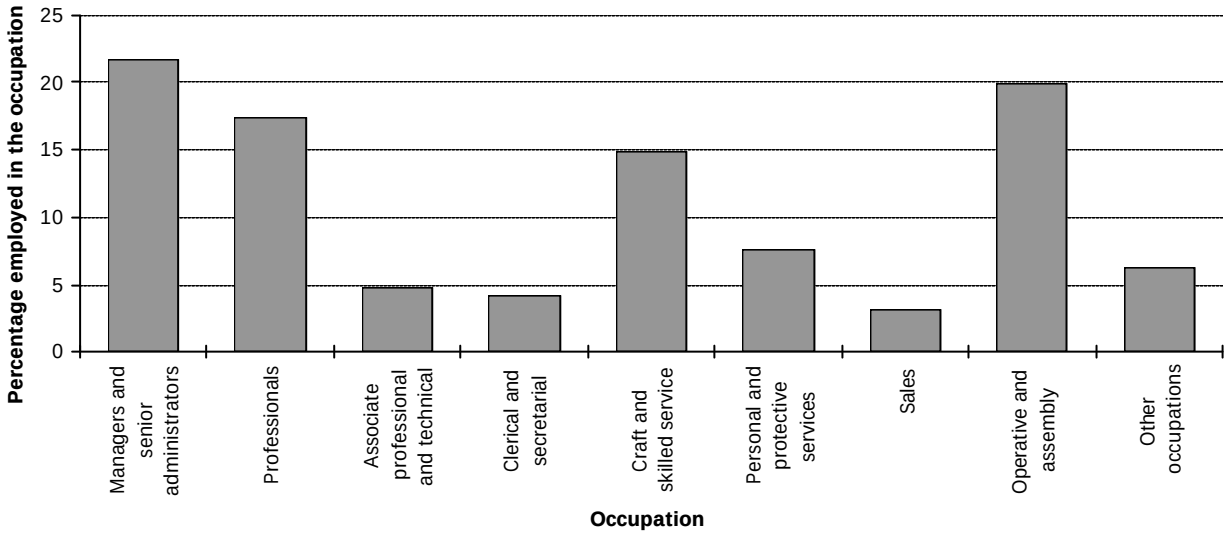
As with health, analysing the relationship between ethnicity and long working hours is problematic, as sample numbers of ethnic minority groups are too small in the WERS data to be able to draw any robust conclusions (see Appendix A, Table A.8).

Occupation

This section considers long hours and occupation, and again includes in the analysis those who work over 48 hours only, in order to determine in which occupations this group of employees are concentrated. As such, the analysis breaks down the total number of employees working over 48 hours per week, by occupation.

Figure 3.8 shows that working long hours is more prevalent in some types of job than in others. High concentrations of these long hours workers are in the occupational groups of managers and professionals. Over one in five (22 per cent) of all employees working over 48 hours per week are employed as managers. Nearly one in five (17 per cent) of these long hours workers are professionals. However, those in operative / assembly occupations also make up a large proportion (20 per cent) of employees who work over 48 hours per week.

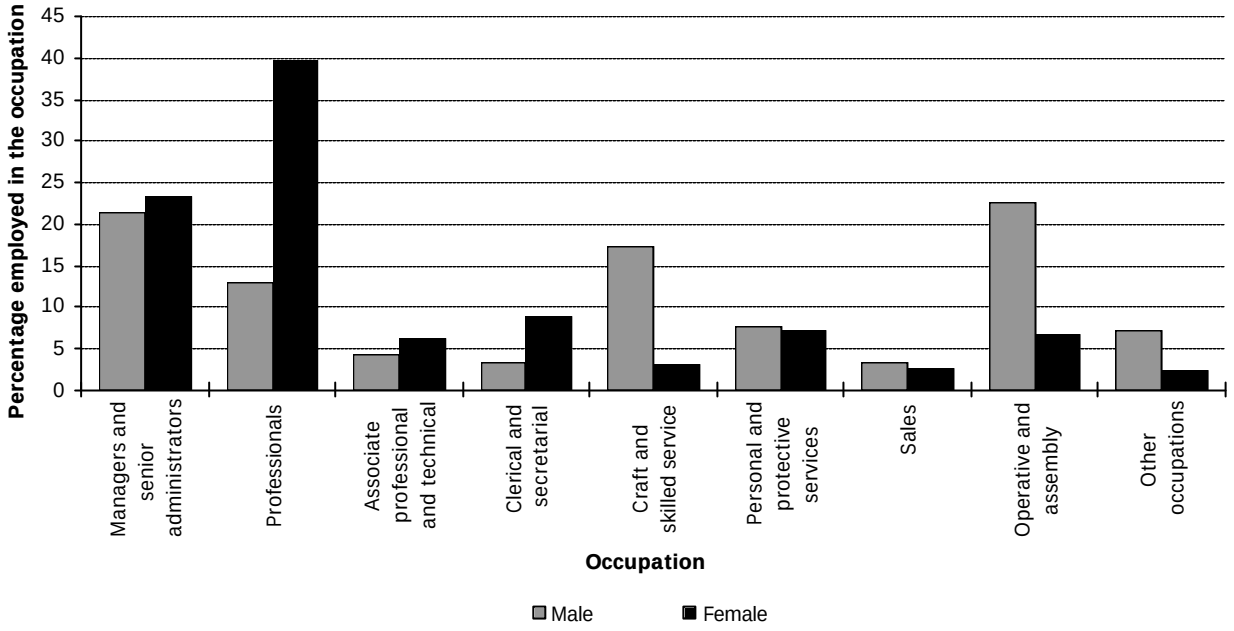
Figure 3.8: Employees who work over 48 hours per week (by occupation)



Source: Workplace Employee Relations Survey, 1998

The WERS data show that these occupational patterns vary significantly by gender. Figure 3.9 shows that among women who work long hours, nearly two-thirds are in managerial and professional occupations — 23 per cent and 40 per cent respectively. For males, on the other hand, the long hours workers are employed in a wider range of occupations, with 21 per cent in managerial, 17 per cent in craft / skilled and 23 per cent in operative / assembly occupations. Previous research (Cully *et al.*, 1999) has also conducted analysis of hours worked by gender, occupation and industry. It found that only among women working as managers and professionals, and among women in education (many of whom would be teachers) did the proportion who worked over 48 hours exceed ten per cent. In contrast, among men in nearly all occupations and industries, this proportion exceeded ten per cent.

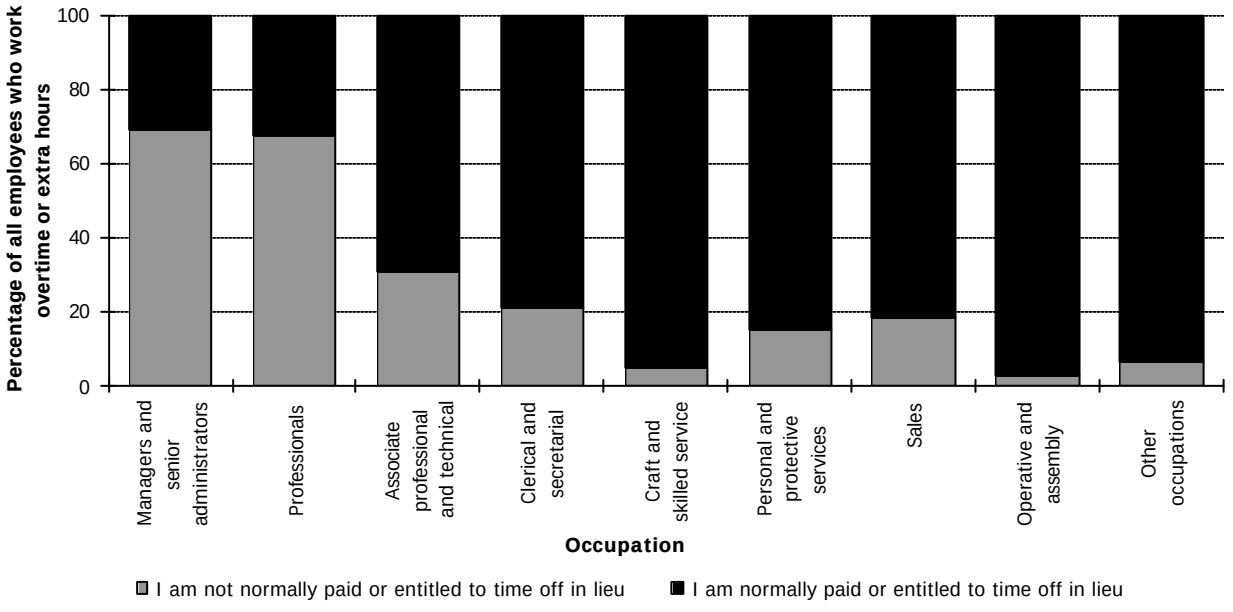
Figure 3.9: Employees who work over 48 hours per week (by occupation and gender)



Source: Workplace Employee Relations Survey, 1998

Figure 3.10 shows, for all employees who work any overtime, the breakdown of whether or not they receive any compensation for these extra hours. What is strikingly clear is that both managers and professionals — 69 per cent and 68 per cent respectively — are not normally paid or given time off for any overtime or extra hours. However, for those in craft and skilled services, operative and assembly, and other occupations, well over half of employees are compensated in some way for working extra hours.

Figure 3.10: All employees who work overtime or extra hours and whether they are compensated in some way for their overtime or extra hours (by occupation)



Source: Workplace Employee Relations Survey, 1998

3.1.2 Multi-variate analysis

The analysis of the WERS data has shown that there appears to be a number of factors associated with working long hours. In particular, it shows that certain groups of employees are more likely to work long hours (*e.g.* males more than females). In order to establish the relative influence of the various demographic variables on employees working long hours, bgistic regression analysis has been conducted on all employees who work full time, all male full-time employees and all female full-time employees. This multi-variate analysis enables conclusions to be drawn about which are the key characteristics of individuals which are most associated with long hours working. The outcome of these models for all full-time employees and males and females separately are reported in Tables A.16, A.17 and A.18 in Appendix A.

In these models the dependent variable was whether the respondent worked over 48 hours per week or not. This variable was defined such that it took a value of one if the individual reported that they usually worked over 48 hours per week, and zero if the individual reported that they worked 48 hours or fewer per week. Only full time employees were included in the model.

Logistic regression analysis assesses the effect of changing one of the independent variables in the model on the *odds* of a respondent reporting that they usually work more than 48 hours per week, while controlling for all other independent variables. It therefore brings into greater clarity those variables which we can confidently assert are associated with the dependent variable, *i.e.* long hours working amongst full-time employees.

The independent variables included in the model for all full-time employees were, in general, those factors already identified in the bi-variate analysis, namely gender, age, occupation and childcare responsibilities.[1] Separate models were also analysed for female full-time employees and male full-time employees. The reasons for running these models separately was that previous research has shown different working hours patterns for males and females, particularly amongst those with childcare responsibilities.

Results of logistic regression

This analysis suggests that when the effects of various factors are considered together, working long hours is associated with gender, age, level of qualification, occupation and whether the person has childcare responsibilities.

[1] In addition, a qualifications variable was included in the multivariate models.

The effects of each of the variables included in the model **for all full-time employees** are as follows:

- Gender appears to be most associated with the dependent variable: the respondent being male increases the odds of the individual reporting that they usually work more than 48 hours per week.
- Age: respondents being aged between 25 and 50 increases the odds of reporting that weekly working hours usually exceed 48 hours. (This is statistically significant at the 95 per cent level but not at the 99 per cent level.)
- Qualifications: the respondent possessing a degree or equivalent, or a postgraduate qualification increases the odds of reporting that weekly working hours are usually more than 48 hours.
- Occupation: the respondent being a manager, professional or operative / assembly worker increases the odds of working more than 48 hours per week, whereas working in a clerical or secretarial occupation or as an associate professional or technician, reduces the odds of long hours working.

For the model which included only **full-time male employees**, the independent variables that increased or reduced the odds of working long hours and which were statistically significant (at the 95 per cent level) were as follows.

- Age: similar results were shown for age as in the model described above for all employees, *i.e.* being aged between 25 and 50 increases the odds of men working long hours.
- Qualifications: possession of a post graduate qualification also increases the odds of reporting that usual hours are over 48 hours per week, but possession of a degree level qualification has no significant effect in this model.
- Occupation: again being a manager increases the odds of long hours working, and this occupational status appears to be one of the variables most associated with long hours working in this model. In contrast to the previous model, the respondent being a professional is not statistically significant.
- Childcare responsibilities: amongst males, having responsibility for a dependent child increases the odds of usually working long hours.

The model for **females** only shows quite different results, suggesting that some characteristics of females who work long hours are different to their male counterparts. (Also some of the coefficients in this model show greater variation than in the model for full-time males.) It also suggests that these factors have a greater effect of either reducing or increasing the odds of females working long hours.

- Age is no longer statistically significant in this model.
- Qualifications appear to be more important as factors associated with long hours working. The model indicates that the higher the level of the qualification possessed, the more likely the individual is to work long hours.
- Occupation: both managers and professionals are statistically significant as factors which increase the odds of females usually working long hours. Again, working in a clerical or secretarial role reduces the odds of working long hours.
- Childcare responsibilities: the female respondents' having childcare responsibilities reduces the odds of working long hours.

3.1.3. Conclusions from the WERS data

The WERS analysis suggests that the profile of male long hours workers differs from that of females who work long hours. A higher proportion of males than females work long hours, and the multi-variate analysis confirm that the propensity to work long hours is associated with gender. Men who are aged between 25 and 50, work as a manager, have a postgraduate qualification or a dependent child, are more likely to work long hours than other groups of males. However, women's propensity to work long hours varies rather more with their personal and employment characteristics than does that of men. Women who work in professional occupations appear to be considerably more likely to work long hours than their counterparts in other occupations. Having a dependent child, however, significantly reduces the likelihood of females working long hours. Also, for women, qualifications appear to be more associated with long hours working than amongst men, and age appears to be less associated with it.

3.2 Working long hours — evidence from previous research

This section draws upon evidence from previous research on patterns and distributions of working long hours. The focus is on findings and issues which have not been covered by the analysis of WERS98.

3.2.1 Trends and cycles

Kodz *et al.*, 1998 analysis of the UK Labour Force Survey (LFS) showed that in Spring 1997, over one-quarter (27 per cent) of the workforce in full-time employment usually worked in excess of 48 hours per week. More recent UK LFS data (Spring 2001) shows that this proportion is now 25 per cent. These figures include the self-employed, among whom the incidence of long hours working

is higher. The LFS (Spring2001) show that 44 per œnt of self-employed people in full-time employment worked in excess of 48 hours per week.

Butcher and Hart (1995), although not specifically focusing on 'long hours', use the LFS to provide an analysis of general trends in working time between 1979 and 1994. They compare economic peaks (1979 and 1990) and troughs (1983 and 1993), which do not always give the same results. Changes in the early 1980s are found to be structural rather than cyclical. They do not give an overall regression trend through cycles. Between troughs, total employed hours in the economy rose by 3.3 per cent, employment rose by 7.3 per cent and output rose by nearly a quarter. Variations are cyclical, and more due to changes in employment than weekly hours. As a proportion of *total hours worked,* the full-time share has declined, as the number of part-time, self-employed and second jobs grew substantially. Average hours for part-time workers fell, while for full-timers they changed little. For the self-employed, the proportion working part-time increased, while average hours for full-time and part-time workers fell. On average, the self-employed nonetheless worked seven hours per week more than employees.

Bell and Hart (1998) use the New Earnings Survey (NES) to give a trend analysis from 1975 to 1994 (a slightly longer period than analysed by Butcher and Hart, 1995). This suffers from the limitations concerning NES measurements of long hours (omitting unpaid overtime) discussed in Section 2.4. Nonetheless, their findings do not differ greatly from others quoted in this report.

Gershuny (2000) draws attention to a longer-term trend (1960s to 1990s) whereby there has been a convergence in time use between men, women and those in higher and lower status work. For example, put very simply, those of higher status previously had more leisure time and now have less of it, than those of lower social status. Thus, the working hours of those in higher status jobs have lengthened while the hours of work in lower status jobs have declined. Similarly, women have come to do more paid and less unpaid work. The analysis of working hours patterns by gender and occupation is returned to below. In Section 4.1.8, we detail one of the reasons Gershuny suggests for this convergence.

Green (2001) uses both the NES and LFS to track trends from 1977 to 1997. He confirms the finding that average hours have levelled off, after a historic fall since the previous century, but that dispersion has increased, with some groups of employees working longer hours, and others shorter hours. For example, Green shows that the proportions of employees working less than 20 hours per week increased from ten per cent in 1983 to over 14 per cent in 1998. The proportion of employees working over 48 hours per week also increased, from 17 per cent to 20 per cent. Green concludes that while some groups of the workforce have

experienced increased intensive work effort, this is not the case for the workforce taken as a whole.

Hart and Ruffell (1993) show that overtime rose from 1981 to 1984, despite a rise in unemployment. This is argued to be because overtime precedes changes in employment levels in response to cyclical changes. The TUC (1995b), using the LFS, shows that the number of full-timers working 45 hours or more increased from 4.7 million (29 per cent) in 1984 to 5.7 million (36 per cent) in 1994. Within these, those working 45 to 49 hours went up just one per cent, but those working 48 hours or more rose from 20 per cent to 25 per cent. Furthermore, those working 50 hours or more increased from 15 per cent to 21 per cent. There was a simultaneous decline in proportions working a 'standard' week of 35 to 39, or 40 to 44 hours.

3.2.2 Gender differences

Analysis of 1997 LFS data showed that (at 34 per cent) a higher percentage of full-time employed men (including the self-employed), usually worked over 48 hours per week than females (14 per cent) (Kodz *et al.*, 1998). The equivalent figures for Spring 2001 are 30 per cent for males and 13 per cent for females (Labour Force Survey, 2001).

The TUC study (TUC 1995b) also found that most of those working long hours were men, but that both men and women have seen recent increases in the proportion working long hours. For example, the proportion of full-time men working 50 or more hours went up from 20 per cent to 27 per cent over the decade 1984 to 1994. The proportion of men working 48 or more hours increased from 26 per cent to 33 per cent, over the same time period. For women, the proportion working 50 or more hours increased from six per cent to nine per cent, while the proportion of female full-timers working 35 to 39 hours fell from 52 per cent to 46 per cent. Those women working 40 to 44 hours fell from 29 per cent to 27 per cent. (The authors do not present proportions working short hours in the same period.)

Harkness (1999) used the LFS to compare working hours in 1988 with 1998 (both years were at similar points in the economic cycle). Over this time period, basic or standard hours fell, for both men and women. For full-time men, average basic hours fell from 40.2 to 39.3 per week, and for women from 37.4 to 36.8 per week. Harkness found that what has increased is the use of overtime, both paid and unpaid, for both full-time and part-time workers (see Table 3.11). The large rise in unpaid overtime for women may reflect an increase in the numbers of women employed in managerial or professional occupations.

Table 3.11: Overtime hours (usual hours)

	Men				Women			
	Full-time		Part-time		Full-time		Part-time	
	1988	1998	1988	1998	1988	1998	1988	1998
Percentage of all employees working paid overtime	43.0	55.2	12.1	53.5	24.3	38.5	19.8	50.1
Percentage of all employees working unpaid overtime	25.2	40.6	10.4	28.5	27.0	57.8	11.0	34.0

Source: LFS Spring quarters, in Harkness (1999)

Harkness shows that the level of total hours worked has shown a marked increase over the decade. Including both paid and unpaid overtime, the proportion of men working less than 40 hours per week fell from 27 per cent to 16 per cent, while the proportion working more than 50 hours per week rose from 24 per cent to 30 per cent. For women, the proportion working less than 40 hours per week has fallen from 73 per cent to 55 per cent over the decade, while the proportion working over 50 hours per week has risen from four per cent to ten per cent.

3.2.3 Age differences

Bell and Hart (1998) define extensive overtime as 12 hours or more overtime per week (*i.e.* 52 hours per week if the basic week is 40 hours). They break this into 13 to 20, 21 to 25 and 25 or more hours extra. They find that the prevalence of overtime increases with age for full-time males, with males in their 30s and 40s working significantly more overtime then their younger counterparts. Relatively few full-time females, however, work overtime and for those that do, there is much less variation by age. The authors test the proposition that different age cohorts may behave differently with regard to working overtime, because of leisure preferences, household size or composition, but found little evidence of a cohort effect.

3.2.4 Household characteristics

Dex, Clark and Taylor (1995) use the British Household Panel Survey 1991 to give a comprehensive picture of working hours, based on the premise that decisions about working hours are determined by household rather than individual situations. The analysis does not include overtime, however, so may be less accurate for managerial or professional occupations in particular. This analysis of total weekly hours includes paid work in second or other jobs. The distributions of working hours are broken into groups including 41 to 60 hours, and over 60 hours. The study also gives tables for combined hours of couples, with the

maximum group as '80 to 100 hours'; this gives a very different definition of 'long hours' from most studies. Nonetheless, some key findings (listed below) emerge, that are not described in other literature.

The likelihood that one member of a couple will be in paid employment increases with the attachment of their partner to paid work — it is not the case that one partner tends to do more paid work to compensate for the other being employed less. On average, for couples where the female partner is employed, women add approximately 30 hours per week to the man's total hours at all levels of the male's hours.

A cross-tabulation of partnered males and females' working hours shows that:

- for men working zero hours (*i.e.* retired or unemployed) or under 31 hours, the most common pattern was for their partner to be working zero hours also.
- for men working 31 to 40 or 41 to 60 hours, the most common pattern was for their partner to be working part-time or standard hours (31-40 per week).
- among partnered men working 61 hours or more, 20 per cent had a partner working 41 hours or more, while 31 per cent had a partner employed for zero hours. Men in couples working these very long hours are less likely than men working 31 to 60 hours to have a partner working part-time or standard hours. This suggests this group is somewhat polarised in terms of their partner's working pattern.

Dex *et al.* (1995) also found that among couples with children, the percentage of men who work longer hours than their partners has fallen from 82 per cent in 1968 to 75 per cent in 1991. As a summary of the information contained in the report's many tables, the following profile gives the characteristics of couples most likely to be working over 80 hours per week between them. In particular, they are likely to be:

- partnered and in their 20s
- without children or other caring responsibility
- buying their own house
- man has 'O' levels, woman has 'A' levels
- hold modern attitudes towards women's roles
- both healthy
- males non-unionised, but women unionised
- with short job tenures, but in permanent jobs
- women most likely to be managers, men most likely to be plant-operatives

- men likely to be in distribution or transport, women likely to be in other manufacturing
- living in the North West, West Midlands conurbation, or Scotland.

It is noteworthy that, when this profile is compiled for *individuals* who work long hours (over 60 hours per week for men, and over 40 hours per week for women), the picture is slightly different. Thus individuals working long hours are likely to be:

- in their 30s or 40s for men, in their 20s for women
- married men, single women
- highly qualified academically
- on fixed-term contracts, in non-unionised jobs, in the top pay quartile
- self-employed or managers
- women with fewer dependent children.

Brannen *et al.* (1997) use the LFS from 1984 and 1994 to compare working fathers with men without children, and with working mothers. This study found that employed fathers worked on average more than 47 hours a week. There was little change in overall employment rates over the decade, but rates for lone fathers did decrease. Fathers worked longer hours, about four hours per week, more than other men, even allowing for differing age profiles. Fathers were employed about 20 hours longer per week than employed mothers.

Harkness (1999), using the LFS, found that one-third of men with children in the household were employed for over 50 hours per week in 1998, which was a six per cent rise over the previous decade. Even though mothers were more likely to work part-time than women without children, the proportion of mothers employed for over 50 hours per week rose from three per cent to seven per cent over the decade (see Table 3.12).

Table 3.12: Hours worked, by parental status

	Men				Women			
	With children		Without children		With children		Without children	
	1988	1998	1988	1998	1988	1998	1988	1998
Percentage employed who work more than 50 hrs per week	27.6	33.0	20.9	27.1	2.9	7.3	4.8	12.0
Average total hours	45.7	47.3	43.9	47.8	27.0	32.6	34.8	39.3

Source: LFS Spring quarters, in Harkness (1999)

Kaufman and Uhlenberg (2000), using the 1992-3 National Survey of Families and Households, find evidence (in the USA) for both a 'good provider' model for men, who tends to work long hours, and for an 'involved father' model, who tends to work shorter hours, in order to spend more time with his children.

Hogarth *et al.* (2001) report that among respondents who were single, partnered without children, or lone parents who were in full-time employment, the proportion working 60 or more hours per week was about nine per cent (for all three groups). For those living as a couple with dependent children, however, the proportion was 12 per cent. Within this last group, 14 per cent of partnered men with children work 60 hours or more per week, compared with seven per cent of women in the same situation. These data are based on a survey of 7,500 employees (further details in Section 3.2.6).

3.2.5 Industrial Sector differences

Bell and Hart (1998), comparing boom and recession years, found that 'extensive overtime' was most common in agriculture, forestry and fishing and in transport and communications. (Allowance needs to be made for seasonal inflation in farm labour during an April survey.) Extensive overtime was found to be lowest in banking and finance, and other services (three per cent 13 to 20 hours overtime, one per cent 20 or more hours). All three public sectors (central government, local government, public corporations — especially males in central and females in local government) were shown to work fewer total hours than their counterparts in the private sector. For males in the private sector, a positive differential grew between 1982 and 1994. On average, total hours for full-time females employed in the private sector switched from being one hour less than in the public sector in 1978, to slightly above the public sector in 1994.

Arrowsmith and Sisson (1999) use a survey of 300 workplaces in four sectors (printing, engineering, retail and health) to show that shifts from national to local bargaining over pay and working time have had less effect than might have been expected. There is still a strong sector effect, and employers within a sector tend to change all at once, as a result of a high level of communication between them.

3.2.6 Occupational differences

Hogarth *et al.* (2001) provide an up to date and reliable account of 'work-life balance' in the UK. The findings are based on a survey of 2,500 workplaces employing over five people, supplemented by a separate survey of 7,500 employees. Their report provides a useful check against other findings which rely on the LFS, NES or BHPS. They use a definition of 'long hours' of 60 hours or more per week. An interaction between gender effects and sector or occupation

effects are identified. Twelve per cent of men, and six per cent of women, work these long hours. For occupations affecting mainly men, they show the proportions working over 60 hours per week:

- managers, 14 per cent
- professionals, 15 per cent
- plant and machine operatives, 14 per cent, and
- personal and protective services 13 per cent.

Those occupations principally involving women were least likely to work 60 hours per week or more:

- clerical and secretarial, three per cent, and
- sales, seven per cent.

Table 3.13 shows the proportion of each occupational group usually working 48 hours per week or more, by gender. This is based on Labour Force Survey data presented in Fagan, 2000. Reinforcing our own analysis of the Workplace Employee Relations Survey (1998) (in Section 3.1), it can be seen that the occupational groups in which the longest hours are worked are managers, professionals and plant and machine operatives. Our own analysis of the European Community Labour Force Survey is presented in Chapter 5 of this report.

In relation to compensation for additional working hours, Hogarth *et al.* (2001) find that in two-thirds of workplaces, senior managers were neither paid nor received time off in lieu. Among non-manual workers the proportion is 42 per cent, while only two per cent of manual workers receive no form of compensation for additional hours of work. Bell and Hart (1998), using the LFS 1993, find that 51 per cent of managers and 47 per cent of professionals claim to work unpaid overtime.

Worrall and Cooper (1999), in a survey of members of the Institute of Management (which does not purport to be representative of all managers in the UK), found that between different grades of

Table 3.13: Percentages of employees employed in each occupation working over 48 usual hours per week in UK, 1999, by gender

Occupation	Male	Female
Legislators and managers	40	15
Professionals	25	17
Technicians & associated professionals	22	6
Clerical workers	13	2
Service workers	17	3
Skilled agriculture	11	0
Craft and related	24	5
Plant and machine operatives	28	6
Elementary	16	3
All	25	6

Source: European LFS 1999, data by Eurostat, in Fagan (2000)

managers, there are considerable differences in working hours. Junior and middle managers were found to be the group most likely to be working 41 to 50 hours (51 per cent and 57 per cent respectively). Senior managers and directors were the most likely to be working 51 to 60 hours (27 per cent and 29 per cent respectively), while top managers (chairpersons, chief executives and managing directors) were the most likely to be working over 60 hours (26 per cent). Between 1997 and 1999, similar surveys showed a slight drop in working hours for all managers, with the proportion working 41 to 50 hours rising from 44 to 49 per cent, while the proportion working 51 hours or more fell from 38 to 32 per cent (Worrall and Cooper, 1999).

3.2.7 Ethnicity

As noted above, sample sites in the WERS98 data set were too small for a reliable analysis of working hours by ethnic group.

Table 3.14, however, provides a breakdown of actual working hours among minority ethnic groups working full time (either self-employed or employed), based upon the LF S. It should be noted that these figures are based on actual hours worked in the previous week of the survey, rather than usual hours, as shown in Table 3.13. The LFS also shows that among the self-employed who work full time, the Asian or Asian British are the group most likely to work over 48 hours. Forty-three per cent of this group work over 48 hours per week, a slightly higher percentage than white self-employed workers, for whom the corresponding figure is 40 per cent.

The TUC (August 1999) drawing on statistics from the LFS Autumn 1998, suggest that the following factors may impact upon the working hours of ethnic minorities:

- The Employment Relations Bill, published in January 1999 gives rights to maternity and paternity leave; minority ethnic women are more likely than white women to be members of trade unions, and thus to get support and advice on enforcing their rights; minority ethnic men are less likely to be in a trade union than white men.

Table 3.14: Percentages of full-time employees and self-employed working over 48 hours per week, by minority ethnic group in the UK, in 2001 (actual hours)

All	White	Asian, Asian British, Chinese	Black, Black British	Mixed and other ethnic group
20	20	21	13	12

Source: Labour Force Survey (Spring 2001)

- Minority ethnic groups are disproportionately well represented in the transport sector, which is excluded from operation of the Working Time Regulations. Minority ethnic men, and minority ethnic women in healthcare, are also more likely to work shifts than their white counterparts, and to be affected by the complex rules on rest periods.
- Minority ethnic workers are more likely to have been in employment for less than three months, and therefore not qualify for paid annual leave. The difference is especially marked for Bangladeshi and Pakistani workers.
- Strengthened rights for part-timers will particularly benefit minority ethnic men, who are twice as likely to be working part-time as other men.
- Fewer minority ethnic workers have been in current employment for one year, and as such do not qualify for some maternity rights or parental leave. Since those below the Low Earnings Limit (£64 per week) are excluded from entitlement to Statutory Maternity Pay, this will also disproportionately impact minority ethnic mothers. Caribbean women are more likely to be lone parents, and therefore be unable to afford unpaid parental leave. Minority ethnic women are more likely to work full-time, and therefore to rely on childcare provision.
- More minority ethnic men (but not minority ethnic women) work in small businesses. Whilst not excluded from regulations, such firms may be less likely to know about them or more likely to find ways round them, or find it difficult to finance entitlements or arrange cover.
- Minority ethnic women are more likely to be working in the informal economy, and are thus under-represented in official statistics on low pay.

3.2.8 Regional differences

There are regional effects upon working hours, and also an interaction with gender. According to Dex *et al.* (1995), men work greater than the average number of hours in East Anglia, Merseyside and Scotland, and less than average in Greater Manchester, South Yorkshire and Wales. Women supply a higher number of hours in Inner London, Tyne and Wear, and Wales, and fewer in the rest of the South East, the South West, the Rest of the North and Merseyside (Dex *et al.* 1995). It is likely that these differences reflect regional differences in the sectoral structure of employment, but there is no further examination of these patterns in the existing literature.

3.3 Evidence from the case studies

This section draws on evidence from UK case studies. As noted in Chapter 1, the evidence is presented separately for those

organisations employing mainly manual employees and those employing mainly non-manual employees.

3.3.1 Working hours in organisations employing mainly manual employees

Contracted hours

Full time contracted hours for manual employees ranged between 35 and 40 per week. A variety of different shift patterns were worked both within the organisations and between them. Most shifts were eight hours in length, usually a morning and afternoon/evening shift, but there were also examples of 12 hour shifts, and there was night working in some of the organisations. In most cases, up to four hours overtime were worked per day, increasing the length of the working day to 12 hours. Holiday entitlement ranged from five to seven weeks per year and, in one of the case studies, it was possible to 'buy' extra leave.

Actual hours

All except one of the UK case study employers in the manufacturing and processing sectors had a high incidence of long working hours. Within these three organisations (the Royal Mail and two food processing companies), the total hours of work ranged from 34 to 75 hours per week. Analysis of responses to the self-completion questionnaires distributed to employees showed that the average (mean) number of hours respondents worked in the previous week at the sites visited was 55. Employees worked shifts of up to 12 hours in length and the extra hours were rewarded through paid overtime. These tended to be traditional, large employers with a high proportion of male employees. In contrast, the small manufacturing employer (case study D) had a significantly lower incidence of long working hours, with no staff reported to be working over 48 hours per week. Here, the average (mean) number of hours actually worked by respondents in the week prior to the research was 39. In this case the employer offered staff flexible working practices to fit with childcare responsibilities, school term times and other activities and responsibilities that employees had outside work. The proportion of women employed as factory operatives was much higher than at the other three organisations.

The working hours of HGV drivers were slightly different, in that hours spent driving were restricted, and they worked the hours necessary to complete their deliveries. Actual hours worked ranged between 50 and 55 hours per week, but not all this time was spent driving.

When extra hours are worked

The analyses of the questionnaire data show that overtime hours were most commonly worked in the early morning and at the weekend. Interviewees explained that they worked additional hours either before or after their contracted shift. This entailed an additional half or whole shift, and/or they worked additional shifts at the weekend. At one of the food processing employers, employees regularly worked four hours of overtime per day extending the "normal working day" to up to 12 hours. Employees considered these hours to be part of their regular working day and the total hours worked were often 60 per week. In the case of the small manufacturing employer (case study D), additional hours were more incidental, for example a couple of extra hours to finish work at the end of a shift.

Clearly, the overtime hours worked depended on the needs of the business and, as such, there were seasonal variations. In many of the processing operations, the run-up to Christmas was a particularly busy period.

In all the organisations, it was noted that it was rare for full holiday entitlement not to be taken by manual employees. However, it was quite common for employees to work overtime on their days off, for example at weekends.

Monitoring of working hours

Employers of mainly manual worker recorded considerably more information about working hours than the organisations employing predominantly non-manual employees (see Section 3.3.2). Clearly, overtime hours worked was recorded and the employers generally had clocking in and out systems. Additionally, output levels and efficiency were measured on an aggregate team or shift basis and, in some cases, on an individual basis. Unsurprisingly, virtually all the questionnaire respondents agreed that their manager was aware of the hours they worked.

What are long hours?

Views of what constituted long hours varied widely. At case study D, (a small manufacturing employer) where long hours were rare, the general perception was that anything over 45 hours per week was long. This was a view shared by managers and some employees at the other employers, but those who worked long hours had a much higher threshold. Many of the employees working 48 hours or more per week did not consider this particularly long. They were more likely to consider that 60, or even 70, hours per week was a reasonable definition of long hours. This view also depended on previous experience; some had worked in other industries in the past where long hours were endemic.

Choice and flexibility in working hours

Virtually all the questionnaire respondents in these case study organisations agreed that they were able to choose whether they worked extra hours or not. In the past, at one of the employers, some overtime had been compulsory but this has now been abolished. However, at certain particularly busy times of the year, pressure to work additional hours can be heightened, and some respondents reported that on occasion they felt obliged to work extra hours. This was also the case for some managers. Drivers also were reportedly required to work the hours necessary to finish their workload. Nonetheless, in general, process operatives working long hours on a consistent and on-going basis stated that it was entirely their choice to do so.

At case study D, it was reported that individuals had the flexibility to work the hours to suit their responsibilities and wishes outside work. The following example of working hours patterns was given at this employer. Employees with very young children can start as 'outworkers', working on a casual basis at home because they have childcare responsibilities. Another option is to work an evening shift if the child can be looked after by the other parent, or another carer, at this time of day. When their child reaches school age the member of staff has the possibility to become part time, working from 9am to 3pm, and move to the evening shift during school holidays.

Reward for overtime

The process operatives interviewed were all paid for their overtime hours. Different premium rates were paid for specific shifts, for example a higher rate was paid for Sunday shifts. Some managers were also paid overtime for their additional hours but this was not the case for all managers interviewed. At one firm, managers were paid a supplement to cover unexpected overtime. If working hours exceeded a certain level, time off in lieu might be given, but an assessment was made of productivity and efficiency. Similarly, drivers interviewed were not paid overtime, but their salary reflected the difficulty and length of runs, and therefore, to some extent, their hours worked.

Who works long hours?

Across the organisations, the research demonstrated that those who worked long hours, *i.e.* over 48 hours per week, were more likely to be men with children, often with a partner who either did not work at all or did not work full time, and those with large mortgages or a high cost of living. This corresponds to the study by Dex *et al.*, 1995, mentioned earlier in this chapter (see Section 3.2.4). Those who did not work long hours tended to have fewer financial commitments; either they were older, or they were younger and still lived with their parents. It is also interesting to

note that in the small organisation (case study D), among working parents, both partners (where there were two partners) tended to work. Here, their working hours could fit around their responsibilities. In contrast, in the long hours organisations, work tended to be concentrated, with one partner working very long hours in order to support the family. The following quote illustrates this type of working pattern.

> *'My partner used to work but after our second child it was too much. That's why I work a lot of hours — so she doesn't have to.'*

The questionnaire responses also supported this point. They showed that individuals who described themselves as the main income earner in their household worked on average considerably longer hours than those who did not.

There were also other variations in working hours noted. For example, factory line managers tended to work shorter hours in these organisations than process operatives. In some cases, operatives could earn considerably more than their managers, due to the amount of overtime available to them. Overtime hours were more prevalent in some departments, for example where products are more seasonal, and at Royal Mail there was reportedly a regional variation. According to the interviewees, the incidence of overtime was higher in sorting offices in cities, which tended to be busier, and the demand for overtime from staff was higher in the South East, where the cost of living was higher.

With regard to the allocation of overtime to individuals, employers noted that they endeavoured to ensure fairness. Overtime opportunities were generally listed or advertised openly, and employees could volunteer for them. The opportunities were allocated to volunteers, either on a first-come, first-served basis, or alphabetically. However, there were some complaints from interviewees that managers had their 'favourites' to whom they gave the best opportunities and that overtime was not always advertised openly.

3.3.2 Working hours in organisations employing mainly non-manual employees

Contracted working hours

Contracted hours for organisations employing mainly non-manual employees were 35 or 36 hours per week. Leave entitlement ranged between four and six weeks. There were generally no formal entitlements to buy extra leave but, as described below (Section 7.8.2), most of these employers offered a range of flexibilities and unpaid leave in certain circumstances. In the public administration employer, payment was received for annual leave not taken. In the management consultancy, consultants' contracts specified that they should work the hours

that were reasonably needed to do the job. This was also an expectation of more senior employees in other case study organisations.

Actual working hours

The analysis of the 37 questionnaires returned from interviewees, suggest that the majority of respondents worked over 40 hours per week, with approximately one-third working over 48 hours per week in the previous seven days. Reportedly, for these respondents, the number of hours worked in the previous week ranged between 35 hours and 65 hours.

Patterns of working hours within these organisations were much more varied than those among employees in the organisations employing predominantly manual workers. Moreover, there was more variation within organisations than there was between them. In most of the case studies, it was observed that working between 40 to 48 hours per week was common, with a small proportion of employees working over 60 hours. It was also noted that there were pockets of long hours working in certain departments or among certain occupational groups. In general, working hours were described as increasing with the occupational level. Typically, there were also peaks and troughs in working hours patterns over the course of the year, in order to meet specific deadlines. In sum, the incidence of long hours working was patchy, both in terms of the groups of staff who worked long hours, and the periods of time when such hours were worked.

When and where are extra hours worked?

Most commonly, interviewees working longer hours stated that they worked extra hours during the early morning, lunchtime and early evening. Some also worked later in the evening and at weekends. About half of the questionnaire respondents reported that they took work home. In many cases, this was reported to be in order to catch up on reading and paperwork. These employees were more likely to be managers and senior managers. However, for some employees, for example those working in public administration, it was not possible to gain access to secure computer networks from home. There were also some instances reported of individuals not taking their full holiday entitlement over the course of the year. Furthermore, some interviewees reported taking work away with them whilst on holiday.

Some individuals worked away from home during the week. This was particularly the case among military personnel working at the public administration employer, and consultants at the professional services employer.

Working hours could also be cyclical. For some employees, for example those working on financial planning cycles, there were

particularly busy periods of the year which could involve extremely long hours.

Monitoring of hours

Typically working hours were not formally recorded in these organisations, other than when flexi-time systems were in operation. In the professional service organisations, hours worked on projects were recorded for the purposes of billing clients, but the total hours worked by individuals were not monitored. In some organisations, managers felt fairly well informed about their team members' working hours, especially where they were working closely with them. Many managers interviewed also noted that they regularly discussed working hours with their staff and that they judged working hours by factors such as the time of day at which e-mails were sent. The majority of the questionnaire respondents felt that their manager was aware of the amount of hours they worked.

What are long hours? employees' perceptions

Perceptions of what constituted long hours varied widely. To some extent, this variation was by grade or level within the organisational hierarchy, with more senior staff having a higher threshold of what they viewed as long hours. There was also variation by organisation. Some respondents at case study E (the multi-national bank) were well informed about work-life balance issues. Some of these interviewees felt that anything over contracted hours was 'long hours'. In most other cases, anything over 45 hours was considered 'long hours'. However, in organisations where there was a higher incidence of long working hours, for example the professional service employers, 60 hours per week was often thought to be the threshold, above which hours were seen as 'long'. Some respondents measured long hours by the degree of interference with their home life and included their travel-to-work time in their definition of long hours.

Choice and flexibility in working hours

Among the questionnaire responses, there was an even split between interviewees who felt they were able to choose whether or not to work long hours, and those who did not. A common response within all the organisations was that there was no-one standing over people demanding that they worked extra hours. In many cases, individuals felt it was their choice to work long hours in order to complete their workload or meet their targets. Nonetheless, individuals often felt they were not in control of their workloads, and that this resulted in the need to work long hours. In the public administration employer, this pressure of workload sometimes came from outside the organisation (for example from other government departments) and was, therefore,

seen as beyond the control of individual employees and, in some cases, the organisation as a whole. In many cases, however, there was thought to be some 'give and take'. At case study H (the management consultancy), for instance, people worked the hours necessary to get the job done, but they had the flexibility to work shorter hours on less busy occasions.

Some independent location workers, *i.e.* those working from home, were included in the sample of interviewees. They can clearly work at any time of the day or week, as required by the business, and working hours can be fitted around personal needs and wishes.

In other cases, however, there was more of a requirement to work extra hours, on occasion. For example, in case study E (the multi-national bank), examples were given of individuals being asked to work late during a sales campaign.

Reward for extra hours

Most respondents were not formally compensated for extra hours worked. Formal compensation was most likely to be available to more junior employees, or employees in technical roles, for example those on call. Very few were paid for their overtime, but some were entitled to time off in lieu. There were some examples of formal flexi-time systems and also more informal flexible working. However, the long hours workers noted that they often were unable to take the time off to compensate fully for the extra hours worked, due to the pressure of their workload. Even those who were paid overtime stated that they did not claim for all the hours they worked, as they did not want to be perceived as 'clock watchers'.

Changes in working hours

Across the organisations, there was a perception among some interviewees that pressure to work long hours was increasing. However, there was no hard evidence of this as working hours were not formally recorded. In one organisation, there was a perception that there was no longer any let-up in the workload pressure rather than that the hours worked were necessarily getting longer. It was thought by respondents in this organisation that there had been more peaks and troughs in the workload in the past.

Who works long hours?

Within these predominantly non-manual organisations, the occupational groups who were most likely to work long hours were professional and technical employees and managers, especially senior managers. Questionnaire responses show a

correlation between working long hours and position in the occupational hierarchy, with senior managers / directors or partners working the longest hours. In addition, it was often noted that certain departments or functions within organisations had a reputation for long working hours. Examples given were finance, legal, marketing and IT functions. However, inter-departmental variation was sometimes due to a culture within certain departments or managers' practices. Also, head office or staff working in London was frequently reported as working long hours. Moreover, key staff or specialists, who were the only ones who possessed specific skills, were often found to work longer hours. Furthermore, in case study F (the high-tech service sector company) which was a relatively young and growing organisation, it was reported that long hours were worked by dynamic and enthusiastic staff. High achievers, career focused and less experienced staff, who were still learning the job, were also identified as long hours workers. Some of the individuals who worked long hours were described by their managers as poorer time managers and less able to prioritise their workload. This is not to say, however, that all long hours workers fell into this category.

Employees who do not work long hours

Those who did not work long hours in these organisations tended to be in clerical and administrative roles. Also, some young graduates were reported to have a different perspective and were more likely to avoid working long hours. In addition, it was noted that people who had specifically chosen to put their non-working life first were the ones who did not work long hours. These were mainly, but not exclusively, people with childcare responsibilities. The questionnaire responses confirmed the data analysis presented earlier in this chapter. Women with caring responsibilities, either for children or for older people, worked shorter hours than those without caring roles. Interestingly, the converse was the case for men with such caring responsibilities. The average working hours for men with caring responsibilities in the small sample was 54 hours per week. This pattern is consistent with the secondary data analysis of WERS (1998) where this was also found to be the case (see Section 3.1.4).

3.4 Conclusions

WERS98 shows that nearly one in nine (11 per cent) of all employees in the UK work over 48 hours per week. Male and female employees working long hours are quite different, however. Long hours working is considerably more prevalent among males than females. Working hours peak between the ages of 30 and 39 for both men and women. While women with children are less likely to work long hours than are their female counterparts without dependent children, the opposite is true for

men. With or without dependent children, however, women work considerably fewer hours than their male counterparts. The highest concentrations of long hours workers are within managerial, professional and plant and machine operative occupations. Managers and professionals who work overtime hours are much less likely to be compensated for these extra hours (through paid overtime or time off in lieu) than those employed in manual occupations.

Drawing on previous research, analysis over time appears to show an increase in the proportion of employees working long hours in recent years. This follows a long-term decline in working hours. However, polarisation in working hours has also increased in recent years, with some groups of employees working longer hours and others shorter. The proportions of both men and women working over 48 hours per week have increased in recent years. A higher proportion of partnered men with children than men without children work longer hours. The opposite is the case for women. The self-employed work longer hours than employees in employment. There is some sectoral variation, with agriculture, forestry and fishing and transport and communication having the highest incidence of long working hours. Banking and finance and the 'other services' sector have the lowest proportions of employees working long hours. There is also a lower incidence of long hours working in the public sector compared with the private sector.

The case study evidence collected for this study shows that nearly all of the case study organisations with manual employees had high incidences of long working hours. These manual employees working long hours were most likely to be men with children, often with a partner who either worked part time or not at all and with large mortgages or a high cost of living. In organisations with non-manual employees, patterns of working hours were much more varied, with those most likely to work long hours being professional and technical employees and managers. Although both types of employees in the case studies felt they were able to choose whether they could work extra hours or not, they did feel that the pressure to work long hours was increasing because of the demands of the workload, particularly, in some cases at certain times of the year.

The case study evidence also reinforces the evidence from earlier research that manual employees were much more likely to be compensated through paid overtime for any extra hours worked, whereas most of the non-manual employees were unlikely to be compensated in any way for extra hours worked (although some non-manual employees did receive time off in lieu). This finding will be returned to in Chapter 4, in the context of examining the very different motivations which these two groups of employees have for working long hours.

4. Reasons for Working Long Hours

This chapter begins with a discussion of the regulatory and institutional framework and goes on presents the evidence on why employees work long hours starting with the review of the literature on factors influencing long hours working and findings from existing survey data analysis. This is followed by the analysis the Workplace Employee Relations Survey, 1998 (WERS98) and concludes with evidence drawn from the case study research.

4.1 Reasons for working long hours — previous research

4.1.1 Regulatory and institutional framework[1]

The UK Working Time Regulations (WTRs), which came into force in England, Wales and Scotland on 1 October 1998, are designed to implement the provisions of the European Commission Working Time Directive (No. 93/204/EC) and certain aspects of the European Commission Young Workers Directive (No. 94/33/EC).

The WTRs apply to those working under contract, but not to the self-employed. Separate rules apply to those aged under 18. One of the rights and entitlements of the Regulations is a limit of 48 total working hours over a standard reference period of 17 weeks which an individual can be required to work. Full details of the WTRs are provided in Volume 2, Appendix D.

The impact of the WTRs is difficult to assess after a relatively short time in force in the UK. The Institute of Personnel and Development (IPD, 1999b) used a small sample survey of 314 businesses in Great Britain with at least 50 employees to look at the impact from the business point of view. Most respondents to the survey felt that the Regulations had not yet affected their

[1] The Industrial Relations Law Bulletin 607 (IRLB, December 1998) provides a useful summary of the current legislation on working time.

business very much. Three-quarters anticipated that it would do so in the future, but the effect will be slight. Over half have made changes to terms and conditions of employment. Twenty-seven per cent agreed with the statement: 'the Regulations will stop my staff from working the hours they want to work'. The most common change (27 per cent of businesses) was to the recording of working time; some businesses had started to record working time for the first time. Twelve per cent had changed working hours. Similarly, case study research conducted for the Department of Trade and Industry in 1999, found that the 48-hour limit had had little impact on many employers. This was because the proportion of the workforce regularly exceeding this limit was small. Nonetheless, one-third of the case study employers had made some changes to working practices to reduce working hours of individual employees (Neathey and Arrowsmith, 1999).

4.1.2 Collective and workforce agreements

The Industrial Relations Law Bulletin (1998) provides a summary of the current legislation on working time, as it affects workforce and collective agreements. The latter are principally between trade unions and employers; the former between other workers. Such agreements enable workers and employers to agree on how the WTRs apply to their particular situation and to derogate, if desired, from aspects of the Regulations. Individuals may also opt out from the WTR and can be asked to do so by their employer.

However, Bell and Hart (1998), Trejo (1993), and Green (1988) have all examined the effect of unionisation on working hours. Bell and Hart (1998), based on analysis of the UK Labour Force Survey (LFS), found national collective agreements have made no significant difference to extensive overtime. They compared years when national agreements were made and years where they were not (local agreements were not accounted for). The stage of the economic cycle and sector effects were found to have more influence on overtime. According to Bell and Hart, long hours are a difficult issue for unions, as they enhance income but reduce leisure time. As such, long hours have a mixed effect on utility to the worker, and union strategies may reflect this in certain ambivalence towards long hours working.

In contrast, Trejo (1993) found that unionisation reduces the prevalence and extent of overtime hours. Green (1988), based on analysis of the General Household Survey (1983), also found that the presence of unions was associated with reduced hours of work in the UK. Green (1997), using the LFS (1993), found that unions have a significant and positive impact on annual holiday entitlement. Green found a difference of an average extra 5.5 days between union-recognised and non-recognised environments. This accords with Green and Potepan (1988), who found that much of the difference between US and Europe, with respect to annual leave, could be explained by different traditions of

unionism. (This issue of unionisation is returned to in the discussion of international comparisons of working hours, in Chapter 6.)

4.1.3 Wages and promotion

Among individual reasons for working long hours, pay is clearly a driver for working overtime, if the overtime is paid[1]. Where overtime is paid, the ability to increase earnings is clearly an impetus to work extra hours. However, those who work unpaid overtime may be doing so for the delayed return of increased earnings in the future (via promotion, for example). Further analysis of pay as an influence on working hours is presented in Section 9.2, drawing on the British Household Panel Survey.

Paid overtime

A recent survey conducted by White, based on a sample of 2,500 employees, found that 30 per cent work long hours to earn extra money (*The Independent*, 2001).

Harkness (1999) used the LFS (1998) to examine associations between pay and working hours. Graphing hours of *paid* work (which is particularly applicable to manual workers) against average hourly pay shows a peak for the best remunerated around 35 hours per week. Those working notably longer or shorter hours than the standard working week tend to be less well paid. This reinforced the findings of Harkness (1996) on the differences in pay between full- and part-time workers.

Hall and Sisson (1997) found that in many organisations, overtime is still endemic, with maintenance of levels of pay as the main motivation. Often, this leads to demarcation disputes, resistance to new technology and even deliberate fraudulent overtime claims. Commission reward systems can also encourage longer hours in order to increase earnings (Kodz *et al.* 1998).

Unpaid overtime

White's recent survey also found that 14 per cent of employees worked long hours to enhance chances of promotion (*The Independent*, 2001), and thus increase earnings in the longer term.

Harkness (1999) found that when *unpaid* hours of work are plotted against average hourly pay, the upper end of the wage distribution no longer falls with hours of work. For men, average

[1] As noted in the analysis of the Workplace Employee Relations Survey below (Section 4.2), reasons vary according to whether overtime is rewarded.

hourly earnings flatten out at around 35 hours, while for women they grow consistently up to the 60 hours plotted.

Scase *et al.* (1998) and Steptoe *et al.* (1998) both suggest that working longer hours can be beneficial to pay — either because hourly paid workers by definition will earn more, or because salaried workers tend to be better paid annually, in return for longer hours, even if overtime is unpaid. This situation is not universal, though. Hecker (1998), using 1997 data from the Current Population Survey in the USA, finds that although management-related jobs in sales, production and transportation occupations tend to have a higher hourly rate associated with longer hours, the reverse is true for some jobs, including computer specialists, engineers, schoolteachers and construction workers.

Bell and Hart (1999) use the LFS (1993/4) specifically to investigate why people do unpaid overtime. They suggest that allowing for unpaid overtime significantly reduces the usual estimates for wage returns to higher levels of education. They also find that unpaid overtime is positively associated with manager/foreman/supervisor status, high standard hourly wages, lack of union coverage, age, being married or partnered, and not belonging to an ethnic minority.

Booth and Francesconi (1997), using British Household Panel Survey (BHPS) data, did find evidence for working longer hours leading to increased chances of promotion — a finding confirmed by Francesconi (1999). A less representative study backs up these findings: Landers *et al.* (1996), looking at law firms in the USA, found that long hours were both a perceived and an actual factor in determining promotion prospects; associates and partners (inaccurately) perceived long hours as a measure of ability, quality of work and hard work. Chapter 8 reports the findings from the literature review on the benefits to individuals of working long hours.

4.1.4 Workload

Pressure of work is the most commonly cited reason by employers for working long hours, especially among managers (Hogarth *et al.*, 2001). The Chartered Institute of Personnel and Development (2001), in a survey of those working more than 48 hours per week, found that three-quarters of respondents attributed their long hours mainly to workload, and very few to other factors. (see Table 4.1). Over one-quarter (28 per cent) were self-employed, and of the employees, 69 per cent were managers. Similarly, Worrall and Cooper (1999), in a survey of members of the Institute of Managers, found that 80 per cent of respondents (mostly managerial or above) said working long hours was: 'necessary to meet deadlines'.

Table 4.1: Main reason for working long hours

Main Reason	%
Workload — it's the only way to get things done	75
Work enjoyment — loves the work	8
Don't want to let clients or colleagues down	6
Like extra money for luxuries	3
Need money for basics like food and accommodation	3
Career progression — to get promoted	2
Employer expects it	1
Forced to — otherwise might lose job	1
(N = 291 working more than 48 hours per week)	

Source: CIPD/TNS Harris telephone survey, August 2000

Qualitative evidence from Kodz *et al.* (1998) suggests that components of 'workload pressure' consist of having more to do than is possible in standard hours, needing to meet deadlines, staff shortages and poorly distributed workloads. Delayering among management staff has often reduced the number of staff available to delegate to. This phenomenon is discussed further by various researchers (Simpson, 1998a, 1998b; Austin Knight, 1995; Cooper, 1996; Burchell *et al.*, 1999).

WFD and Management Today (1998) found evidence that pressure from the top to improve performance consistently plays a large part in generating workload. Two-thirds of managers surveyed felt they were expected to ask more and more of their staff, and that they pushed their staff too hard to meet these targets.

Kodz *et al.* (1998) identified a number of reasons for employees experiencing increasingly heavy workloads. For example, staff who have specialist skills, not available from anyone else, have particular difficulty coping with heavy workloads, as they are less able to delegate. Emphasis on customer focus has often meant a requirement to provide services outside standard office hours, and increasingly 24 hours per day. Technology usually speeds up work, enabling higher productivity with fewer staff, but often more is expected from remaining staff. For example, it produces more e-mails to process, or enables work to be carried out from home out of business hours. As businesses expand, some staff are needed to travel more to co-ordinate work across distant sites. Project-based work can often mean tight deadlines, and an attitude of 'getting the work done, whatever it takes', as well as competing projects demanding simultaneous effort. Organisations differ in how far staff feel that workload could be reduced by greater efficiency or better time management. The study suggests, however, that some reductions could be made in some organisations, through tackling a 'meetings culture' which can mean large amounts of time taken at, or preparing for, meetings

which are not always necessary. This leaves staff unavailable to others and can mean needing to work long hours in order to catch up with other work.

Unnecessary paperwork and e-mails, failure to make use of video-conferences to avoid travel, telephone interruptions, meetings which are unnecessary, or go on too long, organisational inefficiency, changes in policy by seniors, are commonly all cited as contributors to long hours, but there is no research literature which reliably tests these assertions (Garnett, 1993).

4.1.5 'Culture': influence of managers and colleagues

A culture of working long hours and the influence of attitudes and behaviours within organisations have been identified in the literature as a further contributory factor to long working hours. Kodz *et al.* (1998) suggest that a long hours culture is characterised by long hours being valued within an organisation or interpreted as a sign of commitment. Green (2001) used 1997 data from the Social Change and Economic Life Initiative (SCELI) to measure the relative influence of factors influencing harder work. Seven factors identified in order of their relative influence: own discretion, fellow workers or colleagues, clients or customers, supervisor or boss, pay incentives, reports and appraisals, and machine or assembly line. The role of colleagues was thus identified as one of the most influential factors. Reinforcing this finding, a recent survey of UK managers found that 68 per cent of respondents agreed with the statement: 'the problem with flexible working is you still need to be present to be appreciated by the organisation' (Ceridian Performance, 2000).

However, the reasons given for working long hours depend to some extent on whom one asks and how the questions are asked. For instance, Hogarth *et al.* (2001) found, from a survey of employers, that a long hours culture was not identified as a contributory factor, but this was not offered as an explicit prompt in the questions asked. In this survey, the main reasons given for working longer than standard hours were temporary workload increase, or backlog of work.

Kodz *et al.* (1998) provide qualitative evidence for various factors relating to managers' and colleagues' behaviour which may reinforce a long hours culture. Factors included whether line managers themselves work long hours, and whether this is seen as a role model to be copied, and whether managers call late meetings which over-run. The CIPD (2001) found that one-third of employees working more than 48 hours a week believed they set a good example in so doing, whereas one-tenth thought this was a bad example to set.

Colleagues commenting on workers leaving early (even though they may have started early too) has been identified as a common

pressure to work late (Kodz *et al.*, 1998). In some workplaces, there is competition to see who can put in the most hours, and status attached to working the longest hours. The inability to say 'no' to extra work, or to insist that deadlines are unreasonable, has also been identified as a reason for working long hours (Kodz *et al.*, 1998). However, this research also points out that working long hours can become a habit, with the result that staff spread their work accordingly, or are expected to work longer just because they have done so in the past.

Hochschild (1997), drawing on US evidence, asserts that pressure from colleagues or managers to be a 'serious player' can cancel out any desire the individual may have to reduce their working hours. Hochschild also notes the difficulty an individual has in contesting the terms of the 'normal' work day, given the company's power (Hochschild, 1997).

Other research conducted in the USA (Eastman, 1998) suggests that in a workforce of people who respond to a 40-hour weekly average by working 45 hours, work hours will not average 40 hours but will ratchet up. Providing the desire to exceed the average tails off as hours mount, a stable point will be reached, but among a group who insist on exceeding the average there will be no point of stability. Using a small study of MBA students in the USA, Eastman suggests that people fall into six categories in their response to others' hours, that an equilibrium may be reached of 50.9 hours, even when desired hours are 44.7, and that this outcome fits men's preferences more closely than women's. The effect is somewhat confirmed in practice by Landers *et al.* (1996), who found a 'rat race' scenario of workers in US law firms wanting to increase their working hours if senior staff did so.

In the UK, the CIPD (2001) found that respondents admitted to being influenced to work longer hours if they shared an office with a workaholic, regardless of whether they needed to or not. This was also found to be particularly true among men in a survey of 221 managers by Simpson (1998b) who labelled it 'competitive presenteeism'.

4.1.6 Job insecurity

Perceived job insecurity can be a further driver for working long hours. This is particularly likely in workplaces where redundancies have taken place, or are expected. People fearing redundancy may work long hours in an effort to prove their indispensability. Kodz *et al.* (1998) (based on a small sample), and Austin Knight (1995), both found that about one-third of employees surveyed reported insecurity as a reason for long hours. Simpson (1998b) points to a body of previous research, which has shown increases in working hours in organisations following waves of redundancies. However, our analysis of WERS98 (see Figures 4.4 and 4.5) show little difference between those who worked long hours and those

who did not, in terms of their perceived level of security in their job. Booth and Francesconi (1997) also found that working longer hours was not, in practice, significant in affecting employees' chances of being laid off. As such, the response to job insecurity may be based on a perceived, rather than a real, threat of job loss.

4.1.7 Working hours preferences

A number of national surveys ask if respondents would prefer to work shorter or longer hours at the same rate of pay[1]. Conventional economic theory assumes a free market in hours — that the range of jobs on the market offers a choice of hours to the worker. Stewart and Swaffield (1997) point out that this ignores constraints faced by workers in changing jobs. They analysed the 1991 BHPS and found that actual hours worked do not always reflect desired hours, and individuals are not always able to work the number of hours they would like to work.

The TUC commissioned an NOP survey in February 1995, asking: 'Ideally, how many hours would you like to work?' This found that only seven per cent of full-time employees would prefer to work 50 hours per week or more. However, a quarter (24 per cent) of respondents were working such long hours. Over two-thirds (70 per cent) reported that fewer than 40 hours per week was their ideal.

Fagan (2000) presents detailed data from the BHPS (1995), for those who would prefer to work fewer hours at the same rate of pay, broken down by the total hours worked, by gender, by occupation and by household income. Not surprisingly, preferences for shorter hours were found to be greatest among those who work the longest hours, and therefore among full-timers in managerial and professional posts.[2]

4.1.8 Commitment to work

Finishing work and doing it well, out of personal choice and pride, is often cited as a reason for working long hours. Particularly higher up the grade ladder, work can become more interesting, and the distinction between work and enjoyment more blurred.

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[1] An analysis of the British Household Panel Survey (1997/98) data on working hours preferences is presented in Chapter 9.

[2] Further analysis of working hours preferences (from existing research) is detailed in Chapter 6 (Section 6.2), and the analysis of the British Household Panel Survey conducted for the present study in Chapter 9.

Gershuny (2000) suggests that one possible explanation for the reduction of leisure time among those in high earning and high status jobs (see Section 3.2.1) is that these jobs are often the same in content to what the leisured class used to do *as* their leisure. Gershuny gives the examples of the jobs of legislators, sportsmen, academics and social workers, and notes:

> *' . . . might we then not choose to work hard at them, and for relatively long hours, precisely because they provide an alternative source of intrinsic benefits that might otherwise come from leisure activities?'*

Hochschild (1997) also gives this explanation, noting that people generally wish to devote more time on what they are most valued for, *e.g.* a high status job.

UK surveys have shown that there is a sizeable proportion of people who work long hours out of choice, because they are committed to their job, take a pride in it, and enjoy the work, or are perfectionist about it. One survey reported that three-quarters of employees who worked more than 48 hours per week did so because they enjoyed work, and one-third admitted they were workaholics (Institute of Personnel Development, and Harris 1998). This is more likely to apply where work is creative, challenging and interesting. For example, a study by Barnet and Gareis (2000) of 141 US physicians found that reducing hours may involve cutting out particular activities such as teaching or research, which may be enjoyable aspects of the job, and therefore reduce the quality rather than just reducing the quantity of work. Worrall and Cooper (1999), in a survey of members of the Institute of Management, gained some interesting evidence of the preferences of senior staff. They found that 58 per cent agreed that long hours were: 'acceptable as I take my work seriously', whereas 37 per cent said long hours were: 'unacceptable but I have no choice', and the same percentage agreed that long hours were: 'the way I prefer to work'. Furthermore, 58 per cent agreed that outside normal working hours was the only time to think strategically, and the same proportion said these hours were expected of them by their employer.

The Chartered Institute of Personnel and Development (2001) conducted a telephone survey of individuals working more than 48 hours. Using psychometric questions developed in the US, they established certain characteristics of self-confessed 'workaholics', which distinguished them from others working long hours (although their sample for this part of their study is small, with only 128 in the two groups combined). In general, workaholics showed slightly more work enjoyment, were nearly twice as likely to prefer productive work to holiday, felt slightly more of a compulsion to work, regardless of whether they wanted to or not, were nearly twice as likely to want to work regardless of financial need, and fractionally more inclined towards perfectionism in their work.

All of these studies focus on groups that are known to contain a concentration of typically long hours workers, *e.g.* managers and doctors. There is a need for further study in this area to contrast the attitudes of different workers using broader and more representative samples of different professions and occupational groups.

There is some evidence that, for some, work may be an escape from domestic life. In a questionnaire survey of 1,855 UK managers, Ceridian Performance (2000) stated that 35 per cent of respondents agreed that at times they found work was an escape from home. This was particularly true of women with children (63 per cent). This study used the readers of *Management Today* and members of Institute of Management as their sample base. Because of this sampling approach, the respondents were heavily skewed towards men at the top end of white-collar management. Over three-quarters of their sample were male, one-half were in senior management and over three-quarters were in the private sector. These groups have been shown in other studies to have a propensity for long working hours (see Fagan, 2000). A similar study by WFD and Management Today (1998), based on the same population as that used in the research by Ceridian Performance (2000), found that, while a quarter of such managers would trade pay for more personal time, one-fifth, if they had to choose, would put their career before their personal life. A further fifth said they put their career first, and 30 per cent said they got most of their satisfaction in life from their work.

Finally, George (1997) provides further insights into the term 'workaholism'. Commenting on Schor's (1991) *The Overworked American*, it is suggested that pressure from employers may not be wholly responsible for working longer hours, and that employee preferences to earn more in order to consume more may also be involved, stimulated by the advertising and marketing industry. George (1997) introduced the concept of 'meta-preferences', or preferences about preferences. To illustrate these, he used the example of 'alcoholism' as an analogy to 'workaholism': *'Such an agent has a preference to drink heavily but a metapreference to not do so.'* (George, 1997).

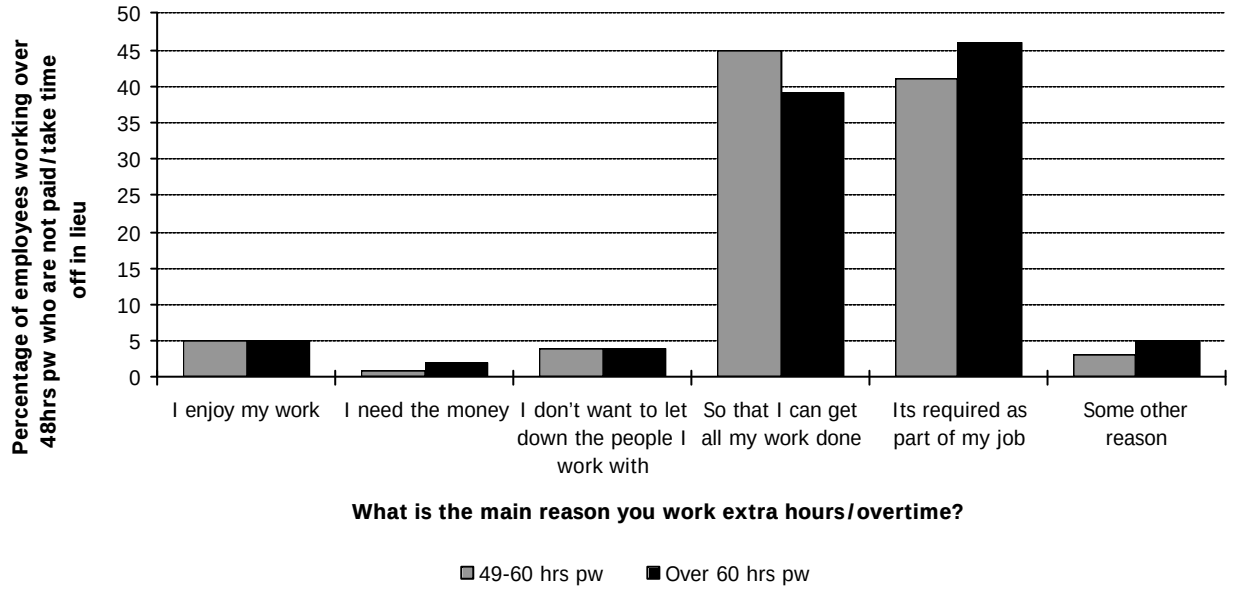
4.2 Evidence from the Workplace Employee Relations Survey, 1998

The Workplace Employee Relations Survey includes a question on why employees have worked long hours. It also provides data on attitudes towards working long hours and work pressure, which have been analysed below in order to give a further indication of why employees work these extra hours.

Figures 4.1 and 4.2 show clear differences between those who are compensated in some way for working extra hours or overtime, and those who are not, according to their main reasons for doing so. Those who are not compensated are more likely to work overtime so they can get all their work done and because it is required as part of their job, whereas those who do receive some kind of compensation are more likely to work overtime for the money, as well as because it is required.

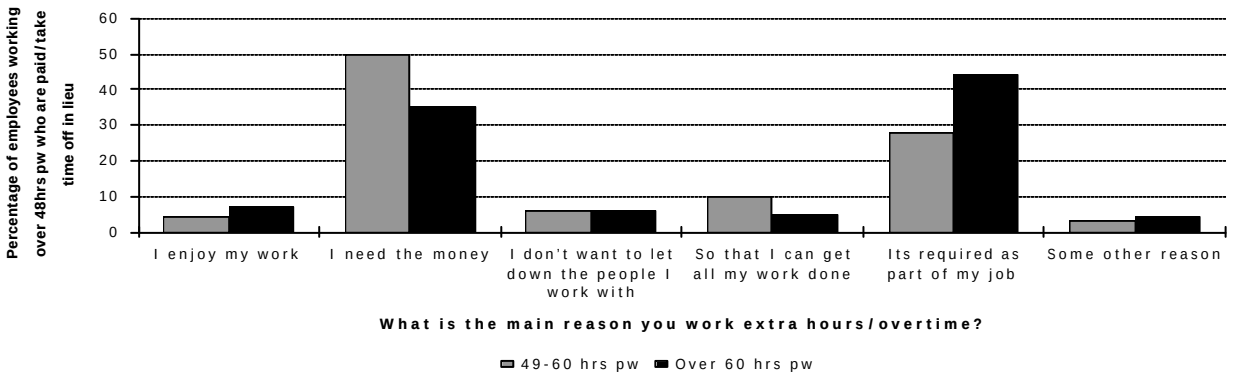
There is a clear difference between men and women in the reasons they give for working overtime or extra hours (see Figure 4.3). Thirty-one per cent of men work extra hours because they: 'need the money' compared with 13 per cent of women who cited this as their reason. Forty-two per cent of women work overtime or extra hours so they can get all their work done, as compared to 21 per cent of men.

Figure 4.1: Reasons for unpaid overtime working among employees working more than 48 hours per week



Source: Workplace Employee Relations Survey, 1998

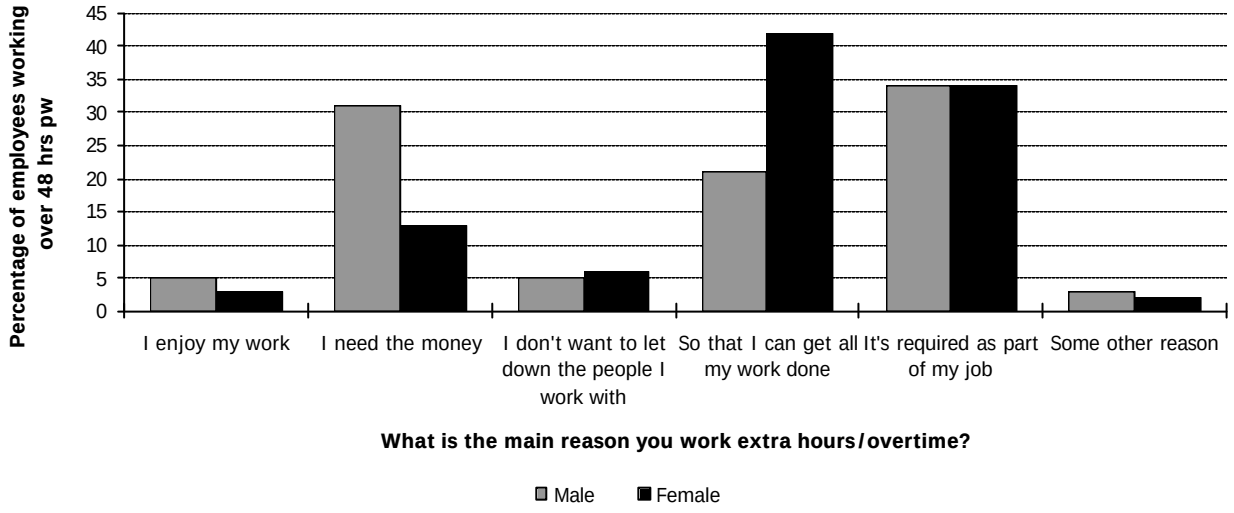
Figure 4.2: Reasons for paid overtime working among employees working more than 48 hours per week



Source: Workplace Employee Relations Survey, 1998

The main reason for this pattern is likely to be that women who work long hours are concentrated in professional or managerial occupations, who in turn are also more likely not to be paid or take any time off in lieu for working extra hours. Analysis by gender and occupation shows that 61 per cent of female managers and 56 per cent of female professionals work extra hours in order to get all their work done. In contrast, 65 per cent of female craft and skilled service workers work overtime for extra money. Therefore their reasons for working extra hours or overtime reflect the occupation they are in.

Figure 4.3: Reasons for overtime working (paid and unpaid) by gender

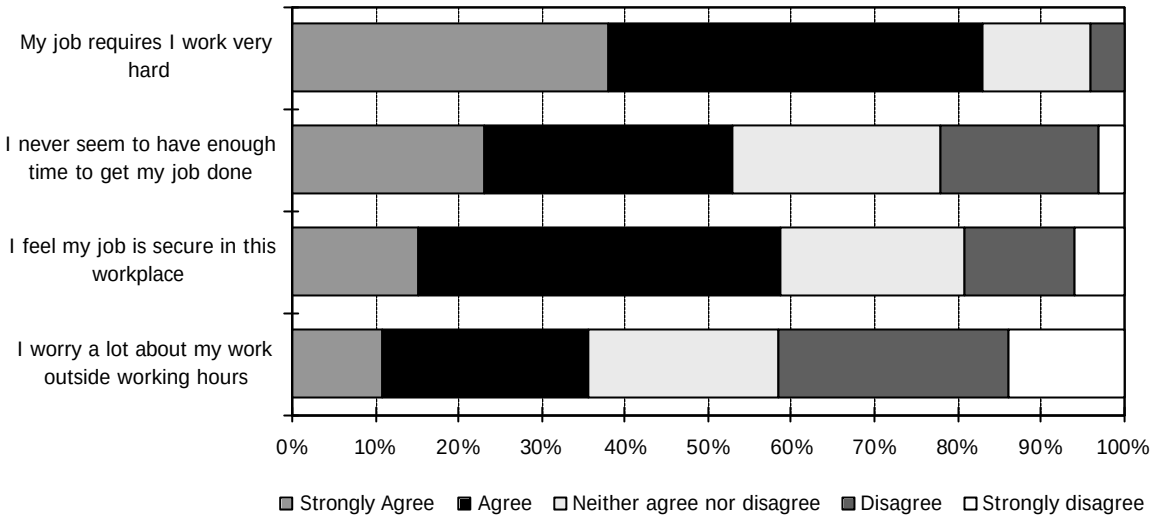


Source: Workplace Employee Relations Survey, 1998

4.2.1 Attitudes towards work

Figures 4.4 and 4.5 show how attitudes to work vary between those working more than 48 hours a week and those who work less than this. It appears that those who work over 48 hours per week are those who feel that they never have enough time in their working day to get their job done and also are those who worry a lot about their work outside working hours. For example, those working over 48 hours per week are more likely to agree or strongly agree with the statement: 'I never have enough time to get my job done', than are those who do not work over 48 hours per week. In fact, nearly one in four employees who work over 48 hours per week strongly agree that they do not have enough time to get their job done, as compared to one in eight of those who do not work over 48 hours per week.

Figure 4.4: Attitudes to work among employees working more than 48 hours per week

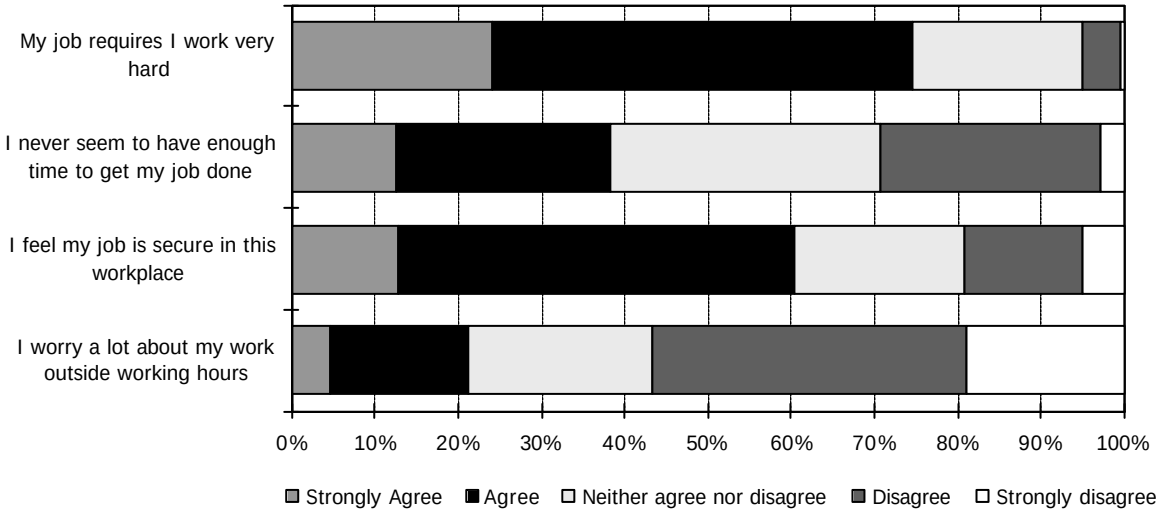


Source: Workplace Employee Relations Survey, 1998

Nearly one in eight of those working over 48 hours per week also strongly agree that they worry a lot about their work outside working hours, in contrast to only one in 20 employees who work under 48 hours per week.

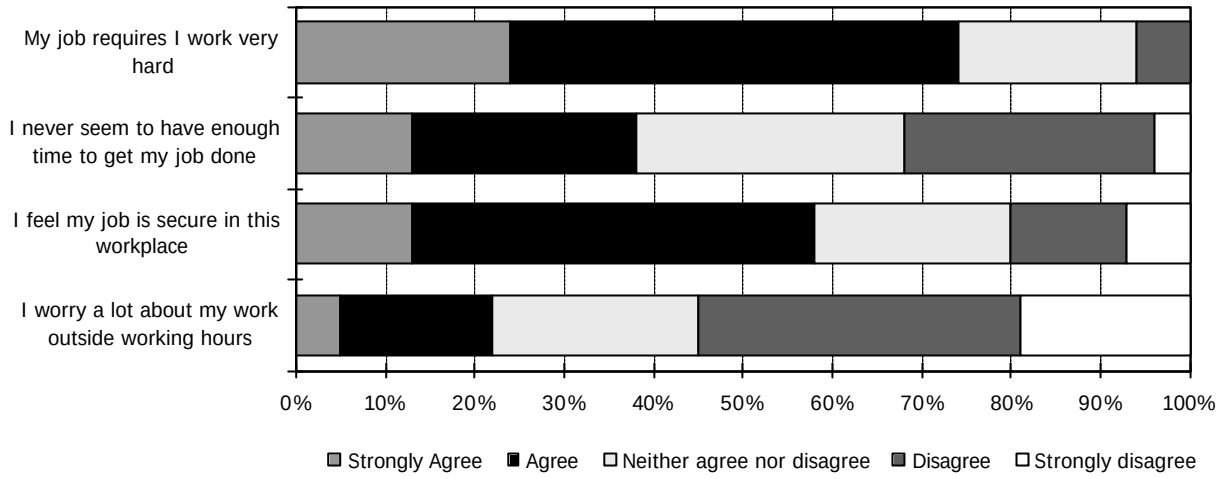
This analysis is then broken down further in Figures 4.6 and 4.7, into those working over 48 hours per week who are paid (or take time off in lieu) and those who are not (or do not). This shows that those who are not rewarded are more likely to feel that they have a job that requires them to work hard; so feel that they never seem to have enough time to do it; and to worry more about their work than those who are paid in some way for working longer hours (see Figure 4.6 and Figure 4.7). Over half of those who do not receive a payment of any kind, strongly agree that their job requires them to work very hard, compared with one in four of

Figure 4.5: Attitudes to work among employees working 48 hours or less per week



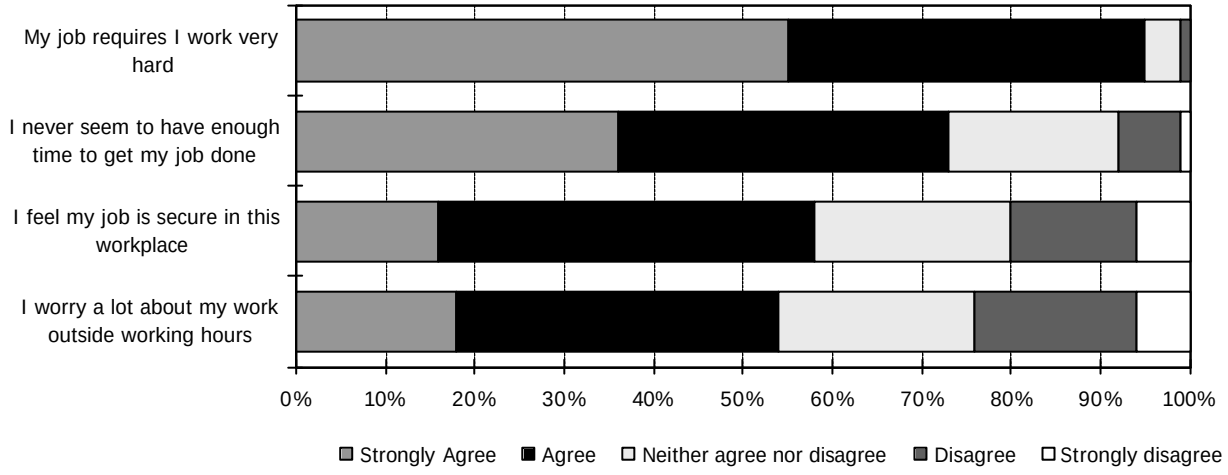
Source: Workplace Employee Relations Survey, 1998

Figure 4.6: Attitudes to work among employees working more than 48 hours per week, who are paid for overtime



Source: Workplace Employee Relations Survey, 1998

Figure 4.7: Attitudes to work among employees working more than 48 hours per week, who are not paid for overtime



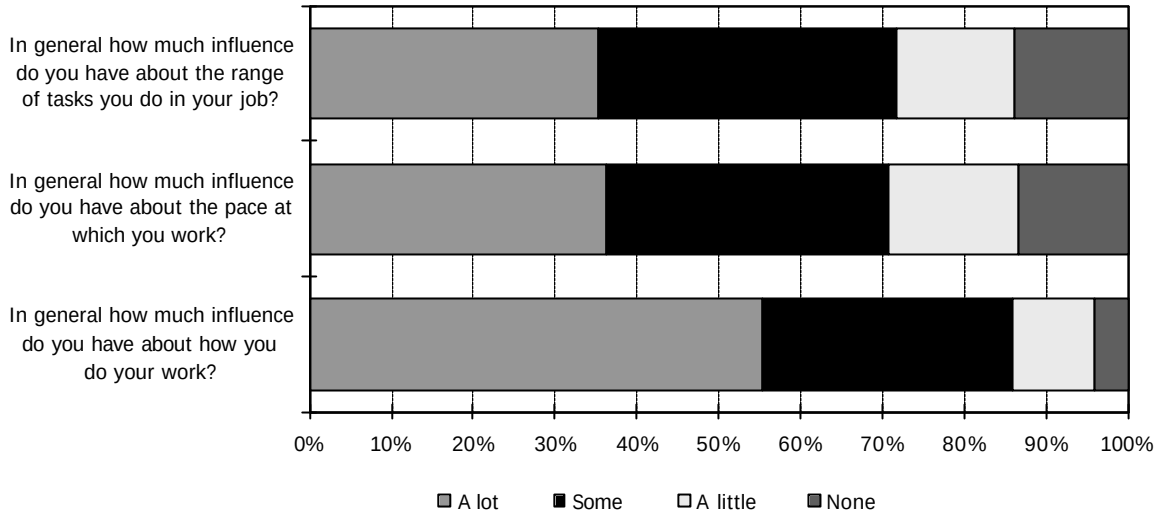
Source: Workplace Employee Relations Survey, 1998

those who get paid in some way for working extra hours. Also, 36 per cent of those who are not rewarded for overtime strongly agree that they never seem to have enough time to get their job done, compared with 13 per cent of those who are rewarded. Again, this may reflect the occupational composition of the two groups, with managers and professionals less likely to be compensated for their overtime, but more likely to work overtime or extra hours because of the very nature of their job.

4.2.2 Influence over job

Moving on to consider how all employees feel about the level of influence they have in their job, those working more than 48 hours per week feel they have more influence over the range of tasks, pace of work and how they do their work than do those with shorter working weeks. For example, just over half of those

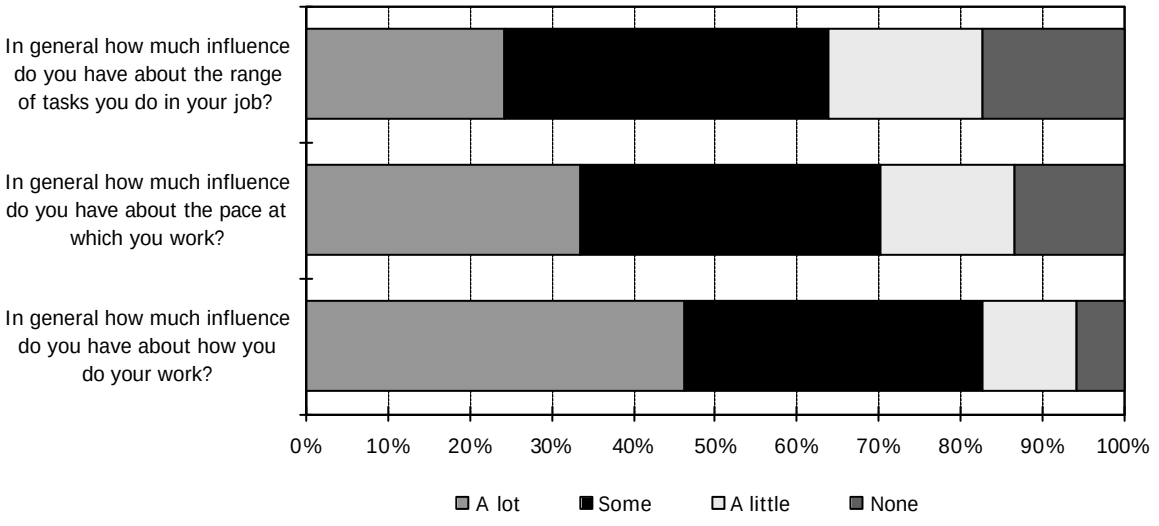
Figure 4.8: Employees working more than 48 hours per week, by the amount of influence they feel they have over their job



Source: Workplace Employee Relations Survey, 1998

working more than 48 hours per week say they have a lot of influence about how they do their work (Figure 4.8). Under half of those working 48 hours or less feel they have this degree of influence (Figure 4.9). This may be because many of the over 48 hours workers are managers, but it also suggests that these workers feel they have more of a choice to work long hours.

Figure 4.9: Employees working 48 hours or less per week, by the amount of influence they feel they have over their job



Source: Workplace Employee Relations Survey, 1998

4.3 Evidence from the UK case studies

4.3.1 Manual employees

To improve pay

The case studies of firms employing mainly manual workers demonstrated that the main reason for individuals working long hours was in order to improve their pay. Responses to the questionnaire suggested that manual employees were much more likely to agree with the statement that they worked long hours to improve their pay than non-manual employees (see Section 4.3.2). Some commented that they simply could not afford to support a mortgage and their family on their basic wage. A typical comment was:

> *'The only way to have a survivable income to support my family is to work excessive hours.'*

For others, working overtime was less of a necessity, and more because individuals had become used to a certain level of earnings and the accompanying lifestyle.

Pride in work

A few of the process operatives interviewed noted that they worked long hours in order to do a good job and to finish their work. Very few agreed that long hours were necessary in order to progress in their career, and this was clearly not a prime motivating factor for long working hours, whereas it was among some employees in the predominantly non-manual employers (see Section 4.3.2).

Workload

At an organisational level, overtime appeared to be necessary because of unpredictable workloads, staff shortages and sickness cover.

Heavy workloads, which were reportedly becoming heavier in one of the case studies, was one of the reasons identified for excessive overtime. This sometimes affected particular individuals who had specialist skills and were the only ones able to conduct certain tasks. Also, drivers were required to deliver products as quickly as possible due to the limited shelf life of the product, and to reduce costs so that vehicles could be used more effectively. This could have the effect of driving up working hours, but only within the legal limits.

Planning and organisation of work

Unexpected and unpredictable workloads also meant that overtime was necessary. However, there was a suggestion in one of the case studies that workloads could be foreseen and more effectively planned, and also that there was a tendency among managers to see overtime as the only option to resource increased demand and not to look for alternatives. In one of the factories researched, the seasonal nature of work reportedly led to overtime; managers chose to utilise voluntary overtime rather than recruiting temporary staff.

Shortages of staff

Overtime was also allegedly necessary to cover sickness absence and shifts that were short-staffed due to recruitment difficulties. In some cases, there were difficulties experienced in recruiting for shifts at unsocial hours and in attracting part-time employees to cover peaks in workload. A further issue in some cases was the (physical or managerial) incapacity to accommodate a greater head count, and thus voluntary overtime was the preferred option rather than recruiting extra staff.

4.3.2 Non-manual employees

Workload

The main reason given for working long hours amongst employers of mainly non-manual workers was workload. Few respondents to the questionnaire felt that they had enough time to get everything done in their job in normal working hours. This reinforces the findings from the analysis of WERS98, discussed earlier in this chapter. All respondents agreed that long hours were sometimes necessary to finish an urgent piece of work. They explained that long hours could be required for one-off or special events, such as sales campaigns, recruitment events, implementation of computer systems, end of year requirements in finance and projects with tight deadlines. However, the interview findings also show that long hours were not just worked in response to occasional surges in workload but, in some cases, were reportedly due to on-going heavy workloads. The reasons given for such heavy workloads were:

- Competitive external environments and the need to be responsive to customer demands. Some respondents noted that customers had high expectations and there was a continuing need to drive down costs.
- External and hierarchical pressure. In the public administration employer (Case Study G), for example, workload demands were driven from outside the organisation and transmitted from the top down.

- Significant amounts of travel required for work, which increased working hours.
- Frequent organisational change, how initiatives and 'information overload' were noted in some organisations.
- Having a large team or a large portfolio of clients to manage or having a specialist skill.
- Individuals having responsibility for their own learning and learning management.

Work organisation

Another reason for long working hours identified by some line managers in the case studies, was the weak prioritisation and poor time management skills of some of the long hours workers. However, few respondents agreed with this view when describing themselves. Only a small proportion of respondents to the questionnaire agreed that they would be able to reduce their working hours if they were better at managing their time. On the other hand, some agreed that if workloads were redistributed between staff, most of the need to work long hours could be reduced. It appears, therefore, that problems with work organisation have led to longer hours working in some cases. Examples given attributed this to poor communication within organisations and inefficient internal processes, poorly managed meetings, overload of information and lack of clarity relating to job roles. At an individual level, lack of assertiveness was sometimes identified in terms of not turning down unimportant requests for work. A further issue identified was a perceived need to work during the early morning or evening to avoid interruptions. The following quote illustrates some of the issues raised.

> *'We are also poor planners so we take on too much, we underestimate how much time it takes. We also don't have very good IT systems here — they crash a lot and are very old … I do think we are responsible often ourselves for taking on too much.'*

Staff shortages

Staff shortages appeared to affect the hours worked by employees in some departments / teams of the organisations. For example, in case study E (multi national bank), teams were identified which were short staffed, and case study G (public administration) had been affected by reductions in numbers of employees in recent years. 'Lean working', *i.e.* efficiency savings, which can lead to overburdening people had reportedly led to longer working hours. Another source of long hours working was the reliance of some employers on specialist staff with key skills. Often such staff were unable to delegate, with the result that they were under pressure to work longer hours. This was not due to recruitment difficulties or unfilled posts, but a side effect of a lean working strategy. Employers stated that it would not be efficient to employ

more people or to double up in these cases. The time taken to fill vacancies was also mentioned as a problem.

Technology

Communication systems such as voicemail and email have affected all organisations and it was reported that their use can increase working hours. Email was felt to contribute to the information overload, as it is easy to copy an email to a large group of people. Employees noted that they received, and dealt with, a large and growing number of emails daily and were faced with backlogs after periods away from the office. Such technological changes also lead to expectations of instantaneous communication. A further issue was the ability to carry out work away from the office with the use of laptops and modems, which meant that the boundary between work and home life was less well defined. This could therefore have the effect of extending the working day into time spent at home.

Individuals' commitment

Most respondents agreed in the questionnaire that they worked long hours because of their commitment to their work. For example, individuals working in a customer-oriented environment noted the importance to them of client satisfaction. In some cases, employees mentioned their anxiety over doing their job well. Nonetheless, it is difficult to distinguish between such commitment at an individual level and a culture of working long hours at an organisational level, which is discussed below.

Organisational culture

The majority of the questionnaire respondents agreed that long hours were expected and accepted as part of the culture at their organisation. A long hours culture is described as a situation where long hours have become the norm. Within some departments/teams within these organisations, there was said to exist a 'presenteeism' culture, where individuals appeared to work long hours for their own sake. In one organisation, this was said to be because individuals did not want to be perceived as having a 'light weight' job. Nonetheless, in some cases this sort of attitude was thought to be disappearing. Other factors were noted as reinforcing a culture of working long hours. These were: a competitive environment, where individuals were keen to out-perform each other; a 'can do' culture, where individuals strove to be as helpful as possible; in one case, a blame culture where individuals felt that they had to go to great lengths (and therefore work extra or long hours) to justify any decisions they made, for fear of being penalised (see case study G public administration employer); and a hierarchical culture, where workloads and working patterns were transmitted from the top down.

Line managers' behaviour

The behaviour of line managers was also noted as potentially having the effect of driving up working hours. Some case study respondents agreed that if line managers worked long hours, it might have the effect of increasing the working hours of other staff. For example, sending emails late in the day or at weekends was thought to create a climate of expectation of working at these times. Also long hours working among managers gives the impression that this is what is required in order to progress to such positions. Line managers themselves felt in a difficult position. On the one hand, they were pleased when individuals volunteered to work extra hours to complete work and wanted to reward this. On the other hand, they did not want effectively to discriminate against others who were unable or did not wish to work long hours.

Incentives and rewards

Some of the questionnaire respondents reported that if they wanted to progress in a career, they felt it was essential to work long hours. Line managers tended to dispute this, arguing that they did not reward long hours working, and that promotion criteria were based on performance, not number of hours worked. Nonetheless, within many of the organisations, there was felt to be a competitive environment, and that the way to get ahead was to be visible and recognised for working hard. The drive to meet targets rewarded by bonuses was also recognised as having the effect of increasing working hours, as illustrated in the following quote:

> *'I work those hours just to achieve the results I'm achieving. I don't mind putting in that extra effort to see the bonus at the end of the year. I also like to succeed — it's not financial, it's recognition as well.'*

Further reasons for working long hours were job insecurity, where there was a risk of redundancy, and situations in which new employees were learning the job and wanted to get up to speed.

4.4 Conclusions

At an individual level, both the analysis of WERS98 and previous research suggests that the reasons for working long hours vary according to whether overtime hours are rewarded in any way (*i.e.* whether they were paid for overtime or entitled to time off in lieu) or not. Where overtime is rewarded, the WERS data show that the main reason for working long hours is to increase pay, and that the second most important reason is that it is required by the job. Where overtime is not rewarded, the requirement of the job is again a key reason, but pay is not as important. Among this latter group, if pay is a driver, it is in pursuit of a return of increased earnings in the future (arising from career progression).

A more important reason for working long hours, particularly among employees who work unpaid overtime hours, is volume of work. Research has found that workload in many organisations is generally perceived to be increasing, due to delayering and flatter structures, project-based work and an emphasis on customer focus and an increasing need to travel. Cultural pressures are also important. A long hours culture is defined as being characterised by long hours working being valued within an organisation and interpreted as a sign of commitment. Drivers of this type of culture are managerial behaviour, as well as the behaviours and attitudes of colleagues, which act to ratchet up working hours. Other reasons for working long hours are job insecurity, a preference to work long hours, a commitment to work, and a desire to enhance career prospects and to do a good job. A key point to be made, however, is that individuals working long hours are likely to do so for a combination of reasons, and it can be difficult to separate out what are the key or underlying influences.

Further reinforcing the findings of previous research and the WERS98 analysis, the case study evidence suggests that the reasons for working long or extra hours vary depending upon whether the extra hours are compensated in any way. The main reason manual employees, who are usually paid overtime, work long or extra hours is for the extra money. In some cases, this is because they could not survive on their basic wage, but in others, it is because they had become used to the extra money and a certain standard of living. In contrast, the main reason non-manual employees, who do not usually get formal compensation of any kind, work extra hours is because of their volume of workload due to staff shortages and an increase in customer demand. Many non-manual employees also perceive long working hours as essential if they want to progress in their career. Further (and again consistent with the previous research), another important reason suggested in the case studies for working long hours (especially for non-manual employees) was the company culture, which in many cases was perceived to be a 'long hours' or 'presenteeism' culture. This finding is touched upon again in Chapter 7 in relation to how successful any interventions (implemented by employers) to tackle long working hours have been.

5. International Comparisons — Findings from the European Community Labour Force Survey

This chapter presents analysis of the European Community Labour Force Survey (EC LFS). The chapter compares long working hours in the UK with those in the other 14 European Union (EU) member states. In doing so, it seeks not only to address the degree to which long hours working occurs within these countries, but which sections of the workforce are prone to working long hours. In this sense, the chapter examines differences in working hours between the genders, between employees and the self-employed, and between different occupations and industrial sectors.

The data used in this chapter are derived from the EC LFS 1999, which was assembled by Eurostat, the European Union statistical agency. The UK 1999 Labour Force Survey formed the UK component of this data set. All 15 member states were surveyed and the answers weighted to the profile of each population. The questions and categorisations remained consistent between countries. This standardisation allows direct comparison at both the national and group level — those working in manufacturing in Finland could, for example, be compared with their counterparts in Germany. In addition, the survey allows measurement of *actual* hours worked in the week that the survey was conducted. The *actual* hours measure, which is used throughout the chapter, has the benefit of encompassing both paid and unpaid overtime, and takes account of fluctuations from 'usual' or 'normal' hours.

Obviously there is no single definition of what constitutes 'long hours' working, but as in all of our secondary data analysis of national surveys presented in this report, it is defined here as being the working of more than 48 hours within a week — in this instance, the week of the survey. This measure of long hours working was selected because 48 hours is the limit set for average hours under the Working Time Directive. In addition to this measure, analysis has been undertaken of 'extra' long hours working, of over 60 hours in the week period.

The chapter contains the following:

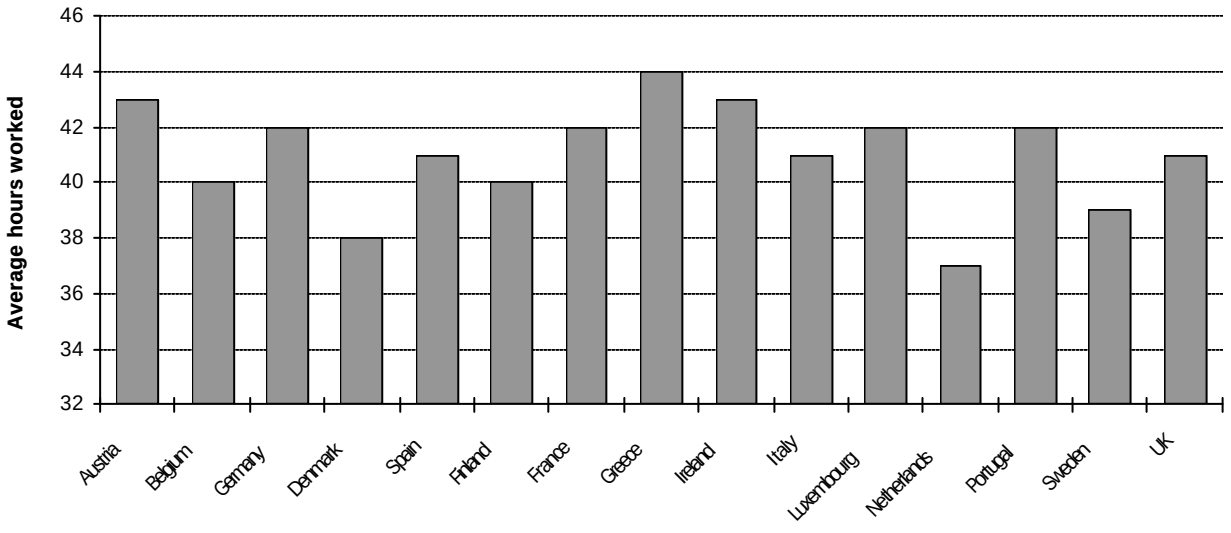
- An overview of working hours across EU countries, and an examination of how these vary in relation to employment status and gender.
- An analysis of how working hours vary between different occupational groups, both in the UK and in the rest of Europe.
- An examination of the relationship between the sector worked in, and hours worked, in the UK and the rest of the EU.
- A description of which age groups are most prone to long hours working.
- An assessment of changes in long hours working in EU member states between 1992 and 1999.

The chapter focuses predominately on figures and tables which are presented in the main text. However, reference is also made to some data included in tables in Volume 2, Appendix B.

5.1 Overview

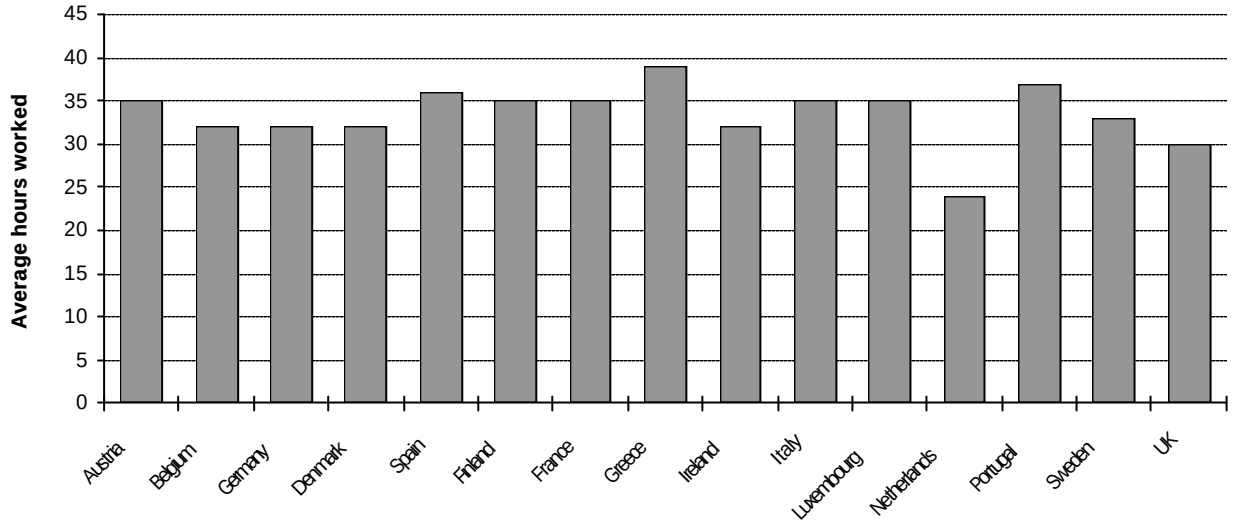
In order to get an understanding of long hours working in the UK it is useful to start by comparing the average hours worked, for male and female workers, with those in other EU member states. Figure 5.1 shows the average working hours of *all* men in employment, both employees and the self-employed, in the reference week of the survey. From the figure it would *appear* that working hours for men in the UK are not comparatively high: the averages range from 37 hours per week (Netherlands) to 44 hours (Greece), with the UK roughly in the middle, with an average of 41 hours.

Figure 5.1: Average working hours of all men in employment in reference week, in EU countries, 1999



Source: Eurostat 2000; in this figure, the data for Greece are from 1998

Figure 5.2: Average working hours of all women in employment in reference week, in EU countries, 1999



Source: Eurostat 2000; in this figure, the data for Greece is from 1998

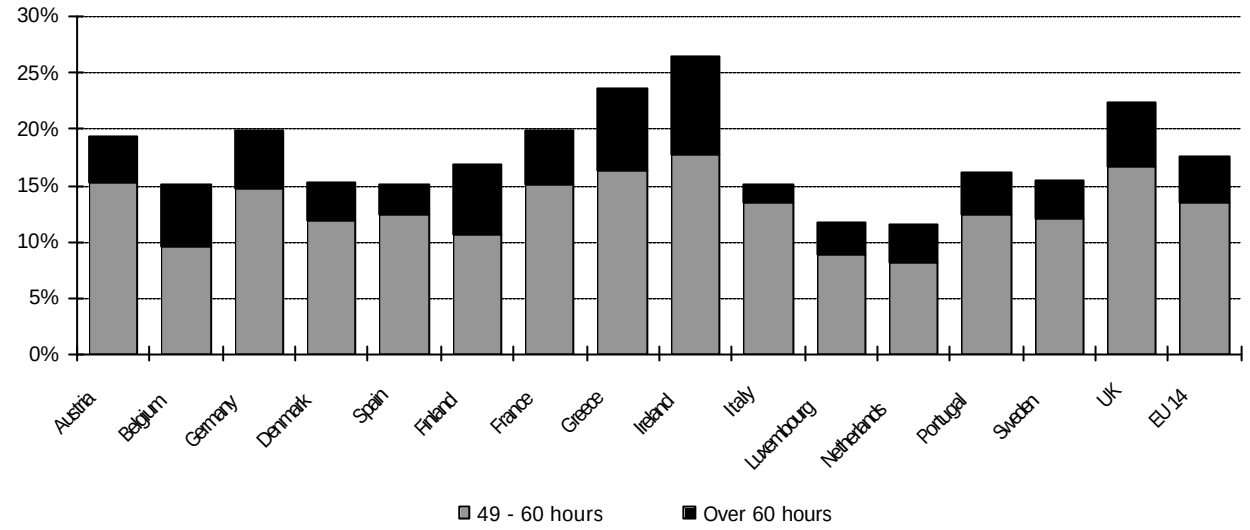
Figure 5.2 gives the average working hours of *all* women in employment in the EU countries, and from it we can see that the average working hours of UK women in work are actually lower, at 30 hours, than in all other countries excluding the Netherlands. The averages for women range from 24 hours per week in the Netherlands to 39 hours in Greece, and unsurprisingly are consistently below those for males.

While it is useful to use averages as measures of central tendency in quantifying long hours working, they do not, however, give a complete picture of long hours working. In effect, extremes of working hours, both long and short, cancel each other out. For this reason, in order to identify the incidence of long hours working, a more useful measure is the proportion of all workers working over 48 hours per week.

Figure 5.3 shows the percentages of *all* men in employment, both employees and the self-employed, working over 48 hours in the reference week of the survey. Each column represents the percentage working long hours, and has been divided between those working 49 to 60 hours and those working in excess of 60 hours. From the chart it is evident that a higher percentage of UK male workers worked long hours than in the rest of Europe taken as a whole (referred to as EU14 throughout this chapter).[1] Twenty-three per cent of men in employment in the UK worked over 48 hours, compared with 18 per cent in the European Union excluding the UK. Compared with other countries in the

[1] EU 14 refers to the population of the European Union, excluding the UK, treated as a single entity. The terms the 'rest of Europe' and 'EU 14' are used interchangeably throughout the chapter.

Figure 5.3: Percentages of men in employment working more than 48 hours in reference week, in the UK and EU (excluding UK), 1999



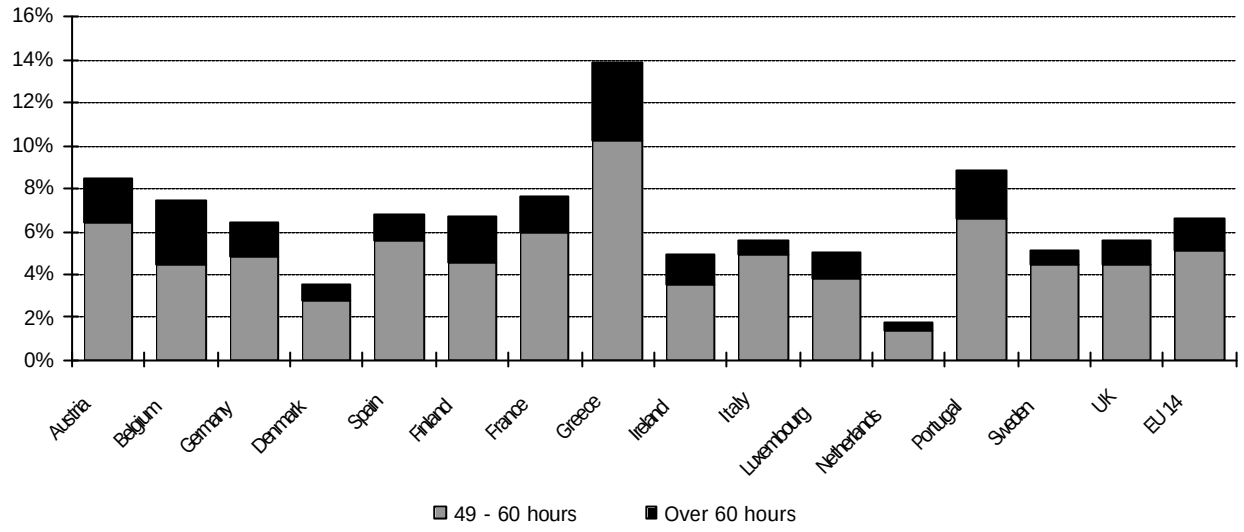
Source: Eurostat 2000

European Union, the UK has the third highest proportion of male workers working in excess of 48 hours per week after Ireland (26 per cent) and Greece (24 per cent). Lowest are Luxembourg and the Netherlands, where 12 per cent work long hours. Of the 23 per cent working long hours in the UK, 17 per cent worked 49 to 60 hours and six per cent over 60 hours. This compares with 14 and four per cent respectively for the EU 14 member states.

Figure 5.4 shows the percentage of all women in employment working over 48 hours in the European countries. From this we can see that the percentage of women in employment working over 48 hours in each country is lower than that of their male counterparts. Five per cent of UK females in this group worked 'long hours', compared to 23 per cent of males. In fact, as Figure 5.4 shows, the percentage of all women in employment working over 48 hours is higher for the EU 14 member states than in the UK. The percentages working above 60 hours are one per cent in both the UK and the EU 14 member states.

Using *all in employment* as the only categorisation of workers, however, does not provide an adequate picture of long working hours within and across different countries. One reason for this is that it includes part-time workers, who are unlikely to work more than 48 hours in a week. For example, Greece rates second highest and highest in percentage terms in Figures 5.3 and 5.4, but this is largely due to the small proportion of part-timers in the workforce.

Figure 5.4: Percentages of women in employment working more than 48 hours in reference week, in the UK and EU (excluding UK), 1999

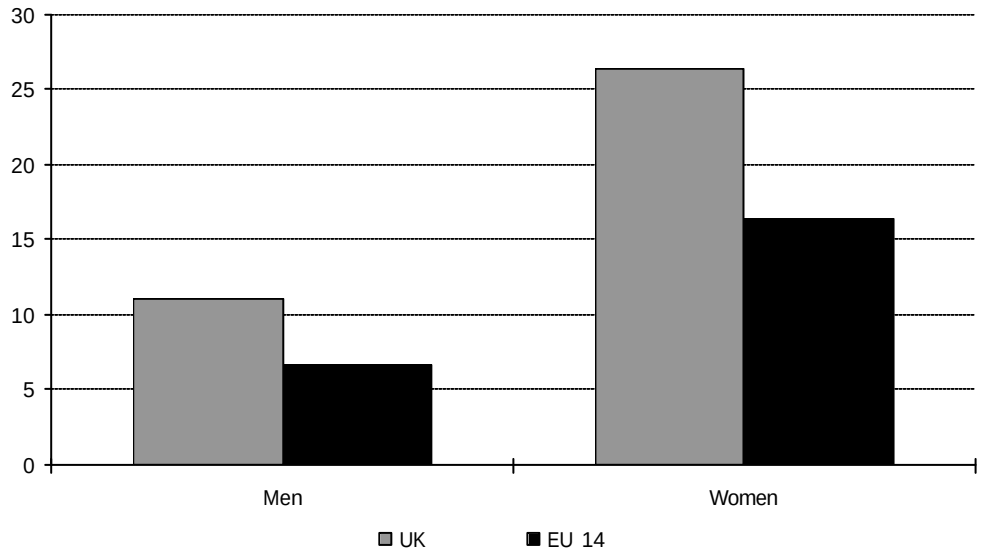


Source: Eurostat 2000

In the United Kingdom, on the other hand, part-time working is much more prevalent, especially part-time working of less than 16 hours in a week. As Figure 5.5 shows, the percentage of women *and* men working fewer than 16 hours in the UK is higher than in the EU (excluding the UK) as a whole. As will become evident, working hours in the UK are more polarised than in the rest of Europe, with large numbers working long hours as well as short hours.

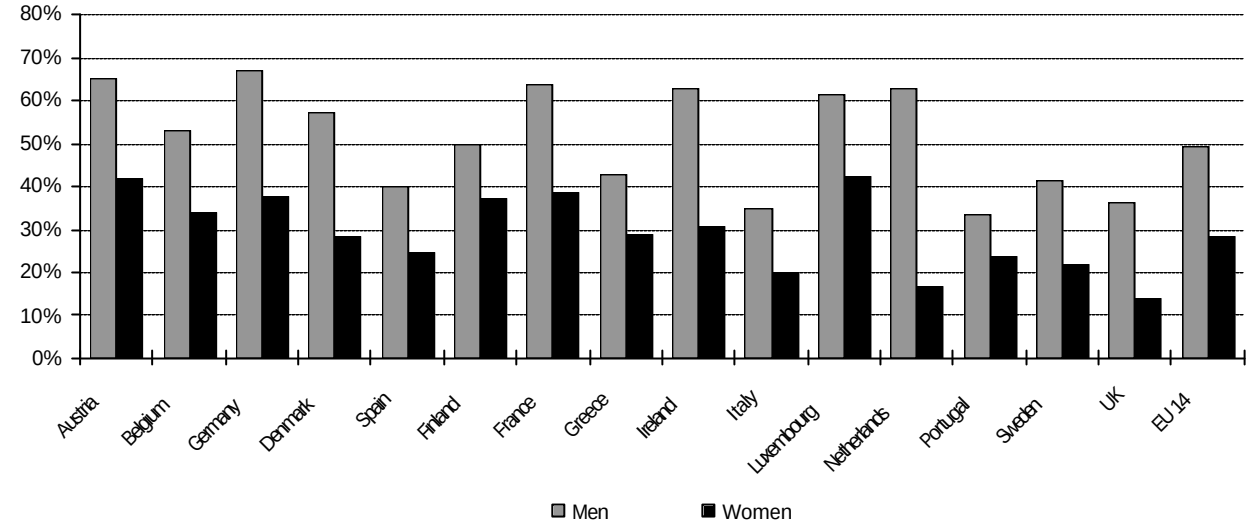
Another dimension that must be considered in examining working hours is employment status, in particular, the division between employees and the self-employed. Figure 5.6 displays the

Figure 5.5: Percentages of all men and women in employment working less than 16 hours in reference week, in the UK and EU (excluding the UK), 1999



Source: Eurostat 2000

Figure 5.6: Percentages of self-employed men and women working more than 48 hours in reference week, in EU Countries, 1999



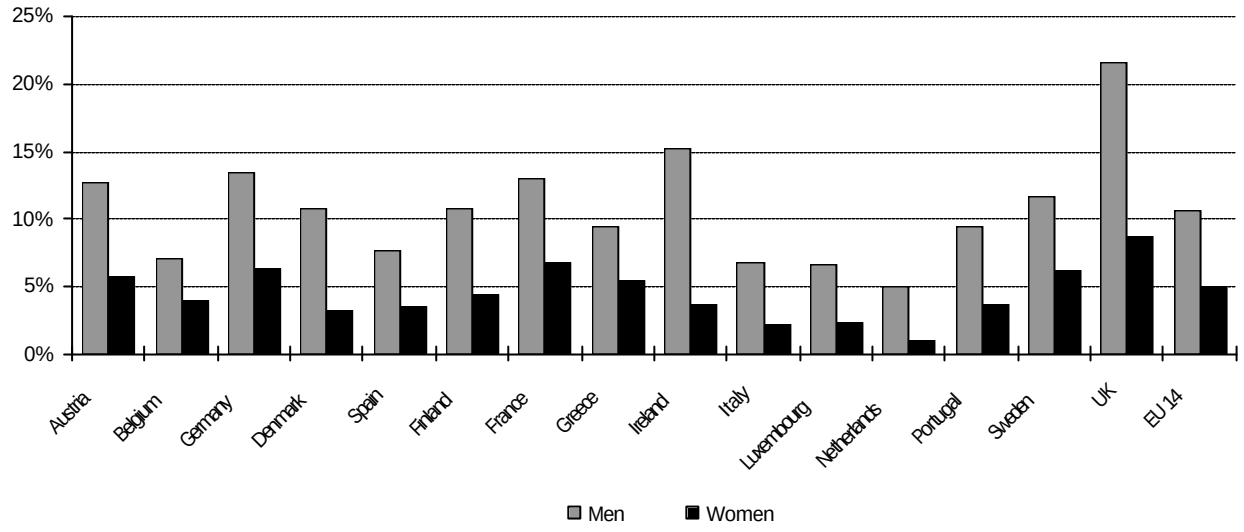
Source: Eurostat 2000

percentages of self-employed men and women working over 48 hours in EU countries, and demonstrates the high levels of long hours working among this group. Just under one-half of self-employed men (49 per cent) and just over one-quarter of self-employed women (29 per cent) in the EU 14 member states worked long hours. Interestingly, in the UK, one-third of self-employed males (36 per cent) and one-tenth (11 per cent) of self-employed females worked over 48 hours — considerable proportions in themselves, but below the levels worked in the rest of Europe as a whole.

As would perhaps be expected from previous findings, when the percentages of *full-time employees* engaged in long hours work are compared across EU countries, the UK shows high levels of long hours working, especially among men. These percentages are displayed in Figure 5.7. Here we can see that just over one-fifth (22 per cent) of full-time male employees in the UK worked long hours, the highest of any country, compared with one-tenth (11 per cent) of their counterparts in EU 14 member states. The percentage of male employees working long hours was therefore twice that of the rest of Europe as a whole, and seven percentage points above the country with the next highest proportion, Ireland.

Nine per cent of full-time female employees in the UK worked over 48 hours, a considerably larger proportion than the five per cent across the EU 14 member states, and the largest percentage of any European country. The country with the second highest proportion working these hours was France (seven per cent) and the country with the smallest was the Netherlands, where only one per cent of full-time female employees worked over 48 hours.

Figure 5.7: Percentages of full-time male and female employees working more than 48 hours in reference week, in EU Countries, 1999

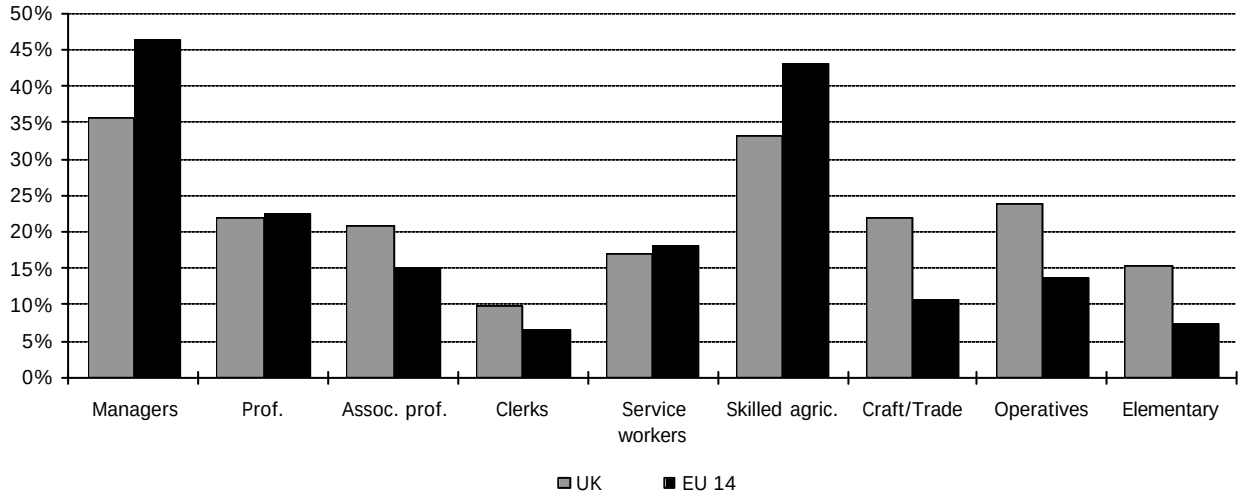


Source: Eurostat 2000

5.2 Occupations

Figure 5.8 shows how the proportion of men working more than 48 hours varies by occupation, in the UK and rest of Europe (EU 14). Breakdowns by employee and self-employed are contained in Appendix B (Tables B.1 and B.2). Figure 5.8 makes it clear that managers are the occupational group most likely to work long hours in both the UK and EU 14. Interestingly, managers are more likely to work long hours in the EU 14 member states (as a whole) than in the UK, although it must be remembered that Figure 5.8 includes part-time workers.

Figure 5.8: Percentages of men in employment working more than 48 hours in reference week in the UK and EU (excluding the UK), by occupational breakdown, 1999



Note: For more information of how occupational groups are defined, see Appendix B.

Source: Eurostat 2000

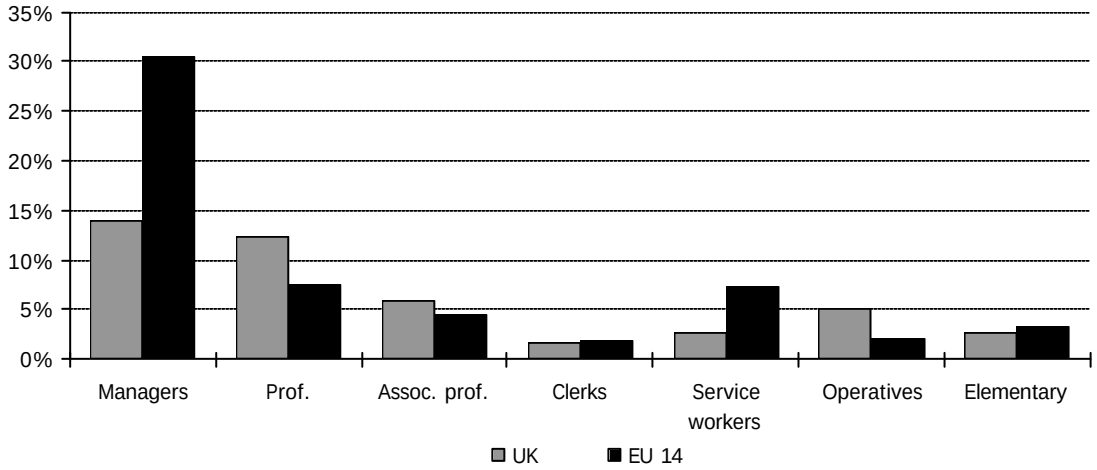
Also of interest is the fact that despite the inclusion of part-time workers in Figure 5.8, and in contrast to the situation of working hours of managers, those in lower level occupations tend to work longer hours in the UK than in the rest of Europe. Those in the craft/trade group, for example, are twice as likely to work long hours as are those in the rest of Europe: 22 per cent do so in the UK, compared with 11 per cent in the rest of Europe. Likewise 24 per cent of operatives in the UK work long hours, compared with 14 per cent in the rest of Europe.

The skilled agricultural workers category is noticeable in running counter to this trend[1], with a smaller proportion of the group working long hours in the UK compared with the rest of Europe as a whole. It should also be noted that this group come closest to 'managers' in terms of the percentage working over 48 hours a week: 34 per cent in the UK and 43 per cent in the rest of Europe.

Figure 5.9 repeats the analysis for women. Excluded are those in the 'skilled agricultural' and 'craft/trade' groups, who are too small in number to allow statistical accuracy. Breakdowns by employment type (employee or self-employed) are provided in Appendix B (Tables B.3 and B.4).

Figure 5.9 shows that female managers, like their male counterparts, are the occupational group working the longest hours, both in the UK and in the rest of Europe. The percentage of *all* female managers working long hours was twice as high in the EU 14 member states than in the UK. Fourteen per cent of female managers worked over 48 hours a week in the UK, compared with

Figure 5.9: Percentages of women in employment working more than 48 hours in reference week in the UK and EU (excluding the UK), by occupational breakdown, 1999



Note: For more information of how occupational groups are defined, see Appendix B.

Source: Eurostat 2000

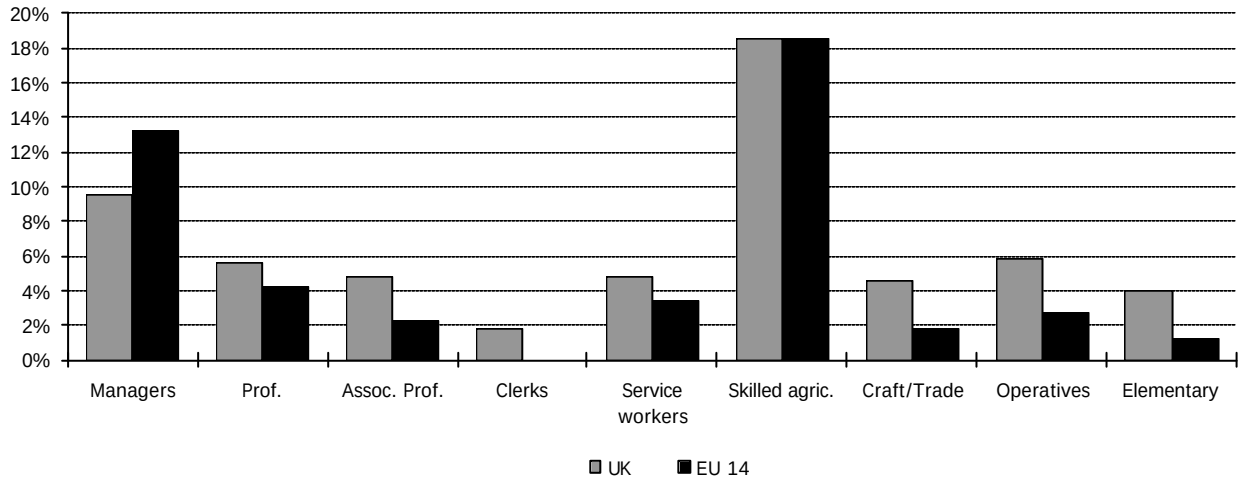
[1] It should be noted, however, that agricultural employment accounts for a smaller share of total employment in the UK than in most other EU member states.

30 per cent in the rest of Europe. As will become clear, however, this large gap is in part due to the relatively large share of part-time female managers in the UK.

Professionals are the occupational group working the second longest hours among women in employment in the UK. Twelve per cent of this group work long hours, compared with seven per cent of professionals in the rest of Europe.

Figure 5.10 shows the proportion of men working more than 60 hours a week by occupation in the UK and EU 14.[1] As the figure shows, the patterns evident in Figure 5.8 are also broadly displayed for this smaller group. Managers rate highly in terms of the percentages working these hours, but the percentages are higher in the EU 14 member states (as a whole) than in the UK — (13 per cent and ten per cent respectively). In contrast, it appears that craft/trade and operative workers in the UK are twice as likely to work these extra long hours as those in the rest of Europe as a whole. Furthermore, UK elementary workers are four times as likely to work over 60 hours a week, although, once again, this represents only a relatively small group (see Tables B.1 and B.2 in Appendix B).

Figure 5.10: Percentages of men in employment working more than 60 hours in reference week in the UK and EU (excluding the UK), by occupational breakdown, 1999



Note: For more information of how occupational groups are defined, see Appendix B

Source: Eurostat 2000

The occupation with by far the largest proportion working over 60 hours a week in the UK and EU 14 is 'skilled agricultural', however, with almost one in five working these hours (19 per cent in the UK, 18 per cent in the rest of Europe as a whole).

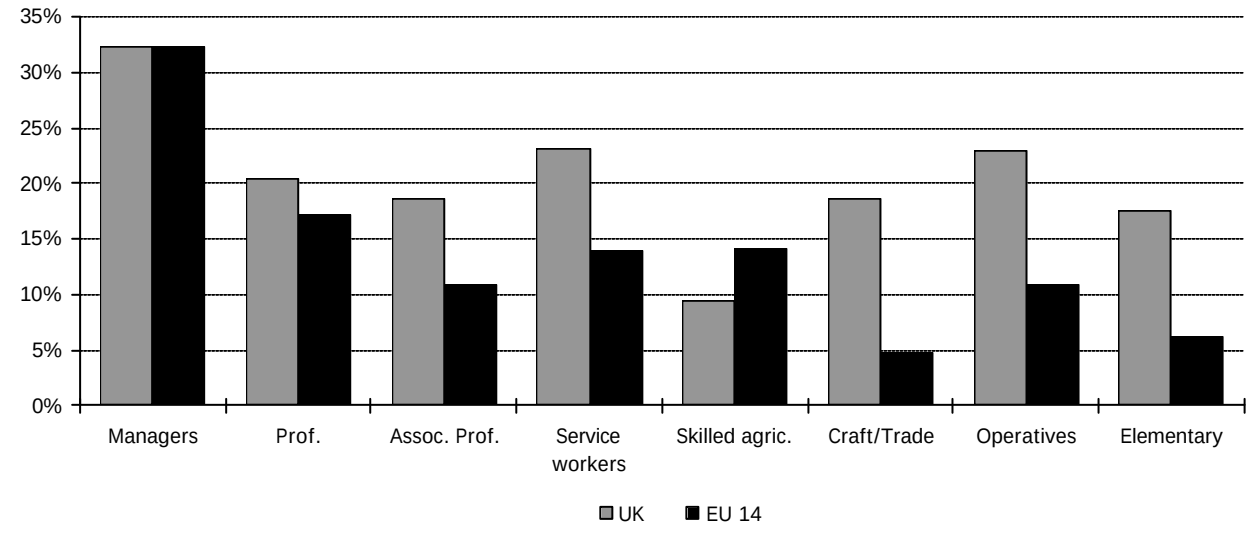
[1] A corresponding figure for women in employment working over 60 hours has not been given due to their small number. (See Table B.3 in Appendix B.)

Turning now to look at full-time workers, the percentages of full-time male employees working over 48 hours a week within different occupational groups in the UK and in the EU 14 member states are presented in Figure 5.11. (Occupational breakdowns for individual EU member states are available in Table B.5 in Appendix B).

As would be expected from examining only full-time employees, the gap between working hours of lower level groups in the UK and the EU 14 member states is dramatically wider than it was when *all* in employment were examined in Figure 5.8. Figure 5.11 shows that nineteen per cent of full-time male craft/trade employees in the UK work long hours, compared with only five per cent in the rest of the EU. In addition, as Table B5 shows, an employee in the craft/trade group in the UK is nearly twice as likely to work long hours as a counterpart in Ireland, the country with the next highest percentage working over 48 hours for this group. Also, as is shown in Figure 5.11, 'elementary' employees (which includes labourers and low level sales jobs), and operative employees, are more than twice as likely to work long hours in the UK than in the rest of Europe.

In contrast, the percentage of full-time managerial employees working long hours in the UK is the same as in the EU 14 member states (as a whole) — 32 per cent. As Table B.5 in Appendix B indicates, however, the percentages of managers working long hours varies significantly within the EU 14 countries, from a low of five per cent in the Netherlands to 46 per cent in France.

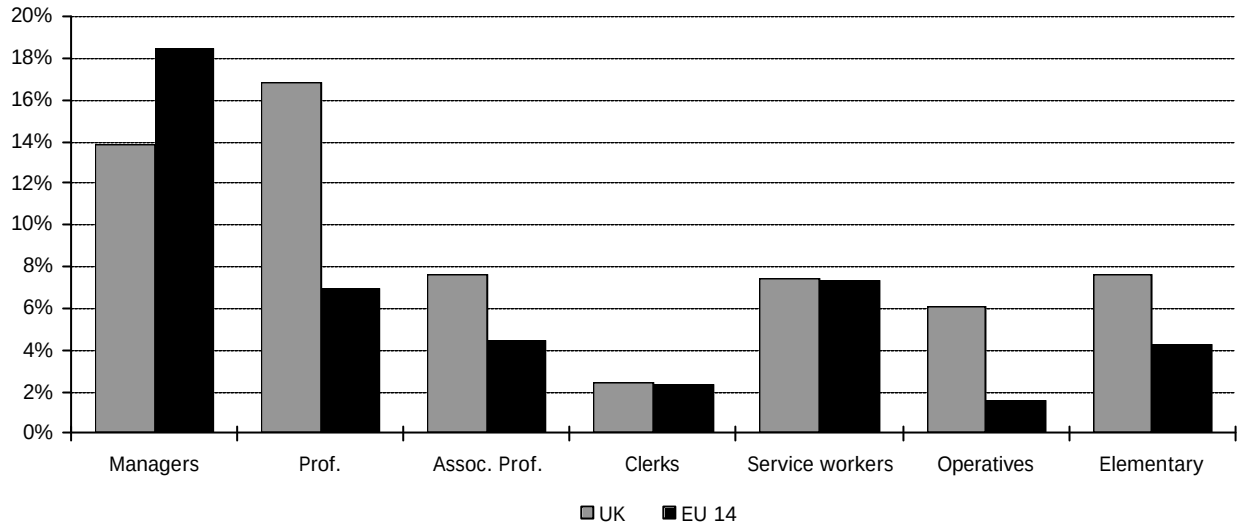
Figure 5.11: Percentages of full-time male employees working more than 48 hours in reference week in the UK and EU (excluding the UK), by occupational breakdown, 1999



Note: For more information of how occupational groups are defined, see Appendix B

Source: Eurostat 2000

Figure 5.12: Percentages of full-time female employees working more than 48 hours in reference week in the UK and EU (excluding the UK), by occupational breakdown, 1999



Note: For more information of how occupational groups are defined, see Appendix B

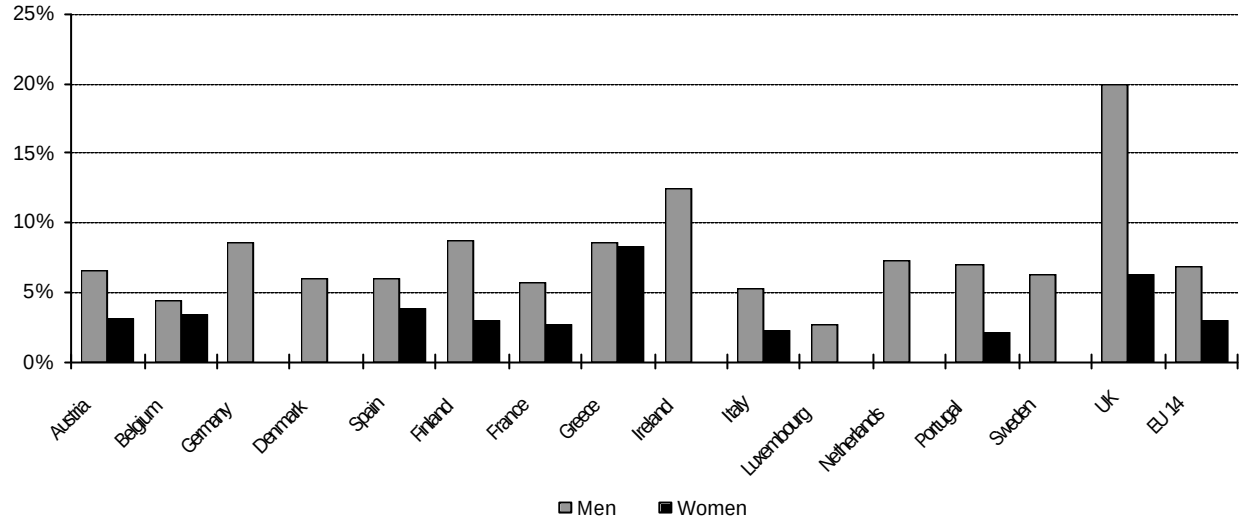
Source: Eurostat 2000

Figure 5.12 repeats the analysis for full-time female employees. Breakdowns by EU countries are in Table B.6 in Appendix B. As might be expected, the gap between the working hours of full-time female managerial employees in the UK and the EU 14 member states is considerably smaller than for *all* female managers in employment. Fourteen per cent of UK full-time female managerial employees work long hours, compared with 18 per cent in the rest of Europe.

Among women, professionals are the occupational group in the UK most prone to working long hours, however. Seventeen per cent of full-time female employees in the UK work over 48 hours in a week — the highest of all the EU countries (see Table B.6 in Appendix B). Further analysis of the data for female professionals shows that it is female teaching professionals in the UK who are more likely to work long hours compared to their European counterparts. Over one-quarter (26 per cent) of UK female teaching professionals work over 48 hours per week, compared with four per cent in the rest of Europe. Amongst other categories of female professionals discrepancies between the UK and the rest of Europe are considerably smaller. As such, it is the long hours of UK teaching professionals that explain these inter-country differences in working hours among full-time women professionals.

Figure 5.13 builds on the earlier discussion of the high level of long hours working among lower level employees in the UK. Full-time craft, operative and elementary employees have been aggregated into a single group, and the Figure shows percentages of men and women working over 48 hours in each country. In order to provide contrast, the percentages of male and female full-time managerial employees in each country working long hours have been given in Figure 5.14.

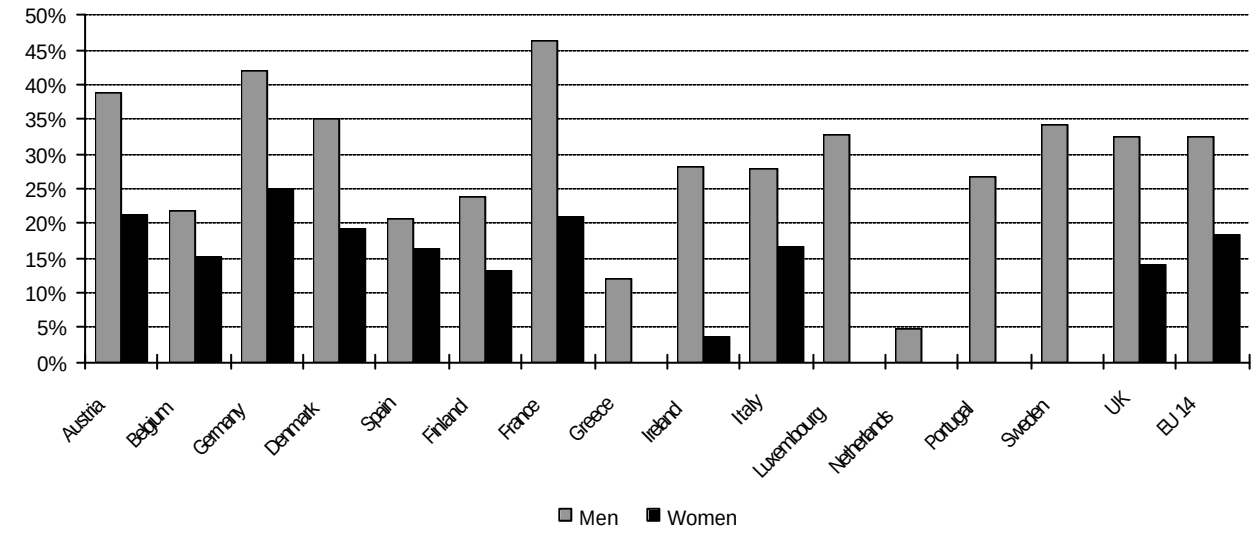
Figure 5.13: Percentages of male and female full-time craft, operative and elementary employees working more than 48 hours in reference week, in EU countries, 1999



Note: For more information of how occupational groups are defined, see Appendix B

Source: Eurostat 2000

Figure 5.14: Percentages of male and female full-time managerial employees working more than 48 hours in reference week, in EU countries 1999



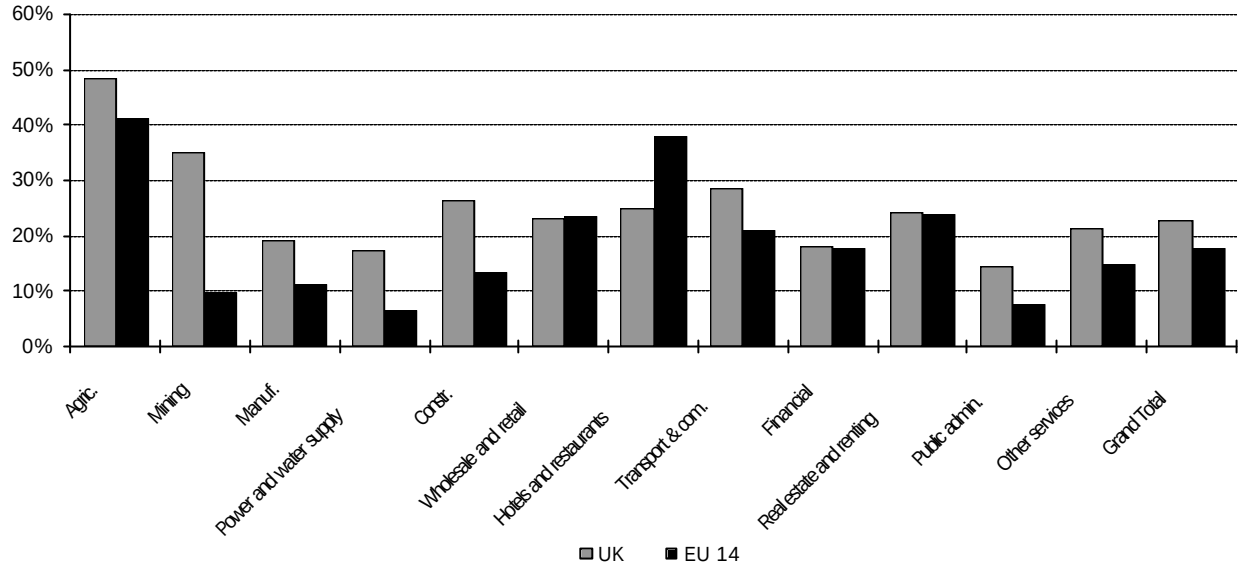
Note: For more information of how occupational groups are defined, see Appendix B

Source: Eurostat 2000

5.3 Industrial sector

Working hours vary in the UK and EU by industrial sector. Figure 5.15 shows the share of men working long hours by industrial sector in the UK and in the rest of Europe as a whole. Taking the UK men first, it is evident that there is considerable sectoral variation in long hours working from 48 per cent in the agricultural

Figure 5.15: Percentages of all men in employment working more than 48 hours in reference week in the UK and EU (excluding the UK), by sector breakdown, 1999



Source: Eurostat 2000

sector to 12 per cent in public administration. Interestingly, long hours working is not concentrated in service or production sectors.[1] Of sectors that can be described as production, mining has 35 per cent working long hours, and power and water supply has 17 per cent. Likewise, of service sectors, transport and communications has 29 per cent working over 48 hours a week, compared with 15 per cent in public administration.

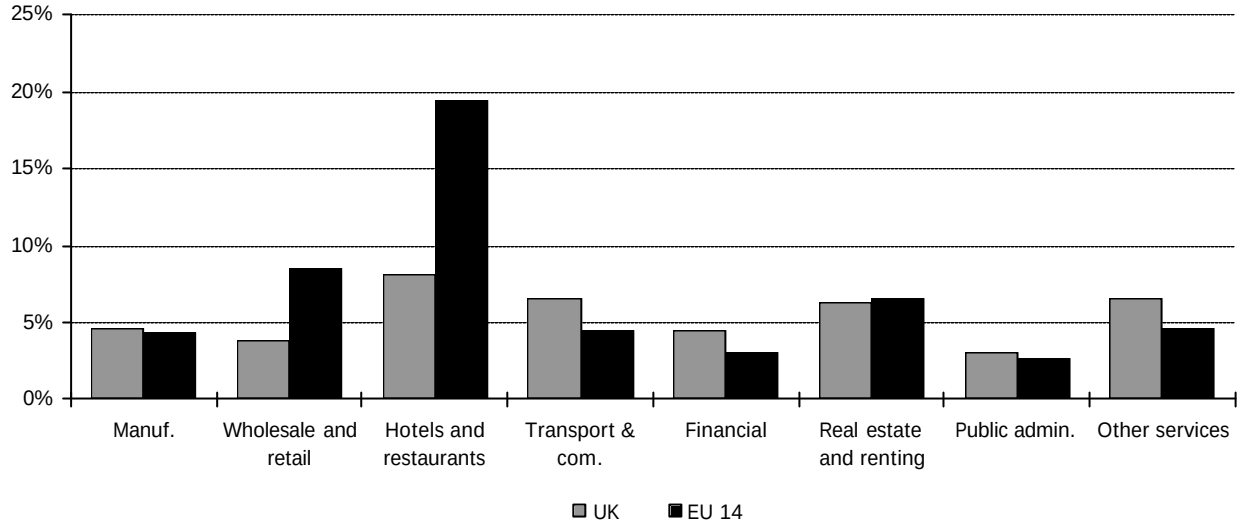
In the rest of Europe, however, long hours working among men is concentrated more in the service, rather than production sectors. The percentage working long hours in production sectors ranges only from nine per cent in mining to 13 per cent in construction. In the service sector, with the exception of public administration, the percentages working long hours range from 17 per cent in the financial sector to 38 per cent in hotels and restaurants.

Figure 5.16[2] repeats the sectoral analysis for women. For women in the UK, the proportion working long hours ranges from only three per cent in public administration to eight per cent in hotels and restaurants. In the rest of Europe as a whole, the variation is

[1] Under Eurostat guidelines, the following sectors are defined as 'production': mining, manufacturing, power and water supply, and construction. Wholesale and retail, hotels and restaurants, transport and communications, financial, real estate and renting, and public administration are all defined as 'service' sectors.

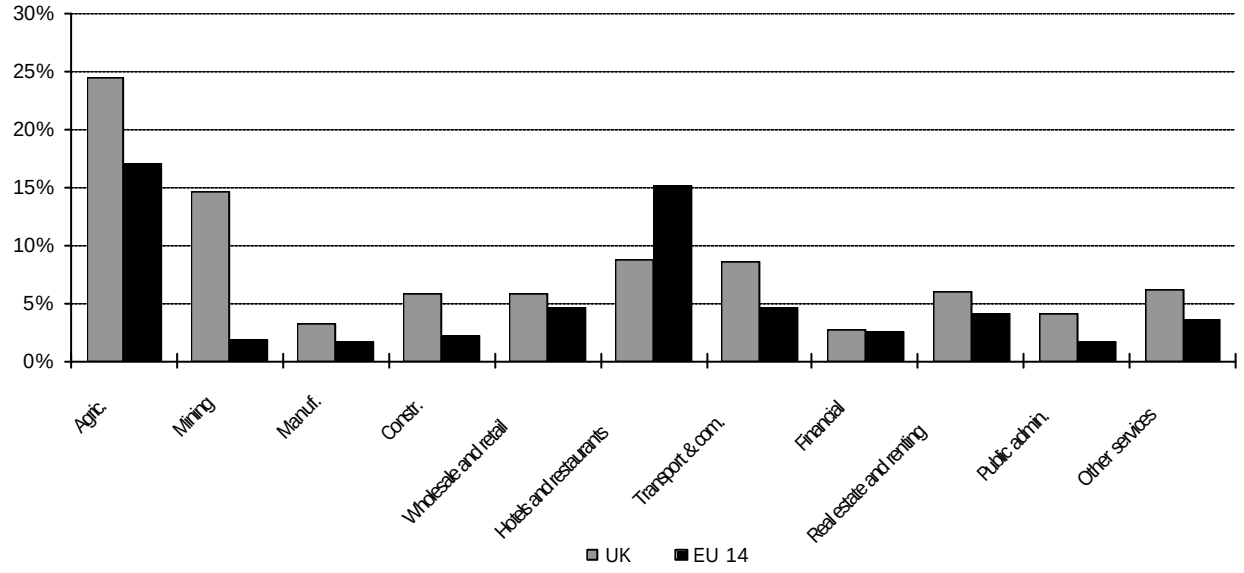
[2] With the exception of manufacturing, all the production sectors have had to be excluded due to the small number of women working long hours within these.

Figure 5.16: Percentages of all women in employment working more than 48 hours in reference week in the UK and EU (excluding the UK), by sector breakdown, 1999



Source: Eurostat 2000

Figure 5.17: Percentages of men in employment working more than 60 hours in reference week in the UK and EU (excluding the UK), by sector breakdown, 1999



Source: Eurostat 2000

greater, largely due to the 19 per cent of women who work over 48 hours a week in hotels and restaurants.

Returning to men, Figure 5.17 shows sectoral variations in the proportion of men working more than 60 hours a week in the UK and the EU 14 member states.[1] The agricultural sectors in both the UK and the rest of Europe had the highest proportions working

[1] A corresponding table for women has not been given due to the small numbers working over 60 hours.

these very long hours: 24 per cent in the UK and 17 per cent in the EU 14 member states. The sectors with the second largest proportions working more than 60 hours a week was mining in the UK and hotel/restaurants in the EU 14 member states (both 15 per cent).

Moving now to look at full-time male employees only, Table 5.1 shows the percentages working long hours in agriculture, production and service sectors in the EU countries. From the table, we can see that 20 per cent of UK full-time male employees in production worked more than 48 hours a week, compared with a similar 23 per cent in services. In comparison, in the rest Europe as a whole, there is a larger broad difference between the percentages working long hours: eight per cent worked long hours in production compared with 13 per cent in services.

Table 5.1: Percentages of full-time male employees working more than 48 hours in reference week in EU countries, by sector breakdown, 1999

	Agriculture	Production	Services
Austria	15	9	18
Belgium	3	6	9
Germany	17	11	17
Denmark	20	9	13
Spain	18	6	9
Finland	16	9	13
France	11	10	16
Greece	23	6	12
Ireland	46	13	16
Italy	10	6	7
Luxembourg	12	4	8
Netherlands	8	4	6
Portugal	30	8	11
Sweden	18	9	14
UK	38	20	23
EU 14	16	8	13

Source: Eurostat 2000

Similarly Table 5.2 shows the percentages of full-time female employees in production and service sectors[1] working over 48 hours in EU countries. As the table shows, UK women employees in service sectors are more likely to work long hours than those in production sectors. However, it should be borne in mind that

[1] Agriculture has been excluded because of the small number of women working long hours in this sector.

women in the production sectors represent a relatively small group.

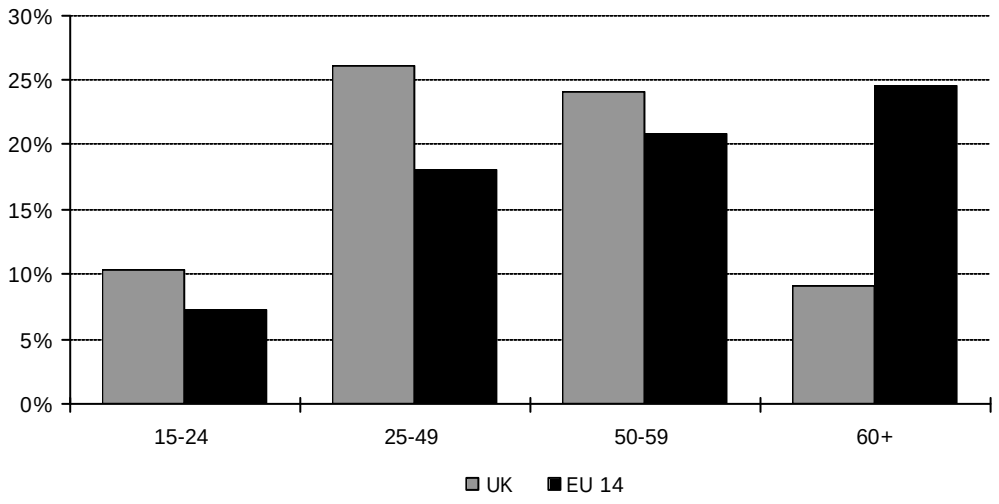
5.4 Age

Table 5.2 Percentages of full-time female employees working over 48 hours in EU countries in reference week, by sector breakdown, 1999

	Production	Services
Austria	3	6
Belgium	3	4
Germany	5	7
Denmark	-	4
Spain	3	4
Finland	3	5
France	5	7
Greece	3	6
Ireland	-	4
Italy	2	2
Luxembourg	-	2
Netherlands	-	1
Portugal	2	5
Sweden	-	7
UK	6	9
EU 14	4	5

Source Eurostat 2000

Figure 5.18: Percentages of all men in employment working more than 48 hours in a week in the UK and EU (excluding the UK), by age group, 1999



Source: Eurostat 2000

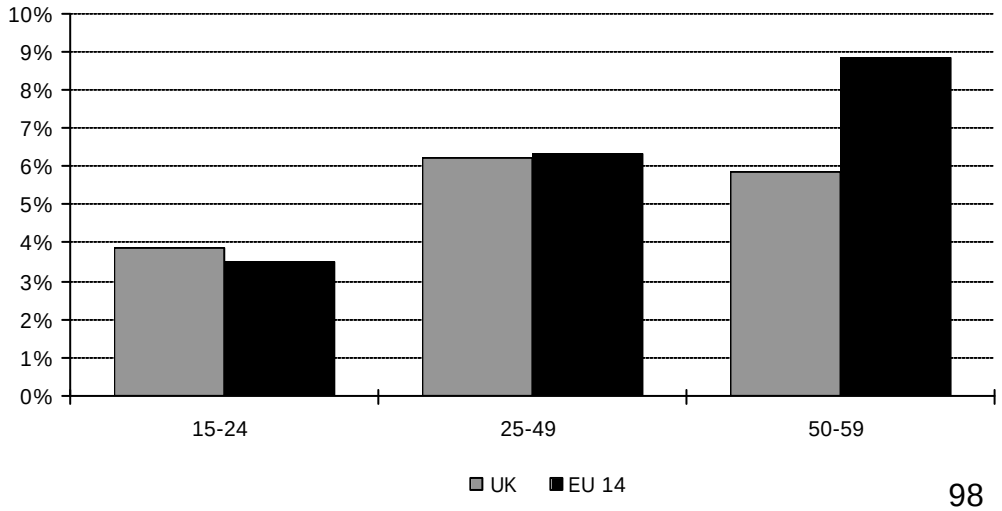
Figure 5.18 shows that for all age bands except those aged 60 and over, UK males in employment (employed and self-employed) worked longer hours than their European counterparts. These age differentials are even larger when the self-employed are excluded. For instance, in the 25 to 49 year age band, 23 per cent of UK employees work over 48 hours a week, compared with only 11 per cent of employees in all other EU countries.

Table B.17 in Appendix B presents percentages of full-time male employees working over 48 hours in a week, by country and by five-year age band. Within the UK, the peak in the proportion of male employees working over 48 hours a week is between the ages of 35 and 44, when one-quarter of male employees work these long hours. This compares with only five per cent of employees in this age band in the Netherlands who work over 48 hours a week. Ireland has the next highest incidence to the UK of long hours working within this age group among full-time employed men, but still the proportion (between 16 and 17 per cent) is considerably lower than in the UK

The age pattern of long hours working among women in the UK is broadly similar to that for all other EU countries taken together (see Figure 5.19). A slightly smaller proportion of UK females in employment (self-employed and employed) work long hours between the ages of 25 and 49, than in the rest of the EU. Indeed the only significant difference is in the age group 50 to 59, where a much smaller proportion of UK women work long hours than among their European counterparts.

In Appendix B, Tables B.15 and B.16 show that the proportion of women working short hours (both less than 16 hours and 16 to 30 hours) is considerably higher in the UK than in the rest of the EU across all the age bands. As noted above, it is this high proportion of short hours working among women that brings down the proportion of women working long hours in the UK. Nonetheless, a different pattern is shown when full-time women are analysed separately. Among this group, the UK shows the highest

Figure 5.19: Percentages of all women in employment working more than 48 hours in a week in the UK and EU (excluding the UK), by age group, 1999



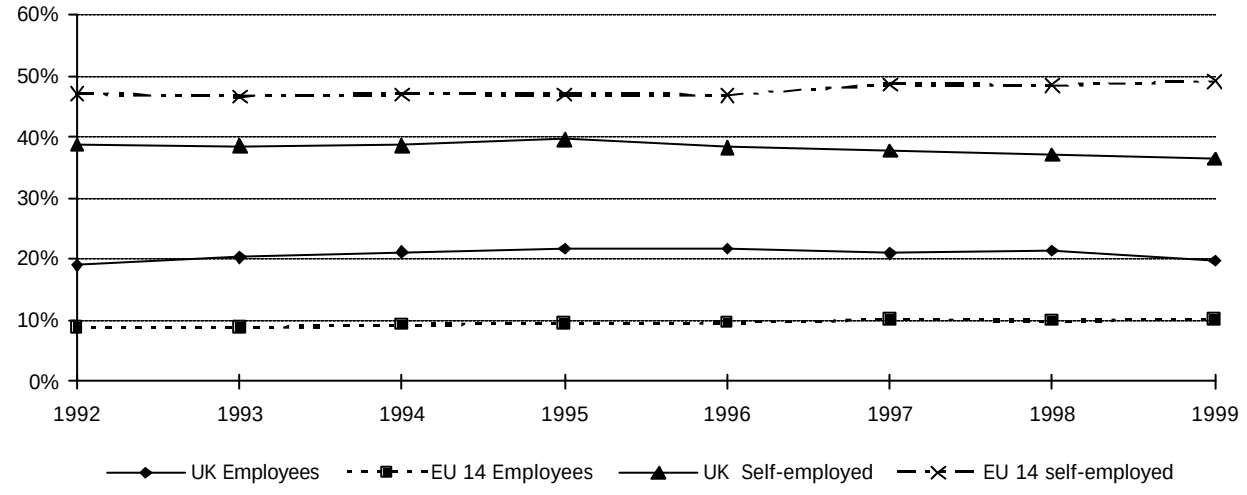
Source: Eurostat 2000

incidence of long hours working compared to all other EU countries. Approximately ten per cent of full-time female employees between the ages of 25 and 54 work over 48 hours per week (see Appendix B, Table B.18).

5.5 Changes over time

Figures 5.20 and 5.21 show time series of the proportion of employees and self-employed men and women working more than 48 hours a week, between 1992 and 1999. In both figures, the solid lines represent the UK and the broken lines all other EU countries. The most striking point to note, in Figure 5.20 in particular, is the lack of change over this seven year time period. Within the UK there does appear to have been a slight fall in the

Figure 5.20: Percentages of male employees and self-employed men working more than 48 hours in a week in EU countries, 1992-1999



Source: Eurostat 2000

Figure 5.21: Percentages of female employees and self-employed women working more than 48 hours in a week in EU countries, 1992 - 1999

Source: Eurostat 2000

proportion of male employees who work over 48 hours in a week since the introduction of the Working Time Regulations in 1998. Similarly, among self-employed UK men, the proportion working over 48 hours in a week has been falling slightly since a peak in 1995. In contrast, among all other European men (employed and self-employed) there appears to have been a slight upward trend in the proportion working over 48 hours. Table B.19 in Appendix B provides analysis by country of the proportion of male employees working over 48 hours in a week. Again, this shows very little change between 1992 and 1999 in all EU countries. There is more change evident over time among women working long hours. Particularly among self-employed women in the UK, there has been a downward trend in the proportion working over 48 hours since 1992. In contrast, the proportion of female employees in the UK working long hours has increased by one percentage point between 1992 and 1999. As for men, in each country, the proportion of female employees working long hours has remained very stable during this time period in all EU countries (Table B.21 in Appendix B).

5.6 Conclusions

Analysis of the European Community Labour Force Survey (1999) shows that when average working hours for men and women in employment are compared across all European Union (EU) countries, the UK does not stand out as working particularly long hours. In fact, average working hours in the UK are approximately mid-range for all European Union countries. However, using averages for all in employment does not provide an adequate picture of the incidence of long working hours. One reason for this is that it includes part-time workers and the proportions of female employees working part time in the UK is comparatively high.

When the percentages of *full-time employees* engaged in long hours work (*i.e.* working over 48 hours per week) are compared across EU countries, the UK shows high levels of long hours working, especially among men. Just over one-fifth (22 per cent) of full-time male employees in the UK work long hours, the highest of any country, compared with one-tenth (11 per cent) of all the other EU 14 level counterparts.

Analysis by occupation shows that full-time male managers are more likely than any other group to work long hours in the UK and across Europe as a whole. Nonetheless, the proportion of managers working long hours in the UK is not larger than in the rest of the EU as a whole. This conclusion applies to both long hours working (over 48 hours a week) and very long hours working (over 60 hours a week). Where the proportions of men working long hours vary widely between the UK and elsewhere is among craft, trade, operatives and elementary occupations. In

these occupations, a significantly larger proportion of UK full-time men work over 48 hours than these groups of workers do in any other European Union country. A different pattern is shown for women. Almost one-fifth of female full-time professionals in the UK work long hours, which is a higher proportion than in any other country in Europe.

In the UK, there is a comparatively high concentration of long hours working within production sectors, whereas in the rest of Europe long hours working is more concentrated in the service sector, particularly hotels and restaurants.

In all age bands analysed, men in the UK work longer hours than their European counterparts, whereas the pattern for women is more similar to the rest of Europe. For women, the only real difference is in the over 50-age group, where a much lower proportion of UK women work long hours. The most striking finding from an analysis of change over time in the incidence of long hours working, is that there has been little change within the seven year period (1992 to 1999) analysed, both in the UK and the rest of the European Union.

6. International Comparisons: Findings from the Literature and Case Studies

This chapter presents the evidence from the literature review, where data from previous research are used to extend the analysis to the United States, Australia and Japan to provide context to the understanding of European working hours. Once some conclusions regarding the distribution of working hours across and within different countries have been reached, the chapter moves on to seek explanations for differences in working hours patterns between countries. The literature falls into three main themes:

- preferences and economic considerations
- regulation and legislation
- industrial relations, collective bargaining and the role of trade unions.

The chapter concludes with findings from the case studies, which draw out some of the issues and themes discussed in this and the previous chapter.

6.1 Working hours in the USA, Australia, Japan and Europe

6.1.1 Working hours in the USA

Much of the literature published in the last five years on working hours in the United States has focused on the question of whether working hours have increased over the last 20 to 30 years, thus reversing the trend of working hours reduction in the earlier part of the 20th century. Jacobs and Gerson (1998), and Bluestone and Rose (1997) posit that a renewed interest in the working hours issue, especially the question of changes in working hours overtime, is largely attributable to Schor's book 'The Overworked American' (1991).

Schor presents a case that annual working hours have increased, for which she uses data from the Current Population Survey (CPS). This is a large scale survey of those in employment in the USA,

Table 6.1: Average annual and weekly hours, and average number of weeks worked, by men and women in employment in the USA, 1969 and 1987

	1969	1987	Difference
All: Hours per year	1,787	1,949	163
Men: Hours per year	2,054	2,152	98
Women: Hours per year	1,406	1,711	305
All: Hours per week	39.8	40.7	0.9
Men: Hours per week	43.0	43.8	0.8
Women: Hours per week	35.2	37.0	1.8
All: Weeks worked	43.9	47.1	3.2
Men: Weeks worked	47.1	48.5	1.4
Women: Weeks worked	39.3	45.4	6.1

Source: Schor (1991)

which is weighted to the profile of workers in the USA. Table 6.1 presents her estimates of average hours worked in 1969 and 1987.

From the figures presented in Table 6.1, Schor notes that:

> *'The average employed person is now on the job an additional 163 hours, or the equivalent of an extra month a year.'*

As Table 6.1 indicates, however, this increase is more the result of an increase in the number of weeks worked than the number of hours within the working week: overall 3.2 extra weeks were worked compared with only 0.9 hours during the week.

The CPS is also used by Rones *et al.* (1997) to calculate annual hours for non-agricultural employees, albeit for the later time period 1976 to 1993. Although it must be remembered that the group under investigation excludes the self-employed and agricultural workers, the average annual hours, presented here in Table 6.2, are considerably different from those given by Schor.

Moreover, Jacobs and Gerson (1998) argue that the rise in the average number of weeks worked is likely to be a result of increased labour force participation, and a rise in the continuity of female employment.

Table 6.2: Average annual working hours male and female non-agricultural employees, in the USA, 1976 and 1993

Average annual work hours	Men	Women
1976	1,805	1,293
1993	1,905	1,526
1976-93 change	+100	+233
Age adjusted change	+62	+193

Source: Rones et al. (1997)

In any case, there is considerable agreement in the research literature that the average weekly hours worked have not risen dramatically, if at all, since the 1960s/1970s. Kirkland (2000), for example, reports that according to the CPS there has been a 0.5 per cent decrease in the average working hours for non-agricultural employees between 1964 and 1999. This compares to the 0.4 per cent rise calculated by Schor for the working population as a whole. In addition, from the results given in Table 6.3, the average working week cannot be described as 'long'.

Table 6.3: Average weekly hours for workers in the USA, according to four studies

	Rones *et al.* (1997)	Schor (1991)	McGratten *et al.* (1998)	Hamermesh (1996)
Those covered and year	Non-agricultural employees, 1995	All workers 1987	All workers 1990	All workers 1991
Average	39.2	40.7	36.64	39.3

Although average weekly hours worked in the United States cannot be considered long in themselves, the literature suggests that there is a considerable proportion, which has grown over time, working long hours (at or around the 48 hours per week or above mark). Jacobs and Gerson (1998), for example, show that according to the Current Population Survey, the percentage of non-agricultural employees working over 50 hours per week has risen among men from an already high 21.0 per cent in 1970 to 25.2 per cent in 1997, and among women the proportion working these hours has doubled in this time, from 5.2 to 10.8 per cent respectively.

Table 6.4 presents the data concerning long working hours from Jacobs and Gerson (*ibid*.), as well as data from the OECD (1998) and Rones *et al.* (1997). What is instantly noticeable is the large proportions working above either 48 or 49 hours according to each study. The findings from the different studies are broadly compatible, however, when one takes account of the minor definitional differences in relation to the groups being examined.

Table 6.4: Proportions of workers in the USA working long hours, according to three studies

Source	Year	Group	Those working more than ...	% of Men working these hours	% of Women working these hours
OECD (1998)	1995	All	48 hours (usual)	27	11
Jacobs and Gerson (1998) Survey: CPS	1997	Non-agricultural employees	49 hours (actual)	25.2	10.8
Rones *et al.* (1997) Survey: CPS	1993	Full-time non-agricultural employees	48 hours (annual average)	18.5 (both men and women)	

Note: Proportions from OECD (1998) are derived from a chart, and are therefore subject to slight inaccuracy.

Overall, according to the studies, around one-quarter of men and one-tenth of women in employment work over 48 hours, which exceed the proportions doing so in the UK.

The CPS has also allowed analysis to be conducted on working hours by occupation, in a similar manner to that presented for European countries in Chapter 5. Table 6.5 shows the percentages of male non-agricultural employees within occupational groupings working above various thresholds in three studies which utilise the CPS: Rones *et al.* (1997), Jacobs and Gerson (1998) and Hecker (1998). Direct comparisons cannot be made because categorisations of occupational groups appear to differ slightly, the measurement of hours differs, and one study measures only full-time employees. The results are, however, for the most part similar and demonstrate high levels of long hours working among the employed population as a whole.[1] The fact that, according to analysis of the CPS, long hours working is prevalent in both higher and lower level jobs presents a situation not dissimilar to that of the UK (see Chapter 5).

Table 6.5: Male non-agricultural workers working long hours in the USA, according to three studies, by occupational group

	Rones *et al.* (1997) Percentage of full-time workers working over 48 hours in an average week in 1993	Jacobs and Gerson (1998) Percentage working over 49 hours in an actual week in 1997	Hecker (1998) Percentage usually working over 45 hours per week (and over 55 hours in brackets) in 1997
Managers	46	34.5	53 (20)
Professionals	37		36 (12)
Technicians	22		21 (5)
Sales	44	20.0	43 (15)
Administrative	19		17 (4)
Service	17		16 (6)
Skilled manual	25		21 (6)
Operators	19		17 (4)
Transportation	38		36 (16)
Labourers	16		

For non-agricultural female employees the percentages working above these thresholds is more varied across the studies (see Table

[1] Hecker's and Rones' results are, with the exception of managers, very close. The large difference between the working hours of managers in studies appears to be largely due to differences of occupational classification. Hecker's findings regarding other occupational groups are perhaps close to Rones' because differences between the studies even themselves out. The former study has a lower threshold — 45 hours — but the latter looks only at full-time workers.

Table 6.6: Female non-agricultural workers working long hours in the USA, according to three studies, by occupational group

	Rones (1997)	Jacobs (1998)	Hecker (1998)
	Percentage of full-time workers working over 48 hours in an average week in 1993	Percentage working over 49 hours in an actual week in 1997	Percentage usually working over 45 hours per week (and over 55 hours in brackets) in 1997
Managers	24	17	32 (8)
Professionals	21		23 (6)
Technicians	11		9 (2)
Sales	21	6.8	18 (4)
Administrative	8		6 (1)
Service	14		9 (3)
Skilled manual	16		11 (2)
Operators	10		7 (1)
Transportation	18		20 (9)
Labourers	9		

6.6). Long hours working is more widespread in most occupational groups in Rones' study than in that conducted by Hecker. A probable explanation for the differentials is that Rones' study is concerned only with full-time employees, which exerts upward pressure on the percentage working over 48 hours. As with men, long hours working is not confined to managers and professionals: 24 per cent of managers in Rones' study worked over 48 hours a week, compared with 18 per cent of transportation workers and 16 per cent of skilled manual workers.

The CPS is widely used for analysis of working hours in the USA, and it is held in higher regard among academics than the Central Employment Survey (CES). The CES measures only *paid* hours of work for certain jobs within the private sector (for the problems relating to the CES see Kropf and Getz, 1999, and Kirkland, 2000). Despite the widespread use of the CPS, however, Robinson and Bostrom (1994) argue that the working hours recorded in the survey are subject to inaccuracies. They propose that in many cases interviewees over-estimate working hours because they are asked to make a calculation quickly during the course of a larger survey.

In order to test their hypothesis they amalgamate time diaries conducted by the Universities of Michigan and Maryland (Robinson and Bostrom, 1994). Those using the time diaries were asked to record the sequence of events during the course of a 24 hour period, including time spent at work. Participants were also asked to estimate working hours, the results of which were similar to those shown by CPS data. When the estimates were compared with the hours of work shown by the time diary, it was observed that over-estimation had occurred.

The findings do not wholly undermine the use of CPS for analysis of long hours, however. This represents only one study, and the time diary users total only 7,000. Furthermore, over-estimation was much higher among those reporting long working hours, especially those purporting to work over 55. One of the most significant findings was that those estimating a 60 hour week were actually closer to working a 53 hour week. Given that 53 hours are still regarded as 'long' hours in our research, the main point to be taken from these findings is that survey data relating to *very* long hours worked should be treated with some caution.

6.1.2 Working hours in Australia

Like EU countries, Australia has a Labour Force Survey, which is compiled by the Australian Bureau of Statistics (ABS). As with European labour force surveys, and the Current Population Survey in the USA, the data are based on individuals' responses rather than employer reporting, which makes it a valuable resource widely used throughout the literature.

The ABS Labour Force Survey has also been conducted since the 1960s, which allows us to measure trends over time. Using ABS Labour Force Survey data, Heiler has shown that average weekly hours of work for full-time employees have increased from just over 40 hours in 1975 to around 42.5 in 1997 (Heiler 1998, 269).[1] Interestingly, there has been an increase of approximately one hour between 1990 and 1997 (*ibid*.).

Table 6.7: Average hours of male and female employees in Australia, 1975-1990

	Men		Women	
	Full-time	All	Full-time	All
1975	41.3	40.3	37.4	30.6
1980	41.5	40.1	37.9	29.9
1985	41.3	39.8	37.7	29.5
1990	42.6	40.4	38.8	29.5

Source: Dawkins and Baker (1993)

Dawkins and Baker (1993), also using ABS labour force survey data, have provided more detailed calculations of average working hours between 1975 and 1990. These are broken down by gender, for full-time as well as all employees (see Table 6.7). As Table 6.7 shows, when both full-time and part-time employees are examined (the 'All' categories), we can see that their average working hours have remained almost stable for men (an increase of 0.1 per cent) and decreased for women (by 0.9 per cent). Some

[1] ABS Labour Force Survey defines full-time work as being 35 hours or above.

of this stability or, in the case of women, reduction, can be attributed to a simultaneous increase in part-time *and* long hours working. Correspondingly, once part-timers are excluded, working hours increase over the period, by 1.3 per cent for men and 1.1 per cent for women. These represent averages of 42.6 and 38.8 hours per week for men and women respectively, which are comparatively high by international standards.

As would be expected, however, these averages 'hide' the true extent of long hours working. Table 6.8 shows the percentages of full-time employees claiming to work over 48 hours in the Labour Force Survey over a later time period, 1984 and 1994 (Heiler 1998). Table 6.8 shows that one-third (33.1 per cent) of full-time men worked over 48 hours in a week in 1994, a dramatic rise from an already high fifth (22.2 per cent) in 1984. Women also saw a significant increase to 15.1 per cent from 9.1 per cent in 1984. Interestingly, although the data are not *directly* comparable, the proportions claiming to work long hours are similar to the proportions working long hours in the UK in 1999.

Table 6.8: Percentages of full-time Australian workers working over 48 hours in a week

	Men	Women	All
1984	22.2	9.1	18.4
1994	33.1	15.1	27.3

Source: Heiler (1998)

So the question turns to who exactly is working these long hours. Unfortunately, analysis of long working hours by occupation is not as detailed in the literature reviewed here as it was for the USA. Heiler does, nevertheless, provide ABS data of employees claiming to work over 60 hours a week (see Table 6.9). There might be reasons for doubting accuracy of self-reported data relating to very long hours, as we discovered in relation to the

Table 6.9: Percentages of Australian employees working 60+ hours per week by occupational group, 1996

	Percentage working 60+ hours
Managers and Administrators	33.5
Professionals	15.6
Para-professionals	3
Trades persons	14.9
Clerks	4.1
Sales persons and personal service workers	11.8
Plant and machine operators	9.9
Labourers and related workers	7.3

Source: Dawkins and Baker (1993)

USA. Nevertheless, even allowing for some exaggeration, large proportions claim to work these hours, even if some of them merely work long hours, rather than very long hours. As in the UK and USA, managers are the occupational group with the largest proportion reporting that they work over 60 hours a week — one-third (33.5). But more interestingly, large proportions of those working in lower level jobs claim to have working hours of this length: 14.9 per cent of trades persons, 11.8 per cent of salespersons, and 9.9 per cent of operatives claim to work these very long hours. In this regard, there is some similarity with the findings reported for lower level occupations in the UK and USA.

6.1.3 Working hours in Japan

Unfortunately, a lack of detailed recent data concerning working hours in Japan in English language literature places a limit on what can be examined. Despite this limitation, the case of Japan provides a useful contrast to the other countries examined here, especially when it comes to examining reasons for long hours working. With this caveat in mind, it is worth here looking briefly at the extent of long hours working in Japan.

A general theme in the literature is that working hours in Japan are among the highest in the world. Table 6.10 backs this assertion, displaying the percentages of men and women in the workforce claiming to perform over 48 hours in a 'usual' week, in 1984 and 1994. The percentages working these hours in 1994 are high: 36 per cent for men and 15 per cent for women. However, the proportions in 1994 are a reduction on 1984, when half of all men (50 per cent) and over one-fifth of all women (22 per cent) worked long hours.

Table 6.10: Percentages of male and female Japanese workers working more than 48 hours a week (1984 and 1994)

	Men	Women
1984	50	22
1994	36	15

Note: Proportions are derived from a chart, and are therefore subject to slight inaccuracy

Source OECD (1998)

Where data are reported in the literature, Japanese working hours are generally measured in terms of number of hours worked per year, rather than per week. One reason for this is that historically Japanese workers have not fully taken their holiday entitlements (Takagi, 1993; Karppinen-Shetta, 1996), and this phenomenon is only visible over the course of a year. Table 6.11 bears this fact out: on average, only half of holiday entitlement was used in 1986. Regrettably, the literature does not provide data pertaining to annual working hours among the working population as a whole. We can, however, conclude from Table 6.10 that a large proportion

Table 6.11: Average annual holiday entitlement and take up in Japan 1980-1986

	Holiday entitlement (days per annum)	Holiday taken (days per annum)	Percentage of holiday taken
1980	14.4	8.8	61.1
1983	14.8	8.8	60
1986	14.9	7.5	50

Source: Takagi (1993)

of workers perform long weekly hours, and in this sense the country can be linked loosely with the UK, USA and Australia.

6.1.4 Working hours in European countries: findings from the literature

This section looks briefly at data taken from the literature comparing working hours in European countries. The data most widely used in the literature to compare working hours in Europe are derived from the Community Labour Force survey, and this source is the main focus of the analysis which follows, and should be seen the context of the LFS findings presented in Chapter 5.[1]

Table 6.12: Percentages of those in employment usually working over 48 hours a week in EU countries, 1990 and 1999

	All: 1990	All: 1999	Employee: 1990	Employee: 1999
Germany	10.2	10.6	4.7	5.4
France	10.6	8.7	5.2	5.2
Italy	10.7	11.4	3.4	4
Netherlands	7.2	6	1.6	0.9
Belgium	11.9	10.1	2.3	4.2
Luxembourg	8	6.3	2.2	3
UK	19.5	18.4	15.9	16
Ireland	22	11.8	8.3	6.5
Denmark	9.6	8.7	4.6	4.7
Greece	20.4	21.2	4.7	7.5
Portugal	16.9	12.6	4.7	6.2
Spain	12.4	12.7	5	6

Sources: 1990: Watson (1993), 1999: Eurostat (2000)

[1] A key difference is that in the analysis conducted for the present study, LFS data on 'actual' hours in the reference week were used, whereas much of the previous literature focuses on a measure of 'usual' weekly hours.

Table 6.12 is taken from Watson (1993), and displays usual — rather than actual — hours for those in employment in 1990, in what were then the 12 member states. Also included in this table are the equivalent data for 1999, drawing on Eurostat (2000).

Whilst there may be some reasons for questioning the accuracy of the 'usual' hours measure — most notably the difficulties in precisely calculating a 'usual' number of weekly hours — Table 6.12 does show a much larger proportion of the UK workforce claiming to regularly work these hours, than in most other member states. In the case of employees, the UK had around 16 per cent claiming usually to work long hours in 1990 and 1999, the highest of any country. This was 7.6 percentage points above the country with the second highest proportion in 1990, Ireland, and 8.5 percentage points above the 'runner up' in 1999, Greece. Comparing the high proportion claiming usually to work long hours in the UK, with the low proportions claiming to usually work long hours in the other countries listed, it appears that there may be a different understanding of the term 'usual hours' among respondents in the UK compared with other parts of the EU.[1]

In fact, research conducted by Rubery *et al.* (1998), which uses data from the Community Labour Force Survey, shows that 'usual' working hours were much less standardised in the UK than in the other 11 member states in 1994. Table 6.13 shows detailed hourly breakdowns of usual working hours for male employees working over 35 hours in Germany, France and the Netherlands in 1994 (*ibid*.). (Those working below 35 hours are excluded from the table, but included within the percentage calculations.)

What is most evident from Table 6.13 is that usual working hours in the UK are much more dispersed than in the other countries. Fifty-five per cent of French employees claimed 39 usual weekly working hours; in Germany 62 per cent stated that usual working hours were either 38 or 40; and in the Netherlands 53 per cent said they usually worked 40 hours. This consistency of usual hours is also true of countries excluded from the table: 53 per cent of male employees in Belgium usually worked 38 hours, compared with 61 per cent working 37 hours in Denmark; 54 per cent in Greece working 40 hours; 72 per cent working 40 hours in Spain; and 52

[1] This is suggested by a comparison of the proportions 'usually' working long hours in each country, with the proportions 'actually' working these hours in the week prior to the survey. Compare the results from the 'All: 1999' column in Table 6.12 with the results from Figures 5.3 and 5.4. With the exception of the UK, the percentages actually working long hours are noticeably higher than those usually working long hours. It appears that interviewees from other EU countries may refer to their usual hours as being their 'normal' hours set in collective agreements and by legislation, which excludes overtime. In contrast, in the UK, respondents appear to view additional hours as a regular part of their work.

Table 6.13: Distribution of usual weekly hours for male employees in Germany, France, the Netherlands and the UK; 1994

Number of hours usually worked	Germany %	France %	Netherlands %	UK %
35	1.0	1.7	0.3	3.3
36	4.2	1.1	3.9	1.8
37	10.0	1.8	0.4	4.1
38	**31.6**	3.9	**24.0**	7.6
39	8.0	**55.3**	1.0	5.7
40	**31.3**	9.2	**53.3**	12.3
41	0.3	1.2	0.0	2.2
42	1.3	2.8	0.3	6.6
43	0.3	0.7	0.1	2.8
44	0.2	0.5	0.1	4.3
45-49	2.5	5.9	0.5	16.8
50+	5.8	9.0	1.2	**24.5**

Source: Rubery (1998)

and 87 per cent respectively working 40 hours in Italy and Luxembourg. In the UK, on the other hand, the largest group was that working over 50 hours, representing 25 per cent of male employees.

Women's working hours, as would be expected, due to greater incidences of part-time working, are more dispersed across the European countries than men's. That said, women's hours are still more dispersed in the UK than in the other countries. For example, in the UK, less than ten per cent worked any number of hours between 35 and 44, whereas in France 42.6 per cent worked 39 hours and in Germany 47.7 per cent worked either 38 or 40 hours.

The reality of working hours in the UK is therefore not just one of long hours working for a large proportion of the workforce, acknowledged to be a regular part of the job, but one of relatively un-standardised working hours for the workforce as a whole.

6.1.5 Summary conclusions

The data suggest that two broad groups can be discerned from the countries examined, in relation to the proportions of full-time employees working in excess of 48 hours. Table 6.14 ranks countries by the proportions of full-time male employees working long hours. 'Actual' hours' are used for all countries except Australia and Japan, where only the usual hours are available. These differences of measurement, and the fact that the figures from Australia, the United States and Japan are from different

Table 6.14: Percentages of full-time male and female employees working long hours, in EU countries, Japan, Australia and the USA

		Men	Women
Group 1	Japan	36	14
	Australia	33	15
	USA	25	11
	UK	22	9
	Ireland	15	4
Group 2	Germany	14	6
	France	13	7
	Austria	13	6
	Sweden	12	6
	Finland	11	4
	Denmark	11	3
	Portugal	10	4
	Greece	9	5
	Spain	8	4
	Belgium	7	4
	Italy	7	2
	Luxembourg	7	2
	Netherlands	5	1

Note: All 1999 except the USA (1997) and Japan and Australia (both 1994). All 'actual' hours except Japan, Australia and USA ('usual'). Long hours threshold is over 48 for all countries except the USA (over 49 hours)

Sources: EU Countries: Eurostat (2000); USA: Jacobs and Gerson (1997); Australia: Heiler (1998); Japan: OECD (1998)

surveys, should be borne in mind when making comparisons between working hours.

'Group 1' is comprised of English speaking countries — the UK, Ireland, Australia and the United states — and Japan. These countries have the highest incidences of long hours working, and the research evidence reviewed here suggests that in Australia, the USA and the UK, long hours working is performed not only by managers and those in the 'top' jobs, but also by those in some lower level manual occupations, such as craftspersons and operatives.

The second group is made up of countries from continental Europe and Scandinavia, *ie* the rest of the European Union: Austria, Belgium, Germany, Denmark, Spain, Finland, France, Greece, Italy, Luxembourg, the Netherlands, Portugal and Sweden. 'Group 2' has smaller proportions working over 48 hours, and long hours working is more concentrated among higher level occupations, such as managers. The incidence of long

hours working among manual occupations such as craftspersons and operatives is much lower in these countries than in the Anglo-Saxon cultures.

Section 6.2 draws on the research literature to examine possible reasons for a higher occurrence of long hours working, especially among lower level professions, in the English speaking countries and Japan, than in continental Europe and Scandinavia.

6.2 Reasons for levels of long hours working

6.2.1 Preferences and economic considerations

Preferences

To what extent can the higher proportions of employees working long hours in the UK and other Group 1 countries, be consistent with preference? Of course, examining preferences is more complicated than simply looking at what certain groups *say*; other factors which help shape preferences, such as economic and pay considerations, must be considered in conjunction.

Focusing on the United States and Germany, but also considering working hours in other OECD countries, Bell and Freeman (1995) use the 1989 International Social Survey Program (ISSP) to address the issue. The ISSP 1989 was a survey carried out with standardised questions in participating nations. One of the questions concerned working hours, and asked whether, at the next pay round, individuals would like more hours and more pay, the same hours and the same pay, or fewer hours and less pay. The results for each nation are ranked in Table 6.15, with the country with the largest proportion wishing to work more hours at the top.

As Table 6.15 shows, the country with the highest proportion stating that they wish to work long hours is, actually, the country which previous research has revealed *does* already work the longest hours, the USA. Correspondingly, the country which has the least desire to work extra hours, Germany, has one of the lowest average annual hours.

Table 6.15: Preferences of employees when offered a change to working hours with a corresponding change to pay, in selected countries, 1989

	More hours/ More pay	Same hours/ Same pay	Fewer hours/ Less pay
United States	32.67	61.83	5.51
Italy	31.03	62.43	6.53
Ireland	30.37	64.64	4.99
Norway	24.36	68.70	6.93
United Kingdom	23.77	68.05	8.17
Austria	22.59	71.53	5.88
Netherlands	17.54	70.16	12.29
Germany	13.50	76.41	10.09

Source: Bell and Freeman (1995)

Interestingly, the UK does not rank highly, in terms of the proportion of responses, on any of the options of changing working hours. Unfortunately, Bell and Freeman do not examine the relationship between actual working hours and preferences for change in the UK. This leaves the possibility that many of those wanting to increase their hours may, in fact, work only short or part-time hours at present. Given that, as we saw earlier, a larger proportion in the UK work part-time than elsewhere in Europe, the numbers wishing to work extra hours may be disproportionately skewed upwards by those part-timers who want full-time hours.

This conclusion is supported by the results presented in Table 6.16, taken from Boeheim and Taylor (2001). The table is derived from the nationally representative British Household Panel Survey (BHPS), and shows the proportions wishing to work fewer, the same or more hours if their hourly wage remained the same.[1] Crucially, these results are divided by gender and full- and part-time status.

As Table 6.16 shows, part-timers were significantly more likely to want to increase their hours than full-timers. For men, 34 per cent of part-timers, one-third, wanted to increase their hours, compared with only seven per cent of full-timers. For women, 19 per cent of part-timers, almost one-fifth, wanted an hours increase, compared with four per cent of full-timers. Similarly, a reduction in hours is considerably more popular with full-time workers than their part-time counterparts. Clearly, and expectedly, working hours preferences are partially determined by the hours that are currently being worked.

Table 6.16: Percentages of those in employment wishing to work fewer, the same or more hours, by gender and full/part-time status

	Men		Women	
	Full-time	**Part-time**	**Full-time**	**Part-time**
Work fewer hours	**36.0**	**9.3**	**40.4**	**9.9**
Work same hours	57.2	56.5	55.3	70.9
Work more hours	**6.9**	**34.2**	**4.3**	**19.2**
N	*13,755*	*760*	*9,641*	*4,933*

Note 1: Part-time is defined as working less than 30 hours per week

Note 2: The question asked was 'Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to work fewer hours, work more hours, or the same number of hours?'.

Source: Boeheim and Taylor (2001)

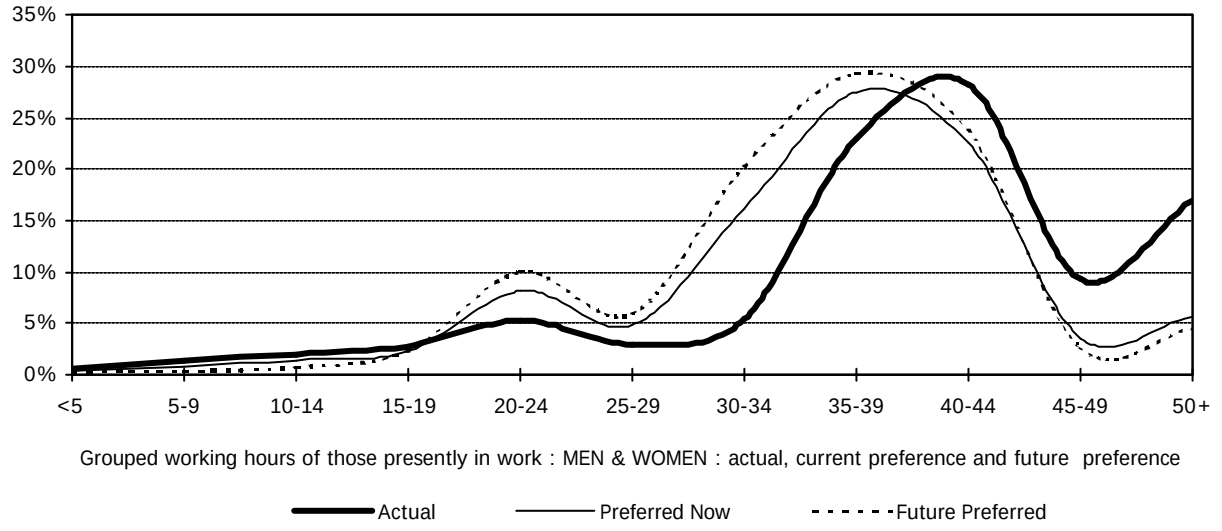
[1] These percentages are derived from the first eight waves of the BHPS, conducted between 1991 to 1998. Those excluded from the analysis are the self-employed, agricultural workers, those in the armed services and those with second jobs.

Atkinson (2000) uses a 1998 survey of 30,000 individuals across the 15 EU countries and Norway to see how working hours and working time preferences compare.[1] Self-employed and dependent employees were asked to state their preferred hours now and in five years, 'if they were to have a free choice, taking their need to earn a living into account' (*ibid*., p24). The profiles of actual and preferred hours now and in five years time are shown in Figure 6.1.

Across the 16 countries, taken as a whole, over half (54 per cent) wanted a reduction in hours, one-third (35 per cent) preferred their hours to remain the same, and one-tenth (11 per cent) wanted their working time to increase. The majority of those wanting to work fewer hours preferred a substantial reduction of five or more hours. The author notes that the total net change, if these preferences were to be enacted, would mean the average week falling from 39 to 34.5 hours.

Perhaps unsurprisingly, the proportion actually working long hours is larger than the proportion stating a preference for long hours. As Figure 6.1 shows, over 15 per cent worked over 50 hours, compared with around five per cent who said that their preference was to work these hours.

Figure 6.1: Actual and preferred working time profile of presently employed



Source: Atkinson (2000) (NB smoothed curves)

Unfortunately, the numbers involved in the survey makes detailed meaningful analysis by country difficult, and the report does not examine working hours and preferences *between* countries. Despite the difficulties of *detailed* cross-country analysis,

[1] The survey was conducted by the European Foundation for the Improvement of Living and Working Conditions, and the results weighted to be representative of the working age populations of each country.

Table 6.17: Percentages of those working over 48 hours per week who would like to reduce their working hours to less than 49 per week, selected countries 1998

	Percentages working over 48 hours	Percentages of those working over 48 hours per week who would like to work 1-48 hours
UK	21.4	70.9 (19,309)
Ireland	23.3	82.5 (11,663)
France	10.4	82.6 (9,681)
Germany	19.0	74.6 (18,404)
Sweden	14.2	83.6 (7,873)
Italy	16.0	60.9 (8,895)
EU15 + Norway	17.4	73.2 (224,182)

Note: Weighted frequencies are presented in brackets.

Source: Employment Options of the Future Survey, 2000 (IES re-analysis of the dataset)

however, the survey dataset has been used to examine, for six of the larger countries, whether those putting in over 48 hours per week would rather work up to a maximum of 48 (see Table 6.17). For contextual purposes Table 6.17 also includes the proportion of long hours workers across all 16 countries wishing to work up to a maximum of 48 hours per week.

Although the data in Table 6.17 should be treated with some caution, due to the number of respondents involved, they do suggest that a large majority of those working long hours in each country would like to work somewhere between one and 48 hours per week. Interestingly, in the UK, 71 per cent of long hours workers would rather work up to a maximum of 48 hours, which is a smaller proportion than across the survey as a whole, and a considerably smaller proportion than in Ireland, France, and Sweden.

Changes in working time preferences

The literature does, however, contain one clear finding in relation to preferences for long hours working, namely that for whatever reason, the numbers wishing to work fewer hours are growing. Table 6.18, taken from OECD (1998), uses European Commission survey data from 1985 and 1994, and shows individuals' preferences if offered an increase in pay for the same hours, or a decrease in hours for the same pay. From the 'more earnings' columns it is interesting to note that the UK and Ireland come second and third highest in 1984, with 78 and 77 per cents respectively. However, as with most participating countries, the proportions wishing to work fewer hours had risen by 1994, in the UK from 19 to 32 per cent, and in Ireland from 19 to 37 per cent.

Table 6.18: Working hours and earnings preferences of workers in selected countries

	% Wishing to work:					
	Same hours, more earnings		Same earnings, fewer hours		Average annual hours (actual)	
	1985	1994	1985	1994	1985	1994
Portugal	82	58	11	35	1,871	1,847
Ireland	78	59	19	37	1,815	1,747
UK	77	62	19	32	1,684	1,683
Greece	68	84	26	14	1,803	1,803
Spain	64	70	31	24		1,741
France	62	53	34	40	1,696	1,670
Belgium	58	48	36	40	1,643	1,603
Germany	56	54	30	34	1,674	1,590
Italy	55	54	39	39	1,710	1,682
Netherlands	46	43	47	52	1,654	1,447
Denmark	38	32	51	66	1,586	1,568

Note: The survey question asks whether the individual would prefer an increase in pay for the same hours, or the same pay for fewer hours

Source: OECD (1998)

Economic considerations

One of the findings from Bell and Freeman (1995) was that Germans were less likely to say that they would 'work hard even if it interferes with their life' than their counterparts in the United States or UK[1]. But this finding does not explain *why* the preference to work long hours exists in the first place. The answer proposed by Bell and Freeman is that earnings inequality in the USA, and the structures that encourage it, leads to an increased preference for additional hours of work. In other words, as the authors state:

> *'In the decentralised U.S. labour market, which produces relatively high earnings inequality among workers, the rewards to greater effort are large and the penalties to slack substantial.'* (Bell and Freeman 1995, p.126)

Conversely:

> *'the German wage determining system and social benefit system is closer to a guaranteed annual income.'* (Bell and Freeman, 1995)

[1] 61 per cent of those from the United States said they would work hard even if it interferes with their life, as did a similar proportion in the UK, 57 per cent. In Germany only 35 per cent answered this way.

Table 6.19: Mean hourly pay, variance of earnings, and mean weekly hours ranked in selected countries, 1989

	Mean (hourly) pay of workers ranking	Variance of earning ranking	Mean weekly hours ranking
US	4	2	2
Germany	1	8	7
UK	5	5	5
Austria	8	3	3
Netherlands	3	6	8
Italy	6	4	4
Ireland	9	1	1
N. Ireland	7	7	6
Norway	2	9	9

Note 1: Mean pay of workers is set by purchasing power equivalents set at 1989 levels
Note 2: Mean weekly hours is for full-time workers (working 35+ hours per week).
Note 3: The rankings are ordered such that 1 corresponds to the country with the highest value of the variable in question, and 9 to the country with the lowest.

Source: Bell and Freeman (1995)

To test the inequality hypothesis the authors rank mean pay level, earnings variance, and mean weekly hours (for full-timers) across eight countries. The rankings have been presented in Table 6.19.

As the table shows, the mean weekly hours ranking is very close to the variance ranking, in fact identical in some cases, suggesting that the countries with the highest earnings inequality also have the longest average hours. This leaves Ireland and the United States with the highest earnings inequality and longest working hours, and Norway, the Netherlands and Germany with the shortest hours and greatest income equality. The actual purchasing power of workers, ranked here as average hourly pay, does not correspond so closely with the rankings of average weekly hours.

Among the countries listed in Table 6.19, Britain is mid-ranking on both measures of hourly wage variance and mean weekly hours. However, although part-time workers are excluded from the hours average, the mean hours measure does not reflect the extent of long hours working in Britain because working hours variance is not taken into consideration.

Given these findings, it would seem that earnings inequality does play a part in the number of hours worked, although the effect of earnings inequality in the UK is not entirely clear, partly because of the dispersion of hours worked. The picture is also further complicated by the fact that taxation is not taken into consideration by Bell and Freeman. It may in fact be true that there is a greater variance of hourly pay in Austria or Italy than in the UK, but this does not necessarily hold after tax has been deducted.

Elsewhere Bell (1998) uses the same inequality argument to explain why black workers in the US are more likely to express a preference for extra hours, even after other factors which may influence hours are taken into consideration. This, it is proposed, is because wage opportunities for black and white workers in the same occupations are not the same, and blacks therefore respond differently to incentives.

Whilst it is hard to prove that wage inequalities lead to preferences for longer working hours in the United States, the evidence provided is consistent with such a proposition. Bluestone and Rose (1998) broadly concur with Bell and Freeman (1995). They point out that the wages of non-supervisory workers have actually fallen in the USA between 1973 and 1996, and suggest that rising job insecurity also plays a part, resulting in employees 'insuring' against future workless periods by working extra hours.

Interestingly, when Jacobs and Gerson (1998) look at a US survey regarding employees' ideal and actual hours, without any reference to pay, a great number state a preference for reduced hours. The survey used asked interviewees to give their actual and ideal hours. Fifty per cent of men and 46 per cent of women wanted to work fewer hours. According to this survey, those working between 50 and 59 hours ideally wanted to work around 40 hours, and those claiming to work 60 hours or above, would ideally like to put in about 44 hours.

Cultural preferences

To conclude this discussion of the role of preferences, it is worth noting that there is a distinct lack of literature which attempts to explain working hours in reference to cultural factors. One exception to this rule is Karppinen-Shetta (1996), however, which compares the long hours worked in Japan with the relatively short hours of Finland. The article argues that hours worked in Japan far exceed those in Finland because of the way time is perceived in each country, and how the boundaries between work and leisure time are drawn. According to the author, workers in Finland, like their counterparts in North Europe and North America are 'monochronic'. This means they view time in a linear fashion, and identify tasks to be performed within the allotted work period, which they adhere to strictly. Japanese workers, on the other hand, are 'polychronic', with a cyclical perception of time and a less rigid task-by-task approach. The polychronic worker respects the boundaries between work and leisure time less, spending much of the time spent at work socialising and building up good working relationships.

As might be expected, hard evidence of differences in working hours as a result of cultural factors is limited. Karppinen-Shetta shows that Japanese workers do not use their holiday entitlement,

and that leisure activities incorporate business (dining out *etc.*) or are 'used to passively "kill time"' (1998).

Whilst the proposition that because Japanese workers spend so much time at work that boundaries between free and work time blur, is consistent with much of the evidence it does not offer a complete picture of working time in Japan. For example, Takagi (1993) and Sasajima (1995) both point out that one of the reasons Japanese workers underutilise their holiday entitlement is because workplaces do not allow for time off in their staffing levels, and when one employee takes time off the others have to work overtime. Taking one's full holiday entitlement is therefore viewed as letting co-workers down.

Karppinen-Shetta's theory also does little to explain working hours in the USA and UK. If these workers are monochronic, as the author alleges, why do such large numbers work long hours? The answers must be more complicated, encompassing economic factors, as well as industrial and regulatory ones.

6.2.2 Regulation and legislation

Although not widely tested in the literature, it is fair to hypothesise that relevant legislation, where enacted, is likely to impact on working hours.[1] For example, and to take an extreme case, Luxembourg has a maximum week of 40 hours for nearly all employees, and, correspondingly one of the lowest proportions working long hours in Europe (see Chapter 5).[2] At the other end of the spectrum, Japan has no upper limits on working hours, and a large proportion working long hours. Arguably, legislation made this state of affairs impossible in Luxembourg, but not in Japan.

This section focuses on legislation, in particular that which places enforceable limits on working hours, in the European Union countries, as well as the USA and Australia. The initial problem faced by any examination of legislation is that in many countries collective agreements between trade unions, employers or employers' federations, and in some cases governments, are

[1] From the literature reviewed, only one study looks directly at the impact of regulations on working hours, Jacobson and Ohlsson (1998). The article examines work-sharing policies in Sweden and concludes that such policies do have an impact in the long run.

[2] According to Blanpain *et al.* (1997, p.499), the only exemptions from this limit are those working for family enterprises, river transport communities, travelling shows and home workers. In addition a small number of employees can deviate from the 40 hour week by collective agreement. This means some of those working long hours must be, strictly speaking, breaking the law, although the proportions doing so are low in themselves.

legally binding and are in themselves forms of regulation. There are, therefore, difficulties distinguishing between laws passed and legally binding agreements (some of which cover entire sectors of the workforce). For this reason, this section makes reference to, but does not seek fully to cover, collective agreements in countries where these take precedence.

Because regulatory mixes of legislation and collective agreements differ between countries, it is useful to start by examining these differences. Anxo and O'Reilly (2000) have arrived at a useful typology for this purpose, which looks at how different countries arrive at more flexible working patterns, including reductions in working hours.

Anxo and O'Reilly posit that European countries can be divided into three distinct regime types: 'statist flexibility', 'negotiated flexibility' and 'externally constrained voluntarism'. The first group, statist flexibility, is comprised of countries where the state takes the lead in regulating working hours through legislation. In these countries, collective agreements are not considered sufficient to bring about a desired regulation of employment conditions because of the adversarial nature of collective bargaining, a divided trade union movement, and/or trade unions which seek to further their aims politically, possibly due to patchy union membership. The prime examples given are France and Spain. The introduction of the 35 hour normal week in France, and the introduction of the 40 hour normal week in Portugal (from 44), are examples of the state taking a lead in legislating limits on working hours.

Those countries comprising the 'negotiated flexibility' cluster are marked by comparatively minimal legislative protection, but wide ranging and highly centralised collective bargaining, often representing entire industrial sectors. Germany, Sweden and, to a lesser degree the Netherlands, fit into this category according to the authors. The relatively centralised nature of bargaining leads to surprisingly standardised protection — for example, it might help explain why German workers usually work precisely 40 or 38 hours, despite a legal maximum of 48 hours (see Section 6.1.4).

The third category in the typology, 'externally constrained voluntarism', is composed of countries, like the UK, Ireland and USA, which have histories of 'voluntaristic' forms of collective bargaining, which, for the most part, emphasise the union's right to bargain at the enterprise level. In addition, these countries are marked by minimal legislative protection. Until the introduction of the Working Time Directive neither Ireland or the UK had prescribed maximum work durations. The decentralised nature of negotiations, the large numbers not covered by collective agreements, and the historically minimal legislative protection in these countries have led to a wide dispersion of working hours, with large minorities regularly working long hours (*ibid.*).

Table 6.20: Legislative frameworks for regulating working hours in selected countries

	Weekly hours	Daily hours	Legislative framework
Belgium	39 (normal)	8 (normal)	Overtime subject to trade union/labour inspectorate approval. Maximum 48 hours in week as in WTD[1], although collective agreements limit occurrence of overtime working.
Denmark	48 (max)		Until the introduction of the WTD, working hours were regulated almost exclusively by collective agreement. However, highly centralised negotiations mean a standard 37 hour week.
Germany	48 (max)	8 (normal)	With exception of WTD, working time regulated by collective agreement at sectoral level. The centralised and legally binding nature of agreements mean a majority of workers usually work 38 or 40 hours per week.
Spain	40 (normal)	9 (normal)	Legislation over work time has historically taken a more significant role than collective bargaining. Law states maximum overtime allowable is 80 hours per year at 75 per cent premium (48 total hours in a week).
France	35 (normal)		Legislation enacted in 2000 reduced statutory week to 35 for most employees, with further limitations on overtime (see text).
Ireland	48	9	Other than the WTD, regulation is left to collective agreements. However, a tradition of enterprise-level negotiation, and minimal protection for workers not covered by collective agreement, result in a great variation of working time.
Italy	40 (normal)	8	Legislation (1997) set a statutory normal week of 40 hours. Legislative principle of overtime is that it should be used only occasionally, where needs cannot be met by hiring additional staff, and subject to approval of the labour inspectorate.
Luxembourg	40 (max and norm)	8	Since 1975, with a few exceptions, the maximum hours per week by law are 40.
Netherlands	45 (max)	9	Historically, working hours primarily the preserve of industry level collective agreements. However, legislation in 1996 and 2000 limit week to 45 hours and allow employees to request individual working hours reductions (see text).
Portugal	40 (normal)		Legislation rather than collective agreement, has historically regulated working hours. Normal week set at 40 hours since 1996 (maximum weekly limit is 48 hours).
Sweden	40 (normal)	8	Mix of state regulation and collective agreement over working hours. General overtime, beyond 40 hours norm, limited to 200 hours per year. Additional hours may be granted, but have 'special reasons' and approval of state authority.
UK	48 (max)		Historically, working hours have been preserve of enterprise level collective agreements (where they exist), with very few legal limitations. WTD changes this, although, crucially, employees can 'opt out'.
USA	None	None	Only legislation of significance states that workers contracted for an 8 hour day be paid 50 per cent premium for overtime.
Australia	None	None	'normal' hours are decided quasi-legislatively, for 85 per cent of employees, by the Conciliation and Arbitration Commission. No statutory limits to work hours.

Sources: Table assembled from information in Blanpain et al. (1997), EIRR 278 (1997), EIRR 281 (1997) and other sources

[1] Working Time Directive.

Having considered these classifications we are in a better position to examine Table 6.20, which sets out the legislative framework for selected European countries, as well as the USA and Australia.

The table by no means attempts to give a comprehensive account of legislation, it merely shows some pertinent themes. It should be noted that legislative limitations, often modelled on the Working Time Directive, do not always apply to the whole workforce. In most cases, managers and executives — those considered to be autonomous decision makers — are excluded, as are the self-employed. This, in part, may help explain why the proportions of managers and the self-employed working over 48 hours remain high in many European countries. It should also be noted that although all the European countries here are subject to the Working Time Directive, many have national legislation which lays down stricter limits on working time than that contained in the European legislation.

In particular, some European countries have legislated 'normal' working days and/or weeks, hours above which are treated differently from standard hours. For example, Spain has a statutory normal working week of 40 hours and a normal day of nine hours. Hours worked above this is defined as overtime, subject to a 75 per cent premium and limited annually to 80. Italy, which has a statutory weekly norm of 40 hours, has also attempted to restrict the use of overtime with legislation: additional hours must be approved by a labour inspectorate, on the basis that such hours are used only occasionally and the need cannot be met by hiring extra staff. The incidence of standardised or normal weeks in these countries is in strong contrast to the USA, UK, Australia and Ireland where no legislative norms exist.

Germany, Denmark, and the Netherlands, like their English-speaking counterparts, do not have statutory 'normal' working days. However, as Anxo and O'Reilly (2000) have pointed out with their negotiated flexibility cluster, in these countries collective agreements regulate working time and standardised working times are generally agreed across sectors, and such collective agreements tend also to stipulate overtime premiums.

Working hours legislation in the Netherlands and France

The Netherlands and France are countries which have recently implemented legislation which attempts to reduce working hours, and they are worthy of special mention here. Taking the Netherlands first, this country has historically regulated working hours through collective agreement, which explains their position in the negotiated flexibility typology (see van Doorne-Huiskes and de Lange, 1993). Since the early 1980s, however, working time reductions have been implemented, in an attempt to curb unemployment (*ibid*.). The legislation considered here is in the same vein, in essence allowing individual employees who have

been with an employer at least a year to request a reduction or increase in working hours (EIRR, 2000).[1] Employees are requested to submit a proposal outlining the scale of the change. Employers wishing to reject the proposal must present serious reasons for their refusal, on grounds of cost, health and safety, technical factors or significant disruption (*ibid.*). If no such response from the employer is provided at least one month before the proposed start date, the changes go ahead in accordance with the wishes of the employee.

Unfortunately, given the recent enactment of the legislation there is a lack of literature detailing its impact. However, the shift can be viewed as another move towards allowing workers to work their preferred hours, in a country where large numbers already work long part-time or short full-time hours.

In France the history of legislative regulation of working time has culminated in the introduction of the 35 hour week for most workers. The legislation was enacted in 1998 and implemented for establishments with more than 20 staff in January 2000. As with previous legislation to reduce French working hours in 1982, 1986 and 1987, this legislation had economic imperatives. Earlier legislation, according to Gauvin (1994), attempted to increase the supply of available jobs by increasing public and private demand. In doing so, working hours were reduced from 40 to 39, a fifth week of holiday was legislated for, and the retirement age was reduced to 60. A phased 35 hour week was not implemented as originally planned, however, as the impact of the measures already taken had had a disappointing effect on the number of jobs (*ibid.*).

The 1998 legislation, referred to in France as the Loi Aubry, has a similar aim, namely to reduce unemployment levels through job creation (Pillinger 1998; 1999). The provisions of the act demon–strate this intention, and are broadly summarised as follows:[2]

- The normal working week falls from 40 to 35 hours per week for establishments with more than 20 staff in January 2000, with the remainder to follow in January 2002.
- The implementation, including the corresponding effect on wages, is to be negotiated at enterprise level, indicating a possible growth in the importance of collective bargaining. Enterprises without trade union representation will have 'special arrangements' made.

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[1] Although increases in working hours can be requested, it is assumed that this will play a relatively minor role.

[2] The summary is assembled from information in Pillinger (1999) and OECD (1998).

- Among the provisions to be negotiated are the introduction of 'annualised' hours systems, whereby employees have their annual hours set. In order to help meet fluctuations in demand, weekly hours of work can vary, within specified limits, on the proviso that the average is 35 or less.
- In the interim period between legislative enactment and implementation, financial incentives were made available to employers who reduce working hours. Incentives were conditional on hiring additional staff to make up the shortfall in hours worked, especially those disadvantaged in the labour market (see Pillinger, 1999).
- Public sector employees, and private sector companies with close links to the public sector are excluded from the legislation.

Given the recent nature of the legislation there is a dearth of English language literature on the impact it has had on actual working hours. It would be a safe hypothesis, however, that this legislation, the most wide-ranging discovered in this literature review, will have an impact on working hours. It will be interesting to see if any other countries enact legislation to bring in a 35 hour week. It certainly looks likely in Italy, where draft legislation has been published to this end (Pillinger, 1999). Another possibility is Sweden. As Sanne (1998) argues, the issue of working hours has assumed public importance in recent years, and is seen as a way to share existing employment among a larger number, at the same time as increasing gender equality. Sweden's Prime Minister has urged the social partners to reduce working hours in future collective agreements, and has stated that legislation will be brought in if necessary.

6.2.3 Regulation: collective bargaining agreements and the role of trade unions

Collective bargaining coverage and trade union density

It is generally understood that, as Bosch puts it:

> *'Industrial relations systems have heavily influenced and shaped changes in working time.'* (1993)

Furthermore, differences between industrial relations systems in different countries play an important part in determining working hours, particularly in relation to the prevalence or otherwise of collective bargaining agreements to normalise hours of work and rates of pay. Mechanisms for normalising hours, according to Bosch *et al.*, could be legislative (as we saw in the previous section) or 'a trend-setting collective agreement, which is applied to union members and non-union members alike' (*ibid*.).

High trade union density within a country, as can be inferred from the above quotation, is not necessarily a requirement for working hours reductions by collective agreement. As OECD (1997) demonstrates, in most countries a greater number of workers are covered by a collective agreement than are members of a union. Two reasons are posited for this: companies will tend to include non-union members in such agreements, and, in some cases, collective agreements will be extended to third party employers, either voluntarily or through statutory intervention. In Germany, for example, collective agreements can be made generally binding by the Ministry of Labour, usually across sectors characterised by small non-unionised enterprises (Bosch *et al.,* 1993). Furthermore, in many countries, binding collective agreements are reached between trade unions and employer federations which encompass employees within a sector or industry as a whole.

Table 6.21 shows collective agreement coverage and trade union density in ten countries in 1994, alongside the average change in annual working hours over the economic cycle proceeding 1994 (figures from OECD 1997 and 1998[1]). Overall, the results presented here support the proposition that working hours tend to decline where collective agreements are in operation. Collective agreement coverage is much higher in the non-English speaking countries, ranging from 74 per cent in Norway to 95 per cent in France and Finland. In all but one of these countries, Sweden,

Table 6.21: Trade union density and collective bargaining coverage, in selected countries 1994, by average yearly change in annual working hours

	Average change per year	Trade union density	Bargaining coverage
Finland	–8.5	81	95
France	–4.7	9	95
Germany	–14	29	92
Japan	–19.7	39	82
Netherlands	–11.8	26	81
Norway	–8.4	58	74
Spain	–7.9	19	78
Sweden	4.3	91	89
UK	5.3	34	47
USA	8.3	16	18

Note: Average changes per year are calculated from the most recent 'trough to trough' economic cycle prior to 1994. This was: Finland 1983-93; France 1985-93; Germany 1982-94; Japan 1983-94; Netherlands 1983-93; Norway 1982-90; Spain 1984-93; Sweden 1983-93; the UK 1982-93; and the USA 1982-91

Source: OECD (1997, 1998)

there has been a reduction in annual hours. In the UK and USA, on the other hand, where a minority are covered by such agreements, there have been increases. From coefficients calculated by OECD (1998) it has been shown that the relationship between the prevalence of collective bargaining, and changes to working hours, is statistically significant when Sweden is excluded.[2]

Scheuer (1999) examines the relationship between working hours and collective agreement coverage among private sector workers in Denmark. Denmark is characterised, according to the author, as being relatively free of state intervention in working hours outcomes, either through legislation or compulsory 'extensions' of collective agreements. Furthermore, despite a high trade union density of around 88 per cent, only around half are covered by collective agreement (52 per cent).[3] These factors make comparisons possible between the working hours of those covered, and those not covered, by collective agreements.[4]

The findings of the research indicate that the usual hours worked, excluding overtime, are only 0.8 hours higher for those without a collective agreement than for those who are covered. This is explained as a 'spillover' whereby employers offer similar terms and conditions to those with collective agreements. In addition, when the author examined the likelihood of individuals working overtime, by whether they were covered by collective agreement, it was discovered that after considerations of gender, occupational status, industrial sector and pay had been made, collective agreement made no further difference.

Among individuals working over 12 hours a month overtime, however, collective agreements did assume a statistical significance. Around one-fifth of those covered by a collective agreement stated that they regularly worked this level of overtime (21 per cent), compared with over one-third of those not covered (36 per cent). The suggested conclusion given is that in Denmark collective agreements do not prevent

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1 Comparisons are made between the two sets of figures in OECD (1998).

2 With the exception of Sweden, all countries, as well as Canada, were included in the coefficient calculation. Significance was at the 95 per cent level.

3 It is unclear in the article whether the adoption of collective agreements in establishments voluntarily, outside Federation compulsion or as a result of bargaining, is covered in this figure. The relatively low level of bargaining coverage would suggest not. Despite this, the findings are pertinent, as will become clear.

4 The data used are derived from a survey of private sector employees, screened only to include those working over 15 hours. This gave a sample of 2,000, which was weighted to the profile of the population.

'a low to intermediate level [of overtime but] they still prevent overtime in substantial or excessive amounts.' (Scheuer 1999)

Centralisation and co-ordination of collective bargaining

In addition to collective bargaining coverage, it is also useful to consider the level at which collective bargaining occurs. According to OECD (1997), collective bargaining can theoretically occur at three levels:

- at the national or 'centralised bargaining' level, between 'peak organisations' which may cover the economy as a whole
- 'intermediate bargaining', where negotiations between trade unions and employers / employers' federations typically cover employees within a sector or industry, and
- 'decentralised bargaining', where negotiations are at a plant or enterprise level between management and unions.

Bosch argues that:

> *'The decentralisation of negotiations makes it difficult for unions to harmonise demands … it puts unions in economic crisis on the defensive .. [and] to improve competitiveness of their plants in shop floor negotiations, unions are likely to concede wage cuts and the prolongation of working time.'*

In order to assess the possible validity of such a hypothesis — that centralised collective bargaining leads to working time reductions — OECD (1998) rates ten countries according to the degree of centralised bargaining, and compares these ratings with the changes to annual working hours shown in Table 6.21. The ratings range from one (typically decentralised bargaining) to three (centralised bargaining). These figures are displayed in Table 6.22, with similar ratings concerning the level of co-ordination and consensus between the relevant parties for the collective bargaining process. (A rating of one is 'uncoordinated' and three 'co-ordinated').

Unsurprisingly, the UK and the USA have low centralisation and co-ordination scores (between one and 1.5), indicating that collective bargaining tends to occur at the plant or enterprise level. Interestingly, Germany scores a maximum co-ordination score of three, compared with a score of two in France. This may partly explain why Germany has primarily regulated working hours through collective agreement and France, which saw a much smaller reduction in working hours, has subsequently instigated legislation to reduce working hours.

The literature makes particular reference to Australia as a country where long working hours are attributable, in part, to decentralised bargaining. To contextualise, as we have already seen, Australia is a country with a large and growing proportion of the workforce working long hours. Over half, 53 per cent of employees, were members of a trade union in 1988. However, the number of unions in operation, at 308, was high, and research conducted suggests that centralisation of the trade union movement is low (Dawkins and Baker, 1993).

Historically, the fragmented nature of the trade union movement in Australia has been overcome to some degree by way of a Conciliation and Arbitration Commission, a quasi-legislative body comprised of employers, trade unions and government officials, which sets out 'awards' — legally binding minimum terms and conditions of work for different occupations. Authors have noted, however, that awards have been diluted and assume an increasingly less important role in determining such conditions, while legislation such as the Industrial Relations Reform act 1993 and the Workplace Relations and Other Amendments act 1996, has increased the prominence of decentralised bargaining (Buchanan *et al.,* 1999; Heiler, 1998). In any case it appears that decentralised bargaining has always assumed an important role, determining conditions in excess of statutory minimums.

In such a context, Heiler (1998) presents the case that increased working hours in Australia are partly the consequence of pressures to increase productivity. These pressures have resulted in the excessive use of paid and unpaid overtime, made possible in the 'regulatory vacuum' created by decentralised bargaining. The increase in working hours is something that the trade union

Table 6.22: Centralisation and co-ordination ratings for collective bargaining systems in selected countries 1994, by average yearly change in annual working hours

	Average change per year	Centralisation	Co-ordination
Finland	–8.5	2+	2+
France	–4.7	2	2
Germany	–14	2	3
Japan	–19.7	1	3
Netherlands	–11.8	2	2
Norway	–8.4	2+	2.5
Spain	–7.9	2	2
Sweden	4.3	2	2
UK	5.3	1.5	1
USA	8.3	1.5	1

Note: See Table 6. 17

Source OECD (1997, 1998)

movement is beginning to address (see ACIRRT, 1999), although any attempts in this direction are subject to the difficulties described above.

Flexibility of working hours and collective bargaining

Part of the pressure to increase productivity in Australia and other countries rests on the perceived need to increase competitiveness, and in this regard countries are attempting to flexibilise working hours, thereby to increase and vary operating hours (Bosch and Lehndorff, 1995). How countries respond to this perceived pressure varies however, and where collective bargaining is strong, anecdotal evidence suggests that more flexibility and unsociable hours for employees are being rewarded with reductions in overall working hours (EIRO, 1998; EIRR 288, 1998). In many cases demands for a weekly working time reduction are union led, but greater flexibility is given as a 'quid pro quo'. Tijdens (1988) points to employers in Germany, Scandinavian and Mediterranean countries in this regard, but draws on research which places particular focus on the Dutch banking system.

The case of the metal working industry in Germany is the most documented case of across-the-board working hours reductions in exchange for greater flexibility (see, for example, Bosch, 1990; Trinczek, 1995). In 1985, after years of union campaigning, a reduction in normal working hours for those employed in the metal manufacturing sector was agreed between the union IG Metall and the employers' federation. Normal weekly hours fell from 40 to 38.5. In 1987, after further negotiation, this was reduced to 37 hours. Finally, in 1990 an agreement was reached whereby these employees were to work hours averaging out to 35 per week by 1996 (Bosch, 1990; 1993). In addition to covering all metal manufacturing workers, working hours reductions spread to other sectors, and by December 1989, 89 per cent of employees covered by collective agreements worked fewer than 40 hours (*ibid*.).

Interestingly, reductions in the normal working week for those in the metal manufacturing industry were not offset by increases in overtime, perhaps partly due to clauses in agreements which prohibited the excessive use of overtime (Bosch, 1993). Using the German Socio-Economic Panel, a large-scale representative survey of German workers, Hunt has demonstrated that a one hour reduction in collectively agreed working time has translated into an *actual* working time reduction of between 0.85 and one hour (Hunt, 1996). In addition, hourly wage increases have offset the financial impact of the collectively agreed working time reduction (*ibid*.).

Although the movement toward shorter working hours was union led, employers realised the potential for reducing working time rigidities, and the full impact has yet to be seen. One trend set in motion by the agreements was that the question of *when* hours

were to be worked would now be decided at the plant level. The agreement has also established the principle of 'variance', whereby weekly hours can fluctuate within certain limitations, as long as they average 35 over a specified reference period (Bosch, 1993). In principle, variance acts in a similar manner to the annualised system such as those in France, more precisely matching labour to demand. In practice, however, most plants have standardised weekly hours (Trinczek, 1995).

More importantly, many firms have used the reductions in working hours to influence the increase in operating hours. In a survey of 4,300 firms, the employers' federation Gesamtmetall found that in 1988, 15 per cent had used the reduction in working hours to extend or increase shiftwork, 14 per cent had introduced or extended staggered work breaks, ten per cent had started operating equipment during breaks, and ten per cent had re-organised their shift plans (Trinczek, 1995). In addition, a survey of 5,000 such firms by IG Metall in 1989 has found that shift work was practised by 55 per cent of plants, predominantly with a two shift system, but in some cases three shifts with continuous plant utilisation (*ibid*.).

Metal manufacturing is a term little used in the UK, but it corresponds more or less to engineering (Blyton, 1995). Shift working is less prevalent in the UK than Germany, and, as with Japan, companies that make use of it tend to operate two shifts a day, with regular periods of plant idleness (*ibid*., Bosch, 1995; Sasajima, 1995). As Blyton has stated, a key difference between the UK and countries such as Germany is that

> *'fluctuations in work pressures are accommodated primarily by overtime working on a regular basis (rather than to cover short-term extraordinary circumstances).'* (Blyton, 1995*)*

Furthermore, collective bargaining has declined dramatically in the UK engineering sector over the last two decades. As well as a decline in collective agreement coverage, there has been a significant degree of bargaining de-centralisation.

6.3 Evidence from the case studies

In order to explore some of the themes outlined in this and the previous chapter, case studies were organised in Sweden, Germany, and France, to complement the UK case studies. Table 6.23 shows the characteristics of each foreign case study company.

Table 6.23: Details of French, German and Swedish case study companies

Country	Case study	Company type	Predominantly manual / non-manual	No. of employees
France	I	Multi-national bank	Non-manual	1,600 (100 at surveyed site)
	J	Hi-tech service sector company	Non-manual	4,000
Sweden	K	Göteborg post terminal	Manual	1,011
	L	Hi-tech service sector company	Non-manual	300
Germany	M	Bakery	Manual	3,000
	N	Hi-tech service sector company	Non-manual	1,000 (500 in surveyed establishment)

Source: Case studies

As far as possible, each case study organisation recruited in France, Germany and Sweden was matched with one of the UK case studies. The French case studies were both part of the same multi-national organisations as two of the UK case studies. One of the Swedish case studies was also part of the same hi-tech service sector company which participated in both France and the UK. The other Swedish case study was Sweden Post, matched with Royal Mail in the UK. The two German case studies, a high-tech service sector company and a large bakery, were in the same sectors as two of the UK case studies but not part of the same multi-national organisation. Thus on some case studies both the organisation and sector were matched, in an attempt to control to some extent for the nature of the work and the organisational culture in the comparisons. In others, only the sector was matched.

The following Section gives relevant contextual information on each of the countries, to aid understanding of the case studies. There then follow some overall findings from the case studies (the case studies themselves are written up in full as a separate case study report, available at www.dti.gov.uk/er/emar.

6.3.1 Legislative and institutional context of the case study countries

France

France, as we have already seen in Section 6.2.2, has a tradition of regulating working hours through legislation rather than collective agreements. This is confirmed by the observation that France has used legislation to reduce the 'normal' working week, firstly to 39 hours and then to 35, in January 2000. Whilst the Loi Aubry, which introduced the 35 hour week, has been briefly examined already (see Section 6.2.2), it is necessary to look at its

application in a little more detail in order to fully understand the French case studies.

The two pieces of legislation which comprise the Loi Aubry (1998 and 2000), as we have already seen, set a statutory working week of 35 hours for employers employing 20 or more staff from January 2000, and for employers with fewer than 20 staff from January 2002. This means that, as both case study organisations have considerably more than 20 staff, the 35 hour week was in force when the fieldwork was being conducted.

The new legislative provisions have affected almost all employees, including most managers. Before the Loi Aubry, working hours legislation was supposed to apply equally to managers and employees, although in reality the gap between the law and its application was becoming much more divided. Consequently, the Loi Aubry 2000 created a specific section within the Labour Code (*code du travail*), devoted to managerial staff.

In order to take into account the increasingly different ways in which managers work compared with other employees, the Labour Code has introduced specific methods for calculating working time for managerial staff. The new law identifies three categories:

- **Senior management (top positions):** this group is excluded from the application of almost all the Labour Code's provisions on working time length, including night work, the rules concerning daily and weekly rest periods, and bank holidays. In other words, this group is not included in the regulations governing the 35-hour per week law.
- **Managerial and professional staff who work the same hours as those in their team:** this group is included in all the regulations governing working time, like any other employee.
- **Other managerial and professional staff:** this group is also included in the regulations governing working time but for this group the 35-hours limit can be calculated as an annual average, with the following possible applications:
    1. A package covering a 12-month period based on the number of hours worked (the sector-level collective agreement must define the annual length of working time on which basis the package is calculated).
    2. An annual package calculated in days (up to a limit of 217 worked days per year). Before the 35 hour law, the number of working days was set at 225 days, so the legislation provides a minimum of eight additional days off. However, no reference is made in the legislation to daily or weekly limits.

For non-manual employees, it should be noted that the legislation states that the re-organisation of working time is to be arranged

within company agreements, and that statutory working time need not be fixed at 35 hours, as long as this average is reached over the year. As the legislation makes clear:

> '*Working time [re]organisation … can take different shapes and be implemented in different ways by the company, one or several establishments, or one part of an establishment.*'

Possible mechanisms for reducing working time include:

- 'the granting of days [off]', up to 40 per cent of which can be taken on the initiative of the employee, providing it does not 'undermine the smooth running of the company'
- daily, weekly or monthly reductions
- annualised hours
- a combination of different methods.

As a result, the methods for reaching the 35 hour week vary across and within the case study companies examined here: in the multinational bank, employees continued to work just under 39 hours per week but were compensated with more holiday. In the hi-tech service sector company, on the other hand, some employees moved to a fixed 35 hour week, and others continued working 38 hours but received more days off.

The Loi Aubry legislation does not outlaw overtime working, but sets limits of ten hours a day and 48 hours a week, or 44 hours on average over 12 consecutive weeks. From 1 February 2000, hours worked over the 35 week average were classed as overtime, and overtime hours bringing working time to between 35 and 39 hours a week were subject to a premium rate of ten per cent. Above 39 hours, the usual compensations for overtime (*eg* according to existing collective agreements) remain.

Importantly, the legislation states that the working time reduction will not affect wages. The legislation also aims to encourage overall employment growth, by placing an overtime limit of 130 hours overtime per year, per employee. The premium payment for overtime will be, preferably, replaced with at least equivalent time off in lieu. If this is the case, 'extra' hours worked are not deducted from the annual quota of authorised overtime. Companies are given the opportunity to create 'time saving accounts', which enable employees to accumulate the right to paid days off.

Sweden

A distinctive feature of labour market regulations in Sweden is the importance of the collective agreement for the formation of rules at the workplace, both in terms of the range of permitted bargaining outcomes and the almost universal coverage of collective agreements in the labour market.

The current law regulating working time — the Working Hours Act (*Arbetstidslagen, SFS 1982:673*) — sets a statutory 40 hour working week and a maximum of 200 hours overtime a year, although no daily limit is prescribed. However, working time legislation appears to be particularly flexible and has, since the late 50s, also left the social partners free to negotiate and draw up industry-wide agreements on working hours. Hence, the Working Hours Act (1982) is optional[1] and can be partly or entirely replaced through collective agreements at the industry and/or plant level.

The contractual nature of the working time arrangement gives rise to disparities in the negotiated standard working hours between bargaining areas and different categories of employees. Generally speaking, collective agreements for manual workers at the industry level prescribe shorter working hours for shift work and certain particular atypical and arduous types of work than in law, and regulate wage compensation (shift premium and time off in lieu). For non-manual workers in the private sector, collective agreements generally follow the statutory provisions. However, some industry agreements, for example postal, banking and insurance sectors, have negotiated hours fewer than the standard 40 hours week (about 38 hours). Certain categories of civil service employees[2] also work shorter hours.

Despite the tradition of highly centralised collective bargaining, Sweden has increasingly moved towards a greater flexibility and variety of working patterns and time, in order to offer greater flexibility over the life-course and preserve companies' competitiveness. This has been described by some authors as 'negotiated flexibility', because it is achieved through negotiation of the social partners (see Anxo and O'Reilly, 2000).

During recent years, some new and innovative working hours patterns have been negotiated and implemented at the plant/organisation level. Generally, in the public sector, problems of recruitment, turnover, and the work environment have motivated reductions in, and the reorganisation of working time. In the private sector, the main motives for changing work patterns have been to minimise costs, for example reducing overtime costs by annualising working hours, or increasing productivity by lengthening operating hours. A recent study (Anxo, 2000) confirms the tendency to decentralise, differentiate and individualise wage setting, and terms and conditions of employment. Regarding working time policy, an overview of collective agreements in the

[1] While the law is optional there are, nevertheless, certain mandatory provisions that apply to the working hours of young people (under 18 years of age).

[2] Supervisory staff, police officers and fire fighters work less than a 39 hour week.

last decade reveal that the two sides of industry have wanted to give employees more scope in choosing between shorter working hours and pay rises. The pay award in many collective bargaining areas may be used locally to reduce individuals' working hours.

In the public sector, to give an example, the Swedish Agency for Government Employers (*Arbetsgivareverket*), towards the end of the 1990s, signed a collective agreement to create incentives for more flexible working hours at the plant level.[1] The new collective agreement, which affects about 250,000 employees in the public sector, does not include any detailed regulation of the arrangement of working time but is designed to favour innovative local agreements. Each organisation in the public sector not only has the possibility but, in practice, the obligation to negotiate provisions regarding working hour arrangements.

Germany

As outlined in Section 6.2.2, the emphasis in working hours regulation in Germany is placed firmly on collective agreements rather than legislation. Working hour limitations through legislation are fairly loose: the 1994 Act on working time sets a maximum of a ten hour day, six days a week.

Collective agreements typically set standard working hours for each sector, and vary between 35 and 40 hours. These collective agreements allow for additional hours of work above the contractual level, paid at a premium hourly rate. Collective agreements regarding overtime tend to be more restrictive than those laid down by law. For example, the collective agreements for the metal and electronics industry allow individuals to work overtime of up to ten hours in a week, or 20 hours over the course of a month. This means that actual weekly working hours (including overtime) in these industries should not exceed 45 hours (the collectively agreed working week is 35 hours in this sector).

In addition to these restrictions, according to Article 87 of the Labour Management Relations Act, the shop steward at company level has the right to co-determine:

- the start and the end of daily working hours, including the breaks and the distribution of the working hours over the individual working days
- temporary reduction or extension of the usual working times in the company.

[1] The agreement was signed by the three Swedish employees confederations, The Swedish Confederation of Professional Associations (SACO), the Swedish Central Organisation of Salaried Employees (TCO), and the Union of Service and Communication Employees (SEKO).

In practice, this second area of co-determination means that no overtime may be worked if the shop steward refuses the application for overtime by management, and in this case the management has to employ additional staff.

Whilst these limitations — legislative, contractual and union-based — would suggest strict limits on long hours working, it is known that rules are broken in certain employment areas, especially during 'stressful periods'. Such infringement of rules, which are expected to occur more widely in non-manual companies, may occur even when a clocking system is in operation, as employees may take work home or 'clock off' and continue working. The reality is also that co-determination does not always occur, and the shop steward does not exercise his/her right, albeit voluntarily.

These factors mean that any case study investigation of working hours in German companies is difficult to undertake. If working hours are procedurally highly regulated, but non-adherence to these rules is over-looked, employers may be wary, and reluctant to participate. Those that do participate, moreover, may tend to be guarded, and not provide full and open information on the realities of working time in their organisations.

Given the highlighted discrepancies listed above, there appears to be an established hierarchy of working hour length, which incorporates 'illegal' practices. The figures below illustrate the working hours hierarchy for the metal industry:

- Standard working hours according to collective agreement (35 hours a week).
- Standard working hours, plus standard paid overtime (36 to 45 hours a week).
- Standard working hours, plus overtime; but not identified as such, and so unpaid (35 plus X hours a week).
- Standard working hours, plus working hours over and above the collective limit level, but within the framework of the Working Hours Act, paid or unpaid (45 to 60 hours a week).
- Standard working hours, plus working hours outside the framework of the Working Hours Act (paid or unpaid, 60 hours a week or more).

6.3.2 Manual employees: European comparisons

The focus next is on the foreign case study companies predominantly engaged in manual work: Göteborg Post terminal in Sweden (case study K) and a bakery in Germany (case study M). It also makes reference to the predominantly manual UK

Royal Mail, bakery and food processing company (case studies A, B and C), for comparative purposes.[1]

Incidence of long working hours

The working hours of postal employees interviewed in Sweden, compared with those worked in the predominantly manual UK companies, support the conclusion that UK manual workers are more likely to work long hours than counterparts in other European countries. In Royal Mail, and the UK bakery and food processing companies, working hours ranged from 35 to 75 per week, averaging 55 hours for the week prior to the research. In contrast, working hours at the Swedish Post terminal ranged from 38 to 45 per week, and averaged 41 hours.

Whilst, in the Swedish case study, only those interviewed in person were asked to record their working hours, the possibilities for consistently working long hours are limited in any case. The legislative limit of 200 overtime hours per year (50 in any one month) is monitored by team leaders and reported to line managers. In 2001, total overtime hours amounted to 6,000 hours for manual staff — an average of 13 hours each. However, it is important to note that night workers do work long weeks — six 12-hour shifts over seven days — although they are compensated with a week off immediately after.

Within the predominantly manual employers in the UK (Royal Mail, case study B and case study C), individuals were considerably more likely to agree that long hours were part of the culture and that they needed to work long hours to improve their pay. Interestingly, however, there is no significant variation in satisfaction with working hours. In the employers in the UK, the respondents were satisfied with the ability to boost their earnings. In Sweden, respondents were happy with their working hours patterns, but the interview findings noted that they would like more flexibility.

Unfortunately, due to difficulties in obtaining detailed data on actual working hours from the German bakery (see Section 6.3.1), direct comparisons with UK manual workers is difficult. However, the case study does indicate that overtime is worked and available regularly, particularly for production and shop staff. Staff are employed for five days a week, but overtime is often worked on the sixth day.

[1] The small UK manufacturing employer (case study D) has been excluded from comparisons because it has an unusually small proportion of employees working long hours.

Reasons for long working hours

The main reason given for working *extra* hours in both the Royal Mail and Swedish Post terminal was for the additional money. However, working hours for the Swedish postal workers examined cannot be said to be 'long', and there was a striking difference between the two groups in their reported financial 'need' for overtime. The following contrasting quotes, the first from a UK postal worker and the second from a Swede, make this clear:

> *'The only way to have a survivable income to support my family is to work excessive hours.'*

> *'I do not need to work long hours, my earnings are sufficient. I can manage financially without needing to work overtime.'*

Results from questionnaires returned also showed that UK respondents from Royal Mail, the bakery and the food processing company were considerably more likely than Swedish postal workers to agree with the statement: 'I need to work long hours to improve my pay'.

Unfortunately, for the German bakery case study, direct access to staff was not possible, so reasons given for working long hours were based on managers' perceptions. As with the UK and Swedish cases described above, however, the emphasis was placed on working extra hours for the additional money.

Impact of long working hours[1]

Although average working hours for night workers at Göteborg Post terminal are not long, the high concentration of hours on weeks worked did, according to some respondents, have some negative impacts on individuals and the employer. It was felt that the long hours resulted in tiredness which harmed productivity and in some cases caused absenteeism, which is at a high level. However, none of those working nights wanted to move to day work, perhaps because of the two weeks off a month for night work.

Similarly, those interviewed at the German bakery said that long working hours were detrimental to health. However, it was suggested by one manager that the positive impact of working long hours for the individual — money — outweighed health concerns for most employees.

[1] The issues discussed in this section and the following section (impact of, and interventions to reduce long working hours), are discussed in more detail, in the UK context in Chapters 7 and 8 below).

Interventions to reduce working hours

In the case of Swedish postal workers, there have been no attempts to reduce working hours, although long working hours are not a characteristic of this group (excluding the long shifts worked by night workers). In the German bakery, on the other hand, the introduction of a flexi-system for production staff was aimed at reducing overtime and the corresponding costs incurred. This had met with opposition by staff because it reduced their ability to improve their income and removed bonuses for unsocial working hours.

6.3.3 Non-manual employees: European comparisons

The foreign case studies representing predominantly non-manual workers were matched with their equivalent divisions or similar companies in the UK. Consequently, the analysis compares working hours in the Swedish, French and UK divisions of the same hi-tech service sector company, and with a German company in the same sector. In addition, working hours in French and UK divisions of a multi national bank are compared. Reference is also made to the other UK case studies employing predominantly non-manual workers (G and H) to expand the analysis.

Unsurprisingly, the non-manual case study employers, both in the UK and in Sweden, France and Germany, employ a far greater proportion of 'high' level staff than the predominantly manual companies. Ninety-two per cent of UK respondents and 80 per cent of French/German/Swedish respondents considered themselves to be above 'staff' level, in either directorial, managerial, supervisory, professional or specialist roles.[1] Obviously, the respondent bases are not representative of non-manual employees in these countries. However, the questionnaire responses do give an insight into organisations which have relatively large numbers of managerial and professional employees.

Incidence of long working hours

Analysis of the Community Labour Force Survey in Chapter 5 showed that working hours among higher level staff, particularly managers and professionals, were fairly similar in the UK and the rest of Europe. The case study research supports this finding: there was considerably less variation in working hour patterns within organisations employing predominantly non-manual employees than was the case in organisations with large manual

[1] All non-manual Swedish, German and French case study employers were grouped under one category, and all non-manual UK case study employers grouped under the other.

workforces. The questionnaires returned relate to only a small fraction of staff in each company, and they are skewed toward managerial and professional roles. However, it is interesting to note that the proportion of questionnaire respondents in the UK working long hours, compared with those in Sweden, Germany and France, is an identical 36 per cent.

In the French, Swedish and UK case study divisions of the hi-tech service provider, it was observed that managers, especially senior managers, often worked long hours. In the French division, it was considered that 'executive and autonomous' managers worked between 55 and 70 hours a week. A recent staff survey of employees at the UK division, cited in the case study, indicated that 62 per cent of the most senior directors always worked over their contracted hours, and 62 per cent of these worked more than ten hours extra per week. Less senior managers and professional staff with specialisms were also identified as potential long hours workers. It should be pointed out that 'executive and autonomous' managers in the French division are entitled to additional rest days in partial compensation for the 35 hour week introduced for lower level staff. However, they still work long days and weeks, and during the fieldwork some of these individuals raised concerns about their ability to take these days off.

The French and UK divisions of the hi-tech services sector provider had a large number of call centre workers (in Sweden they have yet to set up a call centre). It was noted that these staff tend to stick largely to their contracted hours. Managers and employees in the UK division reported that virtually all (non-call centre) staff worked in excess of their contracted hours. Whilst the additional hours may not usually amount to long hours working, this was not noted in the other case studies, suggesting that working hours for UK workers may be longer even within the same organisation.

The working hours of managers in the UK and French divisions of the multi-national bank were shown to be variable, and had not reached the same heights as those in the high-tech service provider. The UK case study focused on business bankers mostly, working in relatively senior positions, and working hours were said to vary between 40 and 60 hours a week. In the French case study, some senior business bankers worked 45 to 50 hours per week, whilst others dealing with customers averaged 39 to 42 hours per week.

Reasons for long working hours

In all of the service sector provider divisions — French, UK, and Swedish — the relative infancy of the company was identified as the reason for the long hours being worked. In French and UK case studies some referred to a 'pioneer' spirit, where employees were 'building' a company. Others, in all three countries' case

studies, pointed out that because it was relatively new, and growing fast, long hours had to be worked to establish the company. In such an environment, workloads were identified as heavy, and recruitment in some cases not sufficient to meet workload needs.

Some interesting differences between the Swedish and UK hi-tech service sector divisions did emerge, however. On the one hand, it was identified in both countries that working hours may be long because staff enjoy their work. However, in the UK, long working hours were seen as being voluntary, whereas in Sweden it was noted by some that they felt compelled to work late, sometimes unnecessarily. As the following quote makes clear, this was attributed by one employee to a 'British culture':

> *'Sometimes I feel bad ("pain in the stomach"). It's related to the British culture here. I feel that they want to show that they are at work. There are large differences between the Swedish and British work culture. In Sweden it's primarily the work done which is important, not the time you spend at work. Why do you have to stay at the office if you have accomplished your work? I feel also that the expatriates work too much.'*

The 'British culture', referred to by this interviewee, stems from the unusually high proportion of British employees, particularly managers, working from the Swedish division. Indeed, some interesting comparisons are drawn out between the different cultures of English, Swedish and French nationals working in the organisation. Swedish employees were described as very knowledgeable about their employment rights and protective of their own work life balance. Clearly, the entitlement to parental leave and flexible working is very well established in Sweden. The following quote illustrates this point:

> *'Swedish people are much more knowledgeable about their employment rights, they speak openly about their employment rights, they are aware that it should be a balance between what the employee and the employer want. While, in the UK, people somehow feel beholden to their employer, and if the employee begins to say no I don't want to do this, I am only contracted to do that, I want a day-off in lieu, I have worked last weekend, in England it's perceived if you do that you're making trouble and you are not a good employee. Whereas in Sweden, on the other hand, employees are more confident, if they want to work 75 per cent because they have children, or take a lunch break, or take three weeks holiday, even though the workload is high, they will do so. They are much more confident to behave in this way because they understand the framework of the labour legislation. They are very well informed on their rights.'*

Furthermore, there are differences in organisational cultures and management styles between the different countries. Respondents at the case study organisation in Sweden felt that Swedish employers were more likely to have flatter structures and more flexible work organisations, involving more delegation of responsibility. The French and British culture was described as

more hierarchical. It was argued by some respondents that these differences could lead to differences in working hours patterns with the Swedish approach being less likely to be associated with pressures to be seen to be working long hours, or to follow the example of senior managers' own patterns of long hours working.

Impact of long working hours

In all the hi-tech service sector case studies — German, Swedish, French and British — long hours were viewed as essentially negative in their impact, for both employees and, in the long term, the employer. It was identified in each of the hi-tech service sector case studies that consistently working long hours led to increased illness and absence. The Swedish and UK case studies also unearthed a feeling that long hours were encroaching on lifestyle and family life. It was also strongly argued in both the Swedish and UK case studies that long hours sometimes had a negative impact on the company, as a lack of free time sometimes meant that staff lost perspective, creativity and flexibility in their work. As one Swedish line manager explained:

> *'If people consistently work long hours there is a clear risk that people identify too much with their job and that they lose contact with life… My own experience is that people with strong identification with the job and working consistently long hours are less flexible. When changes occur at the firm, if the content of their job changes, they are often against such changes, against adapting to the new needs of the company.'*

Interventions to reduce working hours

Of all the hi-tech service sector providers, the French division has done the most to reduce working hours, primarily because of the Loi Aubry. Those most likely to work long hours (managers and professionals) now get more days off in compensation for the 35 hour week. However, working days and weeks remain long, and the ability of such staff to take all the time off is unclear. In the German hi-tech service sector company, there have been attempts by the shop stewards to make sure that working hours do not exceed limits set under the collective agreement but, as already stated, this has been met by opposition from some staff. The Swedish division recognises the problem of long working hours, and there are plans to introduce an annualised hours system, which will give time off in lieu for additional hours worked.

In the UK, the case studies revealed a range of interventions which had been introduced in an attempt to tackle excessive working hours among non-manual staff. These included: flexible working and leave arrangements; coaching and workshops; publicity for good practice examples; self-management and personal effectiveness training; and a number of *ad hoc* and localised measures. Often, however, such interventions were

hampered by the lack of mechanisms for measuring hours worked among non-manual staff.

The impact of the Loi Aubry on the French division of the multinational bank has, in some ways, been similar to that experienced by the French hi-tech service sector provider. Some managers have received additional days off, but working days and weeks remain long, and at the time of the fieldwork it was unclear whether they would be able to take all of these additional days off. More generally, in the French case studies, it was also clear that measures such as a greater use of multi-skilling and team working had been introduced to support the working time interventions and improve productivity.

6.4 Conclusions

The UK, USA, Japan and Australia show a different pattern of working long hours as compared to European Union countries (excluding the UK and Ireland). This group of European countries has lower proportions of working long hours than are found in the Anglo-Saxon countries and Japan. Those European workers that do work long hours are more concentrated among higher level occupations such as managers, and long hours working is less prevalent among manual workers.

The proportion of workers working over 48 hours per week in the USA, is approximately one quarter among men and one-tenth among women. The proportion of workers working these long hours per week has been rising over recent decades, as has the number of weeks worked over the course of a year. The occupations which show the highest incidence of long hours working in the USA are managers, sales and transportation.

One-third of men in Australia work more than 48 hours a week, which represents a significant increase from an already high one-fifth in 1984. Approximately 15 per cent of Australian women work such long hours. Similarly to the UK and the USA, long hours in Australia are concentrated among managers, but also lower level occupations such as trades people, sales people and operatives.

Japanese workers are generally perceived to work the longest hours in the world. In 1994, over one-third of men (36 per cent) and 15 per cent of women worked over 48 hours per week. Furthermore, there is a low take-up of holiday entitlement in Japan. Nonetheless, working hours have shortened since 1984, when over half of men worked over 48 hours per week.

Income inequality has been identified in the literature as one factor explaining differing working hours patterns in different countries. Where there is less income inequality within an economy, working hours tend to be shorter. Income inequality can

also explain some differences in individual working hours preferences. The literature review conducted for this study suggests that there has been little previous research, which has considered cultural preferences as a factor explaining working hours differences, apart from some research in Japan which suggests that Japanese culture often makes little distinction between 'work' and 'leisure' time, and that there is a cultural norm which often results in workers not taking their full holiday entitlement. Working hours legislation within some countries (in particular, Luxembourg, France, Netherlands, Spain) together with collective agreements in others (such as Germany and Sweden) goes further to explain differences in working hours patterns between countries.

The case study research generally backs up the finding, from this and the previous chapter, that manual workers are more likely to work long hours in the UK than in other European countries, while cross-country differences among professional and managerial staff are much less pronounced. The case studies also reinforced and expanded on some of the reasons for working long hours identified in the literature review. The case study of the Royal Mail, for example, showed that postal workers in the UK often worked very long hours in order meet the costs of living. In contrast, postal workers at Göteborg Post terminal stated they did not need to work long hours to sustain an adequate standard of living and, in any case, overtime is limited by the collective agreement in operation. The German case studies, on the other hand, helped explain why a significant minority of higher level staff work long hours despite strict regulation . . . they often ignore the rules.

7. The Implications of Long Working Hours for Employers

This chapter starts with the evidence from the literature review, in order to identify implications for employers of long hours in terms of labour productivity, employment, individual performance, health and safety, staff absence, turnover and morale. The second parts draws upon the evidence from the Workplace Employee Relations Survey, 1998 (WERS98) data about the characteristics of employers which experience a high incidence of long hours working among their staff, the relationship between the proportion of employees working long hours and employee turnover, absence and productivity. The final part presents the evidence from the case studies related to the implications for employers of long working hours, the interventions taken by them to reduce working hours, and the success of those interventions.

7.1 Effects on productivity

The literature identifies two main methods of measuring productivity within organisations. The first is the input-output ratio where labour productivity is defined as output per unit of labour. However, it is important to be clear what is defined as a unit of labour (e.g. whether the number of contracted hours or the number of full-time equivalents) which is used to provide the denominator). There are also various measures of output at company/employer level available (e.g. gross output, net output, or gross value added). Gross value added is additive across establishments and industries (Oulton, 2000) and gives an indication of return on capital. However, there are difficulties in ensuring it is collected consistently and accurately across organisations as it depends on the accounting procedures used (Broadbent, 1999).

An alternative measure of output for productivity purposes is the percentage of full capacity. Using this method, a production line capable at full capacity of producing 1,000 units of output per hour, is running at 95 per cent capacity if it turns out only 950. Individual employee productivity can be measured through benchmarking against what is defined as a 'standard employee', who works at 100 per cent capacity.

One obvious difficulty with such definitions of productivity is that it does not account for quality (i.e the quality of the output and the production of faulty products). Total quality management (TQM) puts customer satisfaction at the centre of attention, and in this context measuring productivity can take more of a back seat. A further issue relates to 'difficult to measure' outputs, particularly in the service sector. Clearly, in sales-based organisations, sales can be measured, but outputs are considerably more difficult to measure in organisations, which rely, for example, on the generation of ideas. In these instances, research relating to long hours and productivity and performance is more reliant on self-reported data or perceptions about productivity.

There is relatively little existing research which specifically examines the relationship between productivity and long hours working. Instead, the focus of research conducted by economists has mostly been on the effects of reducing standard or basic working hours, within the production sector. This literature looks at the range of effects of such interventions (i.e. the implications for levels of output, productivity and employment).

The review of the literature examines the relationship between long hours and productivity, the effects of shortening working hours (which includes a discussion of some of the methodological issues), the potential effects of such reductions on employment and productivity and, finally, a discussion of various other contributory factors, which may lead to productivity improvement.

7.1.1 Long hours and productivity

The length of working hours potentially influences productivity at the employer or plant level through effects on individual motivation, physical well-being, absenteeism, staff turnover and satisfaction (Shepard and Clifton, 2000).[1] Surveys of managers also show that there is a general belief that working long hours has a detrimental effect on productivity. For example, a survey conducted by the Institute of Management (Worral and Cooper, 1999) found that 68 per cent of the managers surveyed felt their long working hours was having an adverse effect on their productivity. Similarly, a US poll showed that 62 per cent of US managers agreed that shorter hours give workers greater incentive to be more productive (US News, 1997 cited in La Jeunesse, 1999).

Case study research has demonstrated that rates of productivity decline as hours increase. The key pieces of literature in this field include studies of munitions factories during the First World War

[1] From the analysis of the Workplace Employee Relations Survey (1998) data, an association between the incidence of long hours and rates of staff turnover is outlined below (see also Section 7.5).

(Vernon, 1921). These analysed how levels of output varied with the amount of overtime employees worked. It was discovered that over longer periods of time, the level of output tended to an equilibrium regardless of the hours worked. White (1987), drawing on comprehensive research within the engineering, construction and printing sectors, agreed that longer work durations tended to result in decreased long-run equilibrium levels of output. Nevertheless, White concluded that this equilibrium is greatly influenced not only by the hours of work, but also by the physical effort demanded of the work and also the regularity of the work (White, 1987).

La Jeunesse (1999) details a series of US studies which have provided evidence to support this assertion that longer work hours lead to long-run decreases in output. In this paper, various references are cited which show that sustainable long-term muscular effort has a log-linear relationship with the duration of the work effort (Birk, Bonjer, and von der Sluys (1961) and Bonjer (1968)). La Jeunesse (1999) argues that long working hours are accommodated by adjustments in the pace of work or work intensity, but can also lead to increased absence levels through illness.

Shepard and Clifton (2000) argue that most of the evidence for productivity gains resulting from reduced hours is based on case study research and not on applied economic theory (*eg* production functions) to test for and quantify these effects on productivity. For this reason they apply a Cobb Douglas production function to analyse the effect of overtime hours on productivity at the macro level[1].

The results for the majority of industries show a significant productivity decline of two per cent to four per cent for a ten per cent increase in overtime. Petroleum and chemical industry showed the largest effects. However, paper products and transportation equipment appear to be immune to such effects. No explanation for this variation (for example type of work, technology, amount of idle time or worker demographics) is provided. Shepard and Clifton (2000) conclude that the estimates of these productivity effects in the model are reasonable, given that as overtime escalates and the average work week lengthens, there may be a threshold which once crossed workers become

[1] This is a standard procedure for augmented production function models. They use aggregate US Bureau for Labor Statistics data for 18 industries over the time period 1957 to 1991. For the regression model, the dependent variable used is value added per total hours worked, as a measure of productivity for each industry. The independent variables include number of overtime hours, average working hours, measures of capital intensity and numbers of employees.

increasingly inefficient. This appears is consistent with the conclusions reached by White (1987).

7.2 Effects of reducing working hours

Rather than focusing upon the implications for employers of their employees working long hours, most of the literature in this area considers the impact of *reducing* hours, in particular in the manufacturing sector. The more recent literature is focused upon the reductions of working hours from about 40 hours per week, to say 35 or 30 hours, and as such does not encompass what is defined here as 'long' working hours (i.e. over 48 hours per week). Earlier research (nineteenth and early twentieth century) looked at reductions from considerably longer working hours.

Rubin and Richardson (1997) provide a review of the literature on the impact upon employers of reducing working hours. They define labour productivity as the output of the firm, divided by the total hours worked by employees (total hours worked are equal to total employment multiplied by average hours, which in turn consists of basic hours and overtime). Rubin and Richardson conclude that any reduction in working hours must have an impact on some combination of lower output, higher overtime, greater levels of employment or higher productivity. Conversely, any increase in working hours will have the opposite effect. Before examining these effects on employment and productivity lets consider some methodological issues that have been identified in relation to assessing the effects of reducing working hours.

7.2.1 Methodological issues

Much of the literature on the effects of reductions of working hours is based on case study evidence. The European Foundation for the Improvement of Living and Working Conditions (1998), in a review of the literature on working hours reductions in Europe, identifies a fundamental methodological difficulty with such case study research. This relates to results obtained by evidence from employers following reductions in working hours. The authors question how to disentangle the effects due to the working time reductions from those which can be ascribed to all the other determinant factors in the life of that employer, such as the trade cycle, the development of the competitive context and the introduction of new technology. In other words, there are clearly difficulties in isolating the impact of the working hours reduction. For example, any gain in productivity may have occurred without the hours reduction. Most research is also based on 'before and after' assessments and they do not, therefore, provide for comparisions or controls for a situations where interventions did not take place.

A second issue to be considered is the timescale over which the impacts of hours reductions are measured. While productivity may increase in the short term, this may not be sustainable over a longer period of time. Richardson and Rubin (1994), in their research into reductions of working hours in the UK engineering industry, consider both the long-term and short-term impacts.

Third, it is also important to be clear about the measures of output and productivity being used, and how these have been collected by the organisations concerned.

A fourth consideration , which is particularly important in relation to the UK, but much less so in other countries in Europe, is the exclusion of overtime. Most studies assess the impact of reductions in standard hours, not total hours. If overtime is used to offset the effects of reducing standard or basic hours, this will effectively lead to a *per capita* increase in wages and render the term 'standard hours' meaningless (European Foundation, 1998). In this case, the findings will be of less relevance to this research in that the total hours worked will have remained unchanged.

7.2.2 Case study evidence in the literature

Employment effects

The European Foundation (1998) has conducted a review of research on reductions in working time pursued by employers in France, Belgium, the Netherlands, Germany and Sweden. The review covered the period 1988 to 1995 and, therefore, covered a full trade cycle (recession and boom). The key research evidence identified in this review, relates to the German metallurgical industry. Nowhere else have reductions in working hours been made on such a large scale. In summary, the European Foundation found that the reductions in working hours have generally helped to improve the employment situation, either by limiting job losses or by accelerating employment growth, as compared with what would have happened, if previous working hours patterns had been maintained. All the German studies found that reductions in working hours were good for employment growth.

The European Foundation concludes that any improvement in the employment situation is a fairly general result of reductions in working hours at least in the period of analysis, *ie* two to three years. It is argued that any other result would imply zero productivity for the eliminated hours. It should be noted that in these examples, the use of overtime is restricted, and to maintain levels of output it was necessary therefore, to increase the number of jobs. Also important is whether or not the reduction of hours is voluntary or imposed upon the employer, either through industrial dispute or working time regulation. Where the intervention is voluntary, the reduction in hours is much more likely to have a

positive effect on employment levels or productivity, as this is the specific objective of the intervention. The European Foundation (1998) cite the example of Volkswagen which successfully reduced working hours in order to safeguard jobs in 1993.

The employment effects of working hours reductions are given further consideration in the discussion of economic models in Section 7.2.3 below. In the UK studies of working hours reductions, the effects on productivity have been more pronounced (White, 1987). These findings are detailed below.

Productivity effects (UK)

Rubin and Richardson (1997) provide a review of the literature on the implications of fewer working hours on productivity and identify the key pieces of literature in this area. Analysis of the impact of nineteenth century factory legislation showed that total hours could be reduced without reducing individual output (Cole, 1925). Early studies of engineering works in Manchester in the late nineteenth century found that reductions of working hours from 53 to 48 had no effect on production levels, and levels of absence were significantly reduced. Studies of factories supporting the war effort during the First World War found that where total hours were reduced significantly but the total level of production increased (White, 1987 and Vernon, 1921). Employees reduced their hours from over 60 hours per week to between 50 and 55. Spurgeon *et al.*, (1997) argue that these studies have rarely been surpassed in terms of scientific method and attention to detail, and remain the most important data sources in the field. However, Vernon (1921) points out that the munitions factories employed workers who were very highly motivated to make maximum effort for the war effort. Caution, therefore, is required in generalising these findings on the likely impact of working time reductions such reductions on other sorts of workers and under other sorts of circumstances.

As already above, White (1987), asserts that there is overwhelming evidence that the intensity of work effort falls as longer hours are worked beyond critical thresholds. This is because there are physiological limits to the time for which high levels of work performance can be maintained. White's analysis is based on a comprehensive study of the effect of reducing working hours in a range of sectors, concentrating on engineering, printing and construction between 1979 and 1984. White concluded that shorter working hours were linked to increased flexibility or increased output. This is because managers make a concerted effort to increase productivity when hours are reduced No evidence was found that a reduction in working time leads to an increase in number of people employed at the establishment. White suggests that this was mainly because hourly productivity tends to increase to compensate for the hours reduction.

Rubin and Richardson (1997) question the analytical framework and research approach White adopted when carrying out this research. Rubin and Richardson argue that that no account was taken of what would have happened if there had been no hours reduction. In other words, again the study was not able to isolate the impact of the reduction, and the analysis is based on a simple 'before and after' comparison. Furthermore, the timing of the research was during a recession. It is possible that the intervention resulted in retaining jobs, which might otherwise have been lost. Nonetheless, Rubin and Richardson (1997) report that most UK case study findings are consistent with the research reported on by White (1987). The latter is the most comprehensive study; other research includes the Trade Union Research Unit (1981), Institute of Manpower Studies (1979) and PA International Management Consultants (1981).

The service sector

As noted earlier above, most of the research in this field is based on the manufacturing sector and very little on the service sector where measuring productivity is clearly much more problematic and difficult. Rubin and Richardson (1997) detail a number of research studies that have looked at the relationship between working hours and output in the service sector. For example, the Trade Union Research Unit (TURU, 1981) at Ruskin College surveyed managers' perceptions of the effect of hours reductions in the health and retail sectors. Similarly, the Institute of Manpower Studies (1979) analysed the impact of shorter hours in retail. Both studies identified that the likely effects would be the employment of more part-time staff, but also a reduction of unproductive time. However, Rubin and Richardson (1997) also note that although productivity may increase in the short term, these studies do not consider the longer-term impact. It is possible that there is a drift back to unproductive practices once again, to an equilibrium level of productivity. Further, Rubin and Richardson suggest that for managers and professionals who work longer hours than their basic contracted hours and are responsible for getting work tasks completed, a reduction in basic hours will have no such impact upon their productivity. As such, managers and professionals are a very different case to those researched in these studies.

Longer-term effects

The research studies detailed above analyse the impact of working hours reductions over relatively short periods of time. Richardson and Rubin (1994) studied the longer-term economic effects of reductions in working hours in the UK engineering industry over the period 1989 to 1993. Over this time period and following a series of industrial disputes, there was a fall by one-half of the proportion of factory employees working 39 hours per week and a

corresponding increase in those with a 37 hour week or less. Richardson and Rubin assert that any reduction in working hours must have other consequences, for example more use of overtime (and therefore no effect on actual hours) or shift-working, a decrease in the level of output or an increase in productivity through capital investment or changes in working practices. What happened during this period was a range of collective agreements in which managers attempted to offset the effects of the reduction in hours through improvements in productivity. This was to be achieved via reductions in unproductive time, (e.g reductions in tea breaks and paid washing-up time), and the introduction of flexible working practices such as multi-skilling or multi-machine operation.

Rubin and Richardson (1997) again question whether these productivity improvements would have occurred to some extent anyway, due to increased competitiveness within the industry and the depressed state of the economy. Further, many of the targeted productivity improvements were not actually achieved. It should be noted that their research was based upon interviews with managers within 20 large engineering firms. All the managers agreed that the performance improvements they had achieved had easily absorbed the costs of the shorter working week in their factories. However, they doubted that the labour productivity growth was solely attributable to the shorter working week. The hours reductions might have facilitated and speeded up the process of change, but the ultimate extent of the change had not been greatly affected. As such, Richardson and Rubin conclude:

> *'It seems that the connection between shorter hours and these other measures was generally no more than an accident of timing.'*

Reductions in unproductive time

It has been suggested above, that there is the potential for reducing unproductive time as part of an overall package of hours reduction. Lynch (1991) in an article in *Personnel Management* on working time and productivity makes reference to White's (1987) research. White had asserted that effective hours worked as a percentage of total hours ranges from 60 per cent to 90 per cent. However, Lynch points out that although the connection between productivity and paid time had been well documented in academic literature, it had at this time been neglected in practice. Lynch (1991) examined the relationship between paid time and effective time, emphasising that there is extensive scope for productivity gains by focusing on better use of time. He cites a comprehensive study of simultaneous and comparable construction projects, one in the UK and one in the USA (NEDO, 1990). The British project required 25 per cent more hours in total . The difference was mainly accounted for by the higher productive

working time of US workers; there was no significant difference in the quality of management or the skills of the workers.

Lynch (1991) provides some examples of practices which will reduce ineffective time and address the paid time / productive time gap. These include: 'bell to bell working', making sure that less time is wasted in slack periods, making greater use of basic hours rather than overtime and providing for greater job flexibility, flexible hours and the use of annualised hours.

Reorganisation of working time

The European Foundation (1998), in the review of research on reductions in working time pursued by employers in Europe, distinguishes between the effects of working hours reductions which have been imposed upon employers and those where the reduction is part of a drive to improve productivity or increase employment. It was found that where employers voluntarily reduced working hours, the reductions resulted in productivity gains. This was because the hours reductions were accompanied by a reorganisation of working time, such as the introduction of additional shifts, annualised hours or investment in capital. A key example is the working time reduction in Germany between 1984 and the early 1990s. During this period working hours were made more flexible through the adjustment of the duration, scheduling and distribution of working time to match fluctuations in capacity utilisation. In effect, working time and operating time of the plant were separated from each other, through such flexible working practices. The European Foundation also found that there was a positive correlation between reduction in hours and investments in capital.

However, it is also argued that the extent to which such productivity gains will result varies by sector, the nature of the reduction in hours (for example, whether it occurs through shorter shifts), and whether improvements in productivity through changed working practices had already been pursued, such that there was less scope for further improvement. The attitude of the employer, and employee resistance to change is also important.

Fatigue effect

Rubin and Richardson (1997) also review American literature where the focus is upon the question of whether reducing working hours increases hourly productivity by reducing fatigue. They cite the Bureau of Labor Statistics 1947, which concluded that five working days of eight hours was the optimum in terms of output per hour, during World War Two. Rubin and Richardson also refer to Alluisi and Morgan (1982), who dispute this finding, and suggest that there is no reason to assume that, even if 40 hours per week was the optimum during the 1940s, it is necessarily still the case now. The nature of work has changed;

manual work is less demanding. Also, physical effort is only one element of energy used at work. Mental effort is more difficult to measure, but nonetheless fatigue still has an effect on performance. The level of the monotony of the work also needs to be considered. Nyland (1989) argued that if physical effort is lowered while the monotonous aspect of a task increased, the effort required does not necessarily fall. Owen (1989) considered that the 'fatigue effect' does not take into account the mental demands of work, such as concentration. Furthermore, work intensity needs to be considered, as it will also have an effect on the optimal hours of work. As such, Rubin and Richardson (1997) conclude that the evidence for a fatigue effect of length of working hours is inconclusive. Again, it is not just the hours of work that are important, but the nature and intensity of the work.

Efficiency work week theory

La Jeunesse (1999), argues that shorter working weeks lead to improved productivity on the basis efficiency wage theory (Akerlorf and Yellen, 1986), which posits that there are sound reasons why higher wages may cause greater productivity as well as result from higher productivity. This is because higher wages lead to greater employee motivation, reduce staff turnover (if wages offered are higher than competitors), attract higher quality and more highly skilled applicants, improve morale and reduce the need for supervising staff. Reduced staff turnover in turn leads to reductions in training costs. Evidence to support this theory is provided by the Ford Motor Co. in 1914 which achieved productivity gains by significantly increasing wages (rates of pay were $5 per day, substantially higher than competitors' pay) and decreasing hours.

La Jeunesse (1999) suggests that a shorter working week will result in productivity gains in a similar way. By working shorter hours, employees have more time to improve their health, invest in their training and they are more rested and alert during working hours and therefore make fewer errors. Shortening working hours are also argued to improve staff recruitment, retention, motivation and commitment, through the offer of preferential working conditions in comparison with other employers. Longer-term and macro economic effects on productivity are also identified. La Jeunesse argues that workers will have more time to consume more goods, develop more sophisticated tastes for more expensive goods and that there will be longer-term improvements in standards of living due to more time available to devote to parenting.

Case study evidence is used to support this 'Efficiency Work Week' theory. For example, Leverhulme (1919) in a study of six hour working days found that shorter hours lessened fatigue and generally tended to increase output. As well as Vernon's (1921) and White's (1987) research (referred to above), La Jeunesse also

references Bienefeld (1972) who observed that major reductions in hours in British economic history preceded rather than followed peaks of productivity growth. Similarly, the introduction of the 39 hour week in France in the 1980s was followed by productivity improvements within firms. Nationally, productivity increased at a faster rate than it had the year prior to the introduction of the legislation. La Jeunesse accepts that these associations between shorter hours and productivity gains are not necessarily causal. This evidence again may be disputed for the reasons outlined by Rubin and Richardson (1997), which have been detailed above.

7.2.3 Economic modelling

Economic modelling has also been used to assess the impacts of working hours reductions on productivity and employment. For example, Fitzgerald (1996) uses a standard labour demand model for profit-maximising firms to assess the effects of reducing working hours from 40 to 35. It is assumed firms determine hours per worker and the total number of workers employed, in order to maximise profits. It is also assumed wage schedules are given exogenously, (i.e. do not vary with the reduction in hours and are not determined by competition between firms). Additional per-worker costs such as time and effort associated with recruitment and training and national insurance costs, are also accounted for in the model. A working week of 40 hours is assumed to be profit maximising, and the effect of a five hour reduction is examined.

The equation to maximise profit can be solved once the per-worker costs are known. Parameter values for productivity, per-worker costs and weekly wages are input to the model. For the benchmark model, the values input are equivalent to US aggregates across industries. This model results in a decline in employment of 1.9 per cent. Output falls by 13.6 per cent, as does profit. Fitzgerald presents a number of experiments using a range of values. It is found that if weekly wages are assumed to remain constant, the drop in output and employment is very large. If weekly wages are assumed to fall more than proportionately with hours, then output declines relatively little and employment increases substantially. The key determinants of the effects were the production trade-offs between hours per worker, employment and output as well as the magnitude of the wage decline associated with the policy. These experiments have nothing to say about the impact of the hours reduction policy on wages. They also do not address the issue of the effect of the policy on investment and capital accumulation. No account is taken of labour supply considerations.

There is an extensive literature which examines the impact of working hours reductions on unemployment and distribution of employment at the macro level. This literature generally goes beyond the scope of this research project, for which the primary focus is the impact upon employers. Nonetheless, some recent

examples of this literature include Reati (1998), Rubel (1999) and Marimon and Zilibotti (2000). The findings presented in these papers vary depending on the economic models used, the factors taken into consideration and the assumptions made.

Reati (1998) presents economic models which demonstrate that reductions in working time are potentially able to reduce unemployment at the macro level. It is concluded that to be effective, the reduction in working hours must be significant, *eg* at least a reduction of ten per cent, enforced suddenly, encompass a large proportion of employees in the labour market, and above all accompany an improvement in capacity utilisation. We have already noted the importance of capital utilisation, and consider this further below. Similarly, Rubel argues that if a reduction in working hours is to have any effect on unemployment, it must be accompanied by increases in plant utilisation times. The hours reductions must also be acceptable to the employees themselves to have the desired effect. However, if a reduction in working hours makes it impossible for a small employer to maximise its operating time, the reduction will have the opposite effect.

Rubel also concludes, however, that the fewer working hours a well qualified employee applies to the disposal of a firm, the less return the employer will gain from any investment in training. Reducing working hours generally lowers the potential for raising the levels of skills, and as such longer hours are preferable.

Marimon and Zilibotti (2000) conclude that small decreases in working hours result in small increases in employment, whereas larger reductions actually act to reduce employment. This is because the major effect of reducing working hours is a decrease in output overall. Their economic model is based upon a *laissez faire* economy where workers freely negotiate hours and wages. The study does not analyse the impact of improvements in technologies and working practices which might offset the effects of the working time reduction. Some research in this area cited by Marimon and Zilibotti (2000) has drawn similar conclusions, while other studies have identified substantial employment effects, in particular Fitzgerald (1996) referred to above. The findings vary depending on the methodologies employed. Examples of the literature cited are D'Autume and Cahuc (1997), Hart (1987), Cahuc and Granier (1997), Booth and Schiantarelli (1987), Calmfors and Hoel (1988; 1989), Contensou and Vranceanu (1998), Hoel (1986), Hoel and Vale (1986), Moselle (1996) and Rocheteau (1999).

Adnett and Hardy (2001) also cite previous literature on these effects. For example, Freeman (1998) found that hours reductions generated by market forces have generally resulted in additional employment. Those generated by government policy have at best only a small effect. This is based on a survey of time series and production function studies. Adnett and Hardy (2001) conclude that labour supply factors, including the distribution of skills

between the employed and unemployed and a reluctance to income share among the employed, severely limit the effect on unemployment of hours reduction and work-sharing policies.

7.2.4 Other determinants of productivity

Anxo *et al.* (1995) examine the impact on productivity of capital operating time and the implications for working hours patterns. They argue that capital operating hours are an important factor in explaining both long-run and short-run productivity. They cite literature that has examined the impact of reduced working hours on unemployment, for example Taddei, (1991), Catinat, Donni and Taddei (1990). The results of these studies in terms of job creation vary according to the models used. Anxo *et al.* (1995) posit that this is because capital operation time is a key factor. As such, the flexibility in the organisation of the production process is more important than the hours worked *per se*. Improvements in productivity occur through longer operating hours, and innovative forms of labour organisation, such as flexible shift patterns and annualised hours. Thus in the production sector, capital operating hours must be taken into account in any attempt to assess the effects of long hours on productivity.

There is also a wide range of literature on the impact of introducing flexible working practices such as job share and annualised hours, and work-life balance initiatives on productivity and performance (for example Dex and Scheibl; 1999, Anxo *et al*., 1995; Shepard *et al.*, 1996; *IRS Management Review*, 1998; Heyes, 1997; Savage *et al.*, 2001; Bosch, 1997 and Perry-Smith and Blum, 2000). However, this has not been reviewed in detail here as it goes beyond the scope of this study.

7.2.5 Conclusions

The conclusions that can be made at this stage are that the relationships between working hours and productivity are clearly complex. Analysis of reductions of working hours has shown that it is not just the number of hours worked *per se* that is important, but also other responses such as changes in work organisation and investment in capital. Nature of work and level of work intensity also need to be considered as well as inappropriate tasks and unproductive time. Furthermore, these studies have focused on reductions in working hours from a range of levels, but most recently from about 40 hours per week to 35 hours (i.e. not particularly long hours). It is likely that there is a critical threshold over and above which working hours become unproductive.

7.3 Individual performance and error-making

So far the literature review outlined above has been primarily focused upon manual workers within the production sector, where output is relatively easy to measure. Other occupational groups where there is a high incidence of long hours working include managers, professionals and long distance drivers. It was noted in Section 7.2 that the concept of productivity is much more problematic and difficult to measure where there is no tangible output. It was also noted that quality of outputs was not taken into consideration when productivity is measured through simple input-output ratios. This section focuses on the individual performance and error making of managers and professionals (junior doctors in particular) and draws from research conducted by occupational psychologists.

Much of the recent research on the effects of long working hours on individual performance has been based on performance tests and simulations of work tasks (Spurgeon *et al.* 1997). Other methods used are self-report surveys of error-making and length of hours. The literature has tended to focus upon particular occupational groups, most notably junior hospital doctors. However, the focus in such studies is not just length of hours, but also aspects of patterns of working hours, such as shift patterns and disruption of sleep. In this section, we first detail the literature which has focused upon junior doctors and then outline surveys of other occupational groups.

Spurgeon and Harrington (1989) have reviewed the previous literature on the effects of long hours and sleep loss on work performance among junior doctors in the UK. In 1986, the average weekly working hours of junior doctors was 83 hours, including on-duty hours. Hours actually worked averaged 57 per week (Spurgeon and Harrington, 1989). In 1991 an initiative (entitled the 'New Deal') was introduced which aimed to reduce junior doctors' working hours. In December 1994, a target was set that no junior doctor should be contracted to work over 72 hours per week, and actual hours should not exceed 56. To facilitate this reduction in weekly working hours, the number of senior house officer posts have been expanded and in some cases shift or partial shift-working has been introduced (Paice, 1998). However, the New Deal targets have yet to be achieved and junior doctors hours remain a focus of attention. In 2004, the Working Time Regulations will cover the hours of junior doctors.

The aspects of junior doctors' performance that have been studied focus upon error-making, social behaviour, risk-taking and work-related accidents. In the following two sections we consider the effects of long hours upon error-making and social behaviour. In Section 7.4 we turn to workplace safety and accidents.

7.3.1 Error-making among hospital doctors

Error-making is obviously of paramount importance in the field of medicine, where doctors are dealing with life and death situations. It is for this reason that many studies have examined the impact of long working hours on the incidence of mistakes at work. Before discussing the findings of these studies, it is important to consider a number of methodological issues.

First, most of the research has examined the impact of long hours and sleep disruption, while on call or working shifts. From the point of view of this study, some of this research may be less relevant, as the patterns of work are not just related to long hours. There are also difficulties separating out the effects of lack of sleep, long working hours and working without supervision, which is also a particular issue for junior doctors.

Second, much of this research is based on junior doctors' performance in psychometric tests and simulations of work tasks. The extent to which the results of these tests can be translated to error-making in the workplace, patient outcomes and quality of care, has been questioned (McKee and Black, 1992). For instance, it is difficult to assess whether such errors have an effect on patient outcome, not least because of the difficulty of ascribing outcome to an individual aspect of care. Also, there are intrinsic differences in the quality of care provided by individual doctors (McKee and Black, 1992).

The other key method of researching the relationship between patterns and length of working hours and performance at work is self-report questionnaires. The drawbacks of this approach are response bias and a reluctance to disclose mistakes. It is possible that non-respondents in such studies are more likely to have made mistakes. Also, as McKee and Black (1992) point out, most people have motivational biases against negative self-perceptions and have a generally positive view of themselves. This makes them more likely to recall successes rather then failures.

These points notwithstanding, the key findings from the research in this field are summarised below.

Psychometric tests and simulations of work tasks

Spurgeon and Harrington (1989) detail a number of the research studies, which have been based upon psychometric tests and simulations of work tasks. Williams *et al.* (1959) developed a hypothesis that sleep loss leads to a lowered state of arousal and intermittent attention lapses. They made a distinction between two types of task:

- externally paced vigilance type tasks (*eg* scanning for episodes of arrhythmia on an electrocardiogram tape) where sleep loss is likely to result in errors of omission, *ie* things are missed, and
- self-paced tasks (*eg* report checking), where sleep loss and long duty hours are likely to result in increased response times and a slower pace of work.

Other researchers then developed this hypothesis as follows:

- Kjellberg (1977) argued that for some tasks the effect of sleep loss is less marked than others. Key factors which need to be considered are the level of motivation of the individual, their degree of interest in the task and the nature of the task itself.
- Friedman *et al.* (1971) used a test to evaluate the effect of loss of sleep on a vigilance type task. Lower levels of performance were found among the sleep-deprived compared to those who rested.
- Poulton *et al.* (1978) set three-minute grammatical reasoning tests and three-minute report checking tests to a group of junior doctors eight times over a period of a month. This study also demonstrated that the motivation levels of the individual and the nature of the task could offset the effect of sleep loss. Performance in the grammatical reasoning tests was adversely affected after the loss of three hours of sleep, whereas for the report checking task, effects did not occur until more than eight hours of sleep had been lost. This was because the report writing task was more arousing and more relevant to the doctors' real work.
- Beatty *et al.* (1997) specifically focused on the field of anaesthesiology, as it requires long periods of sustained attention and rapid detection of changes. This study found no difference between sleep deprived and rested subjects in a vigilance test but significant differences in grammatical tests, which were less stimulating or relevant to the subjects' real work.
- Pinnock *et al.* (1985) demonstrated these effects over longer periods of time using more lengthy tests.
- Williams *et al.* (1966) and Deary and Tait (1987) have shown that sleep loss could have an effect on the ability of individuals to retain new information. In contrast, recalling information retained when rested, presented less difficulty.

Spurgeon *et al.* (1997) conclude that the types of tasks that are most likely to be affected by sleep loss are those which are long and monotonous and make a high demand on attention, memory or speed of performance. The complexity of the task, the motivation and interest of the individual are also important. However, the greater the amount of sleep loss the less these factors will offset the effect of lack of sleep. Individual susceptibility to the effects of sleep disruption is also important.

Some individuals cope better than others under such arduous schedules (McKee and Black, 1992). These authors also re-emphasise the point that it is not clear whether performance in these types of tests is necessarily translatable to the effects of sleep disruption and long hours on performance in the workplace.

Self-report questionnaire surveys

Self-report studies reviewed by Spurgeon and Harrington (1989) include a study by Wilkinson *et al.* (1975). This was a survey of 6,500 junior doctors in UK, of whom 37 per cent reported that always or often their duty hours were so long they impaired their ability to perform efficiently. Some of the difficulties with self-reporting of errors have already been noted above. Gander *et al.* (2000) argued that self-report questionnaires and diary methods of recording the effects of sleep are particularly problematic, as self-assessment of alertness becomes more unreliable as the individual becomes sleepier.

Gander *et al.* (2000) examined the reporting of errors and the patterns of work among 300 respondent trainee and specialist anaesthetists in New Zealand. Logistic regression analysis was conducted to test whether any aspect of work pattern was related to the likelihood of reporting fatigue-related error over the previous six months. Among the small sample of trainees surveyed, no relationship was observed. However, for the specialists the number of nights worked was positively related to the errors reported. In addition, Gander *et al.* (2000) found that exceeding self-defined limits of continuous work and weekly working hours was positively related to fatigue-related error among this group. A limitation of this research was a lack of data on numbers of errors and therefore no assessment could be made on rates of occurrence of mistakes.

McKee and Black (1992) also review previous surveys in this field. Beatty *et al.* (1977) conducted a survey of perceptions of how sleep loss affects performance among junior hospital doctors. This survey found that over two-thirds of respondents felt that sleep loss led to impaired performance. Types of error identified were prescribing errors, taking longer to carry out tasks, and concentration difficulties. However, McKee and Black (1992) show that there was a much lower rate of reporting errors in a survey conducted by Wilkinson *et al.* (1975). The question was: 'Do you think that your hours of duty are so long as to impair your ability to work with adequate efficiency?'. Only nine per cent of psychiatrists and four per cent of obstetrists reported that this was the case often or always. The types of effects on performance identified by this study (Wilkinson *et al.*, 1975) were slowed thought processes and taking short cuts. The aspects of work most affected were routine, decision-making, diagnostic acumen, judgement and memory, personal attention to patients' fears,

relatives' questions and concentration. Some reported imagining telephone calls and falling asleep while on duty.

Houston and Alt (1997) surveyed 30 graduates of medicine before and after starting training. They found that data relating to hours of work show that error-making is not simply associated with the number of hours worked and sleep loss, but other factors are important. Trimpop *et al.* (2000) distinguish between rule-based and skill-based errors. They also argue that different types of error are made at different times of day, and conclude that more research is needed to examine these effects.

Participant observation

Participant or direct observation of the effects of long hours and sleep loss on work performance has rarely been used. The main reasons for this are practical and ethical difficulties. A study cited in the literature (Spurgeon and Harrington, 1989), which has used this method, was conducted by Goldman *et al.* (1972). This involved observation of surgical students performing operations. It found poorer operative performance resulted when the students had had less than two hours of sleep prior to the operation. Engel *et al.* (1987) (reported on by McKee and Black, 1992) used four patient actors to observe error-making among sleep-deprived doctors. However, this research found that no evidence of a greater rate of error-making among the sleep-deprived compared to the rested was observed. Limitations of the research identified were a small sample and a short period of time over which the observation was conducted.

7.3.2 Social behaviour of hospital doctors

Further aspects of the performance of junior hospital doctors which have been studied are social cognition, judgement, attitude towards colleagues and patients, and verbal interaction. Spurgeon *et al.*, (1997) cite Sherrod and Downs (1974) who found that a willingness to help others was affected by prior task load and task difficulty. Morris *et al.*, (1960) demonstrated the effect of sleep loss on speech and difficulty in being understood. Doctors whose sleep had been disrupted spoke slower, were more repetitive, made softer, unfinished statements, mispronunciations and omissions of syllables. Deary and Tait (1987) showed that sleep loss affected mood changes, in terms of reducing vigour and activation. However, individual differences were found to have overriding importance in determining the extent of this effect. Based on a self-report questionnaire, McMannus *et al.* (1977), found that 28 per cent of respondents agreed that sleep loss had an effect on their relationships with patients and 20 per cent said relations with staff were adversely affected. Dowie (1989) (cited in McKee and Black) also argued that sleep deprivation might influence the quality of care among junior doctors. This was as a result of both

reduced technical competence and reductions in the level of humanity with which doctors treat patients. McKee and Black's (1992) survey identified impatience and intolerance as one of the effects of sleep disruption and long hours.

7.3.3 Impact of long hours on performance in other occupations

This literature review has identified little research on the implications of long working hours on the performance of individuals working in occupations other than medicine. Some research has, however, been undertaken focusing on managers' performance. In particular, Stead *et al.* (1997) have undertaken a literature review of the effects of excessive hours on managerial performance and decision-making. They found that workload and long working hours are associated with impaired cognitive processing and decision making. This was associated with an inability to deal with ambiguity at an individual level, among 120 public sector employees and 123 managers in different organisations.

The Institute for Employment Studies research on long hours cultures found that many employees perceived that individual performance suffered if longer hours are worked (Kodz *et al.*, 1998). In this qualitative study, HR managers noted that they had seen examples of people being tired, struggling to make decisions and wasting time when they were working excessive hours. As cited in Chapter 5, the Chartered Institute of Personnel and Development (2001) published the findings of a follow-up survey of 486 individuals who had previously reported that they worked over 48 hours a week. The original survey took place in July 1998, when 823 individuals were surveyed. The follow-up study was undertaken in July 2000. Seventy per cent of the respondents to the follow-up study had managerial responsibilities and over half were in managerial or professional occupations. This survey included a question on perceptions about error-making and the findings are shown in Table 7.1. However, it should be noted that no comparison is made with individuals working fewer hours. For this reason, there is difficulty drawing any conclusions about the impact of long hours on the making of these mistakes.

These long hours workers were also asked about the effects their working hours had upon colleagues working around them. One-third felt that it had a positive effect and ten per cent a negative effect. Around half felt it had neither a positive nor a negative effect. Approximately one-quarter perceived that they were viewed as a team player, and only one per cent thought they were perceived as inefficient because they needed to work long hours.

Table 7.1: Biggest or most serious mistake made at work in last 12 months because of tiredness

	Percentage of respondents working more than 48 hours per week Base: 128
Mismanagement of people/projects	11
Forgot to pass information on	6
Damage to own property, *eg* car accident	5
Injured myself	4
Administration errors	3
Incorrect calculations	3
Other	3
Haven't made any mistakes	50

Source: CIPD 2001

7.3.4 Conclusions

The studies detailed above have demonstrated that long hours, especially when coupled with sleep disruption, can be shown to cause deterioration of performance of certain tasks. The research, taken as a whole, tends to suggest that long hours have a detrimental effect on the rate of mistakes made at work, the pace of work and social behaviour. There are clearly limitations to all the methods of research employed, which makes it difficult to prove scientifically that long hours lead to lower levels of performance. It is also difficult to identify where the threshold might be, in terms of how many working hours have these kinds of effects, especially as this is likely to vary by individual.

7.4 Safety and accidents

A further possible impact of long working hours is an increase in the likelihood of work-related accidents and risk-taking behaviour. Again, this is an issue which has been studied specifically in relation to medical professionals, as well as long distance drivers, for whom the implications of any such impacts are potentially very serious. Spurgeon, Harrington and Cooper (1997) identify two distinct issues in relation to the impact of long hours on health and safety at work:

- fatigue and its influence on behaviour associated with safe working practices — *eg* maintenance of attention and tendency to take risks, and
- prolonged exposure to physical, chemical and other hazards in the working environment.

The latter issue has been neglected in terms of research, and requires an understanding of the toxic effects of chemicals. Safety levels are based on standard working hours and little research has been undertaken to assess the impact of extended working hours (Spurgeon, Harrington and Cooper, 1997).

Spurgeon *et al.* (1997) cite studies on health and safety incidents resulting from irregular working hours and unsocial hours, involving phase shifting of junior doctors (McCall, 1988), airline flight attendants (Ono *et al.*, 1991) and long distance drivers (Feyer and Williamson, 1995). These studies show that key influencing factors are the time of day, rest breaks, nature of errors and behavioural response to fatigue. For example, fatigue may lead to increased risk-taking behaviour or opting for fail-safe strategies. This may also depend on the perceived importance of tasks. Shingledecker and Holding (1974) found that fatigued subjects who had been working for 24 to 32 hours, made significantly more risky choices than did rested subjects.

Studies of the effect of fatigue-related health and safety incidents have tended to focus on shift working rather than long hours. For example, it has been shown that safety is more likely to be compromised during night shifts, particularly when coupled with extended hours. There is little information on accidents in the evening after an extended working day (Spurgeon *et al.*, 1997). Studies of extended working days, for example 12 hour shifts, do not show higher health and safety incidents, but this does not include long-term periods of working long hours. Twelve hour days tend to be followed by extended rest periods (Laundry and Lees, 1991) and as such do not comprise weekly long working hours.

In the sections below, further details are provided of studies which have specifically focused on the effects of long working hours among medical professionals, long distance drivers and factory workers.

7.4.1 Medical professionals

Kirkaldy *et al.* (1997) conducted an anonymous postal survey on job-related accidents of 2,500 medical and dental practitioners in Germany. Twenty per cent of the respondents were doctors, and the remainder were other health professionals. Most accidents took place in travelling to and from work (6.8 per cent had had this sort of accident in the last year), while other accidents were at the work site or during home visits. The researchers found there was a positive correlation between length of working hours and accidents. Their statistical methodology identified the predictors of all three types of work-related accidents taken together as well as the specific predictors for each type of accident. This showed that length of working long hours was one of the predictors, together with distance between home and work, and job-related

stress. Length of working hours was also found to be a significant predictor of accidents at the workplace and when travelling to and from work. When the effects on doctors were analysed separately, the researchers found those who worked long hours had five times the incidence of driving accidents when making house visits as those who did not work long hours (over 48 hours per week was defined as long hours).

Trimpop *et al.* (2000) studied veterinary surgeons in Germany. Veterinary surgeons work some of the longest hours and have the highest incidence of registered workplace accidents, in Germany. They conducted a survey of a random sample of 25 per cent of all registered veterinary practices in Germany. A 25 per cent response rate was achieved which meant the total number of respondents was 778 respondents. Nearly two-thirds (64 per cent) of these were veterinary surgeons and 36 per cent were auxiliaries or laboratory technicians. Occurrence of work-related and driving accidents, over the previous 12 months, was examined. This study found a correlation between working hours and accidents (home visits, workplace and travel to work), with a weaker relationship between working hours and travel to work accidents. Regression analysis showed that gender, age and longer working hours combined to increase the incidence of accidents. Veterinary surgeons who worked over 48 hours a week were twice as likely as others to report the incidence of car accidents during working hours. However, long hours was not a predictor of car accidents in the journey to and from work.

The researchers concluded that older veterinary surgeons and those working longer hours were more likely to report accidents during home visits. As such, working hours do need to be considered but along with other variables. This is because there is a complex interacting pattern of individual differences, including demographic factors, work situations (such as type of work and time of day), individual responses to fatigue, and the nature and extent of rest breaks. These surveys also have the same limitations as those detailed in Section 7.3 in terms of under-reporting of accidents and response bias.

7.4.2 Long distance drivers

There is considerable concern among long distance drivers about the effect of their working hours on accidents (Labour Research, 1995). A number of studies have examined the impact of long hours and fatigue on accidents and sleep-related incidents among drivers. For example, Brown *et al.* (1970) found a 50 per cent increase in risky overtaking manoeuvres by car drivers after long driving sessions. However, speed decreased with duration of driving. McCartt *et al.* (2000) cite a number of previous research studies which have related number and patterns of hours worked and hours off duty to sleepiness-related driving incidents, *eg* Milter *et al.* (1988); Lin *et al.* (1994) MacKie and Miller (1978);

Harris *et al.* (1972); and Braver *et al.* (1992). However, few of these studies have used multivariate analysis to test the relative contribution of various predictors.

McCartt *et al.*, 2000 (US) conducted a survey of long distance truck drivers. This survey is one of the most comprehensive data sets related to drivers' work and rest patterns. Face to face interviews were carried out with 593 drivers who were randomly selected. Nearly half (47 per cent) reported having at some time fallen asleep at the wheel and 25.4 per cent had done so in the previous year. There may well have been under-reporting of such incidents, but despite this, the rate of incidents reported was almost double that shown by a survey of the general population in New York state (McCartt *et al.*, 1996). Factor analysis was undertaken to identify the underlying independent factors leading to falling asleep at the wheel. The dependent variable was whether respondents had ever fallen asleep at the wheel even for a moment. More arduous work schedules, more hours of work and fewer hours off duty was one of the independent factors, together with greater daytime sleepiness, older more experienced drivers, shorter and poorer quality sleep while on the road, sleep disorder and greater tendency to night-time drowsy driving. In fact, the longer hours / more arduous schedule factor had the second largest coefficient in regression analysis and as such was found to be a key determinant of sleep-related incidents.

7.4.3 Employees in other occupations

Studies have also assessed the impact of long hours on work-related accidents among factory employees. An example is the research based on munitions workers referred to above (Vernon, 1921). This showed that there was a 2.5 fold decrease in accidents, when working hours were reduced. However, this effect was observed only among women. Spurgeon *et al.* (1997) also cite a Hong Kong study (Ong *et al.*, 1982) of the relationship between severe hand injuries in factory workers and long hours. Here, the working day was 11.5 hours. This concluded that other factors, as well as long working hours, need to be considered, such as lack of training, supervision and work inexperience as well as the time of day.

7.4.4 Conclusions

The evidence presented above clearly provides ground for concern about the relationship between long working hours and health and safety incidents. This appears to be particularly the case among long distance drivers, and during home visits among medical professionals. However, as Spurgeon *et al.* (1997) have argued to date, particularly within the UK, this has been a neglected area of research and the nature of the relationship between long hours and accidents is complex.

7.5 Absence, recruitment, retention, motivation and morale

It has been noted above that proponents of the efficiency work week theory (La Jeunesse, 1999) suggest that shortening working hours will improve staff recruitment, retention, motivation and commitment, through the offer of preferential working conditions in comparison with other employers. However, little evidence-based literature has so far been found in the course of this review, which specifically looks at the impact of working hours on workplace absence, recruitment and retention difficulties, and motivation and morale of the workforce.

7.5.1 Absence

The first point to note about relating sickness absence to long hours is that this is potentially difficult to measure as there is likely to be a delayed effect. Those who currently work long working hours are unlikely to be absent. The analysis for this study of the Workplace Employee Relations Survey, 1998 (WERS98) showed no correlation between absence rates and incidence of long hours within workplaces. In WERS, absence is defined as workdays lost through employee sickness or absence. Authorised leave of absence, employees away on secondment or courses, and days lost through industrial action are excluded. However, the Institute for Employment Studies has previously analysed data on sickness absence in the health service (Health Education Authority, 1999). This study was based on employee surveys in 14 NHS trusts. It found a strong link among employees who work more than their contracted hours with absence (*ie* whether they reported any absence in the previous six months). However, the opposite effect was found to be true among medical staff and senior managers. This report suggested that it could be that some employees, in particular those in senior or responsible positions, feel compelled to attend when perhaps they should not.

7.5.2 Recruitment and retention

Analysis of the Workplace Employee Relations Survey (1998) data reveals a positive relationship between the incidence of long hours and staff turnover (see Section 7.7). This appears to be supported by some previous research, although these studies relate more to work-life balance issues generally, than to long hours in particular. For example, a survey of graduate recruiters showed that balancing work life with home life is a key issue in impacting on the retention of graduate recruits (Sturges and Guest, 1999). Ceridian Performance Partners / Management Today (1999) conducted a survey of 2,000 managers which found that one-third would change their job if this would improve their work-life balance. Coopers and Lybrand (1997) found that work-life balance was the most important factor for graduates choosing their first

job. Finally, an international survey of 10,000 managers in Europe, USA, Russia and Japan also found that balancing the needs of work and home was the most or second most important aspect of a job (Gemini Consulting, 1998). Recent research conducted by White has found that satisfaction with working hours is decreasing. It also notes that dissatisfied employees are twice as likely as their more contented colleagues to look for a new job and much less willing to put in extra effort at work. These findings were based on a survey of 2,500 employees. However, the full details of the research are unpublished at the time of writing (*The Guardian*, 2001).

The Institute for Employment Studies qualitative research (Kodz *et al*., 1998) into long hours cultures identified examples of departments or organisations known to have a long hours culture, which were also reported to experience particular recruitment difficulties. Employers also expressed concern about the impact of such a culture on their ability to recruit new staff and upon their image as a caring employer.

7.5.3 Motivation and morale

A further possible outcome of long hours is a negative effect on employee motivation and morale. The Institute of Management (1999) found that 66 per cent of the managers they surveyed felt their long hours affected their morale at work. The Chartered Institute of Personnel Development (CIPD, 2001) present findings from a nationally representative sample of 589 adults in paid work. This survey asked about the perceptions of individuals working for a manager who worked long hours. This showed that there can be positive effects to working long hours. Nearly one-third reported that they respected their long hours working boss for being a hard worker, over two-thirds thought their boss set a good example for working long hours and over half felt their boss's enthusiasm for work inspired them to work. Only three per cent felt their boss was inefficient and therefore needed to work long hours. Similarly, working with a colleague who worked over 48 hours per week was thought to have positive effects for 39 per cent of these respondents, as the enthusiasm for work rubs off on them.

7.6 Evidence from the Workplace Employee Relations Survey

In this section, findings from the analysis of the Workplace Employee Relations Survey, 1998 (WERS98) on the incidence of long hours working within organisations are presented, and also the relationship between long hours working and labour

productivity, staff turnover and absence[1]. Firstly the characteristics of the workplaces where long hours are worked are considered.

7.6.1 Incidence of long hours working within workplaces

Here, an analysis of the types of employers by the incidence of long hours working within their organisation is provided. For each workplace on the WERS dataset, the proportion of full-time employees working at the workplace who usually work over 48 hours per week has been calculated. This derived variable is based on the self-report data on working hours analysed in Chapters 3 and 4. This proportion ranges from zero to 100 per cent full-time employees (the latter is generally where the number of employees responding to the survey at the workplace is small). The mean proportion of full-time employees working over 48 hours per week for all workplaces is 18 per cent.

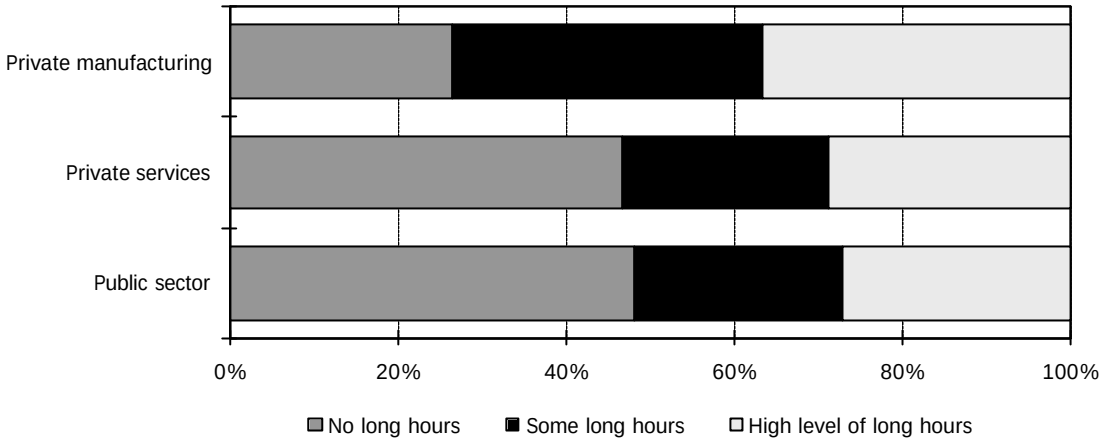
For the purposes of this analysis the workplaces in the WERS sample have been divided into three categories as follows:

- **no long hours**, which are workplaces where no employees report that they usually work more than 48 hours per week; these account for 44 per cent of all workplaces
- **some long hours**, which are workplaces where less than a quarter of employees employed at the workplace report that they usually work more than 48 hours per week (26 per cent of all workplaces fall into this category), and
- **high levels of long hours**, which are workplaces where a quarter or more of the staff work more than 48 hours per week (this is the case in 29 per cent of all the workplaces).

Figure 7.1 shows the distribution of workplaces according to these three categories by broad sector. It can be seen that long hours working is considerably more prevalent in the private manufacturing sector. Over one-third of private manufacturing workplaces have high levels of long hours, *ie* 25 per cent or more of the workforce work over 48 hours per week. Conversely, just over one-quarter of public sector workplaces fall into this category. The mean proportion of employees working long hours within the private manufacturing sector is 24 per cent; this compares with 16 per cent in the public sector.

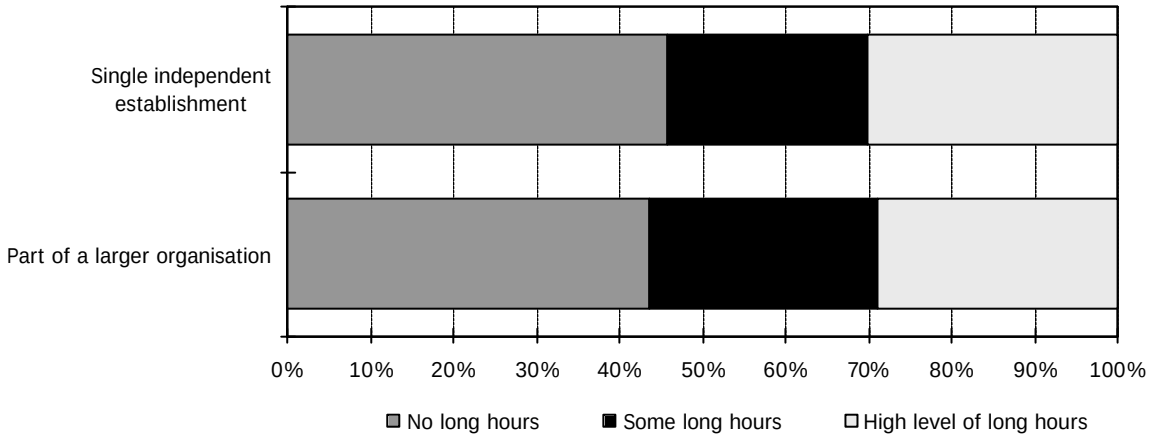
[1] For further details on the WERS dataset, see Volume 2, Appendix A and Section 3.1 above.

Figure 7.1: Incidence of long hours working within workplaces, by broad sector



Source: Workplace Employee Relations Survey, 1998

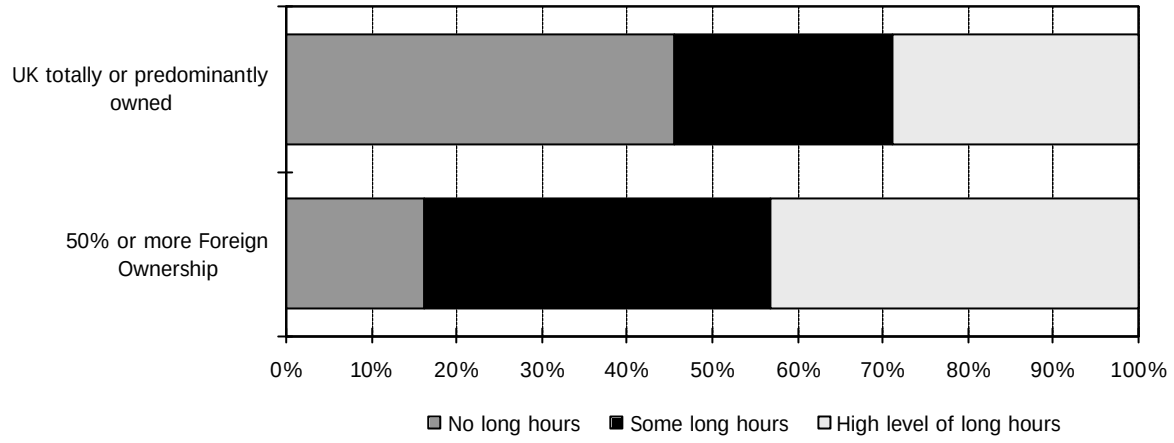
Figure 7.2: Incidence of long hours working within workplaces, by single establishment or part of a larger organisation



Source: Workplace Employee Relations Survey, 1998

In Figures 7.2 and 7.3, the sample of workplaces is analysed according to their ownership firstly by whether they are a single independent establishment or part of a larger organisation, and secondly, according to whether they are predominantly UK or foreign owned. This analysis shows little variation according to whether the establishment is single and independent or part of a larger organisation. However, Figure 7.3 indicates that foreign owned workplaces are more likely to have a higher incidence of long hours working. The mean proportion of employees working long hours within foreign owned organisations is 26 per cent. This compares with 17 per cent within UK owned companies. One reason for this difference is likely to be the fact that a higher proportion of foreign owned companies are in the manufacturing sector (33 per cent), than the predominantly UK owned companies (16 per cent). This finding should be treated with caution though, as the sample of predominantly foreign owned establishments is relatively small (only 122 in total).

Figure 7.3: Incidence of long hours working within workplaces, by ownership



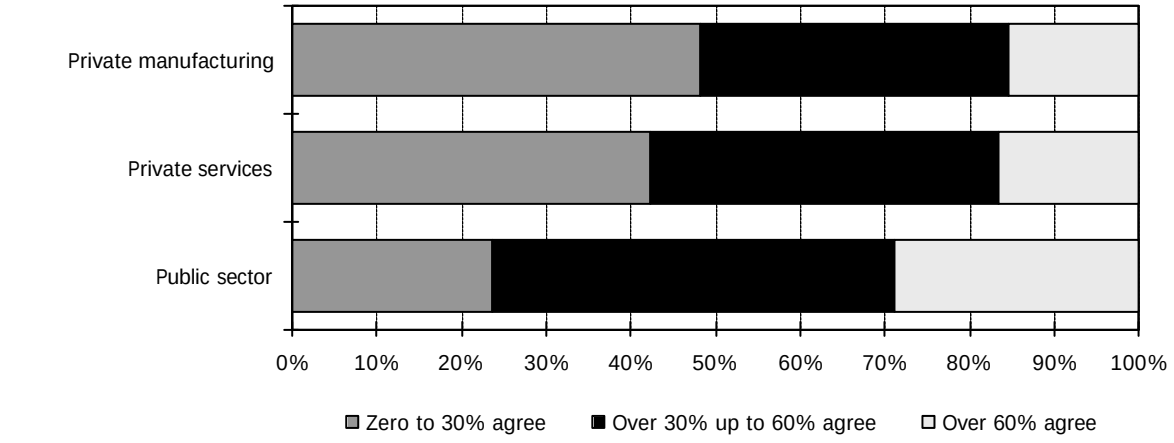
Source: Workplace Employee Relations Survey, 1998

The sample of workplaces has also been analysed by size (*ie* number of employees employed at the workplace) and incidence of long hours. Although workplaces where no employees work long hours tended to be smaller in size, no clear overall relationship between the two variables was identified.

7.6.2 Employees' views about workload

For each workplace on the WERS (1998) dataset, a calculation has also been made of the mean proportion of employees who agree or strongly agree with one of the statements on the employee questionnaire: 'I never seem to have enough time to get my job done'. Figure 7.4 again divides the workplace sample into three, according to the proportions of employees within the workplaces who agree with the statement. It is interesting to note that those in public sector workplaces (with a lower than average share of long hours workers) employ a higher proportion of staff who agree with this statement. On average, nearly half of all staff surveyed in these public sector workplaces agree with this statement, compared to approximately one-third of employees in manufacturing ones.

Figure 7.4: Proportions of employees who strongly agree or agree with the statement: 'I never seem to have enough time to get my job done', within workplaces, by broad sector



Source: Workplace Employee Relations Survey, 1998

7.7 Long hours and productivity, absence levels and staff turnover

WERS (1998) contains data on a subjective evaluation of labour productivity, staff sickness or absence and staff turnover. Analysis has been undertaken comparing the incidence of long hours working and these three variables. The results are reported below. The main emphasis is on the findings relating to staff turnover, as this is where the most significant results were found. The measures of productivity are less reliable and the findings less conclusive.

7.7.1 Staff turnover

Managers were asked to provide an estimate of the number of staff who have left or resigned voluntarily over the previous 12 months. They also provided data on the number of employees on the payroll at the establishment 12 months prior to the survey. These two variables have been used to derive a variable for staff turnover, and the sample has been divided into three bands as follows:

- *Low staff turnover*: workplaces where staff turnover in the previous 12 months was up to 11 per cent.
- *Medium staff turnover*: workplaces where staff turnover in the previous 12 months was between 12 and 22 per cent, and
- *High staff turnover*: workplaces where staff turnover in the previous 12 months was over 22 per cent.

Preliminary analysis shows that that the incidence of long hours working is higher in organisations with high staff turnover. In organisations with low staff turnover, the mean proportion of staff working over 48 hours is 14 per cent. In those with medium turnover the mean is 18 per cent and with high staff turnover, 21 per cent. Furthermore, correlation analysis between the two variables shows a very slightly positive but statistically significant relationship. To explore this relationship between staff turnover and working long hours further, multiple regression has been conducted and the results are outlined below.

The dependent variable staff turnover rate was constructed from data estimates made by managers of the number of permanent employees (full- and part-time) who had stopped working at the establishment during the previous 12 months because they had left or resigned voluntarily. This variable was then divided by the manager's estimate of the number of employees on the payroll at the establishment 12 months prior to the survey.

In the regression analysis, all establishments which employed any staff on fixed-term or temporary contracts were excluded from the models. This was because it was thought that employees on these

types of contracts would distort the staff turnover variable. In total 42 per cent of establishments had some staff on temporary or fixed-term contracts.

In order to construct the regression model, a range of independent variables were tested to assess their association with the dependent variable of staff turnover. Those that were not associated with the dependent variable or were not significant, were excluded from the model. Examples of such variables were industrial sector, age of the workforce, incidence of industrial action and staff satisfaction with pay. By using a stepwise approach, which has the effect of bringing into greater clarity those variables which we can confidently assert are significantly associated with the dependent variable, the final model was produced.

Table 7.2 provides a description of the independent variables used in the final model.

Table 7.2: Independent variables used in regression model

Variable	Source	Values
Percentage of employees surveyed at the workplace who have been employed at the establishment for two years or more	Employee questionnaire	Continuous (percentage)
Percentage of employees who work more than 48 hours per week	Employee questionnaire	Continuous (percentage)
Percentage of employees who agree or strongly agree with the statement: '*I am proud to tell people who I work for*'	Employee questionnaire	Continuous (percentage)
Percentage of employees who agree or strongly agree with the statement: *'People working here are encouraged to develop their skills'*	Employee questionnaire	Continuous (percentage)
Percentage of employees who are satisfied or very satisfied with the amount of influence they have over their job	Employee questionnaire	Continuous (percentage)
Percentage of employees who are satisfied or very satisfied with the sense of achievement they get from their work	Employee questionnaire	Continuous (percentage)
Percentage of employees employed at the workplace who are employed in clerical or secretarial, technical, managerial, and personal and protective service occupations.	Management questionnaire	Continuous (percentage)
Is the current state of the market for the establishment's main service or product declining?	Management questionnaire	Categorical, no = 0, yes=1
Has there been any reduction in the number of employees in any section of the workforce over the last 12 months?	Management questionnaire	Categorical, no = 0, yes=1
Currently how many employees does the establishment have working there?	Management questionnaire	Continuous
Has the value of sales for the main product or service been falling over the last 12 months?	Management questionnaire	Categorical, no = 0, yes=1
Has the value of sales for the main product or service been stable over the last 12 months?	Management questionnaire	Categorical, no = 0, yes=1

Source: Workplace Employee Relations Survey, 1998

7.7.2 Results of multiple regression

The results of the regression analysis are shown in Table 7.3.

Table 7.3: Multiple Regression Model showing estimates of influence on turnover

	B	Std. Error	Beta	t	Sig.	Adjusted Std. Error
(Constant)	.489	.030		16.195	.000	.058
Percentage of employees surveyed at the workplace who have been employed at the establishment for two years or more	–.279	.028	–.335	–9.845	.000**	.053
Percentage of employees who work more than 48 hours per week	.154	.030	.181	5.188	.000**	.053
Percentage of male employees in the workplace	.120	.022	.207	5.405	.000**	.041
Percentage of managerial employees in the workplace	–.002	.001	–.094	–2.865	.004**	.002
Percentage of protective/personal services employees in workplace	.001	.000	.165	4.793	.000**	.000
Percentage of technical employees in workplace	–.002	.000	–.177	–5.412	.000**	.002
Percentage of clerical/secretarial employees in workplace	–.0008	.000	–.086	–2.652	.008**	.000
Percentage of employees who agree or strongly agree with the statement: '*I am proud to tell people who I work for*'	–.109	.032	–.139	–3.380	.001**	.065
Percentage of employees who are satisfied or very satisfied with the amount of influence they have over their job	–.141	.032	–.157	–4.336	.000**	.067
Percentage of employees who agree or strongly agree with the statement: '*People working here are encouraged to develop their skills*'	.075	.028	.105	2.696	.007**	.057
Percentage of employees who are satisfied or very satisfied with the sense of achievement they get from their work	–.069	.031	–.076	–2.172	.030*	.074
Percentage of employees where the current state of the market for the establishment's main service or product is declining	.078	.019	.150	4.153	.000**	.038
Percentage of employees where there have been reductions in the number of employees in any section of the workforce in the last 12 months	.062	.015	.137	4.218	.000**	.024
Percentage of employees where the value of sales for the main product or service has been falling over the last 12 months	–.070	.021	–.130	–3.371	.001**	.036
Percentage of employers where the value of sales for the main product or service has been stable over the last 12 months	–.037	.015	–.087	–2.494	.013*	.026
Currently how many employees do you have working here?	–.0002	.000	–.076	–2.493	.013*	.000

Note: ** indicates significance at the 99 per cent level, * indicates significance at the 95 per cent level

Source: Workplace Employee Relations Survey, 1998

From this model, the following variables appear to be associated with staff turnover.

- **Job tenure**: the percentage of employees who have been employed at the establishment for two years or more is most associated with staff turnover levels at that establishment, with the rate of staff turnover decreasing as the proportion of longstanding employees increases. Normally, high staff turnover would be expected alongside a low rate for this measure of workforce stability. However, it is possible to have both high turnover and high stability where there are problems with a small number of high turnover jobs within an organisation (Bevan *et al.*, 1997).
- **Working long hours**: the incidence of long hours working has the next strongest association with staff turnover in this model. For every unit (percentage point) increase in the proportion of employees working long hours, turnover increases by 0.15 units (percentage points).
- **Gender composition**: is the third variable that is associated with staff turnover, with a higher proportion of men in the workforce increasing the level of staff turnover.
- **Occupation**: has an association with staff turnover, with higher proportions of employees at the workplace who are employed in clerical / secretarial, technical and managerial occupations decreasing the level of staff turnover. In contrast, higher proportions of protective / personal service occupations within the workplace increase the level of staff turnover.
- **Staff satisfaction**:
  - The higher the proportion of employees who strongly agree, or agree with the statement that they are proud to tell people who they work for, the lower the rate of staff turnover.
  - The higher the proportion of employees who are very satisfied, or satisfied with the amount of influence over their job, the lower the rate of staff turnover.
  - The higher the proportion of employees who are satisfied, or very satisfied with the sense of achievement they get from their work, the lower the level of staff turnover.
  - The higher the proportion of employees who strongly agree, or agree that people are encouraged to develop their skills at their workplace, the higher the staff turnover level.
- **State of the market and staff reductions**:
  - Establishments whose current market for their product or service is reported to be declining have higher staff turnover levels.
  - Establishments who have had reductions in their workforce over the last 12 months have higher staff turnover.

- Workplaces whose sales for the main product or service have been stable over the last 12 months, have lower staff turnover. However, surprisingly those workplaces whose product or service sales have been falling also exhibit reduced staff turnover.

- **Size of establishment**: the total number of employees at the workplace has an association with staff turnover, with staff turnover decreasing slightly, as employment size falls.

7.7.3 Summary of multiple regression analysis

This multivariate analysis of the influences on staff turnover indicates that there is a link between the incidence of working long hours among staff in organisations and the rate of staff turnover. Every increase in the proportion of those who work over 48 hours per week in the workplace increases the levels of staff turnover. During the stepwise procedure a number of different models were assessed, using a range of different combinations of independent variables. With every model tried, working long hours was significant and positively related to staff turnover. This is a further indicator of the significance of this link between long hours and staff turnover. Furthermore, in the final model presented here, the R squared coefficient was reasonably high at 0.596. This is a measure of how well all the variables in the model taken as a whole predict variations in staff turnover.

It was also found that the incidence of long hours variable (drawn from the employee survey) was highly correlated with a variable from the managers' survey on the incidence of employees regularly working over 48 hours per week. It therefore appears that the self-reported data on long hours working is a reasonably reliable indicator of the incidence of long hours working within workplaces.

It is possible that high staff turnover results in a high proportion of staff working long hours (*eg* because of staff shortages), rather than long hours influencing staff turnover. It must be emphasised that this multivariate analysis can only enable us to draw conclusions about the associations between variables. However, previous literature has suggested that long hours may lead to higher staff turnover, see for example, Sturges *et al.* (1999) and Ceridian Performance Partners / Management Today (1999). In regression analysis of cross-sectional data it is very difficult to test for causality with certainty. However, in the event of a bi-causal relationship between turnover and working hours the regression model may suffer from 'endogeneity bias'. The possibility that hours worked is endogenous has been examined through the use of Hausman's specification test (Hausman, 1978). The result of the test suggests that the working hours variable is not endogenous, *ie* there is no evidence of bias.

Outlined in Appendix A are some further considerations and explanations about the methods used and sample design.

7.7.4 Productivity

Respondents to the management questionnaire were asked how they would assess their workplace labour productivity compared with establishments in the same industry. Possible responses are 'a lot better than average', 'better than average', 'about average for industry', 'below average', 'a lot below average' 'no comparison possible' and 'relevant data not available'.

When this subjective assessment of productivity was plotted against the mean proportion of employees working over 48 hours per week, there seemed to be a slight negative relationship between these two variables.

- In workplaces with an above average productivity rating, the mean proportion of employees working long hours was 17 per cent.
- In workplaces with average productivity, the mean proportion of employees working long hours was 19 per cent.
- In workplaces with below average productivity, the mean proportion of employees working long hours was 20 per cent.

However, clearly other variables need to be controlled for and the significance of each tested in order to draw any meaningful conclusions from this analysis.

Results of logistic regression

Logistic regression techniques were used to attempt to identify the factors affecting whether or not managers participating in WERS (1998) reported that the labour productivity at the workplace was above average, as compared with other establishments within the same sector.

For this analysis only workplaces where managers reported that the establishment had benchmarked itself against any other workplaces in the past five years were included. This was based on the assumption that the labour productivity assessment would be more reliable in these workplaces. A dependent variable was defined which took the value of one if the respondent reported that labour productivity was above average and zero if the respondent assessed labour productivity as average or below average. The logistic regression ('logit') techniques assess the effect of changing one of the independent variables on the *odds* of

a respondent assessing the labour productivity as above average.[1] Several models were estimated and experimented with, incorporating a range of independent variables which were thought likely to have an influence on this assessment of labour productivity.

The results of the logistic regression analysis are shown in Table 7.4. The main point to note about the model presented is that the R squared coefficient is low (0.219). As such, this is not an effective model. This could be because it has not been well-specified or because there are other variables that are associated with labour productivity which are missing from the model. In particular, all our variables relate to the market or the workforce. No data are available on capital and investment, which would be expected to be associated with labour productivity. Also, for many of the independent variables included in the model the results are not significant. Furthermore, the labour productivity variable is a subjective assessment of productivity, and is not necessarily a reliable indicator of actual labour productivity. The findings must therefore be interpreted with extreme caution.

The effects of each of the variables included in the model are detailed below.

- **Working long hours:** the lower the proportion of employees who work over 48 hours per week, the greater the likelihood that the establishment assesses its labour productivity as above average. It should be noted that in this model this result is statistically significant at the 95 per cent level, but not at the 99 per cent level. Also, in other models experimented with, where we included other independent variables, the coefficient of the working long hours variable was not statistically significant at the 95 per cent level. This reduces our confidence in the apparent association between working long hours and labour productivity.
- **Development of skills:** the higher the percentage of employees who agree with this statement, the greater the odds of the establishment having an above average labour productivity assessment.
- **State of the market and staff reductions:** reporting that there have not been any reductions in the number of employees in the last 12 months, increases the odds of assessing labour productivity as above average in this model. The state of the market for the establishment not being in decline also increases the odds of above average labour productivity.

[1] Further details of logistic regression techniques, and how the results from them should be interpreted, are presented in Volume 2, Appendix A.

- **Gender:** the higher the proportion of male employees, the greater the likelihood of an above average labour productivity assessment.

Table 7.4: LOGIT estimates of the odds of assessing labour productivity as above average, compared with other establishments in the same industry

Variable	Sig.	Coefficient: Exp (B)
Working hours		
Percentage of employees who work over 48 hours per week	0.036*	0.41
Development of skills		
Percentage of employees who agree or strongly agree with the statement: *'People here are encouraged to develop their skills'*	0.001**	3.93
State of the market and staff reductions:		
There have not been any reductions in the number of employees in any section of the workforce in the last 12 months (reference category is there have been reductions)	0.000**	2.28
The current state of the market is not in decline (reference category is the market is in decline)	0.000**	3.33
Gender: percentage of employees who are male	0.345	1.39
Occupation:		
Percentage of managerial employees in the workplace	0.031*	0.97
Percentage of professional employees	0.656	1.00
Percentage of technical employees	0.070	0.99
Percentage of clerical employees	0.160	1.01
Percentage of craft employees	0.524	0.99
Percentage of protective/personal service employees	0.091	1.01
Percentage of sales employees	0.001**	0.98
Percentage of operatives	0.305	0.99
Industrial sector:		
Private manufacturing (reference category is public sector)	0.763	0.88
Private service	0.355	1.36
Establishment size (number of employees)	0.886	1.00

Note: ** indicates significance at the 99 per cent level, * indicates significance at the 95 per cent level

Source: Workplace Employee Relations Survey, 1998

- **Occupation:** the percentage of different types of occupations in the workplace all have coefficients of either just below or above one, suggesting they have only slight associations with the labour productivity variable. Further, some are not statistically significant at the 95 per cent level. The proportion of managerial employees appears to be most strongly related with the labour productivity variable. The model suggests that an increase in the number of managerial employees is associated with a slightly reduced likelihood of reporting above average labour productivity.

Further logistic regression analysis

Similar models were experimented with, using different dependent variables, but the same independent variables as used in the model described above. However, the results of these models are even less conclusive than that detailed above.

- Firstly, a dependent variable was defined which took the value of one, if the respondent reported that labour productivity was below average, and zero if the respondent assessed labour productivity as average or above average. It was thought that an assessment of below average productivity might be a better indicator of actual below average productivity, than an assessment of above average productivity was of actual such performance. Cully has found that perceptions about poor workplace performance in WERS (1998) are an accurate predictor of workplaces which have subsequently gone out of business (Cully *et al.*, 1999). However, relatively small numbers fell into this below average category. Very few of the independent variables in the model were significant and the R squared coefficient was very low. In this model, an increase in the proportion of employees working long hours appeared to have the effect of increasing the likelihood of below average performance, but this result was not significant. The results of this model are therefore inconclusive.
- Second, a model was examined for which an assessment of financial performance was used as the dependent variable. Here, the dependent variable took the value of one if workplace financial performance was assessed by the manager as above average, and zero if it was thought to be average or below. Again in this model, the results for few of the independent variables were significant at the 95 per cent level and the R squared value was low. A higher incidence of long hours working appears to be associated with higher financial performance, but we can have little confidence in these results.
- Thirdly, perceived quality of product or service was used as the independent variable, again taking the value of one if the assessment of quality was above average. In this model the R squared value was slightly higher, but the long hours independent variable was not significant.
- Finally, analysing perceived change in labour productivity over the past five years was considered. However, it was not appropriate to use this as an independent variable in order to explore an association with long working hours, as WERS (1998) contains no data on change in working hours.

In conclusion, the model described above appears to suggest there is an association between a high incidence of long working hours and lower labour productivity. However, these results have to be treated with caution because the labour productivity variable is

not a very reliable indicator of actual productivity, the model taken as a whole is not a good predictor of variation in perceived labour productivity, and other models experimented with appeared to show quite different results.

7.7.5 Staff absence

Analysis of the WERS (1998) data was also conducted to explore the relationship between long hours working and sickness absence. Managers were asked to provide an estimate of the percentage of work days lost through employee sickness or absence. The total number of days lost per full-time employee in each establishment was calculated. When this variable was cross-tabulated against the proportion of employees working 48 hours per week or more, it was found that there were slightly lower sickness absence rates where there was a high incidence of long hours working. However, this was not statistically significant, and correlation analysis showed no relationship between the two variables. For this reason, multiple regression analysis was not conducted to explore the relationship further.

7.8 Evidence from the case studies

7.8.1 Impact on employers of long hours worked by manual employees

There was anecdotal evidence from managers within these organisations that long working hours had the following negative implications for employers:

- *A detrimental effect on productivity.* Managers commented that staff tended to work more slowly towards the end of a long shift. This was mentioned repeatedly by respondents and it was common for such organisations to measure team or individual productivity or performance, so this view should be based on reliable evidence.
- *Poorer quality of outputs.* Interviewees reported that more mistakes were made by staff when they worked long hours.
- *Recruitment problems.* It was found to be more difficult to recruit staff when it was known long hours were a feature of working for the employer.
- *Reduced morale and motivation* among staff who became tired due to long hours.
- *An increase in accident rates.* One of the case study organisations reported that there were more accidents when a lot of overtime was being worked (case study C — a food processing company).

- *A barrier to change*. At Royal Mail (case study A), it was noted that a culture and expectation of overtime had made it very difficult to reduce hours or reorganise working time. This is because employees have been resistant to any attempt to reduce hours, because of the effect this would have on their earnings capacity.

Rates of sickness absence, however, were not reported to have any association with long working hours. The reason given for this was that employees who worked a lot of overtime did not want to lose the extra pay they could earn for the overtime.

Interventions to reduce working hours

Some of the organisations had introduced measures to reduce or control overtime. These included:

- *Planning and resourcing systems in order to monitor workload and resource staff teams adequately*. In one organisation, some systems to forecast workload more effectively had been put in place and a staff planning system had been introduced.
- *Multi-skilling*. Within case study D (small manufacturing employer) where long hours working was not widespread, all employees were multi-skilled. They were responsible for covering absences of colleagues within their team and also could be moved to cover absences or staff shortages in other teams.
- *New shift patterns to meet workload demands*. For example, at case study D, an evening shift had been introduced with the purpose of finishing work not completed in the earlier shifts.
- *New working responsibilities and relationships*. In one of the case study organisations (case study C), the working hours of managers were recently reduced. This means that shifts are covered by fewer managers. In order to support this measure, team-working has been introduced for operatives, and operatives have also taken on some of the responsibilities of the line managers.
- *Reductions in, and limits on, working hours* are, for example, being introduced at Royal Mail (case study A). This has been supported by increases in basic pay, as well as improvements in planning systems and in communications, in order to reduce the need for overtime. There has also been an increase in the recruitment of part time staff. Case study C has also introduced limits on the number of hours overtime which individuals can work per day.

Constraints on implementation

The factors that respondents identified which would help to make these interventions to reduce hours effective were: multi-skilling

among operatives, team working, improved management skills among line managers, and improved workload planning systems. With regard to making flexible working practices work within organisations, changing organisational culture was thought to be key. As one respondent explained:

> *'If the underlying company culture is wrong, then the practicalities will become bogged down in bureaucracy and complicated administration. If the underlying culture is good, then the practicalities are easy and it takes up very little management time.'*

However, managers in the long hours organisations identified barriers to change. Firstly, there was a strong resistance from staff who did not wish to lose their higher earnings capacity. In some of the organisations, reductions and changes to working hours patterns were described as requiring a long time to negotiate and implement due to the pay implications. There was also concern in one organisation that if the earnings capacity of individuals was reduced significantly, due to a cap on overtime, individuals would find other means of supplementing their income, which might be detrimental to their performance at work. An additional worry expressed was that staff would leave the employer because of this earnings reduction.

A further concern was that output levels might be difficult to maintain without the use of overtime. Moreover, for one organisation, the concern was the difficulty in recruiting further staff, for example part-time staff, to avoid the use of overtime. An additional problem was physically accommodating the extra headcount which would be needed to reduce overtime, for example provision of parking spaces, canteen and locker space.

7.8.2 Impact on employers of long hours working by non-manual employees

Turning to the implications of long working hours for employers of non-manual employees, it was noted that there could be improvements to productivity or outputs in the short term, but if long hours were worked on an on-going basis this benefit diminished. Some of the very long hours workers did agree that their working hours were so long, they were having a detrimental effect on their work performance. Some had noted that they became tired due to pressure of work and long hours. This led them into a vicious circle whereby it took them longer to do things. Employers were also concerned that long hours were affecting the quality of work outputs. For example, in case study H, consultants were observed to be tired in front of clients. Time to think creatively was also thought to be eroded; instead individuals only felt able to focus on immediate goals. Again, this was thought to lead to a vicious circle, as there was no time to plan or work the way out of bigger problems. However, such

impacts were described as varying by individual. Some were observed to continue to work very effectively even when working long hours, whereas others were not.

HR managers in the case study organisations were also concerned that long hours could lead to higher staff turnover and sickness absence, and reduced morale. However, they generally had no hard evidence to substantiate this. Where there were problems with staff retention, employers were unable to say to what extent this could be attributed to long hours, but they were generally confident that long hours played a part. Where the cost of replacement was especially high, there was a particular concern about the possible effect of long hours. Perhaps reinforcing this point, only a minority of questionnaire respondents felt that their organisation gave them the chance to balance work and life outside better than other organisations. If other employers are regarded more favourably in this respect, this could potentially lead to staff retention problems.

There was also anecdotal evidence to suggest that a reputation for long hours working could make an employer unattractive to potential recruits. Young graduates were repeatedly mentioned as a group of employees more likely to be put off by long working hours. One case study organisation had a particular concern about the small proportion of females in senior management positions. It was seen as important that their staff profile reflected their customer base and it was felt that senior positions were unattractive to people with caring responsibilities.

Within these organisations, there appeared to be a greater feeling that long hours and heavy work pressure could lead to higher rates of sickness absence than in the organisations predominantly employing manual workers. Again, however, employers had difficulty directly attributing sickness levels to working hours.

Interventions to address long working hours

The HR managers in these organisations were, in most cases, concerned about working hours and work-life balance, and were trying to address the issues outlined above through a variety of initiatives. They generally understood work-life balance to be about balancing the pressures of work and life outside, for all employees not just those with caring responsibilities. Some described themselves as endeavouring to become an 'employer of choice'. The interventions these organisations were introducing included:

- *Monitoring of working hours*, in order to understand the extent of the problem and the reasons for it.
- *Flexible working arrangements*, such as leave arrangements, reduced or compressed working weeks, job share and career breaks. In one of the organisations, informal flexibilities were

being formalised, promoted and offered consistently to all employees.

- *Coaching and workshops* for staff, tool kits for managers, and the sharing of good practice were supporting these types of interventions.
- *Publicity*, for example case studies on the company intranet of successful careers and balanced lives.
- *Self management*, personal effectiveness and assertiveness training.
- *Development of systems and infrastructure* to address organisational inefficiencies.
- *A resource co-ordinator* had been employed in one organisation to help allocate workloads and distribute them evenly among consultancy staff.
- Initiatives to support *better use of IT and information*, and
- *Localised support within teams* to help reduce hours, for example managers discussing working hours issues with staff, sharing of good practice, buddy systems to discuss ideas and problems at work, guest speakers and consultants to help with personal effectiveness.

One of the organisations had recently introduced a 'concierge' service, to help staff deal with their home life, such as laundry services. While this does not have the effect of reducing hours, it was felt that it did help people to focus on work and be more productive while at work and perhaps also reduce some of the pressures on staff associated with long hours.

Constraints on implementation

A general view among respondents in organisations which were attempting to address working hours issues, was that the policies were very good in principle and it was good for morale that the issues were taken seriously, but more could be done to make sure that attitudes and behaviours changed. It was reported that managers and individuals did not always have the tools or know-how to implement flexible working options effectively. The requirement of a genuine commitment from the very top of the organisation was repeatedly noted. However, even when it was clear that this existed, respondents noted that there were problems created by managers a few tiers down who did not lead by example. These 'hot spots' of long hours were perceived to be important to address. Other difficulties identified included how to deal with individuals who were happy to work long hours and sacrifice their home life and the messages this gave to other staff. A further problem was that workload pressures were sometimes out of the control of the organisation, due to the demands of customers. However, respondents in one of the organisations made the point that they found that many clients were dealing

with work-life balance issues themselves, and so had greater understanding of them.

7.9 Conclusions

Throughout this chapter, a range of methodological difficulties in measuring the implications of long working hours for employers has been identified. While it is not possible to say conclusively that long hours have a detrimental effect on employers, it is also difficult to find evidence that shows long hours (*ie* over 50 hours per week) are beneficial to employers (Spurgeon, Harrington and Cooper, 1997).

Little research has been identified which specifically analyses the impact of working long hours on employers. Nonetheless, research conducted during the First World War among munitions workers, conclusively showed that working hours could be reduced with no impact upon levels of output. However, it is unclear whether these results can necessarily be translated to employers today, as the nature of work is quite different. More recent analysis of reductions of working hours has shown that such reductions can lead to increased employment and/or higher productivity. A problem with this is that it is not just the number of hours worked *per se* that are important, but also other responses on the part of the employer to the reduction in hours, such as changes in work organisation and investment in capital. As such, it is difficult to isolate the impact of the reduction in working hours. The nature of work and level of work intensity also need to be considered.

At the individual level, studies detailed above have demonstrated that long hours, especially when coupled with sleep disruption, can be shown to cause deterioration of performance of certain tasks. The research taken as a whole tends to suggest that long hours have a detrimental effect on the rate of mistakes made at work, the pace of work and social behaviour. There are clearly limitations to all the methods of research employed, which makes it difficult to show conclusively that long hours lead to lower levels of performance. It is also difficult to identify where the threshold might be, in terms of how many working hours have these kinds of effects, especially as this is likely to vary by individual.

The evidence presented above also clearly provides ground for concern about the relationship between long working hours and health and safety incidents. This appears to be particularly the case in certain occupations studies, *eg* among long distance drivers, and during home visits among medical professionals.

This literature review has identified significantly less robust data analysis which explores the relationship between long working hours, staff absence, motivation, and staff turnover. However,

self-report and qualitative data tend to suggest that working long hours does have a negative impact on these indicators. Furthermore, the analysis of the Workplace Employee Relations Survey (1998) conducted for this study has identified a significant association between long hours and higher staff turnover (although it is possible that the causality goes in either direction).

Although the research summarised above is somewhat inconclusive, the case study evidence demonstrates that employers of both manual and non-manual employees believe that working long hours can have a detrimental effect on both productivity and quality of output (as employees become tired and demotivated). Employers of non-manual staff, in particular, were also concerned that long hours could lead to higher staff turnover and sickness absence as well as recruitment difficulties if the organisation acquired a reputation for long hours working. Both types of employers were generally concerned with the issue of long working hours, and many were trying to bring in a variety of initiatives to deal with it. These initiatives and policies to tackle long working hours were perceived by non-manual staff as being good in principle and good for morale. Nevertheless, there was also the perception that it would be difficult to change individual behaviour and overall company culture. Employers of manual employees were also concerned about the possibility of staff leaving if their hours were reduced because of the resulting pay implications and, more generally, employee resistance to hours reductions was commonly cited as a barrier to change, especially among employers of manual employees.

8. The Effects of Long Working Hours for Employees

Over recent years, interest in working hours and their various implications for the workforce has grown. This interest has been greatly influenced by changes in legislation governing working hours, specifically the introduction of the European Working Time Directive. In addition, cultural changes such as increased awareness of the need for equal opportunities in the workplace, 'family friendly' issues, and work-life balance policies have all generated a growing interest in looking at the implications of long working hours for employees.

The first part of this chapter examines the research literature relating to the effects on employees of working long hours. The primary implications that have been observed in the research in this area include effects on equality of opportunity, on personal and home life, and on physical and mental health. What constitutes long hours is measured differently across the literature depending on methodological and theoretical perspectives, and on cultural and legislative norms. Many researchers have categorised long hours by contrasting a concept of a 'standard' full-time working day or week, with hours worked regularly in excess of that. Other researchers have examined hours on a continuum, in order to find a point at which working hours can start to influence health or well-being. This review does not specify a definition of what constitutes long hours, but attempts to indicate how it has been differently defined and its effects examined in the literature in the area.

The second part of this chapter draws upon the evidence from the UK case studies conducted for the present study on employees' satisfaction with working hours and the impact that long working hours has upon them.

8.1 Overview of the literature

There is now a large body of literature on the implications of long working hours for employees, and in particular on their health implications. However, only a small proportion of this literature provides strong and thoroughly researched data relating to the effects of long working hours on individuals. Much of the literature

offers opinion, anecdotal evidence and conjecture on the subject of the impact of long hours on employees. There is also a significant proportion of the literature in this area that covers subject areas that are related but peripheral to the present study. There are, for example, areas of research into the impact of family friendly policies, the effects of working shorter hours and of shift working. Where this literature has a bearing on the issue of long working hours, these have been noted in the following sections.

A variety of measures have been used in the research in this field to examine the effects of working hours on workers. Some research has attempted to gather data using measurable or observable effects such as medical records or tests, whereas some has used more subjective measures through self-reported effects or views e.g. through attitude surveys or interview. Sparks *et al.* (1997) indicate that using self-reported measures can reduce reliability but can still be a useful measure. Their assessment of the literature also points out that many of the studies available in this area are:

> *'very diverse, using different health outcomes, measures and approaches'.*

Alongside the problem of finding few studies that are capable of establishing cause and effect relationships in this area, many are small scale, investigate very localised problems or are not UK based. Many studies that have looked at the issue of the effects of long hours originate in the US or Japan, where different cultural contexts or environments can have a bearing on the issue. These studies are important in providing comparative evidence and providing data on issues that have not yet been fully assessed in this country. However, more UK-based rigorous studies are needed in this area to develop the knowledge base on the subject of what effects, good or bad, working long hours has on the workforce.

8.2 Health

The impact on health of working hours has received overwhelmingly greater attention in the research than other effects on employees, and forms a large body of research. Much of the focus of the research on health has been in the areas of cardiovascular problems and mental health (Spurgeon *et al.*, 1997), and on shift work.

There have been a number of literature reviews and overviews looking at the area of health effects of work and working hours. Cooper (1996) gave a brief account of early research into the effects on health of long working hours. He pointed to a growth in research in this area alongside an increase in use of employee attitude surveys. Cooper asserted that the development of the European Working Time Directive played a significant part in sparking new interest in the area and in examining a link with health. Although there is a great deal of literature in this area, it

has been criticised for being clustered in particular areas or having methodological shortcomings.

A great deal of the literature on health effects and working hours has focused on the more measurable effects of shift work and unsociable hours. Spurgeon *et al.* (1997) in their review of health issues and long working hours, found an emphasis on shift working in the literature, and fewer studies into other health outcomes and on non-shift patterns. Harrington (1994) also argued that, at that time, over half of the literature on hours and health related to shift work rather than to the specific issues of workers putting in long hours.

The use of self-reported and subjective measures of health has also been argued to inhibit a definitive demonstration of the effects of long hours (Harrington, 1994; Spurgeon and Harrington, 1989). Several reviewers have noted that there is little in the way of up to date, systematic or large scale research in the area, and that much more is needed to define the health implications (Harrington, 1994; Sparks *et al.* 1997; Spurgeon *et al.* 1997). Cooper (1996) asserted that the majority is either 'not recent', 'not systematically or broadly based research' or 'too US orientated'. He also argued that the evidence of a link with health is conflicting or unproven. Harrington's review of the subject was also cautious about the evidence available.

Given the limitations of the literature, most reviewers have agreed that, to some extent, there is evidence to support links between some health outcomes and long working hours (Sparks *et al.,* 1997; Cooper, 1999; BMA, 2000). Spurgeon and Harrington (1989) concluded that overall, there was strong evidence in the literature of a 'higher than expected incidence of mental health problems'. In the following sections, the main health implications of long working hours that have been examined in the literature will be assessed. These include a look at general health and well-being, some indirect effects on health, heart problems, sleep disruption and foetal growth patterns. A further section will then assess the literature specifically relating to psychological health and well-being.

8.2.1 General health

Sparks *et al.* (1997) conducted a systematic and thorough literature review and meta analysis of 'the effects of hours of work on health'. They used studies that had examined self-reported as well as clinical measures covering all types of physical health and psychological effects. Their meta analysis grouped together all health effects into two main measures, one of physiological health and one of psychological health. In their analysis, they found that, on balance, the studies in this area do demonstrate links between working long hours and health symptoms in both physiological and psychological health measures.

Their research included a variety of studies (some very small scale), and studies that look at differing industries and work patterns (including overtime and shifts), as well as studies that cover all mental and physical symptoms including stress. They found that there is a:

> *'small but significant trend of increased health symptoms with increasing hours of work.'*

Because of the rigour needed to analyse such wide-ranging studies, they conclude that their analysis could be somewhat over-cautious, and state that:

> *'it is felt that this may be an under-representation of the strength of the relationship.'*

When looking at specific studies and breaking down the effects and those affected into more specific groups, the impact of long hours can be shown to be more differentiated. Scase *et al.* (1998) studied British Household Panel Survey data for relationships between long working hours and health and family life. Their study classified long working hours as working between 41-48 hours; 49-59 as very long working hours, and over 60 hours as excessively long hours. For men, they found:

> *'no direct association between long working hours and health except for a small increase in blood pressure problems as working hours increase.'*

Nonetheless, they do acknowledge that increases in blood pressure can have:

> *'potentially serious long term health effects.'*

More specific health associations between health and long hours were found among women in their research. For women, long working hours were associated with health problems with arms, legs, hands, breathing, the digestive system, blood pressure, anxiety and depression. They found that women who had consistently worked long hours for three years or more were 20 per cent more likely to report health problems than those working standard hours. The difference in reported health outcomes found between men and women in the study, it is suggested, may be due to the compounded effects of domestic responsibilities. Scase *et al.* (1998) conjecture that the lack of evidence found for clear links in the data between long working hours and health in men, may also be due to those suffering ill health leaving the workforce or reducing their hours as a result. They also suggest that women may have a greater awareness of their own state of health than men, as they found that women are more likely to visit their doctor.

The CIPD survey of UK workers working over 48 hours per week, mentioned in Chapter 4, found a number of self-reported health effects that respondents linked with long working hours (CIPD,

2001). For example, they found over half of the long hours workers (54 per cent) felt they suffered from mental exhaustion or felt drained, 43 per cent claimed to have difficulty sleeping, 40 per cent felt 'under too much pressure' and 23 per cent suffered from chronic headaches. In addition, 67 per cent of their partners worried that working long hours was damaging to their partner's health. Despite this, the long hours working respondents still had a high level of satisfaction with the status of their own health with a mean rating of 7.8 on a scale of one to ten, where ten represented 'totally satisfied'. However, as this study looked only at those working long hours, these results cannot be directly compared with the perceived health of similar workers putting in less than 48 hours per week.

Worrall and Cooper (1999) in their survey of managers' views on work and well-being, also found that 71 per cent of all those in the survey felt that the number of hours they worked had an adverse effect on their health. For such studies on self-reported health problems it is very difficult to establish any direct relationship or causal link between long hours and health. As Scase *et al.* (1998) pointed out, men and women may have very different perceptions of their own state of health, and this may be true of other groups in their attitude to their health. In addition, other factors, outside long hours, that may influence health are harder to rule out.

8.2.2 Indirect or secondary health effects

It has been argued not only that working long hours directly affects the health of workers but that they can lead to unhealthy behaviour or greater exposure to unhealthy situations. Sparks *et al.* (1997) in their analysis, found that if the work environment is unhealthy then working there for long hours will naturally be more unhealthy. They state that 'clearly, any ill effects from the work environment will be exacerbated by working long hours'. Spurgeon *et al.* (1997) in their review of hours and health issues, also indicated that long working hours can cause stress at work indirectly through 'increasing the time that a worker is exposed to other sources of workplace stress'. Indirect health effects have been cited as the consequence of health-related behaviour such as smoking, drinking alcohol, diet and exercise (Steptoe *et al.*, 1998).

Smoking and drinking alcohol

The evidence for a link here between drinking and smoking habits and long hours is somewhat equivocal. Maruyama and Morimoto (1996) surveyed 3,870 divisional heads and 2,666 foremen in Japanese firms about their working hours and lifestyle. When looking at those who worked ten hours or more per day, they found that the foremen in the study, especially those aged 45 to 49, were all significantly more likely to report being smokers and frequent drinkers. Their study also found that they were more

frequent drinkers of black tea and coffee. Scase *et al.* (1998) in their review of the British Household Panel Survey data, found a relationship between smoking and taking up long working hours, *ie* changing from standard hours to long working hours. They found that men in the sample who moved into working longer hours were more likely to be smokers (or to re-start smoking).

In an examination of large scale data from the Canadian National Population Health Survey 1994-1997 (Shields, 2000), no relationship was found between long working hours (over 40 hours per week) and daily smoking habits for either sex. However, like the Scase *et al.* study, this study also found that those who changed from standard hours (between 35 and 40 hours) to long working hours were much more likely to take up smoking or increase their daily cigarette intake, even when controlling for other factors such as age, income, education, shiftwork and stress. The Canadian study found this to be true for women even more than for men, and found that men were twice as likely and women four times as likely to increase their daily smoking. Similarly, this study found that women moving from standard to longer hours were likely to increase their alcohol consumption, but this was not the case for men.

Steptoe *et al.* (1998) studied both direct and indirect health effects of long working hours in a department store. Their evidence on the indirect effects on health through smoking and drinking, similarly, suggested only partial support for the influence of long hours. This study showed that women did tend to increase their smoking in response to longer working hours, although the men studied did not. They found no systematic association between drinking alcohol and working longer hours. Steptoe *et al.* (1998) also pointed out that there are difficulties in establishing causal links with indirect health effects such as from smoking and drinking, as behavioural patterns in this area may exist before the onset of changed work patterns. In addition, differing working environments and working cultures, including acceptance of smoking during work time, could play a part here.

Diet and exercise

Maruyama *et al.* (1995) surveyed over 3,900 department and section chiefs in large Japanese companies. Their study looked at the impact of working long hours on subjective lifestyle measures and perceived stress levels. Their lifestyle measures found that working in excess of ten hours per day had a significant relationship with poor sleeping habits, poor physical exercise, feeling busy, and irregular daily meals. Department chiefs working long hours in particular were found to have a poorer balance of nutrition, and section chiefs were found to be more likely to have experienced 'ill physical condition' in the previous six months.

Maruyama and Morimoto (1996) in their survey of Japanese managers and foremen used similar measures and found that long hours workers in both groups were significantly less likely to report taking physical exercise than those working fewer hours. In this study, no significant difference was found in obesity among the long hours workers. They did, however, find that the managers working long hours were less likely to report paying attention to their nutritional balance, were more likely to report experiencing 'a deterioration in their physical condition', and were more likely to report having an 'irregular daily life' or taking 'irregular meals'. Scase *et al*. (1998) in their study also found that those who worked very long hours (*ie* over 60 hours per week) tended to take less exercise than those working a standard week.

These 'lifestyle' traits, although subjective, could be seen to show that those working longer hours were more likely to experience the conditions that may lead to poorer health such as a lack of sleep, lower levels of physical exercise and poorer nutrition.

In the study of Canadian workers and their health patterns (Shields, 2000), a strong link was found between working long hours and excess body weight in men. Men who moved from standard to long hours were also found to be twice as likely to experience 'unhealthy weight gain' compared to men who remained on standard hours, even when controlling for other factors. Women in the study were found to be more influenced towards weight gain by job strain rather than increased hours.

As has been shown, several researchers have suggested that working long hours can lead to a reduced amount of time for exercise and for maintaining a balanced diet, which in turn are factors associated with weight problems (Maruyama *et* al., 1995; Scase *et al.* 1998; BMA, 2000). Moreover, being overweight is a known factor in increasing the chance of other health problems, including heart disease.

8.2.3 Cardiovascular problems

Several studies have shown a relationship between long working hours and heart disease. Harrington (1994) argues that there is strong evidence of a relationship between unsocial hours and cardiovascular mortality. However, much of the research in this area is Scandinavian. Harrington (1994) cites Waterhouse *et al.* (1992).

Several studies have been carried out, particularly in Japan, examining the link between workload or hours and cardiovascular problems. These studies have tended to investigate the concept of 'Karoshi', sudden death caused by overwork. Although many of these studies have been small scale or concentrated on work factors other than long hours, some studies have shown some interesting results that could demonstrate a connection between

long working hours leading to work strain and ultimately to heart failure. Spurgeon *et al.* (1997) however argue that, as with stress, the relationship is one where long hours can be seen to heighten the chances of cardiovascular problems where other risk factors exist, such as heavy workload, or pre-existing health conditions.

In Uehata's (1991) study of 203 Japanese non-manual and manual workers who were victims of cardiovascular attacks, it was asserted that there exists a connection between long working hours and risk of cardiovascular attack. However, this connection is likely to be accompanied by other factors such as existing health problems and other work-related stress. The retrospective study of the victims' working, lifestyle and medical history, found that almost two-thirds of the victims had been working long hours (over 60 hours per week or over 50 hours of overtime per month) or had worked over half of their holiday time. However, they also found that over half of the victims had existing 'attack related' medical conditions. At work almost one-third had also experienced some additional pressure through 'insufficient manpower support', and 42 per cent had experienced minor 'triggering factors' prior to their attack, such as increased workload, work problems or increased work-related anxiety. This form of study appears to indicate that a connection between long working hours and health problems such as cardiovascular attacks does not necessarily occur independently of other factors.

Some studies have, however, examined health effects controlling for other factors with positive results. There is, for example, evidence from a study by Sokejima and Kagamimori (1998), who looked at the risk of myocardial infarction (heart attack) among Japanese workers and compared a group of men who had survived a first attack to a control group. The study examined the social, health and employment characteristics of the groups and controlled for 'established risk factors' such as occupation type, grade and pre-existing health conditions. Their results found a significant increased risk of myocardial infarction when subjects worked 'unusually long hours' (*ie* over 11 hours per day) when all other risks were controlled for. This study concluded that the increased risk of myocardial infarction was likely to be brought on by increased work tension and stress, including increases in working hours.

Hayashi *et al.* (1997) in their study of Japanese non-manual workers also found that those who periodically worked overtime had higher blood pressure than their control group, during busy periods. Because of known links between blood pressure and heart condition, they concluded that 'the burden on the cardiovascular system of non-manual workers increases with overtime work'.

8.2.4 Sleep and fatigue

It is important to distinguish between the impact of shift work and long hours. Sleep loss, poor quality sleep and fatigue is an area of health that has been clearly linked with shift working in the research. However, the evidence shows that night shifts and rotating shifts have negative effects on individuals *per se*, even if hours are not long. For example, Harrington (1994) asserts in a discussion piece in the British Medical Journal that 'there is general agreement that working abnormal hours lead to a loss of quality and quantity of sleep' and that this has adverse health effects.

Studies have also found that sleep deprivation and disruption can adversely affect many aspects of physical and mental ability. For example, the BMA (2000) conducted a review of junior doctors' working hours and health issues and found that there was strong evidence in the literature for links between health problems and sleep disruption and night work, along with evidence of the detrimental effects of working long shifts. They, for instance, found that 'sleep taken during the day is of a shorter duration and of a poorer quality than sleep taken at night'.

This type of assertion largely backs up research into the disruptive effects of shift patterns and night work. In relation to long working hours, the evidence of effects on sleep and health is still relevant. However, very little research was found in relation to sleep and purely working longer than standard hours rather than shift patterns.

One study by Maruyama and Morimoto (1996), looked at various health impacts, including sleep, on Japanese managers and foremen putting in over ten hours per day. They found that 55 per cent of those who worked long hours reported a sleeping pattern of less than six hours per night, compared with 41 per cent of those working nine hours or less per day. These figures were statistically significant; however, they do rely on self-reported measures.

In relation to shift working and shift patterns, a large body of research has focused on this issue and how it relates to health effects (see European Foundation, 2000). This present review and study has its focus on the issues relating to long working hours, and shift working raises separate and distinct issues that are not strictly within the scope of this research. However, shift working has been more clearly linked in studies to health effects than long working hours itself (Karasek and Theorell, 1990).

8.2.5 Foetal growth patterns

Additional health effects have been found in other studies in relation to long working hours. Hatch *et al.*, (1997) examined the effects of various working conditions on foetal growth, including long hours. This US study followed over 700 pregnant working

women, throughout their pregnancy, over 80 per cent of whom worked between 35 and 40 hours per week. They found that those who worked longer hours within each trimester of pregnancy (20 to 40 hours or over 40 hours), had babies with lower mean birth weights than those who worked 20 hours or less. The difference was strongest for those who worked longer hours in the third trimester. Babies whose mothers worked over 40 hours a week in the third trimester of their pregnancy were found to be on average 82 grams lighter than those who had worked 20 hours or less.

8.3 Stress and psychological impacts

The above discussion has shown that physical health effects from long working hours are evident in several areas and, although often mediated by other factors, are still clearly an issue, especially in relation to heart problems and indirect effects. Psychological factors are often harder to measure than physical effects, but still represent a significant area of research on the effects of long hours.

Stress is an issue that has been growing as an area that is regularly discussed in publications and the media, and as one that is regularly associated with long working hours. Stress has been viewed as a factor in affecting reduced health and well-being. For example, a review by the British Medical Association on long hours and health states that 'the relationship between long hours and ill health is largely mediated by stress' (BMA, 2000). Stress, however, is not a concept that is universally defined or easy to quantify, Harrington (1994).

Spurgeon *et al.* (1997) in their review of the literature, find that studies have tended to show that there are measurable connections, either through subjective or behavioural measures, between working long hours (*ie* over around 50 hours per week) and increased work-related stress levels. However, they go on to note that there are inconsistencies in some of the literature that restrict the ability to draw firmer conclusions. For example, differing definitions of what constitutes long working hours, differing definitions and measures of stress, the use of self-reported stress measures *etc.*

Several studies have reported that long working hours alone do not directly and automatically lead to increased stress. Rather, it is argued that they can potentially contribute to stress-related problems if other factors are present, such as a lack of personal control at work, levels of supervision, work load, dual demands of home and work, particular personality types *etc.*, (DeBell, 2000; Pillinger, 1999; Scase *et al.*, 1998). Spurgeon *et al.* (1997) point to arguments in the literature that long working hours can lead to increased stress levels through calling for continued production at work accompanied by increasing levels of fatigue.

8.3.1 Job satisfaction

Job satisfaction has also been examined by a few researchers in relation to long hours and how satisfaction may be linked with stress outcomes. Analysis of the British Household Panel Survey (BHPS) data study by Scase *et al.* (1998) looked at the relationship between actual hours worked and satisfaction with working hours. Interestingly, this did not find working long hours were associated with lower levels of satisfaction with working hours. Rather, the analysis found that those working the longest hours (*ie* over 60 hours per week) were the most likely to report that they were satisfied with their working hours. Thirty-six per cent of those working over 60 hours said they were satisfied with their working hours, compared with 14 per cent of those working standard hours. Recent research conducted by White (unpublished) has found that satisfaction with working hours has decreased in recent years (*The Independent*, 2001). This was particularly the case for women, but no evidence of actual hours worked is provided.

Satisfaction with one's job as a whole is a separate issue, and may have different implications in terms of health and well-being. Clark's (1996) study of job satisfaction in Britain, again using the BHPS, examined several characteristics related to satisfaction with work. He found that weekly working hours were negatively correlated with overall job satisfaction. He also asserted that most psychological research in the area relates job satisfaction strongly to individual well-being. However, this research did not analyse those actually working long hours or very long hours. The groupings of hours used in the analysis were under 16 hours, 16 to 30 hours, 30 to 40 hours and over 40 hours. The main difference found was between those working part-time and those working over 30 hours per week. The full-time workers were reportedly less satisfied with their job overall than the part-timers.

Further analysis for this study of the British Household Panel Survey of working hours and job satisfaction is presented in Section 9.3. Amongst full-timers, this analysis shows that satisfaction with working hours declines quite steeply with number of hours actually worked. It also shows a very slight increase in overall job satisfaction with number of hours worked. These results differ from those reported in Scase *et al.* (1998) and Clark (1996). The difference from Clark's analysis can be explained by the exclusion of part-timers from the present analysis. The difference with Scase *et al.* may be due to the present analysis considering both dissatisfaction as well as satisfaction by using mean scores for the satisfaction variable. Scase reported on the proportion of people who were satisfied with their working hours. It should also be noted that these two studies used different waves of the British Household Panel Survey.

8.3.2 Assessing stress through the use of indicators

A variety of measures have been used to assess stress and psychological well-being. In many cases, stress has been used as a single subjective construct, in others specific sets of criteria have been used to establish the presence and degree of stress or psychological issues. The use of different measures reduces the ability to compare results across time, and may in part explain the widely differing results found.

A study by Bliese and Halverson (1996) of army personnel in the US and Europe used a 'General Well-Being Schedule' to analyse the individual constructs within psychological well-being. They found strong links between longer working hours and stress factors at a group level. A study by Steptoe *et al.* (1998) looking at department store workers, which used a 'General Health Questionnaire' (GHQ) format, found some association between stress and longer hours, but they did not find a strong correlative link between hours and psychological well-being. A longitudinal analysis of the British Household Panel Survey data by Bardasi and Francesconi (2000) also used GHQ to examine the relationship between mental health and non-standard employment. They categorised long working hours as working in excess of 48 hours, and found no significant effect of working long hours on men's or women's mental health. This is a slightly different finding to that identified from the analysis of the BHPS presented in Section 9.6, which has identified an association between long hours and women's mental health. However, this difference may be explained by differing methodologies. These findings are discussed further in Chapter 9, where the analysis of the BHPS conducted for the present study is outlined.

Houston and Allt's (1997) study of psychological distress among junior doctors found significant increases in emotional distress and anxiety at the start of their careers, as measured by the GHQ. They did not, though, find a significant relationship with their hours worked and their psychological well-being. This study however, used a small sample of only 30 junior house officers, 80 per cent of whom were working between 60 and 80 hours per week during the study. They acknowledge that their sample and the range of hours was narrow and argue that their findings should not rule out a link between hours and stress.

Stress has been measured in some studies using associative factors such as heavy drinking and smoking, exhaustion, indigestion and loss of libido. The survey by Weinberg and Cooper (1999), which looked at British MPs and their workload, found that the MPs working long hours reported increased levels of these associative factors.

8.3.3 Self-reported stress

Several studies have analysed a generalised concept of stress or used self-assessed or perceived work-related stress measures in relation to long working hours. Self-reported stress as a general measure, is often regarded as less useful than clinical measurement of health outcomes in terms of establishing clear relationships, as it is by nature a subjective measure and may be subject to over- or under-reporting (Spurgeon and Harrington, 1989). However, such subjective measures are easier to obtain, and still provide some indication of impacts of hours on stress levels.

Kirkaldy *et al.* (1997) conducted a postal survey of 2,500 German medical staff, including doctors, nurses and ancillary staff, to assess correlations between working hours and self-reported job stress. Their study found that for all medical staff in the survey, self-reported 'job stress' was 'significantly positively correlated with working hours and negatively with length of lunchtime break'. As the doctors in the study tended to work longer hours than other medical staff, they also looked at doctors separately. Nearly half of them worked more than 48 hours per week. Job stress emerged as significantly associated with doctors working long hours. The researchers acknowledge, however, that their use of a single concept of 'stress' is less useful than a more analytical breakdown of the various elements within the concept of stress.

Maruyama *et al.* (1995) in their survey of over 3,000 middle managers in large Japanese companies, found that 50 per cent of those working long hours (over ten hours per day) perceived themselves to be suffering from high mental stress compared with only 25 per cent of those working shorter hours. Maruyama and Morimoto (1996) also found in their survey of Japanese managers and foremen that subjective stress levels increased significantly with increased working hours. A prevalence of high subjective stress was found in 51 per cent of those working ten hours or more per day, compared with 29 per cent among those working nine hours or less.

A postal questionnaire survey of 4,135 randomly selected people in the Bristol area (Smith *et al.,* 1999) looked at self-reported stress levels and found similar evidence. This research, on behalf of the Health and Safety Executive, found that working at night, on unsociable or unpredictable hours or for long hours all had significant associations with high levels of perceived work-related stress. However, their questionnaire asked respondents to indicate how often they 'have to work long or unsociable hours' and left the question open for respondents to judge for themselves what they considered to be long or unsociable (Smith *et al.,* 2000). Consequently, the analysis indicates that there are relationships between perceived stress and what respondents regard to be long working hours, but does not attempt to provide a definition of what constitutes unhealthy hours for the survey population as a

whole. An important point here is that people who see their hours as excessively long may also be more likely to report stress. However, this does not necessarily imply that these long hours have caused the (perceived) stress.

8.3.4 Depression

In relation to assessing the relationship between depression and long hours, it is again important to consider the issue of causality. Even if an association is found, it does not mean that long hours are the cause of depression. In fact, it is possible that the causality could be reversed.

Glass and Fujimoto (1994) looked at secondary data on husbands and wives in US households and incidence of depression. They found that increases in hours of paid work were significantly associated with depression in both husbands and wives. Wives working over 46 hours a week, and husbands working over 54 hours a week, who were also dissatisfied at work, showed increases in 'depressive symptomatology'. It was also found that in the men who were most satisfied with their work, depressive symptoms appeared only after 100 hours per week. It is argued, therefore, that depression is linked with long working hours, but is strongly mediated by job satisfaction. This study, however, contained some biases towards higher income families with fewer children, and studied only dual earner couples.

A recent study of Canadian health statistics (Shields, 2000) found that women who worked long hours (over 40 hours per week) had '2.2 times the odds of noting a major depressive episode, compared with those who worked standard hours'. This study did not find significant data on increased depressive symptomatology in men; however they did not provide data on a greater breakdown of longer hours.

In another study of Canadian men and women, an analysis was conducted on husbands and wives in dual earner households and the psychological effects of long hours and schedule inflexibility (Galambos and Walters, 1992). Their questionnaire survey of 96 households used several recognised measures of psychological effects, including the Centre for Epidemiological Studies Depression Scale (CES-D). Their study found that longer working hours lead to higher 'role strain' (worry due to conflicting pressures of home and work) for both husbands and wives. Interestingly, they found that, for husbands, longer working hours were linked with a higher incidence of depression and anxiety, but that for wives, longer working hours were linked with higher levels of depression in their husbands, but not in themselves.

8.3.5 Moderating factors

Sparks *et al.* (1997) discussed in their review the 'moderating effects' that may act on the link between health and long working hours. These are the factors in subjects' lives that may act to limit or increase the effect of long working hours on their health. Moderating effects could include factors such as age, gender, amount of social support, type of work, work environment, job satisfaction and the degree of control or choice over work.

Spurgeon *et al.* (1997) also listed moderating factors such as individuals' predisposition to health problems, their attitudes and motivations, and the organisational culture that prevails. They indicate that these factors 'are likely to influence the level and nature of health and performance outcomes'. The amount of compensation on offer to counterbalance long hours may also affect the influence of long hours on health. The provision of a good rate of pay, good leave entitlement, or other benefits may, therefore, act as mediating factors (BMA, 2000).

Steptoe *et al.* (1998) when studying department store workers, found that social support acted as a moderating effect for men, and that men with fewer social support systems tended to increase their alcohol intake when their hours increased. Spurgeon and Harrington (1989) also pointed to studies in the 1980s that found that pre-disposition to psychological problems and the amount of social support available, were significant mediating factors in differentiating the degree of work-related stress experienced by those suffering sleep disruption.

8.3.6 Motivation

It has also been argued that any measures of the impact of long working hours on stress or psychological well-being must take into account personal preferences and motivation. For example, those who choose to work longer hours through enjoyment or interest may be less affected psychologically than those who are compelled or feel compelled to work long hours. Scase *et al.* (1998) in their study of the British Household Panel Survey, found that the self-employed worked longer hours but had fewer health problems than those who were not self-employed. They point out that an issue with the data could be that those with poorer health are less likely to be able to work longer hours. But they also note that another possible explanation may be to do with the degree of choice and control which workers have over their own time. Some research points to the view that jobs which generally have less control and autonomy are more likely to be associated with health complaints (Dhondt, 1997).

Sparks *et al.* (1997) in their meta analysis and review on the effects of long hours on health, point to several studies that have found

the level of choice in the number of hours worked to be a significant moderating factor in health effects. They assert that:

> *'obviously, if an individual chooses to work a particular shift or extra hours, any health consequences are likely to be far less compared to those who feel pressurised or have no control over their work schedule.'*

Their analysis found several studies which variously contend that the ability to choose hours worked, refuse overtime, work flexibly *etc.*, can reduce the health effects on those working longer hours.

Further, Bliese and Halverson (1996) in their study of 7,382 army personnel in the US and Europe, looked at their respondents at both individual and group level. They found that groups with similar work environments (*eg* working in the same army company) had similar responses in terms of psychological well-being. These effects were found to be less strong when examined at the individual level. From these results Bleise and Halverson suggest that the difference may be accounted for by the element of choice, in that work groups are less likely to be all working long hours out of choice whereas individuals on their own are more likely to have chosen to work long hours and may, therefore, have fewer resulting psychological problems.

The British Medical Association review of long hours and health stated that:

> '*Workers who choose themselves to work long hours, due to personal commitment or enjoyment of work are more likely to suffer less than workers who are forced to work long hours because of excessive workload or pressure from their employer.'* (BMA, 2000)

The conclusion that individual preferences are important influences on whether long hours lead to stress is, therefore, one which emerges strongly in the literature. Whether an employee is affected by long hours in terms of their psychological or physical health is one that cannot be viewed without considering the circumstances and mindset of the individual. Analyses of the health effects of long working hours can use large data sets to ascertain how the workforce reacts in general to long working hours, but closer inspection reveals a diversity of reactions depending on a variety of personal factors.

8.4 Working long hours and equal opportunities

Despite a wealth of literature looking at the negative impacts of long working hours, very little has been written in the area of long working hours and equal opportunities. Although some material focusing on other topics have alluded to such issues, almost no systematic research has been done in this area.

8.4.1 Women and mothers

Women have been shown in the data to tend to work shorter hours than men, either through working part time or not working longer than standard hours (see Chapter 3). There have been some suggestions in the literature that women may be losing out in terms of career progression as a result.

Joshi *et al.* (1996) conducted a study of women's labour market participation in Britain using a cohort of women born in 1958, from the National Child Development Study. Joshi *et al.* found that for these women, at age 33, having children hindered access to full-time employment and that, for the mothers, full-time employment tended to be substituted with part-time work. This, it was argued, would in turn limit access to the financial benefits and prospects afforded by full-time employment compared with part-time. However, this study examined one age group only and did not cover the impact of motherhood on working longer than standard full-time hours.

Gammie and Gammie (1997) conducted a questionnaire survey of 98 accountants at senior management level in top accountancy firms in Scotland. They found that the female managers were more likely to work part time and less likely to work in excess of 50 hours compared with the men. The propensity for the women who worked full time not to work long hours tended to be the case for both the women with children and those without. The researchers described among the women, a:

> *'general reluctance to match the number of hours worked by men.'*

The women with children who worked part time believed that this had held back their career and promotion prospects. In addition, the men in the survey tended to have more prestigious jobs and were more likely to be heading towards partnership positions. It is hard to generalise from such data, as the findings of this study are taken from a small sample within a specific industry. In addition, much of the analysis is based on individuals' perceptions of their career situation. However, Booth and Francesconi's (1997) study of career progression within organisations, consisted of a large and rigorous multi-variate analysis of secondary data from the BHPS. This study reinforces the findings from the Gammie and Gammie study as they also found that women who worked part time had substantially fewer chances of being promoted than women working full-time. They observed that women's careers can be restricted where a long working hours culture exists, due to the often dual burden of work and home responsibilities (Booth and Francesconi, 1997).

To date, there have been relatively few systematic studies into the career paths of women and how they are affected by long hours working. However, several small scale studies looking at particular types of workers, have begun to shed some light on possible

issues and areas for further research. Simpson (1998b) conducted a study of 221 UK managers who had successfully completed a management development programme at business school. This study contrasted the perceptions about careers and working experiences of the male and female managers in the study.

Simpson found that women who worked in 'male dominated' environments were more likely to report feeling the pressure of long working hours than those in more male-female balanced organisations. The women in the study also tended not to work longer hours unless necessary, and viewed presenteeism as more of a male trait, and to be avoided.

If the results of these types of study hold true, it is possible, therefore, that where women are less willing to put in unnecessary long hours, or are more likely to have dual pressures of work and home responsibilities, this could result in their experiencing reduced career opportunities compared with their male counterparts. Faced with long working culture organisations, women may be more likely to feel under increased pressure if they attempt to compete on hours with the men, they may suffer by comparison if they fail to match the men's hours, or they may avoid such organisations altogether and restrict their career to more female-dominated and perhaps less hours-intensive organisations.

Simpson also found evidence of some workplaces where the men appear to be actively attempting to 'marginalise' their female colleagues by working long hours, holding late meetings, or using after work socialising for discussing work issues, and criticising female staff for leaving 'early'. If these scenarios are common, this may demonstrate a contributing factor in why women are under represented in some industries and over represented in others. A stronger body of research into this area is needed, however, to examine this potential link.

The dual burden women often have of paid work and domestic responsibilities, has been reported on by a survey of 5,000 working women conducted by *Top Santé* magazine. Sixty-eight per cent of respondents reported that they could enjoy work if that was all they did, but 60 per cent did most of the household chores and 90 per cent of working mothers bore most of the responsibility for childcare (*The Guardian*, 2001). We return to this issue in Chapter 9.

8.4.2 Other groups

In addition to gender differences, cultural factors may influence the ability of workers from different ethnic and racial backgrounds to participate in long hours working, or working on particular days or at certain times of the day. They may, therefore, be disadvantaged as a result. No research studies were found in this area relating specifically to long hours working.

There is a clear gap in the research in this area. There is a need to investigate issues such as whether long hours working (or the existence of a long hours culture) could be discriminatory for certain individuals, *eg* people with dependants, people from minority ethnic backgrounds, or people who cannot (perhaps because of a disability, for example) or do not want to work long hours. There is also a need for investigation into whether long working hours are a factor in shaping the different career patterns of men and women, and minority groups.

8.5 Personal and home life

Long working hours is increasingly receiving attention in the literature regarding its impact on family and personal life. The increase in focus on 'family friendly' work policies by government and industry has grown amid increasing concern about how work priorities can affect relationships and home life. That the spheres of work and home life are, by their nature, connected and interdependent is undisputed. Measuring the types of impact work has on home life, however, is less straight forward.

Some aspects of personal and family life such as child development, divorce rate *etc.* can be subject to empirical measures. However, establishing causal links between these elements and long working hours is extremely difficult. A great deal of literature in this area, therefore, tends to consist of anecdotal evidence or subjective measures through case study approaches or attitude surveys. The following sections describe some of the main research in these areas.

8.5.1 The balance between work and home life

A number of studies in this field have examined what employees' attitudes are towards balancing home and work commitments. These have looked, not only at how much time is devoted to each of the two spheres, but also how individuals view the quality of that time, what they would prefer the balance to be, and what impact it has had on their life outside work.

An attitude survey of UK managers (Cole, 1995) looked at the relationship between work commitments and family life. A postal questionnaire survey was conducted of members of the Institute of Management with 1,259 responses. In the resulting sample, 95 per cent were men, three-quarters from the private sector, and the majority were middle to senior managers, aged between 35 and 54, and based in London and the South East. Half of the respondents felt that their workloads had increased over the previous two years and one-fifth reported working an extra 15 hours per week. Forty per cent of respondents felt they did not have a sensible balance between work and personal life, and 60 per cent felt that they wanted to be able to spend more time with

family and friends. Forty-five per cent felt that their work took priority over everything else.

Similarly, in the recent survey of UK Managers by Ceridian Performance (2000) mentioned earlier, 30 per cent felt that they would rather exchange more time at home for less money. As with the 1995 Institute of Management study, over three-quarters said they would like to spend more time with their family or friends. They also found that 55 per cent of parents felt that they did not spend enough time with their children. Over half of respondents felt that after work, they rarely had enough time for other activities.

Another attitude survey of long hours workers by the CIPD included both non-manual and manual workers who regularly worked over 48 hours. In this sample, 56 per cent felt that they dedicated too much of their life to their work (CIPD, 2001). All of these studies focus on working populations that are skewed towards particular employee types. Also, they are based on subjective perceptions, and do not focus on measured effects on home life. However, they do demonstrate that long hours workers often feel there is an imbalance of priorities that they are not entirely happy with.

8.5.2 Personal relationships

A number of studies have consistently found that employees perceive that working long hours has a detrimental impact on personal relationships. For example, the recent CIPD study reported that in the previous two months, 40 per cent of respondents felt their long hours had resulted in arguments with their spouse, and 40 per cent felt guilty for not having enough time to contribute to domestic chores (CIPD, 2001). Forty-two per cent felt their long hours had resulted in damage to their friendships and social life and 19 per cent of those with children felt it had damaged their relationship with their children. Over two-thirds of the partners of these long hours workers also felt that the long hours had a negative effect on their relationship, and 83 per cent felt long hours had a negative effect on their partner's relationship with their children. Similar findings have been reported by the Institute of Management (Worrall and Cooper, 1999) and Weinberg and Cooper, 1999). Further, Hochschild (1997) based on interviews conducted in the USA noted that it was often the partners of top executives who spoke ruefully of their partner's absences from family life. However, the results from all the above studies are based on the attitudes and perceptions of a few, and not on objective measures across a broad and representative population.

In their study, Scase *et al.* (1998) used the British Household Panel Survey data, which contains a representative sample of the UK workforce and has the potential to stand up to greater statistical

scrutiny and rigour than the above mentioned studies. Their analysis found potential impacts of long working hours (classified as over 40 hours per week) on family life. They found that time for relationships of long hours workers with their children was 'greatly reduced' and they were, for example, less likely to monitor their children's homework. They concluded from these types of results that it could lead to 'negative educational outcomes' for the children of parents working long hours. They found that parents working long hours reported finding it harder to manage their children, and were less likely to talk to their children on a daily basis. However, it is unclear whether this study was able to establish causal links.

Studies on employment participation and family life have examined some links with more measurable detrimental effects such as divorce rates or children's educational attainment. Ermisch and Francesconi (2000) found some evidence of detrimental effects on children's educational attainment of mothers' and fathers' employment, in an analysis of BHPS data. However, this study did not examine any detrimental effects of long working hours. To the extent that Bardasi and Francesconi (2000) found no association between long hours and a reduction in psychological well-being, they conclude that their findings indicate no association between long hours and divorce. This is because there is a relationship between reduced psychological well-being and divorce. Bardasi and Francesconi (2000) also cite Johnson (1999) who has shown a negligible effect of long working hours on divorce probabilities.

Cooper (1999) in his summary of the issues around what he terms 'the damaging nature of work' argued that:

> *'we suspect, although we cannot prove it, that there is a link between long hours and the breakdown of the family.'*

Cooper reports that there is a significant gap in the literature for systematic research into the direct impacts on family life of long working hours. He specifically cites the impact on child development as an important area that has received little focus. As with the area of equal opportunities, then, more research in the area is needed, particularly through examining objective measurable effects on the family. However, what research is available has illustrated a great deal about how employees, and particularly managers, feel about their home and work balance. The sum of this literature appears to show that, for those who work long hours, there is a perception that it interferes with their relationships with their partner and their children, and that they are essentially dissatisfied with the weight of the balance.

8.6 Beneficial effects of working long hours

This chapter has so far considered only the detrimental effects of working long hours. There is, however, some evidence available on the possible beneficial effects of different patterns of working hours. Research in this area, however, has tended to focus on what hours are ideal or beneficial to work, rather than the beneficial effects of working long hours.

8.6.1 Ideal hours and well-being

Some researchers have argued that a negative effect on well-being or personal life does not automatically appear as the number of hours worked increases. There is some evidence to suggest that the relationship between well-being and hours is not linear, and can be clustered at the extremes of longer or shorter hours worked, or heavily mediated by individual characteristics (Sparks *et al.,* 1997). This potentially non-linear relationship between hours and health is argued to make effects much harder to measure (Karasek and Theorell, 1990). Therefore, participation in work is argued to have a neutral or beneficial effect up to a point. Conversely, shorter hours or no hours at all may be seen as having a negative effect on health. For example Joshi *et al.* (1996) argue that non-participation in employment can lead to ill health.

Glass and Fujimoto (1994) in their study of US households and the incidence of depression, found that employment up to a certain number of hours (46 for women and 54 for men), could be seen to have positive effects on mental health, and they suggested that job satisfaction, coupled with little conflict or overload in roles can be beneficial, even when working longer hours. Bardasi and Francesconi (2000) in their study of the British Household Panel Survey data, interestingly found that there was a relationship between men working particularly short hours (less than 16 per week) and reduced psychological well-being. Evidence for health risks associated with shorter working hours in men (less than seven hours per day) was also found in a study of Japanese heart attack victims (Sokejima and Kagamimori, 1998). This might suggest that, for men at least, there may be an optimum level of working hours, below or above which stress or health problems may arise. It could also be the case, however, that the causality goes the other way, in that people with poorer health may choose to work shorter hours.

8.6.2 Increased job prospects and security

We noted in Section 8.4 how long hours cultures can restrict the career opportunities of those unable or unwilling to work long hours. The other side of this coin, however, is the benefit to the individuals working the long hours. Scase *et al.* (1998) suggest that there can be benefits to individuals of working longer hours,

through the potential access to higher pay and higher earning jobs. They also suggest that there may be some possible discrimination against lower wage earners on hourly rates, if hours are restricted through the implementation of regulations such as the Working Time Directive. Steptoe *et al.* (1998) also conjecture that a reduction in paid work hours rather than an increase could potentially cause psychological distress through a reduction in income.

Research by Booth and Francesconi (1997) using the British Household Panel Survey (BHPS) data did find evidence for working longer hours and increased chances of promotion. This evidence is also found in the study by Francesconi (1999) on the determinants of promotion (based on the same BHPS data). This study finds that those who worked an additional five hours per week overtime significantly increased their chances of promotion. In both these studies, it is hypothesised that employers may compensate workers who put in longer hours, financially and in career progression, in response to perceived extra effort as demonstrated by extra hours. This also holds true when looking at part-time workers; in both studies, both men and women who worked part time had reduced chances of promotion. The analysis of BHPS data for this study relating long hours in the past and current earnings, suggests a similar effect. However, the issue is complex to analyse and it has not been possible to draw firm conclusions (see Section 9.3). Analysis of panel survey data conducted in the USA, has found that previous long hours have a positive effect on earnings growth. This is based on multi-variate analysis of earnings growth, over the time period 1987 to 1990. Over longer time periods the effect was more pronounced (Cherry, 1998).

In a study looking at working hours and promotion in US law firms, similar findings were established regarding hours both as perceived, and actual, factors in determining promotion prospects (Landers *et al.*, 1996). This study found that when assessing staff for promotion decisions, associates and partners in the law firms admitted that they used hours worked as an indicator of their staff's abilities and quality of work. Landers *et al.* conclude that simply using hours worked is an inadequate measure of ability and quality of work and that it encourages 'inefficiently' long working hours. This study also found that employees wanted to increase their hours if more senior staff were seen to be working longer hours, encouraging a 'rat race' scenario, and that staff also perceived long working hours as an indicator of hard work.

Certainly, a perception that 'putting in the hours' can lead to enhanced job prospects exists among some sections of the work-force, and can drive a rejection of standard or flexible working. In a recent survey of UK managers, 68 per cent said they felt:

> *'the problem with flexible working is you still need to be present to be appreciated by the organisation.'* (Ceridian Performance, 2000)

Several researchers (Simpson, 1998a and 1998b; Austin Knight, 1995; Cooper, 1996) discuss the influence of a climate of 'restructuring' and 'downsizing' that emerged in recent decades. Fewer staff and managers, and fewer layers in organisations can lead to increased workload, a faster pace of work and an intensification of work pressures (Burchell *et al.*, 1999). This increased work burden is argued to be pushing up the pressure on employees to work longer hours. In addition, it is argued that the climate of change and fear of job loss can lead to increased hours being worked in order that employees are 'visible', appear productive and committed and therefore increase their chances of retaining their job.

Previous research (see Section 4.1.6) has shown increases in working hours in organisations following waves of redundancies. If it is the case that in times of restructuring, employers are more likely to retain staff who work longer hours, for some workers, putting in extra hours may be undesirable but ultimately beneficial in terms of increased job security. However, as noted in Section 4.1.6 above, there is evidence that working longer hours was not significant in affecting employees' chances of being laid off. It is more likely, therefore, that this scenario is based on a reaction to job insecurity and uncertainty rather than on clear evidence of retention of employees working long hours. The enhanced career prospects of long hours workers, however, may be a more real effect.

8.6.3 Work preference and enjoyment

There is some evidence to suggest that a small percentage of the workforce, and particularly in managerial and professional occupations, can at times work long hours due to enjoyment, preference or addiction. In a questionnaire survey of 1,855 UK Managers, Ceridian Performance (2000) stated that thirty-five per cent of respondents agreed that at times they found work was an escape from home. This was particularly true of women with children (63 per cent). This study used the readers of *Management Today* and Institute of Management members as their sample base. Because of this sample group, the respondents were heavily skewed towards the top end of non-manual management; over three-quarters of their sample were male, one half were in senior management and over three-quarters in the private sector. As shown in Chapter 3, this group has a propensity for long working hours.

A telephone survey conducted by CIPD of UK workers who consistently put in long hours, found some similar results to the Ceridian Performance study. This study used a sample of 291 long hours workers (over 48 hours per week) taken from a previous study of an initially nationally representative sample of workers. Their sample group contained only long hours workers, so again was skewed towards men (82 per cent) in middle or senior

management (59 per cent), although did contain a mix of non-manual and manual workers. This study found 35 per cent of the sample admitting to being 'workaholics'. Of those workaholics, 52 per cent felt they sometimes enjoyed their work so much they found it hard to stop (CIPD, 2001).

However, there are mixed messages in these data, as 75 per cent of the main sample group said their main reason for working long hours was the pressure of their workload and only eight per cent said it was due to enjoyment of their work. The survey also suggested that workaholics within an organisation may in fact be detrimental to other staff and encourage 'presenteeism' (the practice of working extra hours when not strictly necessary, in order to be 'seen' or appear productive). They found that respondents admitted to being influenced to work longer hours if they shared an office with a workaholic, regardless of whether they needed to or not. This was found to be particularly true among men in a survey of 221 UK managers by Simpson (1998b) and was labelled 'competitive presenteeism'.

The question over whether some workers enjoy working long or extra hours was also highlighted in a study by Barnet and Gareis (2000) of 141 US physicians. They found some evidence to support the view that simply reducing the number of hours worked may not be universally beneficial. They argued that, for some professions, reducing hours may involve cutting out particular activities such as teaching or research, which may be enjoyable aspects of the job, and therefore reduce the quality rather than just reducing the quantity of work.

All of these studies focus on groups known to contain a concentration of typically long hours workers, *eg* managers and doctors. There is a need for further study in this area to contrast positive and negative experiences using more representative samples of different professions and sub-groups.

8.7 Evidence from the case studies

The final part of this chapter goes on to present the evidence from the UK case study research on employees' satisfaction with working hours, and the impact long working hours has upon them. Again, this evidence is presented separately for manual and non-manual employees.

8.7.1 Manual employees

Satisfaction with working hours

The large majority of questionnaire respondents stated that they were satisfied with their working hours pattern. Long hours workers were satisfied, not so much with the hours *per se* but with

their ability to increase their earnings. They found that the work was generally not physically demanding and therefore the long hours were manageable. The following quote illustrates a typical view relating to hours worked within one of the case study employers, where there was a high incidence of overtime.

> *'I would not consider changing my job at the moment. I'm used to the money. It's not that I need it, it's just that we like to go abroad and we like the standard of living we have at the moment.'*

Nonetheless, some shift patterns were disliked, for example where individuals rarely had two consecutive full days off. Some disliked working unsocial hours, but this depended on lifestyle. For example, others found working an afternoon/evening shift could fit very well with their partner's working hours and their shared childcare responsibilities. Drivers had a further concern that there was excessive uncertainty in their working hours, as the length of their working day depended on the length of their run, which could often be further affected by traffic problems. Thus, the little amount of dissatisfaction described did not relate to the number of hours worked but the timing of them and the control which individuals had over them.

Within the small manufacturing employer (case study D), where long hours were rare, staff were very satisfied with the flexibilities on offer. They reported that they could select the hours they wanted to fit with their lifestyle and caring responsibilities. Earnings capacity was lower in this organisation, but this did not lead to expressions of dissatisfaction by employees. This may, in part, reflect the wages on offer within the local labour market, which was a rural area.

Impact of working long hours

For manual employees the main reported benefit of extra hours was increased pay. However, long hours workers noted the negative impact it had upon the time they had available for their personal relationships, children, social life and leisure. Some blamed their own relationship break up on their long working hours or associated the high incidence of divorce among their colleagues with the long hours worked. Nevertheless, this was blamed not so much on the number of hours worked but on the nature of the shift pattern, for example working at weekends. Approximately half of the respondents to the questionnaire employed in the organisations where there was a high incidence of overtime (*ie* all of the organisations in question, with the exception of case study D) stated that they did not have the right work-life balance and that they often missed important events in their personal life because of work.

Many employees, especially the long hours workers, did not consider that long hours affected their health in any way. Few

respondents to the questionnaire agreed with the statement: 'the amount of hours I work is damaging my health'. This was the case even among those who worked very long hours (*eg* 70 hours per week) on a regular basis. This could be because in many cases the work was described as not particularly physically or mentally demanding. It may also have been that long hours workers did not want to admit that their working pattern could be having an adverse effect on their health, even if it was, as they were keen that the opportunity to boost their earnings through overtime was not removed. Nonetheless, even though no respondents felt that long hours had directly affected their health, a fairly typical comment was:

> *'I think it does have an impact. You get really tired; it takes a lot out of you. But apart from the bags under my eyes, I haven't had any health problems.'*

An occurrence of injuries was identified at the bakery (case study B), but this was associated more with the pace and volume of work and not necessarily the number of working hours. Furthermore, long hours workers did note that their work schedule did leave them with less time to spend on activities such as going to the gym in order to exercise, which could have an indirect impact on their health. For example:

> *'When I didn't work overtime, I'd go to the gym regular. I was a completely different person. I was in shape. I felt much better than I do now.'*

Interviewees who worked long hours and their managers, also noted that they had observed evidence of tiredness and irritability as an impact of long hours. Moreover, some respondents had noticed behavioural impacts, such as mood changes and sensitivity. Older employees in particular noted that they felt tired if working long hours. However, these observed impacts were often due to the shift pattern and the nature of the work, as well as the number of hours worked. Process operatives and drivers at case study C appeared to note fatigue as an impact more than employees at the other case study organisations, seemingly because the work was more strenuous.

There was little evidence from the case studies to suggest that individuals would be regarded less favourably or that promotion prospects would be limited, if they did not work long hours.

8.7.2 Non-manual employees

Satisfaction with working hours

The questionnaire responses indicated an even split between those who reported they were satisfied and those who reported they were dissatisfied with their working hours. Satisfaction tended to be correlated with the number of hours worked. Those who were

satisfied tended to work under 48 hours per week, whereas those who were dissatisfied worked 48 hours per week or more.

Individuals were more dissatisfied when they were working long hours on a long-term and on-going basis. Employees who were working long hours on a consistent basis disliked the fact that their job left them with little time and energy for their home life. Dissatisfaction was also expressed when extra hours were required at short notice. Again, this was due to the disruption it could cause to life outside work.

Peaks and troughs in working hours were seen as less of a problem. Where employees felt in control of their own working hours, there was much higher satisfaction, for example among employees who worked remotely from the office or from home. Those with more flexibility also appeared to be more satisfied, as well as those formally rewarded for their extra hours, through time off in lieu or pay.

Impact of working long hours

For individuals, both advantages and disadvantages to working long hours were identified. The benefits included personal satisfaction that work was completed and targets were met. This could, in turn, improve promotion and progression prospects. The main drawbacks of long working hours were a lack of time and energy for family, social and leisure activities. There was an even split between questionnaire respondents who felt that they had the right work-life balance and those who did not. Unsurprisingly, the more hours worked, the more likely respondents were to feel they did not have the right balance. In extreme cases, some individuals had felt that they had sacrificed their social and family life for the sake of their career.

One or two interviewees felt that the pressure of work was affecting their health. The types of problems described were susceptibility to minor ailments and illnesses, such as headaches and colds, and worsening of existing health problems, such as eczema. As with the manual workers, individuals described the affects that long hours had on their levels of fatigue, moods and behaviour, such as irritability, as illustrated by the following quote:

> *'I'm so tired, I get really short tempered. I just can't face discussing issues at home — we never get to them. It's just too much to deal with when the pressure's on at work.'*

8.8 Conclusions

The impact of working hours patterns on employees' health has received significant attention in previous research. However, much of this research relies on subjective self-report data and focuses more on unsocial hours or irregular shift patterns than on

long hours. Only a small proportion of this literature provides strong and thoroughly researched data relating to the effects of long working hours on individuals. Given the limitations of the data, however, most researchers in the field agree that there is evidence to support an association between long hours and some health outcomes such as mental health or cardio-vascular problems. Whether long hours is the cause of these problems is more difficult to assess.

Long hours working is increasingly receiving attention in the literature with regard to the impact it has on individuals' family and personal lives. The research in this area has demonstrated that long hours workers perceive that their long hours are having a detrimental impact, and that they are not happy with their own work-life balance. Studies have also shown that employees working long hours feel that their working hours have had a negative effect on their relationships with their partners and children. Nonetheless, there is a scarcity of research which has identified any hard empirical evidence for a relationship between long hours and these negative outcomes.

Some studies have argued that women's careers can be restricted where a long hours culture exists. However, to date there have been relatively few systematic studies into the career paths of women and how they have been affected by working hours. No research studies have been found which explore whether long hours are discriminatory to people from certain minority ethnic groups or cultural backgrounds.

In contrast to the above negative impacts of long hours working, some benefits to working long hours have been identified in the literature. A common perception is that long hours can lead to improved job prospects and greater job security. If this is the case, however, it may be to the detriment of those who cannot or do not work long hours, *ie* what is a benefit to one group of employees, presents difficulties for others.

The case study research undertaken for this study generally supports the evidence from the previous literature. Both manual and non-manual employees perceived long working hours to have a detrimental affect on their relationships with their families and on their social and leisure activities. Non-manual employees in particular also perceived there to be some association between long hours working and minor ill-health problems. However, despite this, the case study research also identified some perceived advantages to working long hours. This varied between types of employees. For manual employees, the ability to increase their earnings was seen as the main advantage to working long hours. For non-manual employees working long hours helped them achieve job satisfaction as they were able to 'achieve their targets' and 'complete work' which could, in turn, enhance their job prospects and job security.

9. Long Hours in Britain: a Review of Evidence from the British Household Panel Survey

This chapter presents the evidence from the analysis conducted using the British Household Panel Survey (BHPS) conducted specifically for this study. The BHPS is a panel study of approximately 5,000 households, or 12,000 individuals, that was first conducted in 1991 (Wave 1). The focus of the chapter is predominantly restricted to the 4,795 employees of working age who took part in the Wave 7 interviews conducted in 1997/98. However, when appropriate, the sample is restricted to the 3,743 employees who worked over 29 hours per week. In order to examine the impact of long hours working over the long term, these data were also supplemented by the longitudinal aspects of the data set gained from previous waves.

Following an introductory section identifying the types of employees that work long hours, the remaining sections consider five key aspects of the long hours debate:

- pay and prospects
- job satisfaction
- preferences over working hours
- work-life balance
- health and social well-being.

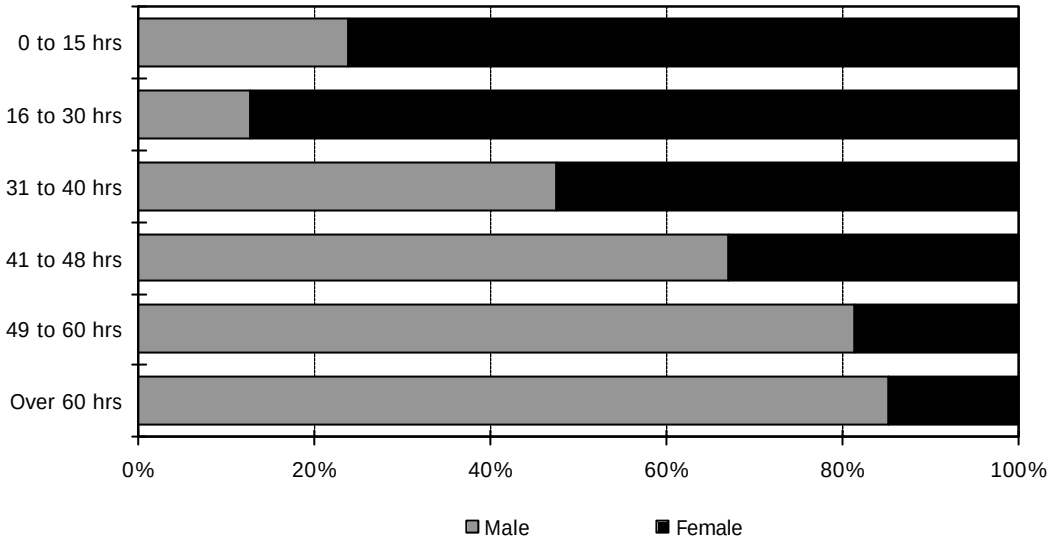
Volume 2, Appendix C contains supplementary output and details the result of some of the multivariate analysis from the BHPS used to support the conclusions drawn in the chapter.

9.1 Who works long hours?

This section identifies the groups of employees who were most likely to be working long hours in Wave 7 of the BHPS and who were also most likely to have worked long hours in the long term. For descriptive purposes, the analysis usually defines 'working long hours' as working for more than 48 hours per week, while working 'long hours over the long term' refers to those employees who have worked long hours over the last two consecutive years (BHPS waves 7 and 6 *ie* between 1996 and 1998).

Figure 9.1 highlights the correlation between the number of hours worked and gender. Long hours working is disproportionately dominated by males. More than 80 per cent of those working over 48 hours per week are male, while among those working over 60 hours per week the proportion of male employees reaches 85 per cent.

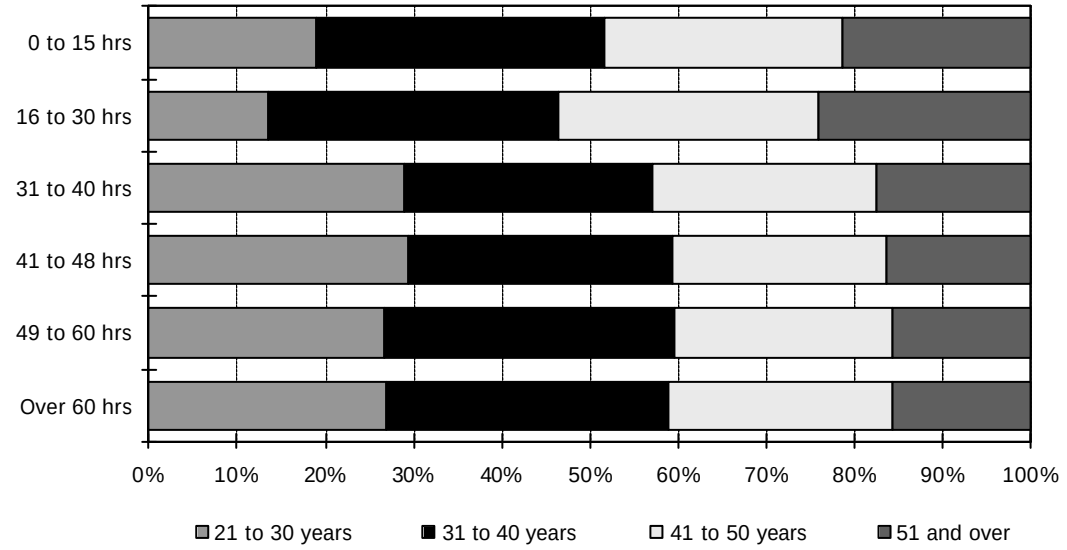
Figure 9.1: Hours worked by gender (employees of working age)



Source: BHPS Wave 7

An analysis of long hours by age (Figure 9.2) found only a slight variation, with those working over 48 hours per week more likely to be within the middle age groups. Employees at either end of the age spectrum (21 to 30 years, and over 50 years) were marginally less likely to work long hours. Multivariate analysis of the determinants of long hours working appears to confirm this non-linear relationship (Appendix C: Tables C.1 to C.3).

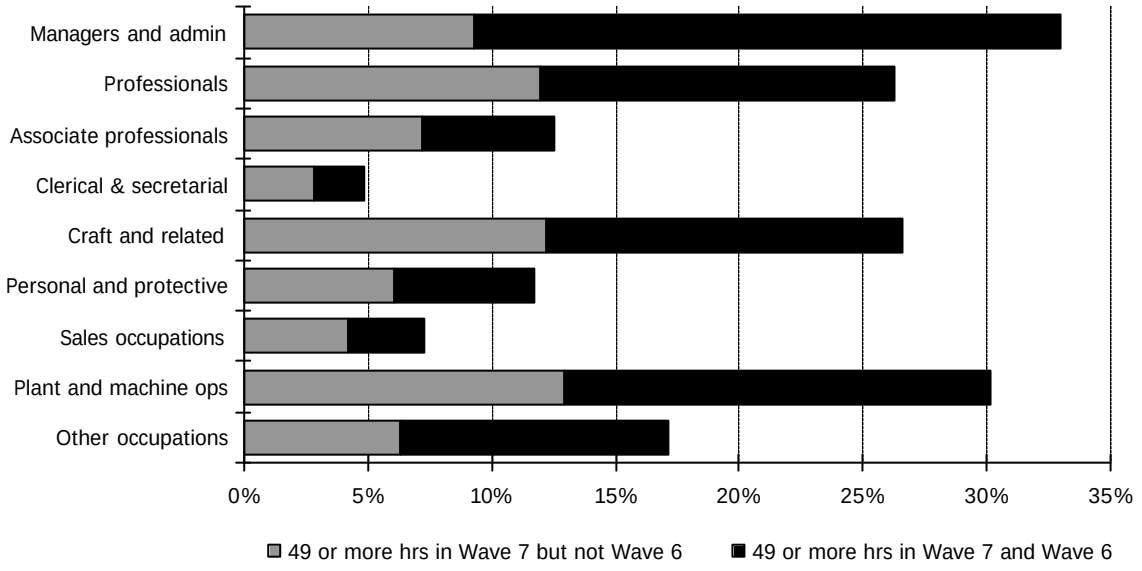
Figure 9.2: Hours worked by age group



Source: BHPS Wave 7

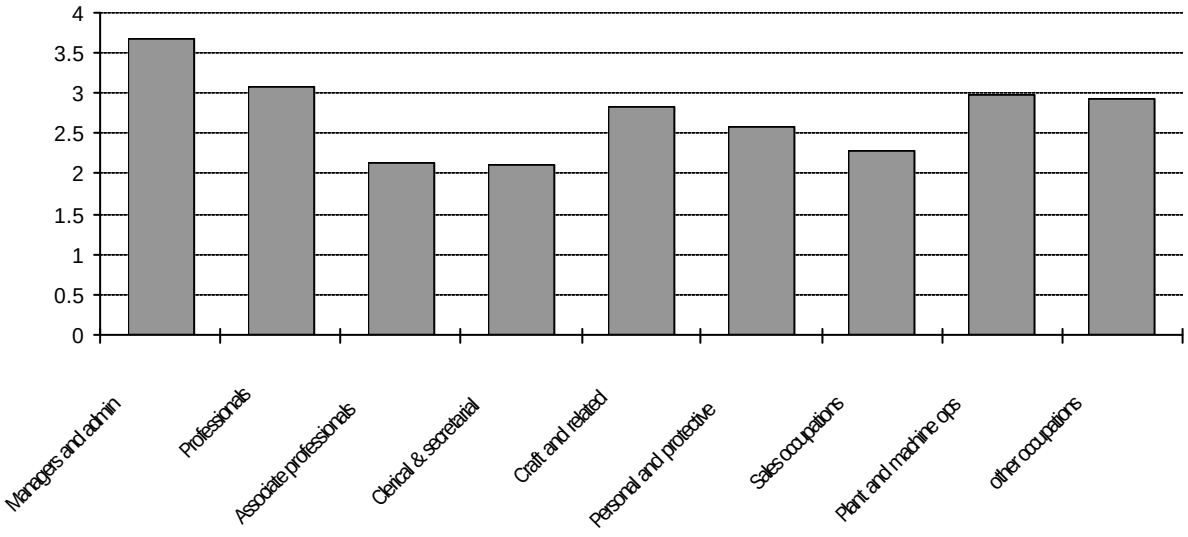
The relationship between working long hours over the previous two years and occupation is shown in Figure 9.3. Long hours working is concentrated among managers, professionals, craft and related employees, and plant and machine operators, while clerical and sales related employees were the least likely to be working such hours. Turning to longer-term patterns of work, we find that the incidences in which employees work more than 48 hours per week over both of the last two waves are proportionally higher among current managers, professionals, craft and related occupations, and plant and machinery operatives. Indeed, the mean number of times an employee who has been interviewed

Figure 9.3: Long hours over two waves, by most recent occupation



Source: BHPS Wave 6 and 7

Figure 9.4: Mean number of job spells in which respondent was working more than 48 hours since Wave 1, by Wave 7 occupation

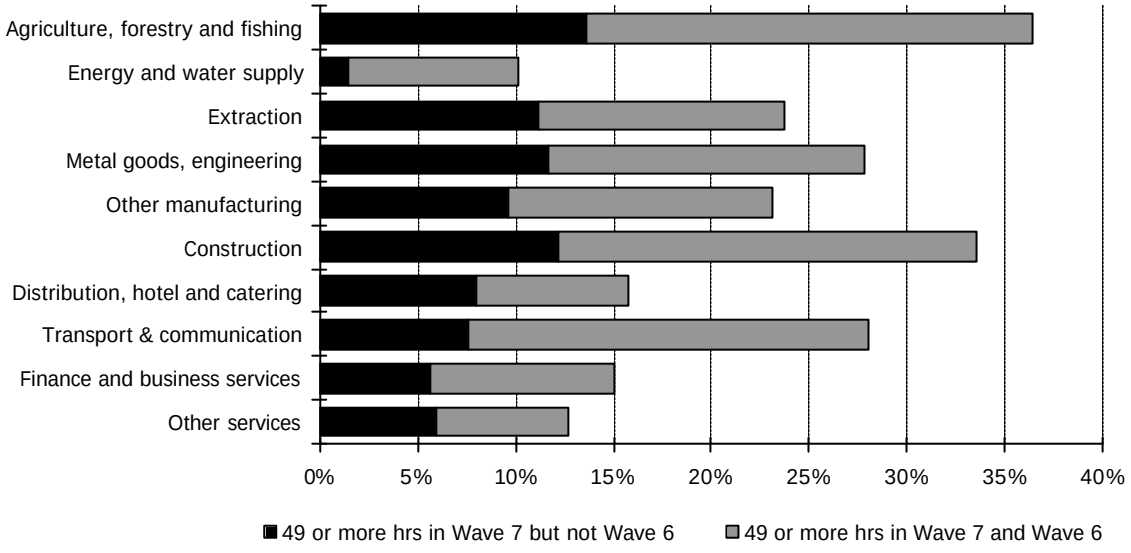


Source: BHPS Wave 1 to 7

across all seven waves, and had recorded an episode of long hours working, is illustrated in Figure 9.4. Managers reported a higher frequency of long hours working than all other occupations. On average, managers reported that they worked over 48 hours per week in 3.6 of the waves.

Figure 9.5 concludes the analysis by reviewing long-term long hours working by industry. Over one-third of employees working within agriculture, forestry and fishing (36 per cent) or construction (34 per cent) were working more than 48 hours in Wave 7, while over a quarter of those in metal goods engineering (28 per cent) and transport and communication (28 per cent) were also working long hours. However, although employees in the agricultural, construction and transport industries worked long hours in the last wave, the majority of those employees had not worked long hours in the previous wave.

Figure 9.5: Long hours over two waves, by most recent industry



Source: BHPS Wave 6 and 7

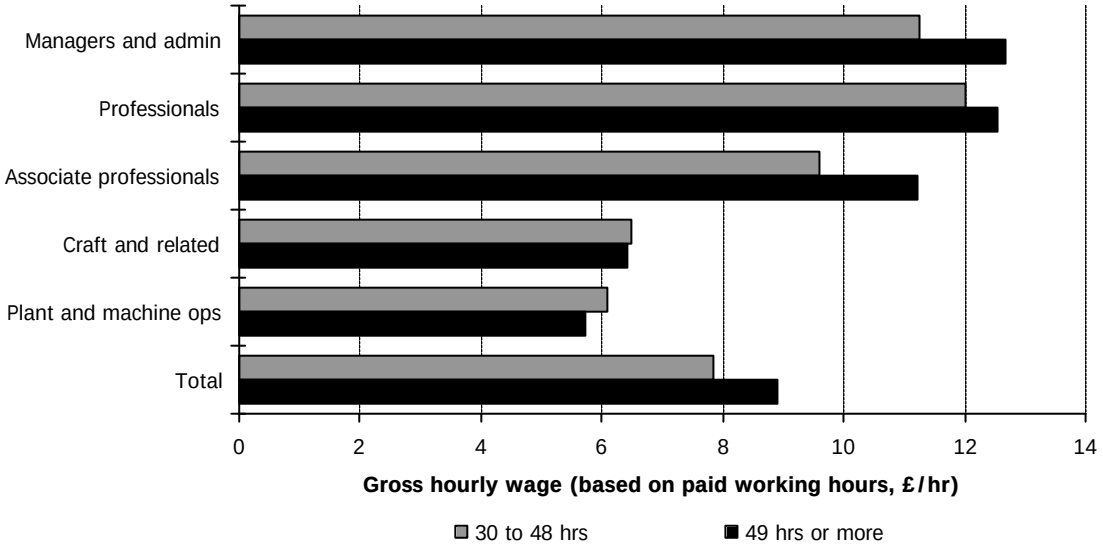
Finally, a model was constructed of the propensity of employees to work long hours. The results of the modelling for all employees (Appendix C, Table C.1) suggest that employees who work long hours are most likely to be:

- male
- middle-aged
- highly qualified (with postgraduate or graduate level qualifications)
- working in manufacturing, construction, distribution, hotel and catering or transport and communication
- working as managers, professionals or plant and machine operatives.

9.2 Long hours, pay and prospects

This section focuses on the association between working long hours and pay. Figure 9.6 shows the relationship between gross hourly pay and working long hours. In this instance, gross hourly pay has been defined as the gross pay per week divided by the *total number of paid hours* (*ie* contracted hours and paid overtime). Interestingly, we find that managers, professionals, and associate professionals who work long hours (based on total hours worked including unpaid overtime) receive more per hour than their counterparts who do not work as long. Although the differences are small, the opposite appears true for craft and related employees, and plant and machine operatives. We can conclude that managers and professionals in well-paid jobs work long hours. The relationship between current occupation and gross monthly earnings is illustrated in Figure C.1 in Appendix C. Unsurprisingly, within each occupation those that work more hours received higher monthly earnings.

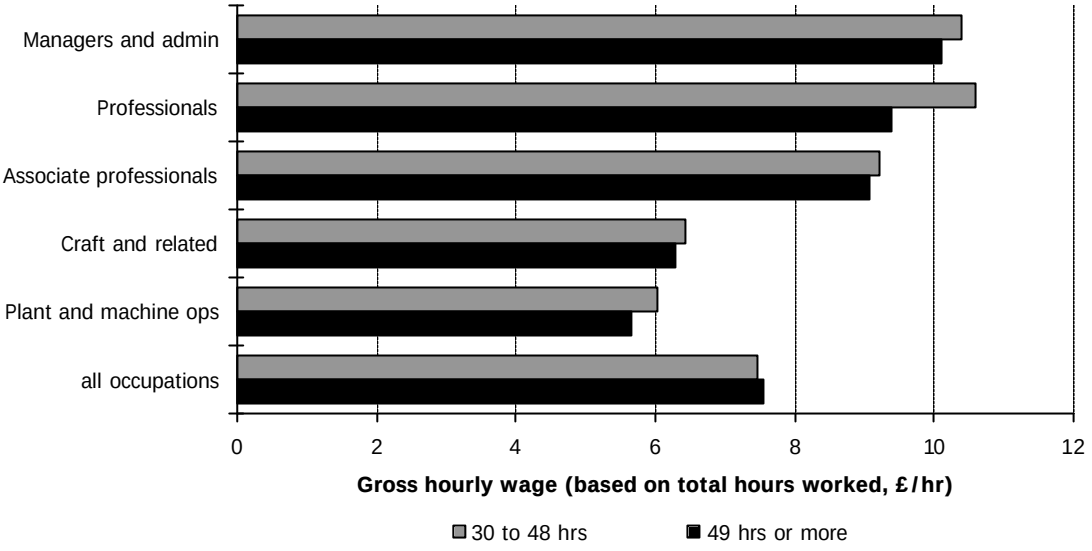
Figure 9.6: Gross hourly pay (based on paid working hours) by occupation and hours worked



Source: BHPS Wave 7

When hourly pay is calculated on the total hours worked per week (including *unpaid* overtime) then managers, professionals and associate professionals receive less per hour than their counterparts who are full-time but do not work long hours (Figure 9.7). For manual workers the pattern is the same as that in the previous figure. A plausible explanation for this is that a greater proportion of the total hours worked by manual workers comprises contracted hours and paid overtime, while non-manual works are more likely to undertake a significant proportion of unpaid overtime. Further, manual workers who work long hours are paid less per hour than their counterparts who do not, thus reinforcing the suggestion that long hours are often worked in order to improve pay in such occupations.

Figure 9.7: Gross hourly pay (based on total hours worked), by occupation and hours worked (full-time employees)



Source: BHPS Wave 7

Another possibility to consider is that some employees choose to work long hours in order to achieve greater returns in the future, *eg* through promotion or finding better paid work as a result of skills improvement. Previous research has suggested that there is a relationship between long working hours and increased chances of promotion in the USA (Booth and Francesconi, 1997) and increased future earnings in the UK (Cherry, 1999). Figure 9.8 examines working hours in Wave 5 against Wave 7 gross hourly pay (based on contracted hours and paid overtime only). The data suggest that employees in nearly all occupations who worked long hours in 1995/96 received a higher hourly rate of pay in 1997/98 than those employees that did not. This may partly be a reflection of

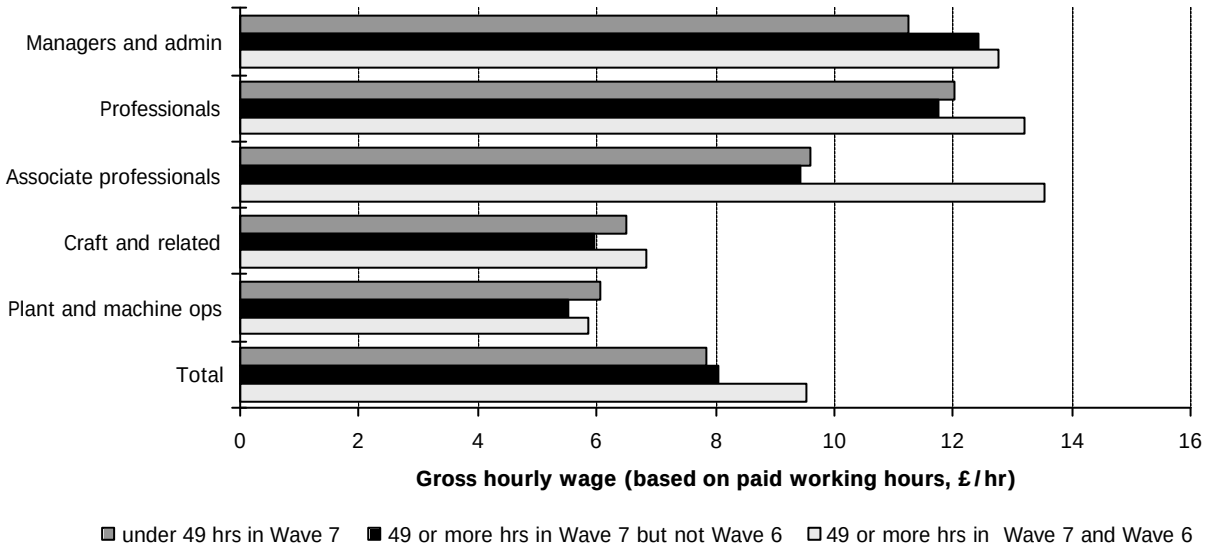
Figure 9.8: Gross hourly pay (based on paid working hours) in Wave 7, by current occupation and hours worked in Wave 5 (full-time employees)

Source: BHPS Waves 5 and 7

the association between current working hours and current pay, as current working hours and past working hours are closely correlated with each other. However, within each occupational group, pay levels are higher among those that worked long hours in Wave 5, and who may have worked long hours in Wave 7, than those who were earlier reported to have worked long hours in Wave 7 (Figure 9.6).

The above association is further confirmed by an analysis of long hours working over the past two waves. This shows that employees within most occupations that worked long hours over the two waves gained higher pay per hour (based on contracted and paid overtime) in the current wave than those working long hours in the current wave alone (Figure 9.9). For some occupations (*eg* professionals, associate professionals, craft and related, and plant and machine operatives) employees who have only worked long hours in the current wave received lower pay per hour than those who were not working long hours at all. These results are, however, based on a very small sample and should therefore be treated with caution.

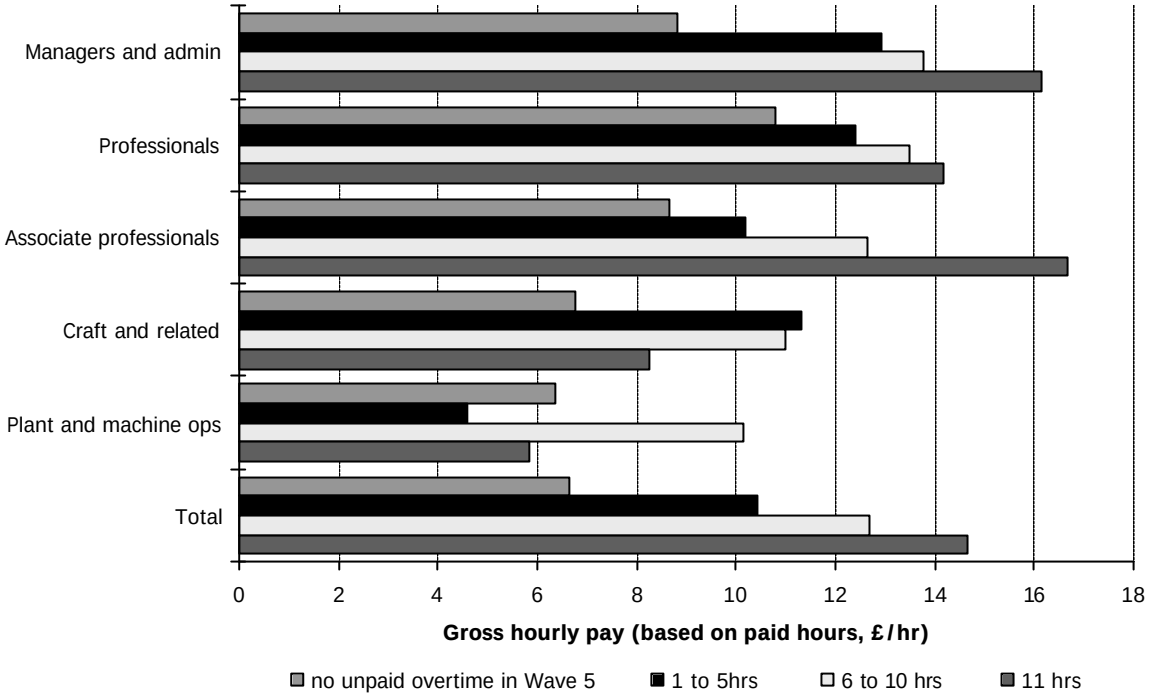
Figure 9.9: Gross hourly wage in Wave 7 (based on paid working hours), by current occupation and hours worked in last two waves (full-time employees)



Source: BHPS Wave 6 and 7

Finally, Figure 9.10 considers the amount of unpaid overtime worked in Wave 5 and its relationship with hourly pay in Wave 7. Among managers, professionals and associate professionals there is a clear association between the amount of overtime worked in the past and current levels of earnings. Although not conclusive, this would lend circumstantial support to the theory that some employees choose to work extra hours in order to receive higher future returns.

Figure 9.10: Gross hourly pay in Wave 7 (based on paid working hours), by current occupation and amount of unpaid overtime worked in Wave 5 (full-time employees)



Source: BHPS Waves 5 and 7

Having established that there is some relationship between past working hours and future earnings it is interesting to ask whether the relationship is 'causal' or merely a reflection of other inter-related factors. This issue is considered in the earnings models presented in Appendix C. Tables C.7 to C.10 consider the determinants of earnings among all full-time employees as well as males and females separately. The last two variables in the model capture the effects of working long hours in 'the current wave but not the previous one' and working long hours in 'both the current and previous wave'. The variables were generally found to be statistically significant but the direction of the effect was negative, *ie* those working long hours were paid less per hour than those that were not (irrespective of whether the calculations of hours worked included or excluded unpaid overtime). Finally, Table C11 examines whether paid hourly earnings growth between Waves 5 and 7 is associated with the amount of overtime conducted in the current wave and the three earlier waves. The results are mixed and suggest a negative association with overtime worked in Wave 7 but a positive one with Wave 5; the amount of overtime worked in Waves 4 and 6 is insignificant. Other specifications, varying the length of time under examination and the measure of earnings growth (not shown), proved inconclusive. For these reasons, the relationship between hours worked and growth in earnings needs to be viewed with caution; the link between pay and working hours is a complex one and the relationships that we have observed may have other underlying explanations.

9.3 Long hours and job satisfaction

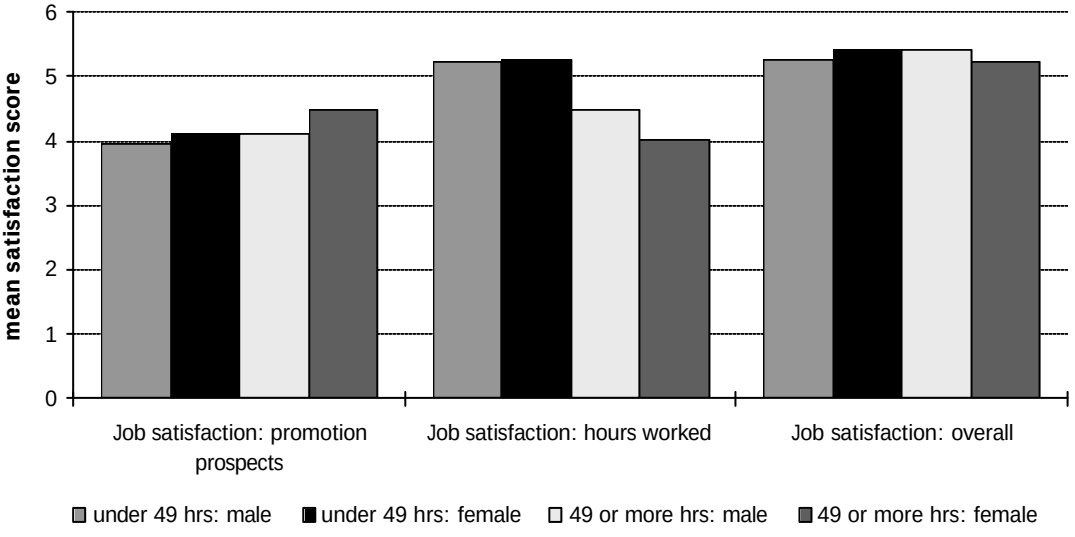
The BHPS asks employees to grade their satisfaction with various aspects of their employment on a scale of one to seven, with one representing complete dissatisfaction and seven representing complete satisfaction. The relationship between average satisfaction scores (for promotion prospects, pay and the job overall) and working hours among full-time employees is reported in Figure 9.11. There is a slight increase in the satisfaction over promotion prospects with hours worked. The same is also true for overall job satisfaction, while satisfaction with working hours declines steeply with the number of hours worked.

Expanding the analysis to consider job satisfaction and working hours by gender, the data suggest that women who work long

Figure 9.11: Job satisfaction, by hours worked (full-time employees only)

Source: BHPS Wave 7

Figure 9.12: Job satisfaction, by hours worked and gender (full-time employees only)

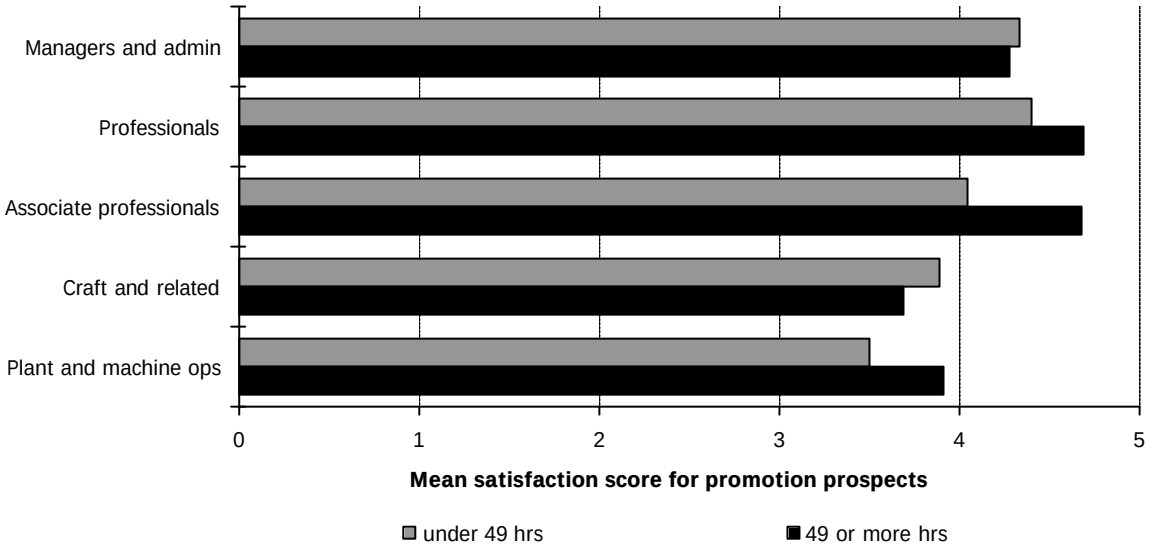


Source: BHPS Wave 7

hours are generally more satisfied with their promotion prospects than women who do not work long hours, but they are less satisfied with their jobs overall (Figure 9.12). Differences in satisfaction over hours worked are more acute. Women working over 48 hours report lower satisfaction scores for hours worked, than men. They also show a slight decline in overall job satisfaction, as hours increase to over 48 hours.

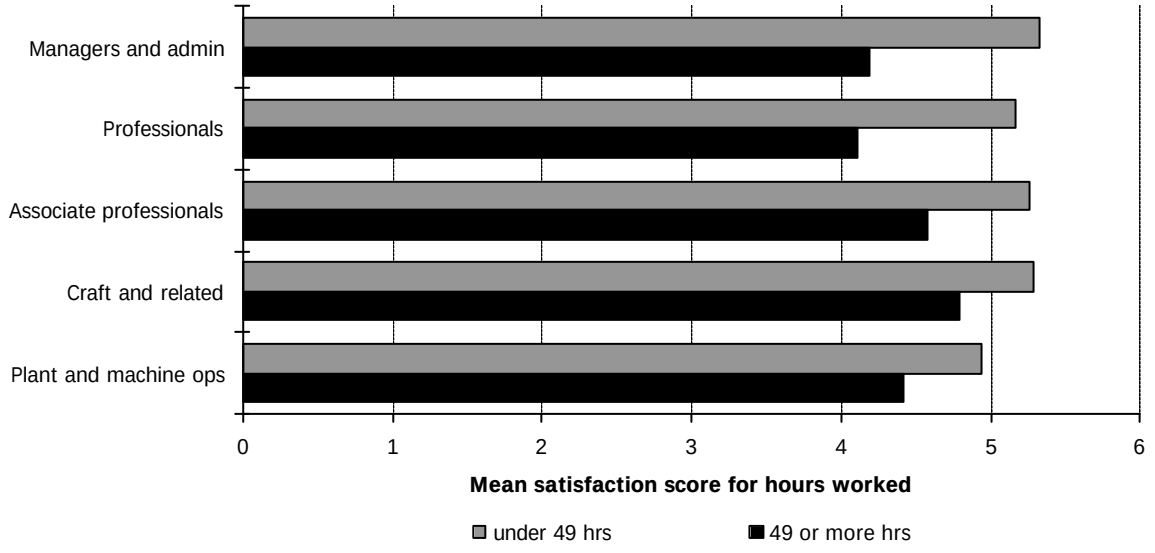
Figures 9.13 and 9.14 examine satisfaction over promotion prospects and hours worked among the occupations that work the longest hours. Satisfaction over promotion prospects is higher among the non-manual workers (managers, professionals and

Figure 9.13: Satisfaction over promotion, by hours worked and occupation (full-time employees)



Source: BHPS Wave 7

Figure 9.14: Satisfaction over hours worked, by hours worked and occupation (full-time employees)



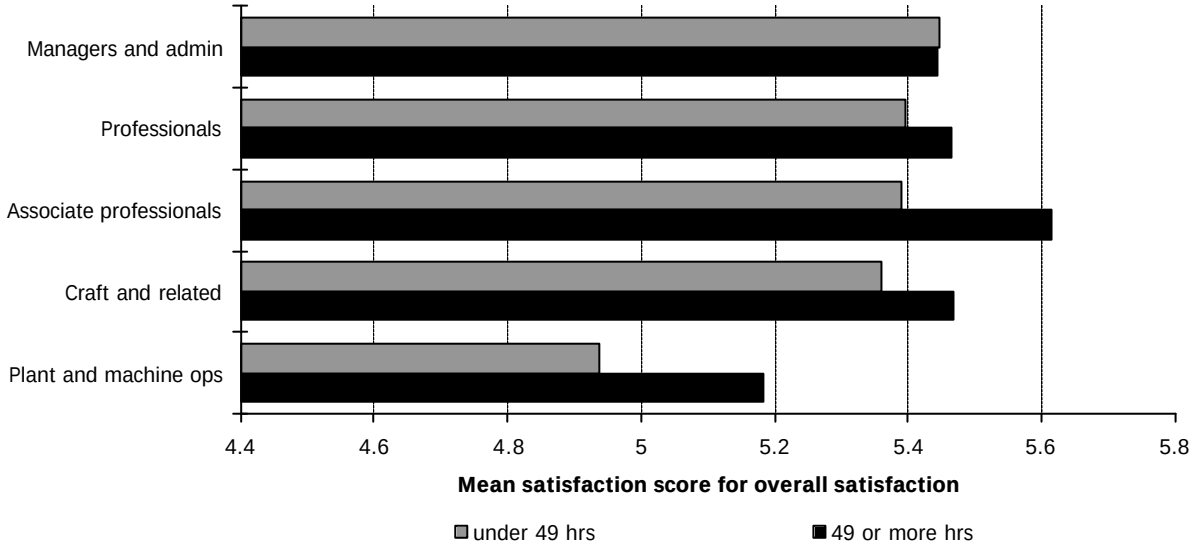
Source: BHPS Wave 7

associate professionals) than those in manual occupations, irrespective of the number of hours worked (Figure 9.13). Among professionals and associate professionals, those that work longer hours report higher satisfaction than their counterparts who work under 49 hours per week. The position of manual workers is less clear cut, with craft and related employees working long hours reporting less satisfaction than those working shorter hours, and plant and machine operatives showing the reverse.

On the subject of satisfaction over hours worked, in all occupations those who work long hours were more dissatisfied (Figure 9.14). However, the greatest differences by hours worked are among managers and professionals. This may reflect the fact that these groups work the greatest proportion of unpaid overtime.

Finally, among all groups except managers, overall job satisfaction is positively correlated with working longer hours (Figure 9.15). The greatest differences in job satisfaction by hours worked were among associate professional and plant and machine operatives.

Figure 9.15: Overall job satisfaction, by hours worked and occupation (full-time employees)

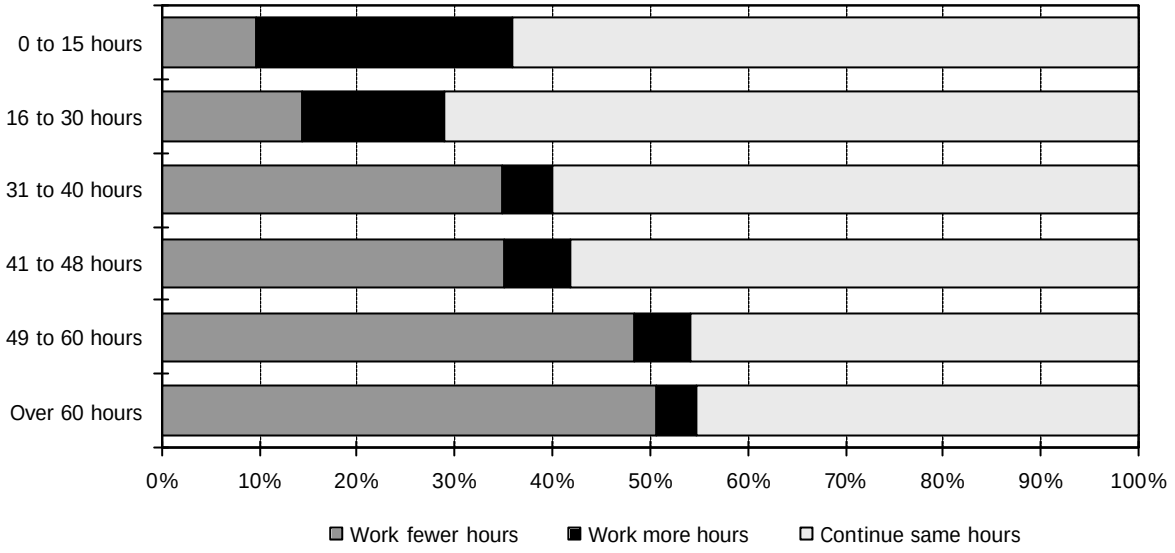


Source: BHPS Wave 7

9.4 Long hours and preferences over working hours

The previous section showed that those working longer hours were less likely to be satisfied with the hours they work. In this section, employee preferences over working hours are considered in more depth. Previous literature on working hours preferences has already been discussed in Section 6.2.1, in particular Boeheim and Taylor, 2001. Here, Figure 9.16 goes on to look at the relationship between preferences over working hours by hours worked. Unsurprisingly, the more hours an employee actually works, the more likely they are to want to work fewer hours. Fifty-four per cent of those working over 48 hours wanted to work fewer hours and the figure rises to 55 per cent when we consider

Figure 9.16: Preferences over hours worked, by working hours

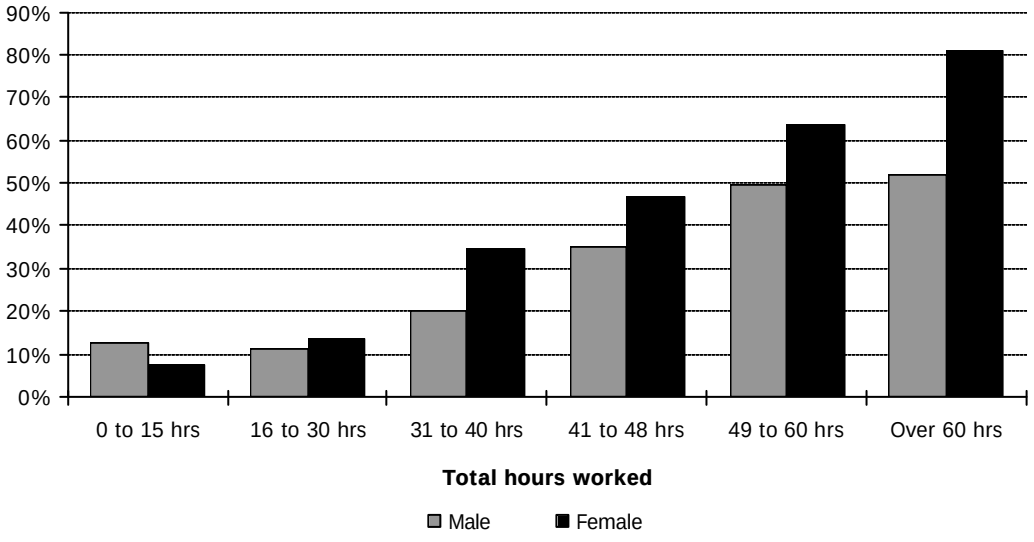


Source: BHPS Wave 7

those that are working more than 60 hours per week. Interestingly, there was still a minority (four per cent) of employees who worked 60 hours a week and wanted to work more.

Figure 9.17 examines preferences over hours worked by actual hours worked and gender. Within each of the hours worked categories (except the shortest), women were more likely than men to say they wanted to work fewer hours. An examination of those working very long hours (over 60 hours per week) shows that more than half of the men (52 per cent) and most of the women (81 per cent) in the sample had a preference for working fewer hours.

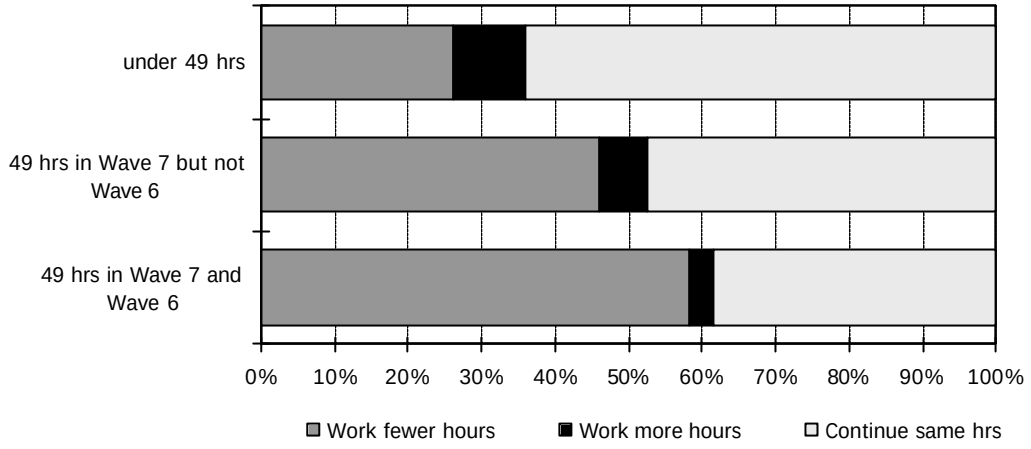
Figure 9.17: Percentage of employees who would prefer to work fewer hours, by hours worked and gender



Source: BHPS Wave 7

The preference to work fewer hours is also associated with working long hours over a period of time. Figure 9.18 suggests that employees who have worked long hours over two consecutive years were more likely to prefer to work fewer hours than those that had just been working long hours in the most recent year.

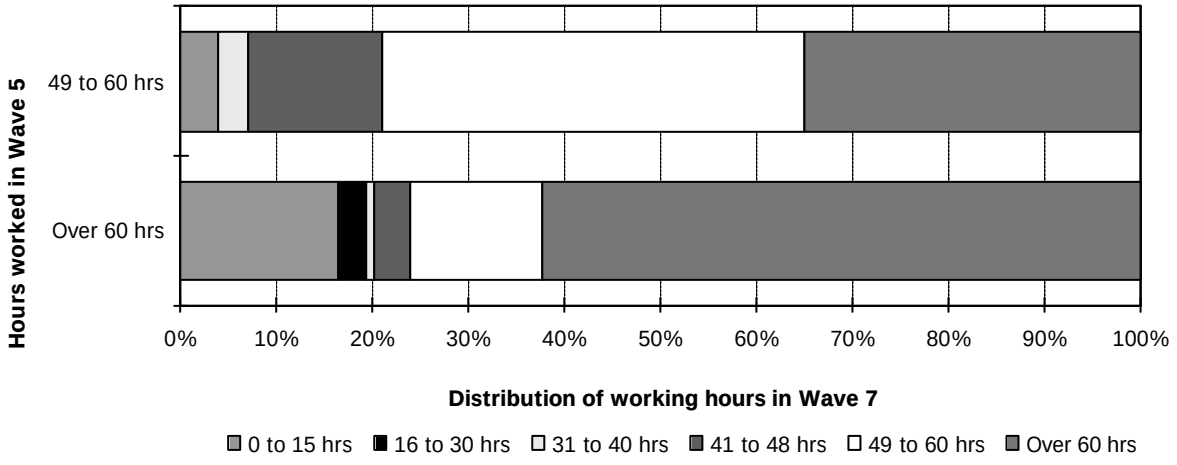
Figure 9.18: Preferences over hours worked, by hours worked over two years



Source: BHPS Waves 5 and 7

Given the association between hours worked and preferences over working hours, an interesting question to ask is whether employees who indicate a preference to work shorter hours in one wave were able to realise their preferences in a later wave. Figure 9.19 focuses on employees who were working in both Waves 5 and 7 and worked long hours in Wave 5. It compares the hours worked in Wave 5 with working hours in Wave 7 among those that stated in the earlier wave a preference to work fewer hours. The analysis shows that over one-third of those who worked more than 60 hours in Wave 5 and wanted to work fewer hours were indeed doing so by Wave 7. Among those working between 49 and 60 hours in Wave 5 that wanted to work fewer hours, over one-fifth were doing so by Wave 7.

Figure 9.19: Hours worked in Waves 5 and 7, among those who preferred to work fewer hours in Wave 5



Source: BHPS Wave 5 and 7

As the analysis in the last two sections shows, the relationship between working hours and satisfaction over hours worked or preferences over hours worked is complex. A number of inter-related factors may ultimately determine the amount of time employees would prefer to work. To explore some of these issues in more depth, the determinants of working hours preference was modelled using ordered logistic regressions. The outcome of these models for all full-time employees and males and females separately are reported in Tables C.4 to C.6 in Appendix C. They suggest that when the effects of various factors are considered together, preferences over hours worked depend on gender, age, occupation, mental well-being (examined further in Section 9.6), paid working hours and responsibility for household duties (examined further in Section 9.5). In summary, the model for all employees found that those wishing to work fewer hours were more likely to be:

- female
- middle-aged
- managers (although this is not significant in the male only model)
- potentially under mental 'distress'
- working longer paid hours
- working longer unpaid hours
- living as a couple in which they are responsible for more than half of the household chores.

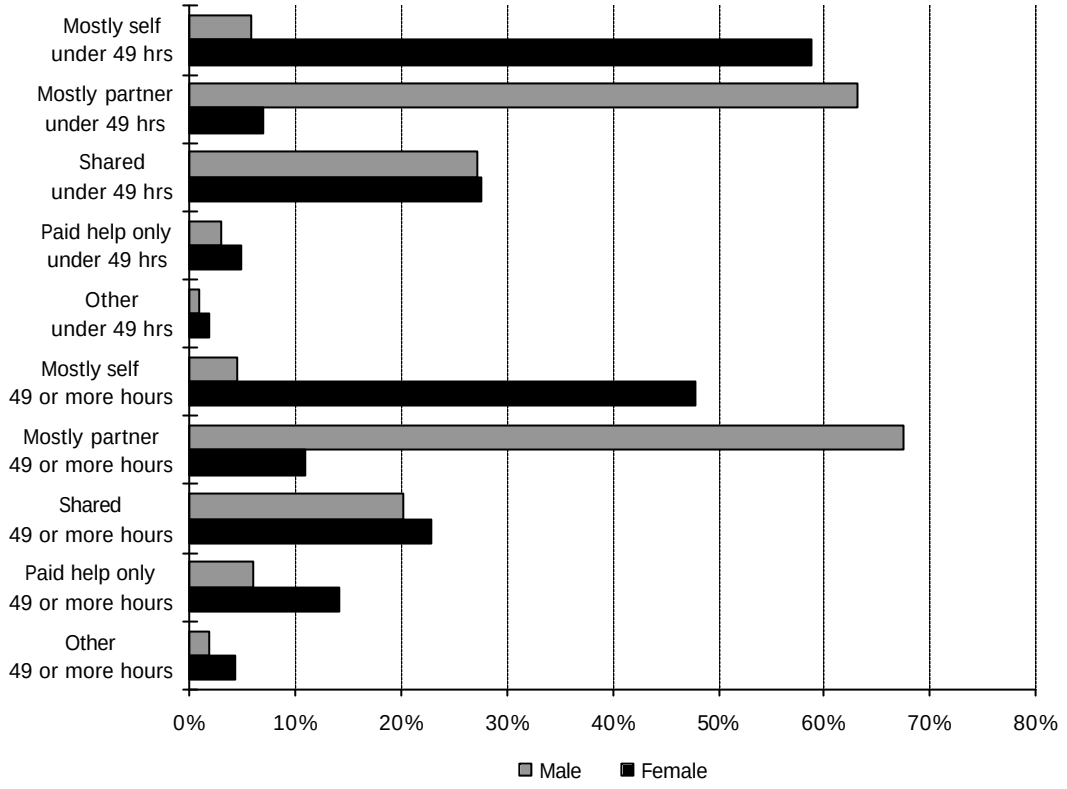
9.5 Long hours and work-life balance

This section examines the relationship between long hours at work, household duties and social well-being. The BHPS asks a number of questions to people who are living with their partners (*ie* married or living as married) on issues relating to how different household responsibilities are divided. These questions relate to household management functions, such as grocery shopping, washing and ironing, cleaning and cooking, as well as duties relating to responsibilities for childcare.

Figure 9.20 shows that among couples responsibility for cleaning usually rests with the female partner. A similar story is repeated in the case of grocery shopping (Appendix C, Figure C.2), washing and ironing (Appendix C, Figure C. 3) and cooking (Appendix C, Figure C.4). Interestingly, when females work more than 48 hours per week:

- 49 per cent of them are the partner mainly responsibly for the cleaning
- 63 per cent are mainly responsible for washing and ironing

Figure 9.20: Responsibility for cleaning, by hours worked and gender (couples, full-time employees)



Source: BHPS Wave 7

- 49 per cent are mainly responsible for cooking, and
- 44 per cent are mainly responsible for grocery shopping.

In contrast, looking at the percentage of females who work long hours and claim that their partner does most of a particular household duty, the figures are under 20 per cent for each example.

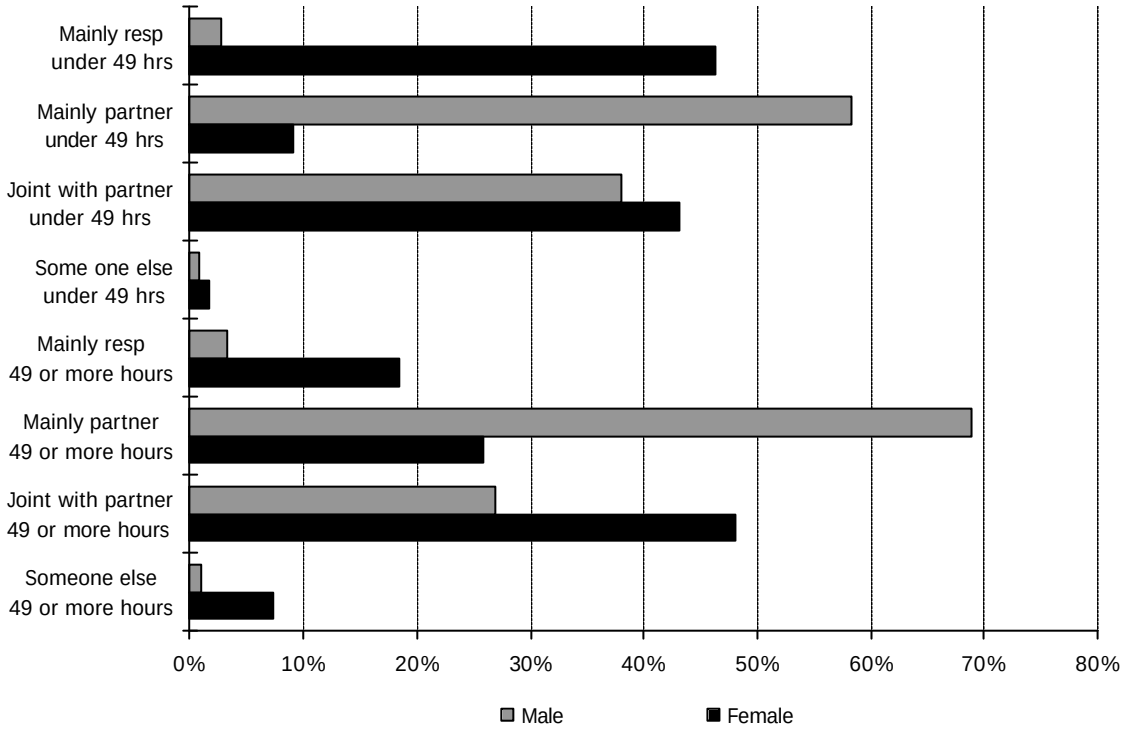
In cases where the male partner works long hours, the likelihood of them being the partner mainly responsible for household duties is even lower:

- washing and ironing (three per cent)
- cleaning (four per cent)
- cooking (seven per cent), and
- grocery shopping (eight per cent).

These results lend support to the argument that women working long hours at work could find themselves under greater overall pressure than some of their male counterparts. This may in part be reflected in the fact that those women that do work long hours show a greater dissatisfaction over the hours they work and a preference to reduce their hours.

The picture for childcare responsibility is less extreme and a larger proportion of respondents suggest that these responsibilities are shared between partners (Figure 9.21). Despite this, men who work long hours were the group most likely to have reported that responsibility for childcare rested predominantly with their partners (68 per cent, compared to 58 per cent among men who worked under 48 hours per week).

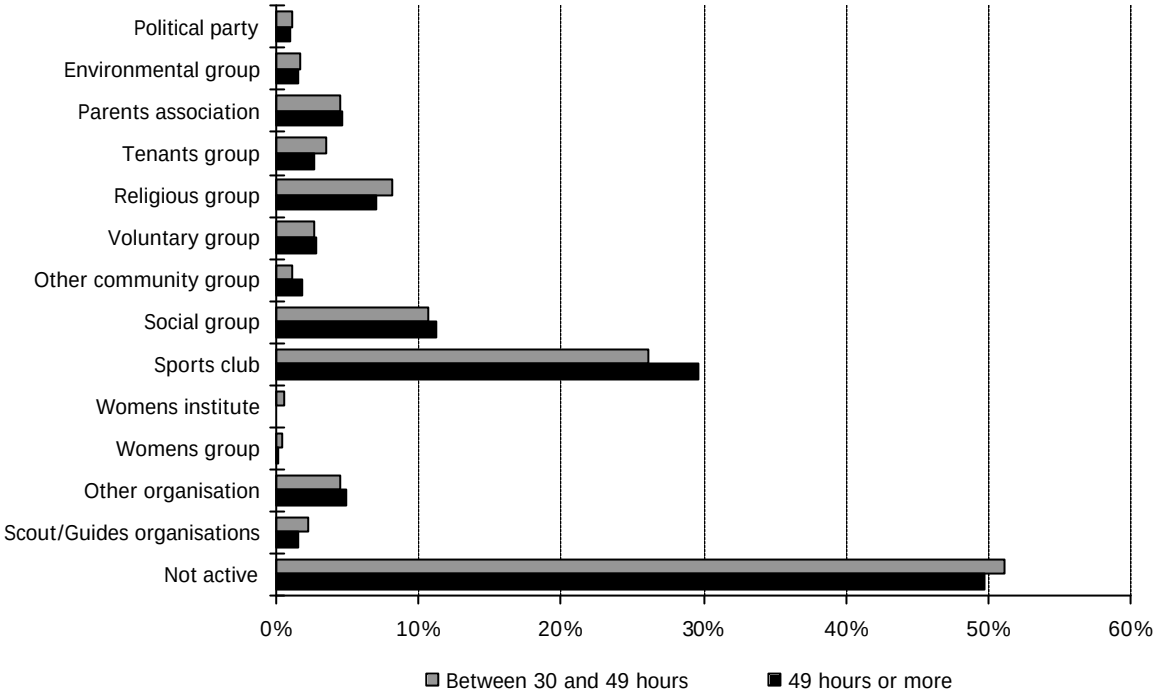
Figure 9.21: Responsibility for childcare, by hours worked and gender (couples with dependent children, full-time employees only)



Source: BHPS Wave 7

Figure 9.22 considers the wider social activities engaged in by people working long hours. The BHPS asks a number of questions that relate to social interaction; these questions range from asking about the number of people respondents have met in the last week, to questions on membership of societies and active participation therein. The analysis focuses on active participation in non-work related societies. Figure 9.22 shows that there is little correlation between working long hours and participation in these activities. Unfortunately, the number of cases is too few to break this analysis down any further.

Figure 9.22: Participation in clubs and society by working long hours (full-time employee)

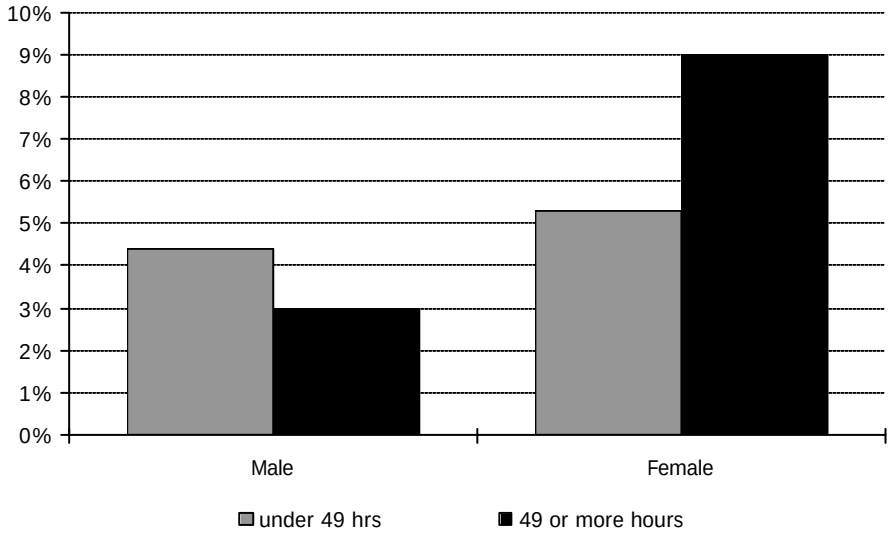


Source: BHPS Wave 7

9.6 Long hours, health and social well-being

This section examines the relationship between long hours, health and life satisfaction. The BHPS asks a number of questionscovering issues relating to health, mental well-being and a respondent's satisfaction with various aspects of day-to-day living. Figure 9.23 illustrates the percentage of employees who claim that their health has either been poor or very poor over the last 12 months, by gender and hours worked. We can see that men who worked long

Figure 9.23: Poor/very poor health over last 12 months, by working hours and gender (full-time employees only)

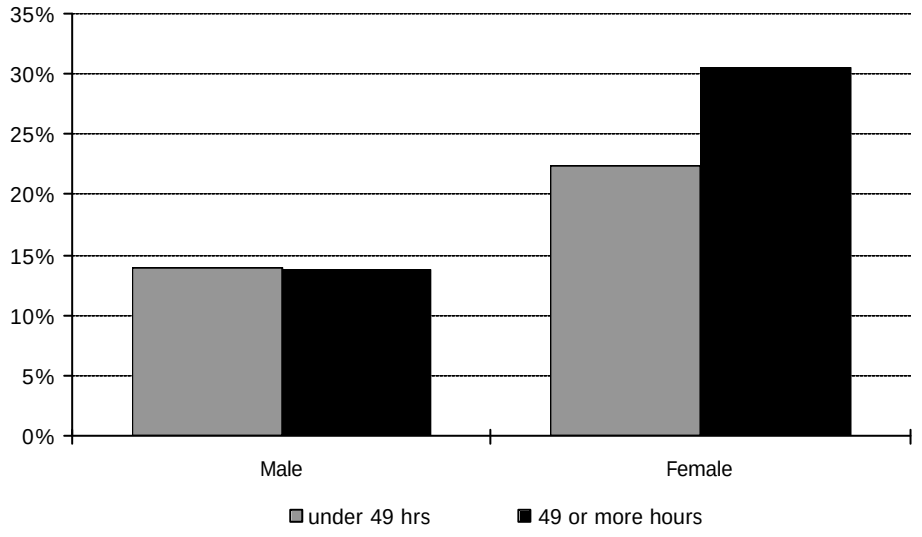


Source: BHPS Wave 7

hours were less likely to report poor health than those who worked shorter hours. However, for women the contrary is true. Women who worked long hours were nearly twice as likely to have reported poor health than their shorter hours counterparts (nine per cent compared to four per cent).

Turning now to mental health, the BHPS asks a series of questions that form the basis of the General Health Questionnaire (GHQ).[1] These questions were designed to uncover various elements of distress, including: depression, anxiety, social impairment and hypochondria. The GHQ 'Caseness' scale is a Likert scale that ranges from one to 12, with scores greater than three being associated with high risks of distress. The relationship between working hours, high GHQ scoring (greater than three) and gender is displayed in Figure 9.24. Among men there is little correlation between high GHQ score and working hours. Whether this is because working long hours has no effect on men's health, or whether it is because men adjust their working hours to accommodate health problems is very difficult to substantiate. Interestingly, among women the correlation between these two variables is positive, *ie* women who work long hours appear to be at a higher risk of distress than all other groups.

Figure 9.24: High GHQ scores (>3) by hours worked and gender (full-time employees)



Source: BHPS Wave 7

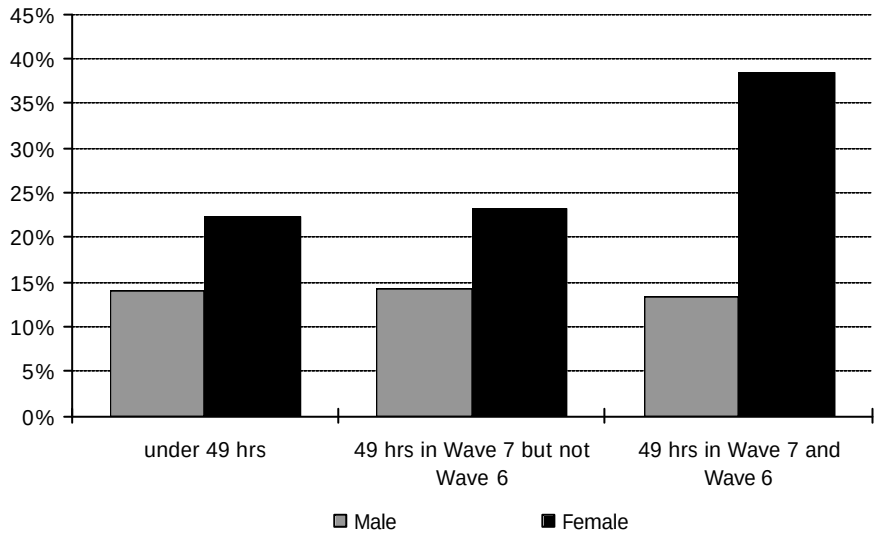
Multivariate analysis of GHQ scoring (Tables C.12 to C.15 in Appendix C) provides mixed results. Logistic regression models (Table C.14 and C.15 in Appendix C) show that there is a positive association between women who work long hours and high GHQ scores (*ie* scores of 4 or above). Nonetheless, multiple regression models using a broader GHQ scale (ranging from 0 to 36) as the dependent variable (Tables C.12 and C.13 in Appendix C), fail to

[1] See McDowell and Newell, 1996.

provide any evidence of such a relationship. This confirms more detailed analysis conducted by Bardasi and Francesconi (2000), based on the GHQ 0 to 36 scale, which also found no such relationship between long hours among women and higher GHQ scores.

At a descriptive level, differences between working hours, GHQ scores and gender appear even greater if we look at those who work long hours over the long term. This is illustrated in Figure 9.25, where 38 per cent of women who worked long hours over two consecutive waves have high GHQ scores. Interestingly, there appears to be little difference within each gender between those that had only worked long hours in the most recent wave and those that were not working long hours at all. This suggests that the effects of long hours on mental well-being may become apparent only when those long hours are worked over the longer term. It should be noted, however, that some of these results are based on a small number of cases and therefore need to be treated with caution.

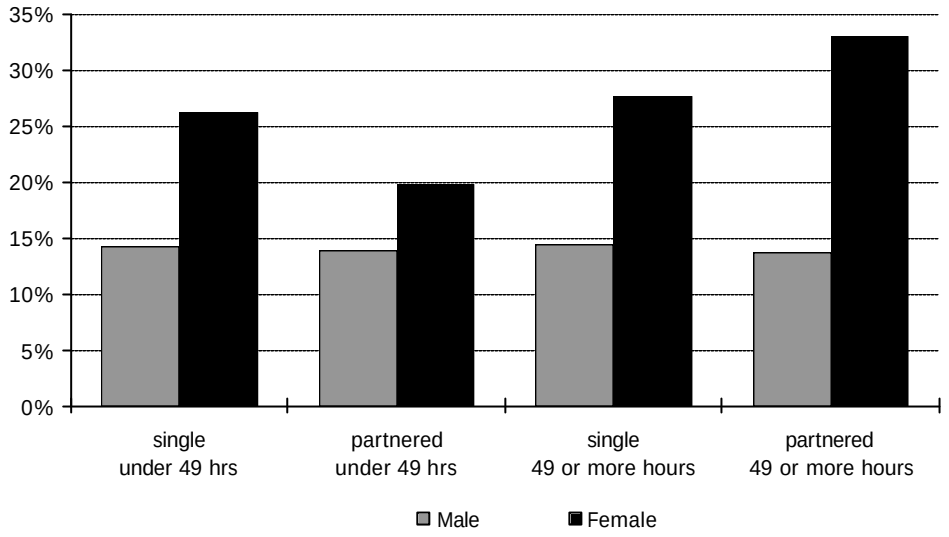
Figure 9.25: High GHQ scores (>3) by hours worked in two waves and gender (full-time employees only)



Source: BHPS Waves 6 and 7

Finally, to consider whether the higher GHQ scores among females working long hours may be partly explained by the pressures of working those hours combined with other household commitments, analysis was undertaken of GHQ scores by long hours, gender and whether women are married or living with a partner (Figure 9.26). The graph suggests that females who are partnered and work shorter hours are less likely to have a high GHQ score than those that work similar hours but are single. Also, there is little variation in GHQ scores among single women, irrespective of the hours worked. However, females who work long hours and are partnered are the most likely group to have a

Figure 9.26: High GHQ (>3) by working hours, partnered or single, and sex (full-time employees)



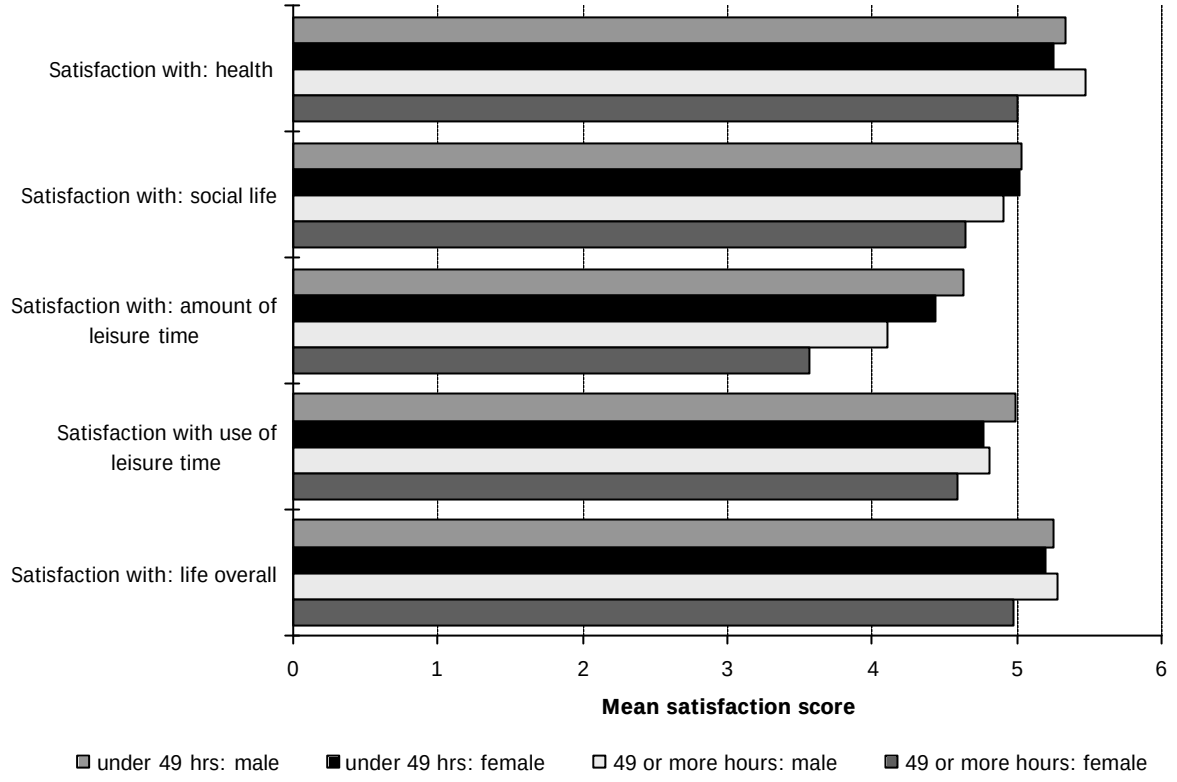
Source: BHPS Wave 7

high GHQ score. Multivariate analysis based on the GHQ 3 to 4 cut off (Table C.15 in Appendix C) confirms this relationship. However, once again, multivariate analysis using the 0 to 36 scale does not produce significant results. For these reasons, although some of these results would lend circumstantial support to the theory that the pressures of long hours working, combined with other household commitments, are having an adverse effect on the mental well-being of many partnered women, there is clearly scope for more detailed enquiry.

The last two figures in this section review the impact of long hours on satisfaction over various aspects of life. It can be seen from Figure 9.27 that satisfaction with social life and the amount of leisure time available decreases with hours worked. This decrease is greater among women than men. However, satisfaction with health is greater among men who work the long hours than it is among their counterparts who work shorter hours, while for women the reverse is true. This is also reflected in the earlier findings that linked ill health with hours worked (Figure 9.23).

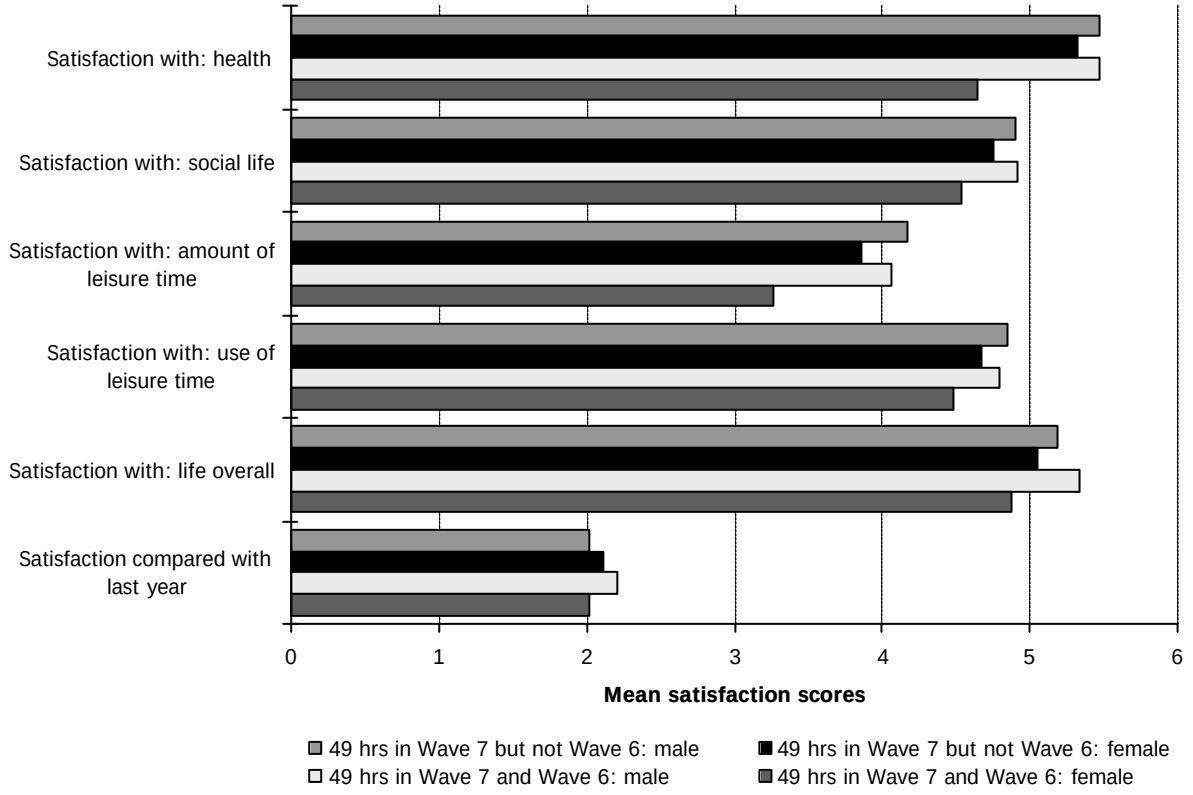
Figure 9.28 looks at life satisfaction against working hours over the long term. The results are similar to those reported above, with women who work long hours over two waves reporting the highest degree of dissatisfaction.

Figure 9.27: Life satisfaction, by hours worked and gender (full-time employees)



Source: BHPS Wave 7

Figure 9.28: Life satisfaction, by hours worked over two waves and gender (full-time employees)



Source: BHPS Waves 6 and 7

9.7 Conclusions

The key findings from the analysis of BHPS data are as follows:

- Long hours working (*ie* working more than 48 hours per week) is most common among men, middle-aged people, employees with high level qualifications, managers and professionals, and those working in craft and related occupations, and as plant and machine operatives. The industries with a particularly high incidence of long hours working are construction and agriculture, forestry and fishing.
- Analysis of long hours and pay shows that managers and professionals in well-paid jobs tend to work long hours (in these occupations overtime hours are mostly unpaid). In contrast, employees working in craft and related occupations, and as plant and machine operatives, who work long hours, are less well paid per hour than their counterparts who do not work long hours. Overtime hours in these occupations are more likely to be paid, and employees are able to increase their earnings by working extra hours.
- Among managers and professionals there is a clear association between the amount of overtime worked in the past and current levels of earnings. This lends circumstantial support to the hypothesis that employees in these occupations choose to work long hours to receive higher future returns. Nonetheless, multi-variate analysis indicates that the link between pay and earnings is more complex.
- The more hours worked the more likely employees are to be dissatisfied with their working hours (this is especially true of women, managers and professionals). In contrast, among women in particular, satisfaction with promotion prospects increases with the number of hours worked. However, women are less likely to be satisfied with their job overall, if they work long hours. For men the reverse is true.
- Women, particularly those working very long hours, are more likely to wish to reduce their hours than men.
- Many women who cohabit with their partner and work long hours still have the main responsibility for household functions such as cleaning and cooking. However, it is rare for men who work long hours to have the main responsibility for such functions. This may explain why women who work long hours show a greater preference than men to reduce their working hours.
- Long hours working seems to have a particularly negative effect on women's health and mental well-being. Women who work long hours are much more likely than their counterparts working shorter hours to report poor health. On the other hand, men who work long hours appear to be healthier than those who do not work long hours. Women also have a higher

risk of mental distress if they work long hours, particularly if they work long hours in the longer term, *ie* they have worked long hours for more than one year.

- Satisfaction with various aspects of life, for example health, social life and leisure time, tends to decrease with the number of hours worked. Again, this effect is much greater among women than men.

Overall, the findings suggest that long hours working puts women under greater amounts of pressure and has a greater negative impact on their health, well-being and satisfaction with life, than it does for men.

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