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R M Spink

OVERTIME WORKING IN THE U.K.

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**CRANFIELD INSTITUTE OF TECHNOLOGY
SCHOOL OF MANAGEMENT**

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OVERTIME WORKING IN THE U.K.

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SUMMARY

The key objectives for this research were to:

- i) Provide a database in order to extend the knowledge and understanding of the management and use of overtime across the whole economy;
- ii) Review and test a range of research questions and hypotheses concerning specific problems and controversies surrounding the use of overtime.

The research was structured within three main phases *viz.* desk-research, fieldwork and analysis.

The initial search for improved U.K. labour market management revealed overtime to be a key factor, equivalent to 1.5 million full time jobs, and apparently little understood. It had been forecast that overtime would fall in the late 1970s and 1980s and that this fall would result from the combined effects of: unemployment, uncompetitive unit labour costs and increasing management scrutiny. In the event overtime increased considerably and continues to increase, confounding many of the soothsayers. In 1988-89, the cost of overtime to employers was £15,000 million, £5,000 million of which was the premium paid to secure the benefits which management must have considered the overtime would bring to their organisations.

A research market gap was found regarding the use and management of overtime across the economy as a whole. Moreover, this knowledge would be needed since change remains an apparent inevitability. It was against this backdrop that overtime was investigated. Desk-research was directed at providing an unbounded literature review, addressing the key issues which surround the use of overtime. This review established that there is a high degree of controversy regarding the use of overtime and it facilitated the detailed design of the research questions and hypotheses. A multi-faceted methodology was developed to investigate these questions and test the hypotheses. This involved building on the desk-research, using two mutually supportive fieldwork techniques; firstly, a survey, using a mailed questionnaire, and secondly, a set of semi-ethnographic case studies.

The Survey covered all economic sectors, sizes of establishment and regions of the U.K. It yielded 225 usable cases, representing over 40,000 employees and collected a wide range of statistical data regarding the use and management of overtime and structures and perceptions of working time. These results were analysed by reference to a number of structural variables, including: sector; regional location; size of establishment; type of worker and overtime levels. The resulting series formed a basis for standardised comparisons between the structural variables. A range of statistical data and significant associations and differences were established, providing a unique empirical database and thereby satisfying one of the key objectives of the research. Thus the survey produced a skeleton of statistical evidence, whereas the case studies built on this framework to give the detailed explanation and interpretation needed for a better understanding of the processes involved.

The results of both the desk-research and fieldwork were drawn together to help resolve the research questions and test the hypotheses. It was established that overtime detracts from operational flexibility, confounding the majority of managers who claimed flexibility-based reasons such as 'unexpected demand' and 'emergency cover' as the prime explanations of their use of overtime. Indeed, about 75% of overtime was found to be systematic, insofar as it was predictable, and therefore operated either by management choice or default. The effects of overtime on employment were more significant than had been indicated in the literature. For example, the substitution of overtime for employment was found to be more widespread than most commentators had predicted, although managers did not readily yield to this fact. Conversely, worker dependency on overtime earnings was found to be much less common than previous research had allowed.

In concert with the literature, however, clear and extensive evidence was found to associate overtime with ineffective management. A significant amount of overtime was simply unnecessary from an operational viewpoint, and the majority of the balance was ineffective in that it was less cost-effective than the alternatives. Such unnecessary and ineffective overtime was characterised by phenomena such as: mistaken management understanding of its application, effects and comparative costs; an inappropriate management decision process leading to its use; the improper and inadequate utilisation of management controls; employee control of the overtime and adverse employee welfare associated with its use.

Notwithstanding the above conclusions, a minority of overtime was found to be an effective and rational means for management to satisfy demand and to meet corporate objectives.

ACKNOWLEDGEMENTS

This research is the product of the efforts of many people. Considerable assistance was received from the staff of Cranfield School of Management, and a wide range of workers, managers and trade unionists gave help and encouragement during the fieldwork. It would be dangerous to try to mention all these people individually, since one might be inadvertently forgotten. Special tribute, however, must be paid to Dr Chris Brewster, who acted more than simply the Supervisor to this research, he was a guru in every sense. Sincere thanks are offered to all those involved. It would be churlish not to pay respect to my forbearing and supportive wife Janet, and children Paul, George, Robert and Charlotte.

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1 INTRODUCTION

1.1 THE INITIAL RATIONALE AND MOTIVATION FOR THE RESEARCH

The original objectives of an extended programme of research can appear somewhat remote and irrelevant as the project develops. That was not the case for this thesis. The reasons and motivation for the project were reinforced during its progress and there remains solid conviction of its need and potential value. It may be of passing interest to review, very briefly, the project genesis.

In the early 1980s, an interest was developed in the management of the labour market, in response to damaging levels of unemployment. Substantial background research was conducted into unemployment alleviation measures. The fundamental thesis followed neo-classical lines, in that the labour market was viewed as a simple balancing equation of demand and supply, yielding a surplus or shortfall of labour. The equation had many potential inputs and outputs which remain the subject of constant debate and development. Certainly the resultant yield crucially affects individuals, organisations and the general 'health' of the nation and no one could deny the importance of achieving a 'better' balance, in terms of both social and economic consequences.

In the light of this early analysis, in the mid 1980s, it was decided to look prospectively at the potential labour market management options, in order to identify an area of detailed research for which this project could be the vehicle. This process led to the development of a taxonomy entitled: 'Unemployment Alleviation Measures'. In all, 63 separate measures were identified. This computer-based taxonomy classified the relevant sources of information and comment against each of the 63 measures and enabled these to be rationally ordered. The structure of this 'model' may help to explain the route which led to the eventual choice of topic. The adopted classifications are set out in Appendix 1-1, 'Unemployment Alleviation Taxonomy Classifications'.

Other classifications and dimensions, which were considered but not developed, included: international comparability; 'morality' and degrees of outcome certainty. It was hoped that, in the future, this taxonomy would promote a more structured, (and less political), approach to labour market management at all levels. Although it has remained somewhat undeveloped, the taxonomy certainly facilitated rational evaluation, and therefore the choice, of the detailed research topic.

1.2 RESEARCH PROJECT TOPIC SELECTION

A number of criteria were adopted in order to guide the selection of an area of labour market management for this PhD research project. These criteria are summarised below:

- 1 **Importance:** the topic should be important and substantial in terms of its potential impact on the labour market;
- 2 **Viability:** the topic should offer pragmatic opportunity for change, rather than simply present an unlikely theoretical option;
- 3 **Originality:** the topic must offer the opportunity to bring new evidence to bear, it should present a 'research gap';
- 4 **Feasibility:** the topic should be researchable, within the available resources, *viz*: monographic, offer pragmatic fieldworking opportunity at the micro-economic level and be a suitable match for the researcher's abilities and experience.

The first two criteria were essentially product oriented and reflected the original *raison-d'être* of the project. The last two were concerned more with the actual PhD process. On balance, the issue of the management of overtime working in the U.K. recommended itself as the most appropriate of the 63 unemployment alleviation measures reviewed. The reasons for this choice are summarised below.

The evidence on the first criterion was clear. Informed estimates of the potential worksharing impact of overtime reduction ranged from 100,000 jobs (DOE 1978), to 1,300,000 jobs (Labour Research 1980). The conversion of overtime hours into new jobs is reviewed in detail in Section 3.4.6 herein. White (1984; 88) revealed that 'overtime was under-reported by official estimates' and that little was known of the extent and effects of unpaid overtime within the economy. The fundamental question appeared to be the extent to which overtime could be converted to jobs and the processes involved. In order to help find an answer to this question, more up-to-date and comprehensive information was needed regarding the use of overtime within the whole economy and, in particular, the mechanisms and processes of the plant-level management of overtime.

Of course, one of the problems with overtime reduction as a worksharing measure is that it is far from irreversible, unlike most other worksharing measures (Metcalf 1982). This mitigated against overtime as an unemployment alleviation measure. In contrast, worksharing measures generally increase costs. The one exception is that of overtime reduction, which can offer savings in some circumstances (Best 1981; Bosworth 1983; White 1984). Also, as Hanagan (1982) pointed out, 'overtime predominates among male manual workers as does unemployment'; the potential link to the control of unemployment cannot be ignored.

Moreover, 'better' overtime management may offer a 'job creation' facet about which there is scant comment in the literature (Jallade 1981; White 1982; ILO 1985). This aspect of overtime management has since been defined and referred to as the 'second round effects', and is considered to be of as great a potential significance as that of the worksharing implications of overtime reduction (Spink and Brewster 1989).

The evidence on the second test, 'viability', was more ambiguous in that change had long been predicted, but had not materialised. Nevertheless, it was clear that other competitor nations generally operated with lower levels of overtime than the U.K. and, unlike the U.K., applied statutory controls to working hours (Holdsworth 1988). This suggested that viable alternatives to the U.K. system of overtime working may exist. Indeed, White (1984) stated, 'during the post-war period, while other competitor nations have found ways of achieving much higher levels of output per worker, and in many industries better delivery performance, without recourse to overtime, in British industry it appears that both management and workers have become dependent upon the practice of overtime'.

It was also plain that the worksharing debate would continue and pressure would remain for a shorter working lifetime, through a shorter working week and many other mechanisms. The implications of overtime within that debate were uncertain, but there was no doubt that these would be significant (DOE 1978; Evans and Palmer 1985). Indeed, all worksharing measures could be rendered ineffective, or even counter productive, if they resulted in increased overtime, paid at premium rates (ETUI 1979; Leslie and Wise 1980; Rathkey 1984). These matters are covered in detail in Section 3.4.7 of this thesis. The acid test on the 'viability' question lay in consideration of the likely future organisation of working time and in this respect a degree of judgement was necessary. It seemed highly unlikely that, over the next 25 years, overtime would remain at the current levels. As with the length of the working lifetime, change seemed the more likely outcome. There was, therefore, a case for improving and up-dating knowledge of the use of overtime in the U.K. so that any change could progress on a more sound footing.

The third criterion was that of originality and the identification of a research gap. A vast body of evidence identified a need for more research, both detailed and general, on the use of overtime (eg. Hollman 1979 and 1980; Smith and Palmer 1981; Council of Europe 1983; Hill 1984 and 1987; White 1984; Blyton 1985; Lee 1985; BIM 1985; Zackmann 1986; Curson 1986). The current position generally espoused by commentators world wide, was perhaps summed up by Dilts (1983) who stated: 'Much of the research to date is piecemeal, focusing on only one aspect of the problem, or indirectly, focusing on issues and measures thought to be related to overtime. The purpose of this paper was to suggest a systematic analysis of the use of overtime and its impact on managerial decision making'. Dilts' suggestion was unequivocal and led to this research adopting few arbitrary boundaries to the review of overtime in the U.K.

A search of the research registers revealed a variety of current projects reviewing the structure and organisation of working time. For instance, there were several research projects into the use of work sharing schemes and annual hours schemes. None, however, were reported in the area of overtime working. Perhaps this was not surprising since overtime tended to be viewed as somewhat old-hat and drawing back to time-honoured industrial traditions and culture, thought to be centred in the manufacturing sector and having little in common with a modern progressive

economy. This common perception is well removed from the truth. White (1988) stated that overtime in the rapidly expanding service sector 'is equivalent to more than 800,000 jobs', more than double that in the retrenching manufacturing sector and 'is now both roaring back and underestimated by official figures'. Clearly, there was a need for firm and up-to-date data and evidence on the management and use of overtime across the whole of the U.K. economy. Thus, data collection and presentation became an important facet of the research project.

The fourth criterion was that of feasibility. This was the least important test but overtime rated very highly. There was no lack of opportunity for the study of overtime at the general or the specific micro-economic level. The few overtime projects reported over the last decade, were found to be based essentially on a review of the published statistics, or surveys, exclusively conducted in the production sectors (a detailed analysis is developed in Sections 3 and 5 herein). A wide range of opportunities were offered for generally increasing the knowledge of the use of overtime across the whole economy. In addition, it was clearly possible to investigate a number of overtime phenomena and processes, and particularly the actual plant level management of overtime about which little appeared to be set out in the literature, (see Section 3.3.1).

The researcher had a wide range of relevant experience: as, successively, a shop-floor worker 'using' overtime, a manager scheduling overtime, a consultant advising employers on productivity, working time and payment systems and, eventually, as an employer again 'using' overtime, but from quite a different perspective.

1.3 THE BROAD RESEARCH OBJECTIVES

In the light of the early literature review and research it was decided, in general terms, that the project should involve two supporting processes:

- i) A general review covering the whole economy and providing a broad range of information on the use of overtime;
- ii) A detailed review of the management of overtime and a number of selected overtime issues for which there appeared to be a high degree of controversy.

The first area of research was intended to meet the perceived needs of the 'market', while the second utilised the skills of the researcher in a behavioural study, in order to reveal more detail of the actual management and processes involved in the use of overtime. The rationale by which these general objectives were translated into a detailed set of research questions is developed through Sections 3 and 4 of this thesis.

It was, idealistically perhaps, hoped that this project could add to the development of the national debate on working time issues. To this end it was always the intention that this thesis should be a spring-board for future action and publications.

The plan did not lack in ambition: the complexity and magnitude of the problems were realised at

the outset. However, this acted as a spur rather than a damper to the research. It was recognised from the start that the overtime issue had been somewhat neglected in both the 'macro-economic' and 'human resource management' debates in the literature. There appeared to be an element of avoidance of what was perceived as a difficult and perplexing issue. For example: BIM (1985) and Brewster and Connock (1986) identified overtime as a key issue but did not attempt to tackle it, choosing to deal with more 'fashionable' working time issues. Lynch (1985) stated: 'Overtime is, in my view, both a neglected area for management and an avoidable cost in most organisations. But it is one which is so embedded in the British industrial system that it is hard to break. The best approach may be to undertake a complete review and reorganisation of working time'. A full and up-to-date knowledge of overtime, and understanding of its uses, would clearly assist such a review.

1.4 MANAGEMENT OF THE RESEARCH ACTIVITY

A formal research management system was adopted in order that the objectives of this project could be achieved within a three year period from the establishment of the broad research specification. This system comprised the following key elements:

Planning;
 Direction and control;
 Database management.

The planning process was established on three levels: strategic, tactical and operational. The strategic level covered the basic research phases which followed the initial work described above, viz:

- A Literature review and desk research;
- B Specific research objectives development;
- C Methodology design;
- D Fieldwork, data collection and investigation;
- E Analysis;
- F Presentation of data, results and conclusions.

Each of these phases was controlled using detailed operational plans, structured within tactical and strategic plans which identified and programmed the various activities required to complete that phase. Database management was one of the key research processes and was achieved using a set of six inter-active databases and taxonomies. These systems were specifically developed for this research and were themselves innovative. They facilitated the efficient storage, sorting, collation and retrieval of information and were based on the PCPR database management programme.

2 CHARACTERISTICS OF OVERTIME

2.1 INTRODUCTION AND KEY SOURCES OF INFORMATION

Having explained in the previous section how overtime became the focus of the project, it might be helpful to commence by summarising the available data regarding the use of overtime in the U.K. This section has, however, been kept relatively brief for two reasons. First, Professor Michael White, who's work is extensively quoted throughout this thesis, produced a monograph entitled 'Overtime Working In The UK' (1984), which presents the overtime working statistics and trends in the U.K. very fully. Indeed, this section draws extensively on that work. The second is that the information is readily available from the established published sources, where it is regularly up-dated. Therefore any analysis given herein could easily be reproduced, and in any event, would soon be superseded.

There is a problem, of course, of relying too heavily on statistics, which are useful only to a point, and then only with care and understanding. Nevertheless, it would not be prudent to ignore the available definitive statistics. In 1984 White found the Employment Gazette, which is restricted to the manufacturing industries only, to be the primary source. However, the 'New Earnings Survey', (NES), is increasing in importance and is now possibly the key source of overtime information.

The NES is based on an annual sample survey, conducted by the Department of Employment, in which employers are statutorily obliged to cooperate. The survey covers individual employees, selected by their NI code numbers to give a random sample of one per cent of the employed population. The survey instrument is a questionnaire, administered by mail, and completed by the establishment, not the individual. The substantive data is drawn from the pay records of the establishment. There are two principle advantages of the NES over other sources of information. Firstly the coverage of the statistics includes the whole economy. Secondly the detail of the analyses is monumental and contrasts the total lack of any detail offered by the Gazette. The major disadvantage is that the data is collected only once each year and is somewhat out of date even when first published.

The NES analyses are broken down by a pyramid of groupings and sub-groupings. These relate to the key structural variables, for example: industry, region and national wage agreement. The sub-groupings are structured in interchangeable layers which include: occupation, male and female employees, manual and non-manual. In addition, particular factors are included, such as full and part-time workers, shift-working, incentive pay schemes, etc. The NES can exclude those absent from work during the survey week and as a result suggests a higher level of overtime in manufacturing than the Gazette.

Notwithstanding the above comments, the most widely used source remains, possibly for historical reasons, the Department of Employment's 'Employment Gazette'. This publishes a monthly series showing overtime working for manufacturing only and covering the following statistics:

- I The number and percentage of operatives working overtime;
- ii The average hours of overtime, per operative;
- iii The aggregate hours of overtime worked.

These statistics are based on a sample postal inquiry of employers who are statutorily obliged to give the required information. The sample is extended to a national estimate using the numbers of the economically active in employment, obtained from the National Census. White (1984) used this source to show two important facts; i) that the aggregate overtime hours was correlated with total economic output; and ii) in any week, a minority of employees work high levels of overtime, a fact that is easily disguised within an average.

It will be shown in Section 5.3.2 of this thesis that the restriction of the sample to manufacturing gives an increasing limitation in view of the reducing relative levels of employment in that sector. A number of further difficulties arise with this series, the most important of which is that there is no differentiation between the structural variables such as workforce groupings or regions. Thus the series tends to disguise the true picture of overtime by averaging across structural variables such as sex and type of workers. A number of minor changes have taken place over the years which have affected this series, for instance establishments of less than 10 staff were excluded, as were the important maintenance workers, up to 1974. Moreover, the Census of Employment was conducted annually from 1971-78, but has since been less frequent and this has rendered the interpolation between census points less safe. The census also counts jobs rather than people and therefore accounts twice for dual job holders (White 1984).

A third source of information is the General Household Survey. This is a continuous sample survey of private households in Great Britain, conducted by the Office of Population Census and Surveys, (OPCS). Its subject matters are wide-ranging and include various employment related issues. Response rates are about 80% and about 15,000 households, all occupants above 15 years old, are surveyed annually. Overtime has, however, only been covered in one year, 1980.

The findings of the 1980 survey give some interesting evidence on the use of overtime, which were not be available from any other source. Most importantly, as White (1984) pointed out, this survey revealed a key technical problem in the measurement of overtime, *viz.* many respondents reported long hours of work but not overtime; others reported considerable amounts of unpaid overtime. The other sources only report paid overtime. White (1984) felt that this point of definition particularly affected the interpretation of overtime among non-manual workers, but did not give any evidence in support of this. It would be of interest, therefore, to review these issues and provide such evidence during the course of this research.

2.2 OVERTIME WORK IN CONTEXT

This is possibly a good point to introduce a definition of overtime. ILO recommendation No. 116 (1962) adopts a simple definition of overtime as: 'all hours worked in excess of normal hours, unless they are taken into account in fixing remuneration in accordance with custom' (Taqi 1982;

ILO 1986C). Steele (1986), however, did not see the definition as quite so straight-forward. He suggested that a definition based on hours in excess of a 'standard work-week' was without substance and, further, that a definition based on those hours for which a premium payment was made was even less attractive. Steele preferred a definition based on 'that contribution of hours over which they (the employee) can exercise discretion'. He dismissed mandatory overtime as infrequent and gives Ehrenburg and Schuman (1982) as evidence that, in any event, workers must, by statute, give their consent for additional hours. This is, however, not the case in the U.K. (Section 3.4.4 *qv*), and the use of mandatory overtime was, in fact, found by this research to be significantly higher in the U.K. than had been anticipated (Section 9.2.1 *qv*). Given all the qualifications, including that overtime may even be unpaid, this thesis opts for a very simple definition *viz*:

All hours worked in excess of contractual or normal hours.

The DoE and NES both adopt a utilitarian approach to the definition of overtime, neither of which adequately meet the needs of this research. These definitions are: DoE 'Work outside normal hours for which a premium rate is paid'; and NES 'Overtime hours - Hours for which an employee received overtime pay: they may include hours not actually worked, but paid for under guaranteed minimum overtime schemes. Although rates of pay are usually higher for overtime hours than for basic hours, the number of overtime hours is not dependent on the relationship between overtime and the basic rates of pay; for example, if hours are paid at "time and a quarter", the number of overtime hours is four not five'. As will be shown in Section 3.3.4, overtime may be paid at a negative premium, or be unpaid, in some circumstances.

The official sources of information mentioned above, exclude Northern Ireland from the statistics, although this is not a major problem since Northern Ireland constitutes only 2% of the U.K. labour force. A summary of current overtime statistics, for the British economy as a whole, are set out in Appendix 2-1. This summary reveals that two of the key structural variables, regarding the use of overtime and the workforce, were sex and type, (manual or non-manual), of employee. These variables are therefore controlled as far as possible within this thesis.

In 1988, 2,700 million hours paid overtime were worked in Britain at a cost of £14,200 million. This cost represented 8.1% of the total national basic wage bill and 23% of the pay of those individuals who actually worked the overtime (NES 1989). The cost to employers of the premium element alone was £4,900 million. This thesis seeks to establish what, if any, real advantages are secured by employers in return for this massive cost. These costs have not discouraged the use of overtime, or even engendered any general critical review of its use. Quite the contrary, the trend in the use of overtime, across the whole economy, remains firmly upwards. For instance, in manufacturing, about 10% more overtime per employee was worked in 1988 than 1987, and 63% more than in 1980, when overtime was predicted to be falling, (see Section 3.2.2).

Regression analysis indicates that annual overtime levels in manufacturing, over the 1980s, extrapolated to 1995, will reach 16.9 million hours per week. This represents an increase along the regression line from the level of 9.62 million hours per week in the early 1980s, through current levels of 13.5 million hours per week. Multiple regression analysis, using data from the Employment Gazette 1980-89, yielded R^2 0.95 for increasing operator overtime levels and R^2 0.75

for increasing total overtime hours, in the manufacturing industries. This reflects the current trend of employing fewer people, working longer hours. If this trend was to remain unabated it would be likely to exacerbate a number of problems for the U.K. economy and industrial relations which have come to be accepted as endemic, including: unemployment and unit productivity; international competitiveness.

2.3 THE CHARACTERISTICS OF OVERTIME IN THE U.K.

For an analysis of the characteristics of overtime working we must turn to the NES. From this and the literature base generally, we can see that the main characteristics have not changed fundamentally since the Second World War. In brief, Appendix 2-1 reveals that men work 4.2 times more paid overtime than women: manual workers 3.8 times more than their non-manual counterparts. Married men and employees in the 25 to 50 age group, also show an increased propensity to work overtime (NES 1989).

It is important to note that more male manual workers are employed in the non-manufacturing sector, and that the proportion outside manufacturing has been increasing each year over the last decade. The NES reveals that much more overtime is worked in the non-manufacturing sector than in the manufacturing. However, as White (1984; 1988) reveals that very little is known about the use of overtime in the non-manufacturing sector. These facts were to weigh heavily in the design of the fieldwork phase of this project.

The NES (1989) revealed that manual-men overtime was a little higher on average in the non-manufacturing industries than in the manufacturing industries. For each of the other sub groups, (male, female, manual, non-manual), there was little difference in the average overtime worked between the manufacturing and the non-manufacturing sectors. It followed, therefore, that after the sex and type of worker distinctions had been controlled, the difference in average overtime hours between manufacturing and non-manufacturing, on a per worker basis, was small and wholly attributable to the male manual group. Moreover, the lower average overtime hours per worker in non-manufacturing is a compositional effect, *viz.* It results from the high proportions of non-manual and female workers.

As shown above, the greatest difference was between men and women as a whole, followed by type of worker. It was possible to review the combined sub groups separately. For instance, men manual workers took 3.4 times as much overtime as female manual workers and 4.4 times as much as men non-manuals; while male non-manual workers took 2.1 times as much as their female counterparts. To complete the picture, female manual workers took 2.7 times as much as female non-manual workers. White (1984), completed a similar analysis with similar results and conclusion. He established that it was important to set the average overtime hours, as a proportion of normal hours, of about seven per cent for the economy as a whole, against the extremes of 12% for men manual workers and 0.5% for female non-manual workers. Of course, it is important to understand that non-manual workers were thought by many commentators to work more unpaid overtime hours than their manual colleagues and this would distort the above analysis by reducing the gap between types of worker, but increasing the gap between male and

female overtime averages. It is stressed, however, that this is only conjecture. The General Household Survey of 1980 asked men about unpaid overtime but, regrettably, did not ask women this question.

Whybrew (1968) based a key part of his interpretation of overtime working on industrial, (SIC), differences. It is therefore appropriate to consider the Standard Industrial Classification as one of the major structural variables in any analysis of overtime. NES presents the statistics within such a structure, from which it is clear that there is an association, (spurious or otherwise), between levels of overtime and industry. The NES series uses the SIC (1980) which is quite different from that used by Whybrew. However, it is clear that the patterns were similar, still exists, showing that high overtime users have remained: ship building; transport and communications; bricks and food drink and tobacco. While low overtime users included clothing and footwear, and vehicles.

It was difficult to find any common structural characteristics regarding the industrial analysis of overtime working, it seemed that the differences were reducible to the composition of the workforces. The industries were diverse in terms of technology, tertiary sectors and levels of pay. It may well be more revealing to review the use of overtime by major economic sector rather than by industry grouping.

An interesting argument was developed by White (1984), who rejected the long standing premise that overtime was a function of the low paid industries. He found that, of the eight highest users of overtime, only two were among the group with below average basic pay rates and two were at the highest rates of basic pay, similarly, the lowest paid industry was the lowest user of overtime. Moreover, White found that there was a weak correlation between overtime levels and low pay, based on hourly rates, but the sign of the slope was positive indicating the opposite relationship to that generally presumed. White went on to conduct a series of tests, each of which found a similar relationship between overtime level and rates of pay. White's analysis conflicts with that of Leslie (1977), which established a weak but statistically significant correlation between low pay and long hours. This serves to establish the need for research to challenge common wisdom which Leslie supports. In particular, it would be interesting to look behind the macro-economic statistical tests, to seek out the perceptions and motivations of individual workers, in order to give body to the debate.

The next variable for consideration was that of occupation and again the NES gives a very detailed analysis, by 200 different categories, which for reasons of sample size, are brought together as 18 main occupational groupings. The occupations associated with transport, including railmen and HGV drivers, had by far the highest levels of overtime. Other high levels were found among security services, food processing and postmen. Notably the highest levels of overtime were found generally in service sector occupations and this ran against the stereotyped expectations. The lowest levels of overtime were found in clerical occupations.

Whybrew (1968) suggested that Regional location was one of the key structural variables. He found that the regional pattern of overtime working could not be reduced to differences in industrial structure, since, even for selected industries, regional differences tended to persist. However, White (1984) found the differences to be 'rather small' and not reflecting any particular economic or other rationale. Again the NES (1989) gives the necessary analysis. The regions

with the highest levels of overtime were East Anglia, the South East and Scotland, while those with the lowest levels were Wales and the North. White (1984) stated that, in the absence of detailed information regarding the regional distribution of overtime phenomena: 'it is probably most prudent to draw no inferences about the real importance of regional influence on overtime'. Again it appeared that a research gap existed in the provision of a broader set of regional groupings to establish differences at the macro-economic level.

Having to some extent 'set the scene' regarding the dry statistics of overtime working, it is necessary to now establish the facts, such as are available, of its development and use. The intention was to establish a 'definitive' review of the overtime literature base. The results of this process are given in the following section where the reader will see that few boundaries were accepted. Any preclusions or limitations adopted at the outset would clearly have carried the risk of being arbitrary and restrictive.

3 PREVIOUS RESEARCH AND LITERATURE REVIEW

3.1 INTRODUCTION

The sections which follow in this chapter are intended to give an outline of the literature on overtime working. They are not claimed to be exhaustive, but are intended to give a fully rounded view of the use of overtime. International boundaries have been crossed where broader explanations or policy issues were of interest and where a reference relates particularly to other nations, this is clearly indicated in the text.

There has been no specialised and comprehensive recent inquiry into overtime working (White 1984; Caulkin 1976), other than general reviews, such as the Incomes Data Services study (1988), which rely greatly on the published secondary information sources. It is generally accepted that the definitive research into overtime working was that of Whybrew, undertaken in 1962-3, which adopted the dual approach of reviewing secondary information sources and case studies, restricted to only a few sectors of the economy. Subsequently the National Board for Prices and Incomes produced a report entitled 'Hours of Work, Overtime and Shiftworking' (NBPI 1970), which still remains the first and only official attempt to quantify and explain the overtime phenomena, (Caulkin 1976).

3.2 THE CONTEMPORARY OVERTIME PRESS AND HISTORICAL PERSPECTIVE

3.2.1 The Contemporary Overtime Press

Dr. McCarthy stated, by way of the introduction to Whybrew's research into overtime working: 'there has been growing criticism about the use and extent of overtime in British industry in recent years' (Whybrew 1968). There is no doubt that a 'popular-movement' against overtime, by those who study it and write about it, has continued to develop. This is colourfully illustrated by pejorative titles such as: 'The Strange Scandal Of Overtime' (Caulkin 1976); 'Overtime, The Institution That Will Not Die' (Leslie 1977); 'Overtime: Prop And Curse Of The Male Manual Worker' (Taylor 1978); 'Overtime Working - A Matter For Public Concern' (Fishwick 1979); 'Overtime, The British Industrial Disease' (Labour Research 1980); 'The Overtime Dilemma' (Carby and Edwards-Stuart 1981); 'The Abuse Of Overtime' (Lynch 1985); and many others.

Indeed the hostile commentary has far outweighed that which would promote or condone the use of overtime and, not surprisingly, managers, employers and union officials tend to be defensive about the issue. A review of the historical position of overtime may help to set the context and to explain the flood of pejorative articles which has characterised the contemporary overtime press.

3.2.2 Historical Perspective

Criticism of overtime is not a new phenomenon. In 1850, at the turn of the industrial revolution, the Amalgamated Society of Engineering Workers, (A.S.E.), adopted a number of resolutions repudiating overtime with the prime objective of eradicating unemployment (TAHP 1850). Following this, the A.S.E., in 1852, introduced a national overtime ban in support of their demands for the 'abolition of systematic overtime and piecework'; the employers responded by locking out 3000 members and eventually won the day (Burgess 1975; Benson and Lloyd 1983).

Little has changed, overtime working is still thought to depress employment (EIRR 1980). Overtime remains, now as then, both the cause of industrial disputes and a prime sanction used by organised labour in industrial action. Thus, even as industry was born, so was the controversy which still surrounds overtime working.

The use of overtime increased over the period following the early A.S.E. action, up to the 1900s. This was not only so in the years of good trade, but was because employers preferred to work 'a more compact body of men' for longer periods, and overtime was perceived as helping to spread rising capital overheads at that time (Royal Commission on Labour 1893). Indeed, the use of overtime was widespread throughout the nineteenth century (Bienefeld 1972), even with the relatively long basic hours which then endured. In the decade following the First World War and during the time of the great depression, overtime levels fell-off somewhat, in line with the fall of basic hours, giving much shorter actual hours (White 1984). Whybrew (1968) stated that the difference between actual and basic hours worked by men throughout the economy during this period was only about 0.5 hours on average, (basic hours 47.2; actual hours 47.7).

As the Second World War approached, the situation began to revert back to the traditional regime. Katin (1937) stated: 'overtime... as a result of speeding-up in arms manufacture... brings forward an old and vexed problem. Overtime, as a system, has of late taken on political importance... Trades unions as a rule are opposed to the consistent application of overtime. Their main ground of objection is the uneven distribution of work under which some men work too long while others have no work at all.' This 'between the wars' commentary echoed that of the previous century.

Overtime, as a post-war development, is comprehensively covered by White (1984), who established that overtime gradually increased as basic hours fell and thus actual hours remained fairly stable and even increased slightly at times of favourable market demand. By the mid sixties, male manual workers were averaging more than 6 hours overtime per week. White concluded that a high level of overtime working has not always formed part of the operating practices of British industry, but was created as a result of the 'failure of British industry to adapt to progressively shorter contractual hours in the post-war period'.

In the early and mid 1970s aggregate overtime levels remained little changed apart from a small

down-turn reflecting the economic situation in 1975. However, by the late 1970s-early 1980s, levels appeared to be falling somewhat, although this was a function of a fall in the number of operatives working overtime, (reflecting the 'shake-out' in manufacturing industry employment), rather than the average amount of overtime worked per 'operative-working-overtime' (Employment Gazette 1980).

Many commentators were predicting in the late 1970s and early 1980s that levels of overtime would fall. Whiting (1985), for instance, stated: 'one would think that overtime would reduce as the number of unemployed increased'. The chief influences which caused this general prediction were the deceptive fall in aggregate overtime, which was in fact largely the result of the reduction in employment in the traditional industries, and the presumption that pressure to reduce overtime levels would flow from: new technology; increased productivity; more enlightened structuring of working time and new forms of employment contract (Spink and Brewster 1989). Most important of all, however, was the presumed effect of the rising levels of unemployment in many sectors of the economy, and particularly the manufacturing sector where overtime was rife. Fishwick (1979) predicted: 'In theory one might expect overtime to fall in periods of high unemployment', and Carby and Edwards-Stuart (1981) stated: 'Overtime seems to be declining in response to the overall employment situation'.

Yet following a slight pause in the early 1980s, overtime has rapidly and consistently increased and the trend is continuing higher. Interestingly, none of the commentators who predicted that overtime would fall, made specific recommendations or suggestions as to how the reduction might be achieved, at either the macro or micro-economic level, or the alternatives and management processes involved.

3.3 KEY PLANT-LEVEL OVERTIME ISSUES

The sections which follow in this chapter give an outline of the literature on overtime working issues most directly concerning the plant level, they are not claimed to be exhaustive. The following issues are structured rationally in order to prospectively investigate, and therefore reveal, research gaps and questions. The subsequent development of the research questions and hypotheses, and the detailed methodologies, flowed from this section.

3.3.1 The Management and Control of Overtime

It is widely accepted that overtime has a legitimate use, particularly in affording increased flexibility and worker motivation (Katin 1937; ETUI 1979; Brennan *et al* 1982; Kats and Goldberg 1982; European Commission 1983; BIM 1985). Atkinson and Meager (1986), for example, observed that properly managed, overtime has a part to play in dealing with demand fluctuations and an increasing need for flexibility in the management of working time in the 1980s. To seek simplistically to eradicate overtime would therefore be unhelpful. It is, however, necessary to

ensure that, when overtime is used, it is properly managed, for the mutual benefit of the organisation and the worker.

The emphasis in this section is the efficient and effective management of that overtime which is worked, rather than the 'management-of-reduction' of overtime *per se*; although the two processes are closely connected. Section 3.3.5, 'Quality of Management', reviews the extent to which overtime is associated with poor management and is clearly related to this section.

The term 'management of overtime' means the system by which the processes of: policy and decision making; planning; scheduling and controlling are achieved with respect to overtime in the organisation. The lack of substantive review of overtime management systems in this thesis reflects the lack of analysis and comment in the literature regarding these, which begs the question about the extent of such systems at plant level. (This definition of the management of overtime is somewhat restricted since the motivational aspects are not covered, these being addressed elsewhere in Section 3. Furthermore, some of the specific control instruments are not covered in this section. For example, the management tool of 'mandatory overtime' is discussed in detail in Section 3.3.10, because the removal of the 'right-to-say-no' denies workers' a basic freedom and therefore this issue is of special significance.)

Traditionally, overtime in the U.K. is thought to be controlled at the first-line management level (Carby and Edwards-Stuart 1981; White 1982). Indeed, the Donovan commission stated: 'it is not unusual for directors and senior managers to have little knowledge concerning the detailed distribution of overtime and the purposes which it actually serves' (NBPI 1970). Carby and Edwards-Stuart (1981) stated: 'it has been widely believed that overtime is badly controlled by management and the NBPI (1970) report suggested that in most companies it was not even possible to tell whether or not an overtime problem existed because of the lack of monitoring and inadequacy in record keeping'. Carby *et al* go on to suggest that, based on questionnaire returns from 50 organisations, they believe this situation had improved and that overtime was now coming under 'greater control' and was consequently falling. There has not, however, been the fall in overtime which they anticipated and this brings into question their conclusion that the management of overtime was improving, although not that they thought that it *should* improve.

White (1982) reported the results of a survey which indicated that firms were moving towards a more formal understanding with unions for the control of overtime. Moreover, White attached considerable importance to company and plant bargaining for the control or reduction of overtime. Similarly, Evans and Palmer (1985) found that unions 'were almost unanimous' in considering that overtime is best controlled at local or branch level, although they acknowledged that the accomplishment of this had been poor, so far as the reduction of overtime was concerned.

There are a wide range of management and control 'options' available and the specific plant-level circumstances dictate the degree to which these would be appropriate. There does not, however, appear in the literature, any definitive account of the use of these management techniques and instruments. For example, the key studies of Whybrew (1968) and the NBPI (1970), surprisingly,

do not comprehensively address the systems for overtime management. Nevertheless, the management of overtime is touched upon in many texts, and a number of arising points of interest are discussed below.

The first step in any management process is to adopt a policy which should give the framework within which the overtime decision, planning and control should take place. Such a policy would take account of the Organisation's objectives and strategies in the broadest sense. There is little or no reference to this 'policy' phase of the process in the literature. A number of decisions need to be taken including the decision between overtime and its alternatives, for instance, between overtime and hiring additional employees. This process is dealt with in detail in Section 3.3.3 'Local Financial Implications'.

The use of overtime budgets, as a planning and control tool, was addressed by the NBPI (1970) and it is thought useful to quote extensively from this work: 'Some budgets based on measurements by hours failed to distinguish between hours paid for at normal rates and premium rates; thus costs per unit output were not properly identified. But the main source of weaknesses arose from the fact that many budgetary systems were set by the finance department primarily for its own use. Accountants tended to draw them up on the basis of past performance as an instrument for forecasting cash flows, and the figures carried the implicit assumption that productivity would be the same as in the past and that overtime would be used for the same purpose and to the same extent as before... In some budgets an allowance was given for the use of overtime up to a certain level for purposes not clearly specified, and it was only above this level that overtime was seriously questioned. Many production managers faced with this felt they had a positive incentive to use their allowance to the full in case it should be cut back in the next budgeting period. The weakness of such arrangements was that finance budgets were used as a substitute for, rather than as a framework for, soundly based and regularly monitored work standards governing all work, whether overtime or not'. This quotation provokes a number of questions and reveals a need for further research to establish its validity. Carby and Edwards-Stuart (1981) also found that budgets were often prepared by the financial rather than the operations director.

The management process involves a planning stage. White (1980) stated: 'there are also points in the evidence about the possibility of reductions in overtime through more management emphasis on planning and scheduling'. Collons (1981) found that techniques were available which permit managers to forecast variations in demand and therefore to plan work schedules and staffing to minimise the need for overtime. Moreover, Collons advocated the use of statistical techniques in order to find a 'least-cost' approach to building inventory in slack periods, thereby to smoothing demand variations and avoiding overtime.

As regards monitoring overtime work, Lynch (1985) advocated the use of computerised time and attendance recording systems to give accurate information in the form of regular, low level, reports. He stated: 'the ability to use the system for control purposes may well justify the cost'. The IRRR (1987) concurred with Lynch in concluding that overtime was best monitored and

controlled using time clocks. However, the IRRR found that 'staff-status' employees were typically not covered by such devices, being more usually controlled through a system of: 'prior authorisation...and, before claims for compensation are accepted, endorsement by the supervisor or manager concerned'

One means of controlling overtime would appear to be the imposition of limits. The IDS (1979) found two of 29 firms surveyed had imposed limits on overtime working. These were Alcan, with 20 hours per month overtime limit for staff, and Tucker Fasteners, with 30 hours per month limit for manual employees. The use of arbitrary limits raises interesting questions which challenge the perceived purpose of the overtime. This issue does not appear to have been addressed in the literature.

Another means of managing overtime is through its remuneration, using salary cut-offs. The IDS (1979) survey revealed that most firms paid non-manual workers for overtime working, but that the salary cut-off point for overtime payment varied widely, from very low, to relatively high salary levels. This was supported by the IDS (1988) findings. Miller (1978) discusses the extent to which supervisors are paid for overtime. It appears that while there is some variability, over 50% of supervisors do receive overtime pay, particularly as a means of maintaining differentials. Miller also discusses the use of overtime corridors which involve the stipulation that a certain number of overtime hours should be worked before overtime payments are made. The IDS (1988) give examples of the use of minimum qualifying periods for overtime pay, for example, 15 or 30 minutes.

The manager needs to consider which individuals will be offered the opportunity to work overtime, (or made to stay late), and this process is known as 'allocation'. According to the IDS (1979), the most common form of allocation is by volunteer, although they state that departmental management or supervisors often introduce a rota to ensure an equal distribution of overtime; this reflects the general demand from workers for overtime. Four of the thirty or so firms in the IDS survey allocated overtime in consultation with the unions. The NBPI (1970) found, in an extensive survey, that allocation was 75% by management or management and unions combined, 23% by volunteer and 1.5% leaving the matter entirely to the workers' representatives. Carby *et al* (1981) conducted a survey of 50 organisations of which indicated that more than half the organisations allocated overtime by management selection, 25% by volunteer and 10% using a collectively agreed rota system. This survey also revealed that the authorisation of overtime working mostly takes place at departmental manager or supervisor level.

Reid (1985) found that about half the Canadian collective agreements contained some provision regarding the equitable distribution of overtime, either by giving preference to workers with seniority, or by spreading available overtime across the plant or department. Similarly, in the U.S., some collective agreements call for 'parity overtime' which is basically a system which gives the first option to work overtime to employees with higher levels of seniority (Effective Manager 1982). A common clause in collective agreements is that of equal opportunity for overtime work. However, this is in practice difficult to enforce because the workforce often have different skills and

job knowledge (Koernigsberg and Loya 1978).

The device of a 'call week' is defined by Rhodes (1983), in the U.S. and this deals effectively with the question of employee notice as well as scheduling and allocation. Lee (1985) reviewed the existence of 'on-call' rotas within the U.K. economy, but he found these to be rather uncommon. From the workers' view point, Katin (1937) strongly advocated the adoption of formal 'notice-to-work-overtime' periods, stating: a too frequent sin of foremen, and one responsible for widespread resentment among the factory hands, is the failure to give adequate notice of overtime. Although Katin made his pronouncement many years ago, it is interesting to see how much has changed and if today's supervisors are more sensitive to this issue. The IDS (1979) found that only two, from 29 firms surveyed, 'gave notice when overtime working was required'. In the light of Katin's observations, this is quite remarkable.

The ILO are proponents of the improvement of aspects of work affecting 'quality of life'. The ILO Medium Term Plan (ILO 1988a) addresses the issue of 'notice' from this stand-point and gives, as a specific objective for the period up to 1995, the question: 'If work schedules vary, what advance notice (of overtime working, to the worker) should be given?'

It is difficult to rationalise the use of 'guaranteed overtime' with the reasons for overtime which are most often claimed, such as emergency cover or unexpected demand. Guaranteed minimum overtime pay is however, more understandable. The IDS (1979) considered that guaranteed overtime was most common among drivers. Indeed, two of the 29 firms surveyed by the IDS guaranteed their drivers a specific amount of overtime. Moreover, two firms in the IDS (1979) survey guaranteed minimum overtime payments. Guaranteed overtime is not, however, restricted solely to the haulage industry (IRRR 1984).

Perhaps the most difficult overtime problems to recognise and manage are those with a psychological basis. To some extent this issue has been covered in Section 3.3.9 'Employees Attitudes, Motivations and Manipulation', where it is established that very few actual facts are available, although there is no shortage of innuendo. Collons (1981) recognised the need for managers, in addressing psychologically based problems, to make a dual approach. Firstly, to develop correct incentives and productivity strategies, for example, payment policies, particularly to deal with the problem of work-group depression of productivity to maintain overtime, and secondly to use behavioural sciences. In support of Collon's proposition, Kopelman and Schneller (1981) also advocated 'behavioural intervention' as a valid mechanism within a broad and effective management strategy.

There are a wide number of extraneous factors which have some influence on overtime working; for example, absenteeism. The eradication or management of the reasons for overtime is not the central theme of this section. However, it is considered of interest to mention the approach of Kopelman and Schneller (1981) as an exemplar of management systems. They promote a powerful 'mixed-consequences' system which: 'incorporates both reinforcers and punishers to

control the incidence of overtime and, (in this instance), unscheduled absences'.

Capital investment is another example of an extraneous factor requiring management decisions which appear to be outside the realms of overtime, but which potentially could significantly affect overtime. For instance, according to White (1980): 'there is little room for doubt that there is scope for overtime reduction through technical improvements... The evidence suggests that levels of investment in plant and equipment may affect the ability of industry to reduce overtime'. White further argued that overtime is to some extent a function of low capital investment and aging capital stock which encourage high maintenance requirements and low productivity. Similarly, Caulkin (1976) and Collons (1981) concluded that technological progress and capital investment can give management the opportunity to remove the physical causes of overtime. Shift systems can also have an important impact on overtime. For instance, arrangements such as five-crew shift working can substantially reduce the amount of overtime (TUC 1981; IRRR 1984). There is no specific research data available regarding these issues.

Finally, an interesting paradox is apparent in the literature in that it is generally asserted that the specific technical management of overtime in the U.K. is 'sloppy'; e.g. Caulkin (1976) states: 'managements often lack proper procedures for controlling overtime, nor do they study the implications for costs and profitability of decisions on hours of work'. Yet the literature clearly lacks information or details on the management of that overtime which the organisation consider it is prudent to work. Indeed, there does not appear to be a comprehensive review of the various overtime-management decision and control techniques which are available, or of the use of these within different organisations and circumstances, and their distribution across the U.K. economy. Furthermore, Lee (1985), in reviewing the general control of hours of work, highlighted the lack of attention paid to this 'major feature' of employee control. He stated: 'hours systems have the most intrusive effect on the employee's total life pattern, their neglect as a field of study is all the more disconcerting'. It is thought appropriate to attempt to fill this gap in the knowledge of the management of working time.

3.3.2 The Functions of Overtime

The literature suggests some confusion on the important question of why managers schedule overtime. Indeed, there is not even agreement on a common title for the 'functions' which overtime provides. Some commentators refer to the 'causes' and 'justifications' of overtime, which in itself is somewhat revealing. Others refer to overtime: 'reasons', 'sources', 'categories' and 'types'.

Caution is needed in interpreting the reasons given for overtime. It is explained in Section 6.3, 'Reasons for the Use of Overtime', that the functions of overtime, given by respondents may not reveal the true mechanisms at work. In any event, some of the sources quoted below appear to have based their views on this topic on supposition rather than on researched evidence.

A number of functions of overtime are covered in other sections of this chapter. For instance, the extent to which overtime may provide relief for poor management, is covered in Section 3.3.5, where a deep concern within the literature is clearly demonstrated. Similarly, absenteeism is covered in section 3.3.6 and many commentators subscribe to this as one of the functions of overtime, although few would claim this as a major factor (Lynch 1985). The relationship between overtime and worksharing is discussed in Section 3.4.4. According to a majority of the literature, for instance, Curson ed. (1986), overtime has tended to increase as a result of reductions in normal working hours, the so-called 'leeching' effect which is also covered in Section 3.4.4. Overtime created in this way would tend to be 'systematic' but may well be defined by management in some other way.

Moving to the general classification of overtime working, Whybrew (1964 and 1968), in reviewing the functions of overtime observed that the arguments used by managers to justify overtime working can be divided into three classes:

- i) Emergency situations;
- ii) Technical questions of job organisations:
viz. nature of the job, (e.g. maintenance), indivisibility of tasks, (e.g. transport schedules); shift system;
- iii) Social or economic:
viz. to increase production... but avoiding socially undesirable hiring and firing or short-time working.

This attempt to establish a generic classification structure for the functions of overtime did not, in the event, receive much support in the literature.

The 'social or economic' classification is of interest in that it suggests an overtime function which can be called 'corporate flexibility'. This expression is intended to encompass the use of overtime in situations where demand may be present in the short term, but it is uncertain if that demand would hold-up over the longer term. The organisation, therefore, may choose to meet the short-term demand by scheduling overtime rather than incurring the risk of making what is perceived to be a more permanent increase in capacity, (e.g., hiring new staff, introducing additional shifts, changing payment policies, investing in additional capital equipment, etc.).

Lynch (1985) makes the point that any policy which is intended to control overtime would need information on the categories of overtime and the extent to which overtime arises under these categories. He goes on to promote the specific approach by categorisation advocated by the British Paper Board Industry, *viz.*:

- i) **Contractual**, (Built into the working week e.g., shift cycle overtime);
- ii) **Production**, (Normal production or Maintenance);

- iii) **Casual**, (All other reasons e.g., rush orders, emergencies, absences, etc).

This approach was not found to be of universal value, and remains unadopted generally.

It is plain that there will be many establishments where the functions of overtime are multi-faceted and where the reasons for that overtime will vary from time to time. Nevertheless, a number of commentators have attempted to prepare a listing of reasons which can be held to some degree as representative of the manufacturing sector. An analysis was offered by Smith and Palmer (1981) based on a study conducted by Carby *et al* (1981) which consisted of a survey covering 50 respondents, and yielded the following listing of 'reasons' for overtime by frequency of response.

FIGURE 3-1

REASONS FOR OVERTIME

Reason	Importance of reason for overtime working				
	Very Important	Important	Little importance	Not applicable	Non-response
Fluctuations in demand	19	25	4	2	0
Bottle-neck removal	9	20	12	8	1
Custom and practice	1	11	10	27	1
Maintenance	13	21	6	9	1
Maintain differentials	0	0	9	41	0
Facilitate shift working	6	8	5	30	1
Normal demand	4	15	13	17	1
Increase pay	1	6	12	31	0
Skill shortages	4	7	22	16	1
Other	7	2	1	-	39

It may be useful to review the literature on individual overtime functions, although the indivisibility of overtime functions, not just within a sector, but within a single establishment, must again be stressed.

It is commonly held that overtime is mainly a function of operational flexibility. The nature of this relationship is, however, subject to conjecture with proponents believing that overtime enhances day-to-day flexibility and others believing that it inhibits flexibility. Curson ed. (1986) explained that 'demand fluctuations are sometimes predictable but can be very unpredictable'. He explained that overtime is one of the key means by which employers can achieve a level of what he termed 'numerical flexibility', *viz.* variable capacity, although not the only means. Overtime to meet 'unexpected demand' is seen by many employers as a valid and efficient means of achieving 'operational flexibility' and there is a strong body of opinion supporting the use of overtime as a means of enhancing operational flexibility Mabry (1976); Willatt (1980); White (1980); Smith and Palmer (1981); ILO (1984); Zachmann (1986). Nevertheless, the opposite view is held with equal verve.

Clegg (1962) took a jaundiced view of the flexibility claims for overtime stating: 'it is not the demands of production which determine the volume of overtime'. Likewise, the ETUI 1982 were uncompromising: 'a fraction of overtime, even if relatively small, can probably be justified for reasons of flexibility. It is, however, quite clear that a large part of the overtime worked cannot be justified in terms of flexibility'. These commentators by no means stand alone in their analysis, many others would lend support e.g., Fishwick (1979); Brewster and Connock (1985). Moreover, it is obvious that 'systematic' overtime can actually inhibit day-to-day flexibility. For example, if overtime is worked every Saturday morning, there would be no opportunity for management to use Saturday morning overtime to fulfil unexpected demand. This argument is reviewed in Section 3.3.7 'Systematic Overtime'.

One of the irreproachable or felt-fair functions of overtime is 'emergency cover'. Production schedules or service levels can be disrupted through a wide variety of events e.g., equipment failures, material shortages, quality problems, etc. These are sometimes referred to as 'bottle-necks'. There is a wide basis of support for the use of overtime to prevent such events from resulting in a chain reaction of disruption throughout the organisation, e.g., Mabry (1976); Caulkin (1976); Willatt (1980); Whiting (1985); Blyton (1985).

On the other hand, overtime used for 'normal demand' could plainly be classified as 'systematic'. This function of overtime is widely proffered within the literature Fishwick (1979); Whiting (1985). The IDS (1988), for example, stated: 'the major reason why more overtime is being worked is the strong economic growth over the last few years... demand was outstripping production capacity but skill shortages made recruitment of extra workers difficult'. More pointedly, the European Regional Organisation, (ERO), (1982) believed that: 'the vast majority of overtime work... is quite stable and worked by only a minority of workers. The main reasons for such 'systematic' overtime

are that overtime is cheaper to the employer than employing new workers... and overtime pay is considered by many workers as an indispensable part of their weekly income'. This reveals a need for research to establish the extent of such processes and types of overtime in the U.K. economy.

Section 3.3.3 reviews the implications of the financially based decision between overtime and hiring additional employees. The ERO comment, above, is a clear exemplar that normal demand and cost effectiveness are in fact one and the same function of overtime. One explanation for the semantic difference may be that some commentators feel the need to express the 'normal demand' function in the guise of an excuse. Hence use is often made of 'cost effectiveness' as a function of overtime, since this is perceived as acceptable, although supporting financial analysis is conspicuous by its absence from the literature. There is certainly evidence of stigma attached to the use of overtime for normal production, (see section 3.3.7, 'Systematic Overtime'). This is, however, not the unanimous feeling of the literature. Indeed the 'normal demand' use of overtime is taken by a number of commentators to be a valid and professional response to scheduling needs; e.g., CBI (1980); PA International Management Consultants (1982); Whiting (1985); Blyton (1985); Curson ed. (1986); Zachmann (1986). In particular, Dawkins (1983) considered, in Australia, that spreading the fixed costs of labour was a 'sound economic reason for using overtime'.

The NBPI (1970) Report concluded that much overtime was used by employers to meet the normal level of demand. They explained: 'clearly, labour shortages have had a great deal to do with this situation. There can be no doubt that the continuing pressures of generally high demand for labour in the post-war period have been a powerful factor in pushing up overtime levels'. This raised the issue of 'labour shortages' which are frequently cited as a reason for overtime; e.g., Willatt (1980); Jallade ed. (1981); Blyton (1985). The 'labour shortage' function is often taken to be synonymous with that of 'skill shortages' which is also often quoted as a reason for overtime working EIRR (1981); PA International Management Consultants (1982); European Regional Organisation (1982); Whiting (1985); Zachmann (1986); IDS (1988). It would be of interest to study the extent and distribution of these two factors separately.

It is commonly believed that 'regular maintenance' is one of the key functions of overtime. However, White (1980) takes this theory a stage further, he explains: 'Maintenance is likely to cause overtime both because it may disrupt normal production, and because some types of repairs on plant and services can only be carried out after production has ceased'. Of course, emergency maintenance, due to equipment failure, would be most accurately classified as 'emergency cover' overtime, rather than 'regular maintenance', but these separate functions would appear to sometimes be confused in the literature. There is a considerable level of support for White's analysis. A number of commentators agree that the lack of proper maintenance can actually create emergency overtime to cover for production losses during breakdowns, e.g., Willatt (1980); Whiting (1985); Blyton (1985).

Maintenance raises the question of capital stock. Although at first sight the relationship between overtime and 'capital investment' may appear somewhat obscure, it is nonetheless real. Indeed, there are two distinct facets to this relationship. The first can be explained as an inadequate or sub-optimum capital stock, in terms of either quality or availability, which is redeemed by overtime working. The alternative process sees overtime scheduled in order to give more intensive utilisation of that capital stock which exists. The first theory is not often quoted in the literature, possibly because it appears difficult to recognise at plant level. However, the use of overtime to achieve higher plant utilisation is widely quoted and generally perceived as a valid, if systematic, use of overtime, particularly when little account is taken of the alternative ways to increase plant utilisation, see, for instance, Caulkin (1976); Bosworth ed. (1983); Dawkins 1983; ILO (1984).

The TUC (1981) identified shift work as a source of regular overtime, built into the shift pattern to maintain proper cover within the rota. This would be necessary, for instance, where the shift time-block covered 42 or 48 hours per week and the normal time available to the shift was only 39 hours per week. This 'systematic' use of overtime is very widely recognised, e.g., White (1980); Lynch (1985); Brewster and Connock (1985); Blyton (1985); Curson ed. (1986).

There are many other uses made of overtime, for instance 'Seasonal demand' and 'temporary demand' are mentioned in a number of texts but not extensively so ETUI (1982); Whiting (1985). Similarly, 'outlook uncertainty', (corporate flexibility), is often cited Whiting (1985), but is usually defined by general reference to the more generic titles of 'normal demand' or 'cost effectiveness'.

A number of researchers have quoted 'nature of the job' or 'indivisibility of task' as reasons for overtime scheduling and it would be interesting to establish in the fieldwork phase of this project if such reasons were found to be as widespread as implied by these commentators. In fact these are often generic expressions, representing specific functions, for example, 'maintenance' and 'shift cover' respectively Carby *et al* (1981); Evans and Palmer (1985). It is, therefore, difficult to link these somewhat equivocal expressions to specific circumstances at the work place. Such expressions are therefore not very helpful for classifying overtime precisely, unless they are specifically defined by the user.

This Section has concentrated on a review of overtime functions within the U.K. economy. These are, however, not substantially different from those suggested for other nations. A summary of typical reports covering other countries is set out in Appendix 3-1, and is intended as a general guide only.

It is both difficult and dangerous to attach value judgements to the various functions of overtime, *per se*. Clearly, many of the proffered reasons may in some circumstances represent a sub-optimised management decision, (or lack of decision), in that there were 'better' micro or macro level alternatives available which were not considered or chosen. Of course, each case has a

unique set of circumstances and it may often be easier, and politically more appropriate, for the manager to pay more attention to the short term, rather than the longer term considerations. We therefore see overtime used in circumstances where a more enlightened management might take the longer view.

3.3.3 Local Financial Implications

The financial analysis of overtime and the results of that analysis are riddled with ambiguity. The engine which drives this research is the question: 'why do employers schedule overtime?'. The answer should be clear from this section of the review, but it is not. Carr (1986) found that some employers schedule overtime 'on a regular basis, rather than hire additional workers, even when workers are readily available and product demand is fairly constant'. He went on to explain that employers use this approach when they 'perceive the costs of overtime premium to compare favourably with the quasi-fixed employee-related expenses'. The word 'perceive', rather than calculate, is telling.

The key decision to be addressed is that between overtime and recruitment. This is the question normally considered both at plant level and within the literature (e.g Hollman 1980; Best 1981; Whiting 1985). The research and commentary reviewed here covers the complete range of opinion, from those who believe that overtime is the cheapest solution, to those who hold the opposite view, that overtime is more expensive. The reader may note that there is apparently considerable variability in the existence and extent of cost factors between organisations and it would be interesting to gauge the extent of these factors. However, this variability would not in itself explain the wide spread of opinion on the balance between the costs of overtime and hiring. Indeed, 'perception' will be seen to be a key factor in this debate.

An even more fundamental item of speculation should be mooted to give further context. Perhaps the key mis-perception is that of the choice of the decision to be considered, rather than the quality of the eventual decision. The reduction of overtime would appear generally to involve consideration of only one alternative, that of hiring new workers on standard contracts. Clearly this is not necessarily the only, or indeed the primary alternative, yet this is not always made clear from the literature base.

However, Riso and Kendig (1987), quite exceptionally, did not take for granted the perception of managers and organisations. In reviewing the extensive overtime worked in the U.S. Department of the Interior in 1986, they asked the following illuminating question: 'when was the last time you really analysed overtime costs on a total organisational basis?' The answer was 'never'. Riso and Kendig subsequently concluded that 'there is money to be saved... overtime is one of those costs that may come to be taken for granted and may sometimes be managed by default'. Similarly, Whiting (1985) found that the relative cost of overtime to recruitment 'should be highly relevant to employment decisions, but it may be ignored' by employers. Whiting also points out the difficulty

of computing the true cost of a new employee, in view of the incompatibility and wide range of variables that would need to be considered.

In fact it would be possible to conduct, within a single establishment, a formal calculation to indicate the balance of the costs equation, *ceteris paribus*, (Best 1981). The problem is that there would be great difficulty in establishing the validity of the *ceteris paribus* condition with respect to a number of variables, for instance: that 'all hours' productivity levels are not affected, or only affected, to a measured degree.

It would be prudent for an employer to determine at what point it would be more cost efficient to hire additional employees and thereby reduce overtime (Hollman 1980; Best 1981; Greis 1984). The major competing variables in this decision are the comparative levels of overtime premium and non-wage labour costs, (NWLCs), Ehrenberg (1971). There are, however, a number of other cost variables which potentially demand review. For instance, the overall level of productivity per hour under differing lengths of the working week (Hollman 1980; Reid 1985). Rathkey similarly stated: 'it has been argued that the cost of overtime is relatively small compared to that of employing additional labour. However, this assumes that overtime working is as economically efficient as adequate cover and manning'.

It is found that the most usual financial analysis considers the difference between the 'marginal' costs of overtime and employing additional staff (Malcomson 1980). This raises the additional contention that the decision between new staff and overtime is often considered at a simplistic level, in that only the primary analysis of comparison of overtime premium and NWLCs is used; for instance, see Hedges and Taylor (1980) or Best (1981).

A number of financial models have been constructed in order to clarify the decision between hiring and scheduling overtime. These models vary greatly in their levels of complexity and they often approach the decision on a macro-economic plane. Moreover, as indicated above, there is great difficulty in handling the significant *ceteris paribus* assumption with reference to productivity, as well as some of the more esoteric exogenous variables such as: labour market implications and social benefit costs; and many possible endogenous variables such as benefits which may accrue to increased plant utilisation and low pay support. Moreover, no easily used and widely applicable model has been made available to the plant-level manager to aid the pragmatic decision process. (See, for instance, the essentially academically based models of: Garbarino 1964; Macdonald 1966; Ehrenberg 1971; Gibbons and Rivlin 1976; Clarke 1977; Hart 1984; DOE 1978; Calmfors and Hoel 1988).

A model which considers only a limited area of the possible variables was developed by Garbarino (1964), and became known as the 'Fringe Barrier Hypothesis'. This model has been reviewed and developed over the years and is still used by U.S. academics to explain the decision between overtime and adding employees, but not by managers to aid their decision process. The 'Fringe Barrier Hypothesis' states that overtime levels will be positively associated with the ratio of NWLCs to wage costs.

Turning now to the actual decisions taken on this vexed question, Ehrenberg and Schuman (1982) reviewed a number of independent formal studies and research works undertaken essentially in the U.S. They found that all these works confirmed that: 'a strong positive relationship exists between the use of overtime hours and the ratio of weekly non-wage labour costs per employee to the overtime wage rate'. This gave support to the Fringe Barrier Hypothesis as far as it went. Nevertheless, in contradiction, White (1984) found 'much confusion' arising from the fringe barrier argument. He maintained that NWLCs had risen relative to overtime premia in recent years, and according to the 'theory' overtime should have been increasing in sympathy. However, overtime had been falling. White concluded that while 'fixed costs of labour may well inhibit recruitment, variation in those costs does not seem to affect overtime directly'. This suggested that managers did not conduct any financial analysis as part of their overtime decision process.

The question of the definition of the cost variables therefore arises. Simplistic as it may seem, there is a widely held view among managers that the 'marginal costs' of overtime comprise only the premium element of wages (Whiting 1985). One reason for this over-simplification may be that the only overtime 'cost' which modern accounting convention requires organisations to record in their accounts is that of the premium element (Glendinning 1986). It would be difficult, and possibly arbitrary, to reckon more extensively than this in company accounts. Glendinning concluded that the 'actual' costs must be regarded as artificial to an extent, since they would be merely the result of 'manipulated figures and would not possess any inherent reality'.

It is, therefore, important to be clear about the wide range of potential cost variables. Those associated with hiring an additional employee can be categorised as the NWLCs, and the 'Turnover Costs' (Rose 1984). These employee-related costs, (which are sometimes referred to loosely as fringe benefits), have been defined in a number of ways (Rose 1984; Zachmann 1987), some of them conflicting. Hart (1984) has perhaps given the definitive definition, *viz*:

Fixed Per-worker costs, which would include recruitment and training expenditure;

Variable Per-manhour, which would include employer's NIC.

NWLCs may include: holidays, sickness and absence; pensions and insurance; staff facilities and welfare arrangements; machine, plant and equipment set-up costs; fixed daily allowances, (FDAs, e.g paid pre-shift preparation and post-shift washing times, paid tea breaks, etc.); privately negotiated and statutory severance and redundancy payments; etc. (Hughes 1980; Best 1981; Rose 1984; Hart 1984; Whiting 1985). One means of making a direct financial comparison between overtime and additional employees, would be to convert the initial costs into annualised charges. The simplest way to achieve this, according to Whiting (1985) is to amortise the initial costs over the probable term of service of the employee. As Whiting points out, this 'term' would

be a function of staff turn-over rates which could generally be estimated. In Britain, NWLCs have been rising over the last two decades. The DOE (1980) found that they amounted to 33.1% for manufacturing industries in 1978 compared to 26.4% in 1975.

Hart (1984) gave the trend in NWLCs, for the U.K. across the whole economy, as a percentage of total labour cost thus:

Date	1973	1975	1978	1981
NWLCs %	19.4	22.9	26.8	29.3

Moreover, Hughes (1980) identified a difference between types of worker in that labour costs, other than wages for time worked, added 24.3% to the wages bill for manual workers and 30.7% for non-manual workers, for manufacturing industry as a whole, in 1975. This difference, identified by Hughes as some 26% of the manual worker's NWLCs, would plainly be very significant in the financial analysis. Most paid overtime is worked by manual employees who generally enjoy somewhat less than the average level of fringe benefits as a percentage of their 'labour cost'. This tends to exacerbate the difference in levels of overtime worked, which if based on an analysis of costs, would come under more pressure, not less, for non-manual overtime in comparison to manual overtime. This adds weight to the thesis that managers may not conduct a financial analysis and it would be interesting to examine in this project the use of such analysis.

In contrast to NWLCs, there is remarkably scant reference in the literature base to the specific overtime costs other than the premium element and there is little data available about levels of premia, a deficiency which should be addressed. The questions of productivity per hour; quality; industrial relations; reduced flexibility (such as may be associated with systematic overtime); health and safety; quality of life; etc are not generally addressed to the same degree as NWLCs (Gabarino 1964; Ehrenberg 1971; Gibbons *et al* 1976; Clarke 1977; DOE 1978; Hart 1984 and Calmfors *et al* 1988).

Turning now to the comparative costs between overtime and additional employment. There is clear polarisation of opinion in the literature over this question. Proponents of the two opposite propositions are unequally split. It is argued by a majority that overtime is cheaper than hiring new workers. On the other hand, a minority claim that hiring is the cheaper alternative, and this view is better supported with evidence and analysis. The minority group also enjoy the support of the findings of all the financial models reviewed except that of Calmfors and Hoel (1988). Adding yet further uncertainty, there is a third view taken by some commentators who either appear indecisive on the issue or who stress the high degree of variability between organisations which is said to preclude any common aggregated analysis. There is also great variability between countries, which often apply quite different levels and forms of social benefit charges, etc. Confusion is clearly apparent in the literature. For instance, Best (1981) found evidence in favour of both of the opposite propositions and rightly, therefore, remained indecisive on the fundamental question which is reviewed below.

In support of the proposition that overtime is the cheaper option, Fishwick (1977) calculated that the comparative cost of overtime to employing additional labour was, effectively, 22% as compared to 26-30% respectively. Thus overtime appeared to be the cheapest option at that time. A number of research reports have given support to Fishwick's findings, some firmly, some less so (e.g. Allen 1980; PA International Management Consultants 1982; Greis 1984; Evans and Palmer 1985; Calmfors and Hoel 1988). For instance, Rose (1984) speculated that: 'in many instances overtime costs may be less than or equal to the costs of hiring additional staff'. This general conclusion is drawn by other researchers, for instance, Industry Week (1979). These 'speculative' conclusions are generally unsupported by formal financial analysis.

The cost equation has been subject to change over time. For instance, the BIM (1985) asserted: 'the real cost of overtime relative to wage levels has fallen throughout the 1970s and early 1980s, whilst the real cost of recruitment has increased'; (see also section 3.3.4 'Compensation for Overtime', for a discussion of this phenomenon). The BIM appear to suggest that overtime is the cheapest option for meeting demand, although little evidence is offered by them in support of their assertion.

Given that many NWLCs are a function of employment rather than hours worked, these costs act to reduce the relative cost of overtime among the existing workforce, compared to that of hiring additional employees. This was the view taken by Blyton (1985), who went on to explain that Employment Protection legislation has both constrained the employer in reducing manpower, and increased the costs of making redundancies. Both those effects would mitigate in favour of overtime and against employment, particularly in times of uncertainty.

Smith and Palmer (1981) found 'evidence to support the view that overtime is cheaper than providing extra employment'. This conclusion essentially relied on the assumption that, since managers choose overtime, it must be cheaper and no financial analysis, even at the primary level, was quoted in support of their assertion. Similarly, Mabry (1976) found marginal evidence to support the 'overtime is cheaper' proposition. He specifically found: 'fringe benefits, given premium pay and training costs, have some influence on the scheduling of overtime; i.e. as the overtime premium to fringe differential narrows... training costs become sufficiently large to discourage new hires'.

Simple mathematical computations, according to Best (1981), show that hourly costs per employee fall as hours increase, due to the spreading of fixed employment costs. Of course, this would mitigate in favour of the maximum possible hours of work for each individual employee. Others, (e.g. Greis 1984; Calmfors and Hoel 1988), have given similar arguments for the use of overtime as a means of spreading the fixed costs of employment. Moreover, it can be argued that, as the working week shortens, the motivation to spread the fixed employment costs over more hours will increase (Best 1981).

Taking now the alternative proposition: that overtime is more expensive than hiring. Whiting (1985) showed that, in the U.K., recruitment of new workers was cheaper than scheduling overtime for the existing workforce: 'the premium of 50% is sufficient by a wide margin to make overtime too dear'. It was not clear how Whiting arrived at the 'average' premium of 50%. It would be interesting to establish such an 'average' for the economy as a whole. Again, it will be noted that the key cost variable was taken as the overtime premium. Some time ago, in the U.S., Ehrenberg (1971) found, in contrast to Whiting, that 'a premium of 50% was an insufficient penalty to deter employers from using overtime'. The difference in the analyses was that, unlike Ehrenberg, Whiting based his view on the formal financial calculation and paid little attention to what managers actually feel and do.

Glendinning (1986) found that productivity was depressed by overtime working. This issue is explored in section 3.3.6 'Overtime and Operational Performance' where the evidence would suggest that there is a sound basis for Glendinning's view. This factor would clearly mitigate in favour of recruitment and against the use of overtime.

Garbarino (1964), in the U.S., constructed a model to formally demonstrate the comparison between the costs of scheduling overtime and adding employees. Garbarino was not able to come to unequivocal conclusions due to the lack of precision which was inherent in his model. He did, however, suggest that 'there appears to be an accepted feeling that the cost of adding employees... is greater than the cost of paying overtime', and this was 'probably not the case' (Macdonald 1966). The actual words used in this statement are themselves important and reveal the common perception or mis-perception as may be the case.

Best (1981) found, from a review of much of the research in the U.S., that there was considerable variability from firm-to-firm. Notwithstanding this finding, he was able to conclude but, as with Garbarino, only marginally, that: 'it can only be speculated that the relative costs of new employment are generally only slightly less than commensurate overtime'. The use of the word 'Speculated', however, offers little certainty in this inconclusive debate.

Other aspects which impact on the costs issue include the growth in earnings over the post war period which have, according to Ashenfelter (1976), been 'the upward movement in wages and the upward movement in the excess of actual hours worked over normal hours of work and the attendant growth in the fraction of total hours paid at premium rates'. A number of researchers subscribe to this analysis, often called 'the multiplier effect', which sees wage drift resulting in part from overtime (Lynch 1985; Hill 1987). This situation is exacerbated by the trend for the working week to become shorter, while overtime either stays constant or increases, thus, it follows, an increased proportion of hours are paid at premium rates, giving a 'ratchet effect'. A quite different issue is the extent to which overtime is associated with absenteeism and this matter is addressed in section 3.3.6. Clearly, the higher the absenteeism, the 'cheaper overtime becomes compared to ordinary time' (Whiting 1985). This phenomenon has the propensity to be self fulfilling since overtime is said to be a function of absenteeism, (see Section 3.3.6).

As far back as 1964 Garbarino made reference to the 'assumption' that overtime was less costly than adding employees (Macdonald 1966). This raises the question of common perception. As will no doubt have become clear to the reader, there is evidence of a build-up of a particular 'common-wisdom' that overtime is a cost-effective option. Moreover, Rose (1984) touched on this problem stating that for years supervisors have cried: 'overtime is too expensive'. Of course, it is notoriously difficult to change folklore.

There has been a significant increase in both U.K. premium rates and NWLCs over the last two decades (Section 3.3.4 'Compensation for Overtime') and much of the literature has been overtaken by these changes. As for the future, it may be of interest to chart, in some detail, the perception of the manager on this issue and the specific plant level financial equations conducted by management in order to support their decisions regarding the use of overtime. It would also be interesting to compare the actual comparative costs with management perception of these and this could be achieved through a case study phase of this research.

Finally, a point not covered to any degree in the literature, is the extent to which overtime is actually needed to meet demand, rather than used for some other reason, or manipulated by employees. There is a clear need to examine the extent of such phenomenon and its impact on cost-effectiveness.

3.3.4 Compensation for Overtime

There are two types of compensation for overtime working:

- i) Payment, where the basic hourly rate is supplemented by a premium;
- ii) Time Off In Lieu, (TOIL), where the worker has the right to take paid holiday based on the number of overtime hours worked, either as straight time or augmented by a premium as above.

In addition, there is the possibility of combining these two types of compensation (ETUI 1982) and that of the overtime being unpaid. This section looks at each of these in turn, starting with overtime premia.

Premia are fixed in the U.K. by collective agreement. ILO Conventions Nos. 1 and 30 provide that overtime premia shall not be less than 25% (Taqi 1982). These conventions were adopted, respectively, in 1919, for industry, and 1930, for commerce and offices and, in regard to premia, have remained unaltered to date. In addition, many countries employ legal minimum limits, although these are frequently exceeded by collective agreements.

The compensation for overtime working serves a number of potential functions, as Dawkins (1985), Australia, stated '1 Motivate the worker to work extra hours; 2 Compensate the worker

for the extra effort and for unsocial hours; 3 Deter employers from using overtime and thus help to create additional jobs'. However, many authors have alluded to another, less formal, but believed by some to be important use of premia or of overtime itself viz: to support otherwise inadequate pay structures. The European Regional Organisation stated that 'employers sometimes acquiesce in paying overtime premia, because it enables them to keep the basic rate of pay low' (ERO 1982).

The rationale for the use of premia is based on a neo-classical economic theory known as the marginal dis-utility of labour. It is now generally accepted that the worker's motivation to work an additional hour, following 36 or 39 hours, would be unlikely to change by 50% and little actual pragmatic use is made of this theory (Carby 1981).

Irrespective of these 'assertions', premia are clearly one of the most important factors in determining overtime working practices. Yet there is remarkably little evidence available about the extent and distribution or size and patterns of premia across the U.K. economy (Whybrew 1968; White 1984). Moreover, there is an apparent conflict in the different uses made of premia between different countries. For instance, premia are generally used in the U.K. as a reward and motivator for the worker (ILO 1986), while in the USA, Australia, Canada and across Continental Europe, premia are primarily used as a deterrent to employers, against the use of long or abnormal hours (Leonard 1983; Dawkins 1985; Reid 1985; Best 1981; ETUI 1982).

A second difference which is found in the use of overtime premia is the perceived effect of the premium on the level of overtime which is worked. High premia are seen by some to deter overtime working (Ehrenberg 1971; Kading 1986; Carr 1986); and by others to encourage overtime (Brittan 1979; James 1981; Leonard 1983; Dawkins 1985). The difference in philosophy is that between the management of the demand and supply of overtime. (Throughout this thesis the standard convention of 'employer-demand' and 'employee-supply' is adopted for overtime working.)

Overtime premia are generally applied to the 'basic' or 'normal' rate. However, Whybrew found 'difficulties' in determining the 'ordinary rate' to which these premia are applied, and could only state that the practice in the late 1950s and 1960s was split between including and excluding bonuses and supplemental payments (Whybrew 1968). Current practice now establishes premia as a percentage of the basic or normal rate, without the addition of other bonuses, allowances or shift premia (Fishwick 1979). Many organisations apply a minimum qualifying period of 15 or 30 minutes overtime, before which premium is not paid (IDS 1988). In addition, the payment of overtime premium is often related to the total number of hours worked in a period, (the qualifying hours), rather than to a specific time of the day (IDS 1988).

Finally, in considering some of the technicalities of the use of overtime premia, it is important to establish the common accounting conventions which now appertain in the U.K. Glendinning (1986), a past President of the Institute of Management Accounting, stated that it is usual practice to regard the normal pay element, excluding the premium, as a direct cost to the product or

service and the premium element as an overhead. The exception to this is where overtime is planned into a job in order to meet some specific contractual requirement. In this case it is normal to treat the premium as a specific cost of the product or service to be recovered from the customer. Glendinning found cases where the conventions were not properly applied and the premia were incorrectly attributed to the actual cost of the product or service.

Whiting (1985), in comparing the costs of working overtime and hiring new workers, (ie. the control of 'employer-demand' for overtime), used 50% as a 'fairly typical' premium level. It was, however, acknowledged that the premium level was 'crucial' to the equation and that there was no factual evidence of what the actual premium level would be in any particular set of overtime patterns, type of worker, industry, regional location, size of establishment, etc. Moreover, the level of overtime premia, varies considerably from country to country (ILO 1986).

Whybrew (1968), in his milestone work on overtime, concluded that it was 'impossible to generalise on the extent and patterns of overtime premia' and, consequently gave very little evidence in this area apart from to suggest that the most common rate was time-and-a-quarter for the first two hours and time-and-a-half thereafter, in any day. The important NBPI report similarly did not present evidence of specific plant based levels or patterns of premia. However, an industry wide calculation of the gross pay enhancements for overtime working was presented. This analysis showed that the average overtime premium rate, for manual men only, was on average 43% of their basic hourly rate (NBPI 1970), this will be referred to as the equivalent premium figure.

Premia fell as a proportion of basic pay during the mid 1970s, particularly during the period of the 'social contract' and the incomes policies of 1976 and 1977 (Smith and Palmer 1981). The reason for this fall was essentially that pay increases and additions to pay during that period were not consolidated for the purposes of overtime premium calculation (Smith and Palmer 1981; TUC 1981). Fishwick (1979) stated that the 'effective premium' for overtime had fallen over the period up to 1978. In 1979, the equivalent premium figure was calculated by the Trade Union Research Unit (TUC 1981) to be 34%. Smith and Palmer (1981) produced a table, (updated by Evans and Palmer 1985) from analysis of NES statistics, showing that the premium rates for full time manual men were:

YEAR	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
PREMIUM	1.38	1.36	1.31	1.25	1.27	1.31	1.33	1.39	1.36	1.38

Interestingly, even the otherwise comprehensive monograph 'Overtime Working in the UK' by White (1984) does not give any evidence on levels and patterns of overtime premia other than to state that the following are now common in industry agreements: 50% Weekdays and Saturday until 4pm; 100% after the first 3 hours on weekdays, after 4pm Saturdays, on Sundays and on public holidays. This broad review of U.K. premia is generally supported throughout the more recent literature base (IRRR 1978; IDS 1979 and 1988; Carby and Edwards-stuart 1981; Hart 1984; ILO 1986). There is little detail to be found on the question of plant-based overtime premia levels

and patterns across the U.K. There is, however, considerable passing reference which generally flows from an econometric analysis of the published wage statistics. Plant level premia are generally embodied in either Industry agreements (White 1984), or in custom and practice.

On an historical note, before the Second World War, Katin (1937) stated that the chief safeguard against too many additional hours was the considerable higher rates of pay, forced on the employers as a result of overtime premia. Katin gave the levels which then existed as, typically: '25% for the first 2 hours; 50% for the next 3 hours and double time (100%) thereafter. 100% for Sunday and Bank Holiday working'. This gives an insight into the perception of the use of premia and the levels and patterns of premia which were in operation before the Second World War.

It is interesting and may be instructive to note that there has been no fundamental change for many years. A report of the IRRR survey of overtime arrangements in Britain, reveals that there had been little change in premia over the 1970s, but that when changes had occurred, they were largely to increase manual staff premia to 50% for all weekday overtime. The IRRR (1978) found evidence that the general provisions of schedule 11 had been used by unions, (during the period of the pay policy/social contract), to achieve this increase in premia.

A question arises about differences in the use of premia in the U.K., between types of worker. Evidence in the literature (Whybrew 1968; TUC 1981; IDS 1979 and 1988; White 1984) clearly points to there being a long established and significant difference, between manual and non-manual workers, with commentators consistently reporting that non-manual workers receive, on average, lower levels of premia. There appears, however, to be little quantification of the extent or distribution of this alleged difference.

Whybrew, although not offering any direct evidence on premia, presented the findings of a survey of 'overtime allowances' for salaried or staff workers. The survey had been conducted by the Institute of Management, and consisted of 45 companies over a wide range of industries, (Whybrew 1968). This evidence gives an interesting insight into non-manual overtime premia at that time, (early 1960s). Of the 45 establishments, one gave no payment for the overtime, 25 paid flat rate, 11 paid an enhanced rate (the level was not given) and 4 gave time-off-in-lieu. These rules did not apply to all the non-manual workers in an establishment. For example, it was suggested that, within some establishments, clerical staff may be paid a premium, while sales staff seldom are.

The NBPI (1970) suggested that non-manual workers tended to receive a lower and more varied premium rate than manual workers, although only 10 agreements had been investigated. It is uniformly reported within the literature base that premia levels are more variable for non-manual than for manual workers. For instance, the IRRR (1978) found that, in contrast to manual workers, there was no predominant pattern of premium payments to non-manual workers, with arrangements varying considerably and including unpaid overtime, TOIL, a combination of TOIL and premium payments, and a wide range of premium payments; but generally at a lower level than premiums paid to manual workers. This phenomenon was explained by the presumed lower

propensity of non-manual staff to work overtime and the existence of a particular ideology encompassing the white collar employee, *viz*: the career commitment to the organisation, incompatibility with 'clock watching' and the definition of 'non-manual' staff including management grades (IRRR 1978).

The Trade Union Research Unit presented similar evidence in finding that non-manual men who worked overtime, received only about half of the overtime premium obtained by their manual counterparts (TUC 1981) although evidence was not presented to support this conclusion. There are a number of different systems in operation, around the world, for remunerating or controlling overtime. The most common factor between these is that they are designed to discourage excessive use of overtime, in order to promote employment and to protect the quality of working life.

The statutory level of overtime premia in Ireland is set at 25% (ILO 1986), but in practice levels are generally set higher by collective agreement, the mode levels being 50% for weekdays and Saturdays with a higher rate, of 100%, for time worked in excess of between 4 to 7 hours and for Saturday overtime, in excess of 4 hours (Brennan and Kelly 1985). In Italy, the minimum statutory level of premium is 10%. However, levels are generally set by collective agreement and vary considerably between industries. Typical premia are: the metal-working industries: 25% weekdays and 75% Sundays and holidays; commercial sector: 15% for the first 8 hours; 20% thereafter; 30% public holidays and 50% at night (ILO 1986). The Japanese Labour Standards Law sets the minimum premium at 25% of the normal wage (ILO 1986). However, the larger the organisation, the more likely that the minimum rate will be exceeded. Yamada (1985) found that 38.5% of large enterprises pay a rate above the statutory minimum, as compared with 16.2% of medium-sized enterprises and 6.1% of small companies. It would be interesting to establish if such an effect is present in the U.K. Premia in France are set at 25% for the first 8 hours and 50% thereafter and demand is controlled by strict limits on working hours (ILO 1986). In Norway a single minimum 40% premium rate is set, by statute, for all circumstances.

The above systems which utilise 'lower' levels of premia (*viz.* below 50%) are fundamentally different to those which adopt the employer-demand restriction controls of high premia.

Finland use such a high premia approach, often linked to legal limits on the amount of hours which can be worked. In Finland the first two hours are paid at 50%, and thereafter the rate increases to 100% during weekdays, while the unusually high rate of 150% (double-time-and-a-half) is paid for Sundays and public holidays (ILO 1986). There is no comprehensive premia data base, for Australia (Dawkins 1985) and this shortfall is quite typical of many countries, including the U.K. Jones (1981) quoted evidence dating back to 1909 referring to Australian agreements for a premium of 50% for seventh day and holiday working. The position reported in 1985 by the Department of Industrial Relations (Dawkins 1985) was of stable premia generally in the region of: 20% or 'variable' premia for casual weekday overtime; 50% (time-and-a-half) for Saturdays; 100% (double-time) for Sundays and 100% or 150% for public holidays. The overall average overtime rate for Australia was calculated to be 52.6% in 1980 (ILO 1985). The ILO (1985) reported that

only one employee in fifteen received an overtime premium of less than 20%. Minimum overtime premium rates in Canada are set by legislation for each separate provincial jurisdiction. A complex set of different premium rates therefore exist but the mode levels are 50% followed by 100% for weekdays or Saturdays and 100% for Sundays (Reid 1985).

Premia are controlled in the U.S. through the Fair Labour Standards Act, (FLSA), which was introduced in 1938 to restrict overtime (among other purposes) and thereby to promote employment opportunities (Costello 1982; Carr 1986). Greis (1985) found that 96% of overtime was remunerated at a 50% premium and the balance attracted a premium of 100%. Carr (1986), however, gave evidence that, on balance, 92% of overtime was remunerated at a 50% premium and the level of premium did not generally vary significantly between workers grouped by characteristics of age, sex, marital status and race. The exception to this was the case of Black Women only 86% of whom received an overtime rate of 50%, no further details being presented. Overtime rates in New Zealand are prescribed by relevant awards, typically 50% for weekdays and Saturday mornings, (first 3 hours), and 100% for Saturday afternoons, Sundays and public holidays (ILO 1986). However, the central trade union organisation policy recommends a premium of 100% for all times, although this is as not yet commonly adopted.

Overtime in eastern block countries is regulated in much the same manner as in Continental Europe. In the USSR, Romania and Hungary, premia are set at 50% for the first 2 hours and 100% thereafter and for Sundays and holidays (ILO 1986). Similarly, premium rates are set in Poland, by statute, at 50% for the first 2 hours and 100% thereafter (ILO 1986). A complex system operates in Bulgaria where premia are set at 25% for the first 6 hours and 50% thereafter. Moreover, premia are 50% for overtime on the eve of days off and 100% for holidays, with an additional 25% premium if up to 30 hours overtime is worked in a month and an additional 50% premium if more than 30 hours overtime is worked (ILO 1986). In Hungary overtime premia are set at 25% for the first 2 hours per day and 50% thereafter (ILO 1986). Within the German Democratic Republic levels of premia are controlled at a maximum of 25% by consent of the local trade union committee (Kading 1986; ILO 1986).

Turning to the question of time-off-in-lieu, (TOIL). This has not yet been used in any country as the sole compensation system for overtime, although various moves towards this end have been made, for instance, in Denmark (ETUI 1982). There are, however, a number of examples of individual agreements for compensation exclusively by TOIL, for instance, in the U.K. the British Printing and CPC(UK) Ltd. agreement (IDS 1979) and, in Italy, the oil industry agreement (ILO 1986). Moreover, there are a number of agreements which allow the individual worker to choose between payment or TOIL for overtime compensation, for instance, the Police Federation agreement (Department of the Environment Audit Inspectorate 1983).

In France there is a legally established system providing for a combination of both TOIL (at 12 paid minutes off per hour in excess of 42 hours per week, taken as full days leave at the rate of 1 day per 40 hours overtime) and a 25% premium for all overtime hours up to 48 hours per week and 50% premium thereafter (ETUI 1982; EIRR 1986). In addition, where overtime exceeds the

annual limit, (130 hours per year), there is a compulsory rest period equal to half the hours of overtime and, in addition, overtime pay may, through an extended collective agreement, be replaced by TOIL at the normal premium rate (ILO 1986).

The rules governing the use of TOIL can be complex and there is a wide variation in the use of TOIL between countries. Indeed, there is a contradiction in the perceived effect of TOIL on employment, with some believing that it would promote job creation and others believing it would inhibit employment. The proponents of TOIL for job creation include many members of the European Community where TOIL is seen, not just as desirable, but as the 'most effective' way to reduce overtime, particularly systematic overtime, and therefore to help to create jobs (ERO 1982). However, in the U.S. the opposite view is taken, TOIL being generally prohibited. The Fair Labour Standards Act, (FLSA), makes compensatory time off in lieu of premium payments, 'comp time', unlawful, unless the time off is taken in the same work-week or the same pay period in which it was earned (Leonard 1983). Where TOIL is awarded, the FLSA sets the rate at not less than one hour and one-half for each hour of work for which premium would normally be paid. The FLSA rules which set out to restrict 'comp time' are aimed at increasing employment.

TOIL is quite rare in Australia, with very few awards making provision for this option thus, in effect, forbidding the possibility (ILO 1985). Similarly, in New Zealand TOIL is uncommon, although there have been a number of demands for its use from unions, primarily to promote employment (Sinclair 1985). The claims from unions have generally been for TOIL at the equivalent 'penalty rate' of time-and-a-half. Sinclair (1985), however, concludes that TOIL 'looks to be a long way off' in New Zealand. Little use is made of TOIL in Ireland, other than by managerial staff, although it is thought to have a 'potentially positive effect' on employment (Brennan and Kelly 1985). In Sweden, however, as in France, the use of TOIL is increasing. Axling (1983) states that the high rates of marginal taxation are one of the reasons for the increase in use in Sweden. Similarly, TOIL is now becoming common in Japan (Yamada 1985). While in West Germany, TOIL has also been positively promoted for job creation (EIRR 1984; Kading 1986).

In Belgium (Kading 1986; ILO 1986), Romania (ILO 1986) and Czechoslovakia (ILO 1986), paid compensatory time off is normally imposed and, as is often the case with TOIL, this must be taken within a fixed time period. A dual system of remuneration and TOIL operates in Portugal where the overtime premia are 50% for the first hour and 75% thereafter, and compensatory rest corresponding to 25% of overtime hours is provided when the number of overtime hours equals the period of normal daily hours. These rest days must be taken within the following 30 days. Additionally, when overtime falls on a weekly rest day, a remunerated compensatory rest day must be taken in the following 3 days (ILO 1986).

The position with regard to TOIL in the U.K. is unclear. As with overtime premia, there is very little published data, although there are many 'passing' references to TOIL in the literature. In particular, there is little reference to TOIL in either of the milestone works by Whybrew (1968) or the NBPI (1970). Nor do White (1980; 1982; 1984) or the IDS (1979; 1988) review the extent, distribution or issues of the use of TOIL in any detail. One of the problems appears to be the lack

of a common standard for reporting TOIL within national statistics or at plant level. For instance, in some U.K. police forces statistics are kept on paid overtime but TOIL, which is believed for some staff to comprise the greatest proportion of overtime compensation, records are often unavailable (Department of the Environment Audit Inspectorate 1983). It would be interesting to review the Police Force as a major user of TOIL in the U.K.

Rathkey (1984) pointed to the gap in the level of knowledge about this issue, which he believed the trade union movement had 'largely neglected'. Indeed, the TUC have called for TOIL arrangements to tackle the 'overtime problem' (TUC 1981; EIRR 1981) but this suggestion, as Rathkey hints, was not formally pursued. Notwithstanding this, the use of TOIL in the U.K. has been steadily increasing over the last few decades (ETUI 1982).

There is evidence that TOIL, as an optional alternative to premium pay, in the U.K., is more often used in non-manual than in manual employment (Katin 1937; IRRR 1978; IDS 1979). As with premia, however, there appears to be no quantification or details of this difference.

The question of unpaid overtime is important for many workers and organisations, though it is not surprising that there has been very little research into the phenomenon. Certainly, the key works of Whybrew (1964; 1968) and the NBPI (1970) did not address the issue. Indeed, the NBPI (1970) concluded that there was no great gap between non-manual workers' normal and actual hours of work'. In view of the tendency for non-manual workers to work unpaid overtime, that conclusion appears to have been incorrect (OPCS 1980; White 1984; Carby and Edwards-Stuart 1981; TUC 1981 and 1988). Unpaid overtime is also particularly important with respect to worksharing issues.

The only formal research evidence relating to this issue was provided by the OPCS (1980), through the General Household Survey, which established that considerable unpaid overtime was worked within the economy by male workers, although no detailed analysis was possible from this statistic, and female workers were unfortunately not asked the question White (1984). Men often reported that they had worked no overtime even though, paradoxically, information from other areas of the questionnaire showed that they had indeed worked long hours, thus implying a semantic problem. About 10% of the total sample reported working unpaid overtime; another 10% stated they had worked no overtime and yet they appeared to have exceeded normal working hours. White was led to conclude: 'a large proportion of all supplementary hours were unpaid or unrecognised as overtime, and these would not be detected by the questions used in the official enquiries concerning overtime, which use payment for excess hours as the overtime criteria'.

Furthermore, White (1984), in reviewing the GHS (1980), stated 'it seems reasonable to assume that unpaid or unrecognised overtime may be particularly concentrated among non-manual workers, especially those in managerial or higher administrative positions'. White (1984, 1988) is one of the few researchers to have drawn attention to the problem of under-estimation of the amount of overtime worked by non-manual staff, which may well lead to an over-estimation of the

difference between manual and non-manual employee overtime levels. Carby and Edwards-Stuart (1981) also linked unpaid overtime specifically to non-manual workers stating 'some non-manual workers frequently work substantial overtime, mostly unpaid and therefore unrecorded' and that non-payment to managers was a 'well established tradition'.

A key problem, inhibiting the compilation of statistics would appear to be the lack of a definition for unpaid overtime, with many workers and organisations not classifying 'staying late' on an informal and unpaid basis, as overtime. Indeed the definitive sources of the DOE and NES do not include 'unpaid overtime' as overtime in their definitions, (see Section 2.2), and their statistics do not attempt to measure or estimate unpaid overtime in any way. In addition, there is the further definitional or semantic problem with extra hours which are paid at flat rate. Many organisations do not classify these as overtime hours. The National Economic Development Council, (NEDO 1986), found in a survey of trade unionists in 72 large firms in four sectors, that overtime working among part-time workers in retailing had grown considerably, but it was not classed as overtime by the respondents because it did not attract a premium.

The Trade Union Research Unit (TUC 1981) found that there was no indication of the 'extent of unpaid overtime among higher grade non-manual staff'. The TUC (1988) went on to state: 'there is also the fact that much of the overtime worked by non-manual workers goes unrecorded'. They explain that this is because the overtime is unpaid because of the annual salary payment system, but again no evidence is provided to indicate the extent or distribution of the phenomenon. This brings into focus the issue that overtime remuneration systems (not, as sometimes assumed, just for higher grade staff) may include an element of pay for a formally or informally agreed number of overtime hours, to be worked as required on an ah-hoc basis (Carby and Edwards-Stuart 1981). This payment is intended to be made for overtime working, but is not directly linked to, or indeed, specifically dependent upon, the actual overtime hours which may be worked.

Although there is little reference to research into this phenomenon, specific examples of unpaid overtime are mentioned in the literature. For instance, the case of nurses is reviewed by the IDS (1988D) who found that unpaid overtime had reached 'very high levels'. In its evidence to the Review Body of the Fifth Report on Nursing Staff, Midwives and Health Visitors (1988), the Royal College of Nurses presented some of the findings of a survey carried out by the Institute of Manpower Studies in 1987. These findings revealed that 45% of the NHS nurses who were surveyed, claimed to have worked unpaid overtime during the previous week for an average of 3 hours. The most likely categories of nurse to work unpaid overtime were teaching and management grades and senior nursing grades. Of those who worked unpaid overtime, 30% did not expect to take TOIL and 45% lost 1.65 hours on average each week working through meal breaks. No recommendations were made by the Review Body for the reduction of high levels of overtime or to close the gap between paid and unpaid overtime. The Royal College of Midwives stated that 'very few reliable records are kept and so it is difficult to tell how much overtime is being worked'. The Royal College of Nurses policy is that, where overtime is worked, it should be paid, or remunerated by TOIL (IDS 1988).

3.3.5 Quality Of Management

A recent survey by Market and Opinion Research International found that the British public believe that 'bad management' is the key to Britain's economic ills, with six out of ten reporting bad management was more to blame than the unions for the country's economic problems (Grice 1989). Grice explains that the TUC agree with this finding whereas the CBI disagree! Of course, it would be difficult to link cause to effect on the macro-economic scale as this survey attempts to do. It is of interest, however, to consider this general backcloth of public perception before reviewing the more objective, analysis of the role of management in the British overtime phenomena.

Rathkey (1984) captures the general feeling of the literature with the unequivocal statement: 'systematic overtime exemplifies both weak management and weak trade unionism and results in inefficient production'. Rathkey's view is based on a long line of argument that a major part of the problem of excessive overtime levels lies in 'poor' management practices and he sums up this view in typical uncompromising style: 'excessive overtime is indicative of bad management' (Rathkey 1984).

Even before the Second World War, Katin (1937) stated that overtime was 'too often due to bad management... unnecessary overtime occurs and particularly so in badly managed factories where time is wasted during the day'. Lynch (1985) echoed this theme, reporting that he found overtime to be generally very difficult to control, stating that a subtle, informal system prevailed which effectively maintained overtime, 'the essence of the system is an innocent conspiracy between workers and managers operating under very strong social and cultural pressures'.

Managements, according to Caulkin (1976) and White (1982), are often found to lack proper procedures for controlling overtime and do not adequately study the implication for costs and profitability of their decisions on hours of work. The NBPI (1970) found that, in most companies, it was not even possible to tell whether or not an overtime problem existed because of the lack of monitoring or records, and this would clearly be associated with poor management practice. The TUC, in their consultative document on 'Working Time and Jobs', associated overtime with low productivity, inefficient management and low pay (EIRR 1981a and 1981b). While Davies and Caves (1987), go much further in their review of Britain's productivity, they assert that British management is inefficient and the bargain struck between management and labour is degenerate. Moreover, Sawers' analysis of British competitiveness suggests that poor competitiveness is due to some extent to managerial factors (Sawers 1986).

Landveter (1984) stated that although overtime appeared to give a 'quick solution' to a problem, those companies that often resort to overtime are the 'poorest at planning'; and that employees often lose their confidence in managements that are unable to determine future capacity needs. Other researchers have found overtime to be the result of inadequate forecasting (Buck & Shimmin, 1959, Gibbons & Rivlin 1976) or simply a problem of poor management resulting in low labour productivity (Sykes 1976; Baird and Beccia 1980; Hanagan 1982). Some have been even more scathing in their comments, McMahon (1980), for instance, reported that 'the fabrication of unlimited overtime is often contrived by management and shop stewards as a panacea for industrial ailments, i.e. low wages, low productivity, inadequate planning, incompetent supervision

and even as a sweetener for sour industrial relations.'

The CBI (1980) stated that 'the prime responsibility for improving productivity rests with management'. They further reveal that 'unfortunately,' the managers responsible for work organisation and production 'do not enjoy a particularly high status in Britain'. It is tempting to seek to unravel cause and effect and is perhaps telling that the CBI go on to 'confess' that 'there is no doubt that some overtime that is worked could be avoided... it is often the result of low basic rates, poor work scheduling or control, or of restrictive practices'.

As for managers themselves, research has found that generally they want to reduce or abolish overtime (Curson 1986; Evans and Bell 1986; CBI 1989). Yet the evidence clearly shows that overtime continues to rise. It seems that managers are either unable or unwilling to control the phenomenon and this fact would appear to support the 'poor management' hypothesis. Clearly the answer to the paradox is central to the understanding of overtime in the U.K.

In conclusion, Leslie (1977) considered the arguments for and against the use of overtime generally, and was able to quote sound evidence against overtime as an efficient institution but failed to find evidence in support of overtime, except for some econometric statistics which he 'distrusted'. These statistics reviewed only the productivity of overtime hours and did not consider the productivity of total hours worked. On balance, Leslie (1977) concurred with the view of Lord McCarthy (1977) that 'much of British overtime now seems to arise out of a desire to waste time at work'. Thus casting doubt on the efficacy of British management in this respect.

It would be of interest to review the quality of management and to establish sound evidence on this issue; but firm definitions of 'good' and 'bad' management would be a prerequisite to any such analysis. If Leslie's (1977) conclusions are found to be valid, then clearly a 'poor management' hypothesis would test positive in the analysis of the fieldwork.

3.3.6 Overtime and Operational Performance

There are a number of dimensions to this issue and three will be dealt with in detail in this section: i) productivity of hours; ii) quality of work and iii) absenteeism.

To start on an historical note, even before World War II, Vernon (1921, 1936) presented evidence supporting the relationship between overtime and reduced production. Following this, in 1942, it was suggested that productivity was inversely proportional to hours worked and that workers tend to become 'listless and stale' after long hours of work (Industrial Health Research Board 1942), and Kossoris and Kohler (1947) reported research results which showed that the efficiency of overtime hours was considerably lower than that of regular hours.

Rose (1984) suggested that the gift of overtime can reward substandard performance and can therefore perpetuate such performance and the very need for overtime. A number of researchers have found that overtime has the propensity to become self-perpetuating, particularly when built into an organisation's operating systems (Caulkin 1976; Baird and Beccia 1980; Nedzynski 1984; Rathkey 1984; Brewster and Connock 1986; Buckles 1988). In his definitive study of overtime,

Whybrew (1968) concluded: 'All the evidence supports those who have criticised systematic overtime as a major cause of inefficiency'. Even the TUC associated overtime with low productivity, although they also associated it with inefficient management and low pay (EIRR 1981).

Thus it is suspected that the systematisation of overtime is linked with the overall efficiency of an organisation and overtime is associated with low productivity (Collons 1981; Baird and Beccia 1980; Greis 1984; Perlman 1966). For instance, Rathkey (1984) stated quite simply: 'systematic overtime results in inefficient production'. It is therefore important to establish a measure for the extent of systematic overtime in the U.K. economy.

Whybrew (1968) stated that in over half of the studies that had been made, overtime hours cuts were not accompanied by falls in output. Nadzynski (1984) also found that productivity in overtime hours was lower than that in normal hours. It has been argued that 'people are usually fresher at the beginning of the working day and their productivity is likely to be higher'. This analysis led Glendinning (1986) to conclude that 'the probability is that productivity is lower during overtime working'. However, the concern is not the productivity over just the overtime hours, but the overall productivity which results from the general levels of overtime over a period.

The investigation of a number of case studies led the IRRR (1984) and IDS (1988) to conclude that overtime is a disincentive to productivity in normal hours. Jevons (1965) suggested that the reliance on overtime as a way of making up work, might encourage deliberate poor productivity in order to stretch out the work, thus giving the workers their overtime with the associated rewards, (suggesting a degree of manipulation). White (1980) revealed that experiences of major reductions in working time have often been accompanied by 'unexpectedly large gains in productivity'. In further support of these findings White (1984) reported that workers who have the opportunity to increase their earnings through payment-by-results schemes work, on average, 30% less overtime, again suggesting a degree of worker control of the productivity of hours.

Similarly, other research has found that a reduction in hours can lead to a relative increase in productivity. Metcalf (1982) gives evidence that a 10% cut in hours was associated with only a 6.4% fall in output per man. Hanagan (1982) argued that 'inefficiencies are built into overtime and, in some circumstances, reduced overtime is a form of productivity improvement'. Hill (1987) stated 'there are strong reasons for believing that a reduction in hours would lead to a rise in productivity per hour'. Hollman (1979 and 1980) and Bromberge (1988) found that after a certain number of overtime hours had been worked, the total output achieved over the total hours actually fell. In support of this, Caulkin (1976) suggested that it is possible to actually increase total output by cutting overtime.

In contrast to the majority of research in this area, Best (1981) showed that employers seek to maximise their resources by working existing employees for longer hours, since these employees are presumed to have an 'accumulative advantage' over potential new employees. It has also been suggested (Brewster and Connock 1986) that overtime may well, in the first instance, be a rational management response to demand variability and not necessarily associated with low productivity. A pragmatic exemplar of the perceived efficacy of overtime is found in New Zealand where the government gave an incentive, based on a tax rebate, to encourage workers to work

overtime in order to help productivity and to maximise the use of previously under-utilised plant (Sinclair 1983). This additional 'bonus' was introduced in 1973 and removed in 1982.

The NBPI (1970) suggested that overtime was desirable 'since it results in hours being worked which would not otherwise be worked and in people working who might otherwise not be in the market; it is also desirable socially since it enables workers to raise their earnings'. The NBPI went on to report that one third of managers stated that productivity during regular hours was sometimes adversely affected by the presence of overtime opportunities. Interestingly, the NBPI were somewhat ambiguous in their analysis. For instance, in reviewing the reduction of hours of work to 48 hours per week which had been achieved by collective agreement by the end of 1918 stated: 'Many employers in this period found that a reduction in hours when they were very long could lead to an increase in total output, so benefiting them as well as the workers'. Moreover, they noted the practice of worker manipulation, particularly in the road haulage industry where they stated there was 'clear evidence of a close link between high overtime and low productivity'.

Leslie (1977) sets out a brief comparative analysis of the conflicting views of the productivity of overtime, stating that clear differences of opinion exist between those who believe that overtime is very efficient and those who believe the contrary. He concluded that the true answer lies somewhere between the two extremes but was more disposed towards the view that overtime is inefficient. There is little indication from the literature as to where this balance lies.

Those analyses which suggest that overtime may be efficient in an overall sense, represent a small minority of the literature. Of course, there will be some organisations, and within an organisation, some circumstances, when overtime is efficient and prudent, (for example, see: Katin 1937; ETUI 1979; Brennan *et al* 1982; Kats and Goldberg 1982; European Commission 1983; BIM 1985). However, the balance of opinion in the literature unequivocally finds overtime to be associated with low productivity.

Moving on to the issue of quality of work, this appears rarely to have been raised as a possible function of overtime working within the literature. Intuitive logic indicates that there could be an association between long or excessive hours of work and the quality of work; irrespective of whether the work is concerned with manufacturing a product or giving a service. This being the case, there is a need to establish firm evidence regarding this matter.

Fishwick (1979) stated: 'it is not obvious that this situation (overtime) benefits anyone - the employees, who have to work long hours... the employers who fail to monitor the implications of those long hours for quality of work'. Similarly, White (1987) stated that shorter hours of work can result in 'better motivated workers who produce more and give customers higher standards of service'. Only Hollmann (1979) directly addressed the issue stating that the overtime decision may be reflected in 'less than anticipated output, poor quality, increased waste and even damage, and deteriorating morale'. However, none of the major dedicated studies into overtime working have addressed the possibility that a problem might exist, even though it is easy to find examples of the adverse effects of long hours on quality of work.

An extreme, but legitimate, example of the association of quality of work and long hours is that of the Bournemouth-Clapham rail disaster (Bournemouth Evening Echo 1989; Guardian 15th March

1989): 'the trend of soaring overtime was highlighted'. The inquiry found evidence linking long hours of work with this accident: 'there are worries that overtime can mean overtiredness for manual workers doing safety-related jobs... the senior signals engineer who left a loose wire which caused the tragedy had worked every Saturday and Sunday in the two months before the crash and nearly every weekend for six months before that'.

The literature tends only to address the associated concerns of accident rates, health and safety, welfare of the worker and low productivity. Nevertheless, perhaps an equally felicitous concern is not the productivity level, but the quality of product or service achieved, during the overtime hours. There is also a possibility that any fall-off in quality would not necessarily be restricted to, or focused on, the actual hours of the overtime. This secondary hypothesis is that a fall in quality is associated with worker fatigue during normal hours, as a consequence of the overtime hours previously worked. A third possibility is that quality could be used manipulatively by the worker in order to establish the need for overtime. This may enable the worker to gain what is, in some cases, an essential element of take home pay (Whybrew 1968; NBPI 1970; Fishwick 1979).

The third aspect of operational performance is absenteeism which has been increasingly identified as an important factor, contributing to low productivity and, in some instances, high overtime (Kopelman and Schneller 1981; ILO 1985). Kopelman and Schneller (1981) reviewed research into absenteeism and various control strategies, both as a variable in relation to overtime, and in isolation from overtime. There is no clear evidence in the literature about the relationship between absence and overtime. Indeed, there is a dichotomy relating to the following alternative propositions:

- i) Absenteeism causes, (is a reason for), overtime working;
- ii) That overtime working causes absenteeism.

These contradictory views are quite irreconcilable in terms of cause and effect, although they both represent a positive correlation between overtime and absenteeism. There is a further dimension which is exemplified by Carby *et al* (1981) who pointed out: 'It has been clearly established that there is a strong relationship between frequent overtime and high absence, but the precise nature of this relationship is notoriously difficult to demonstrate, in some cases, absence decreases as overtime increases and in others absence increases with overtime opportunities'.

As regards the first proposition, absenteeism causes overtime, or is a reason for overtime. It is often suggested that overtime is used to cover for absence. This is seen by some managers as a valid and appropriate use of overtime; providing cover for a circumstance which is perceived as being outside management control. It would be wise, therefore, to bear in mind the possibility that this reason may be used in a defensive or exaggerated way.

Brennan and Kelly (1985) found, in a survey of the Irish economy, that absence was regularly quoted as a reason for the use of overtime, with some differences between sectors. In the production sector, it ranked top, accounting for almost a third of the total reasons given for overtime. While in the service sector, absenteeism accounted for only 2% of the total, ranking last out of 8 reasons. It is quite common for absenteeism to be taken as one of a number of reasons for overtime (e.g. Rathkey 1984; Sinclair 1985; ILO 1985; Carr 1986). Ehrenberg (1971), in the

U.S., took a neutral stand-point in the debate, concluding there was no relationship between overtime and absenteeism.

Clearly, absenteeism is thought by some researchers to be an important reason for the use of overtime. Nevertheless, the proponents of proposition ii): that overtime causes absenteeism, are equally insistent in their argument and this body of opinion is briefly examined below.

At the end of World War II the Medical Research Council (1942) conducted investigations into the issues of working time and absence. They found that, in most factories, the consequence of an appeal for more production was longer hours of work which resulted in an 'initial spurt' in output, which was usually followed by a fall in both the hourly and weekly output, until the hours of work were reduced again. The chief cause of this decrease in output was concluded to be the additional fatigue and strain induced by the long hours of work, and the time lost through increased sickness and absence, which 'rapidly increased' during the long hours.

Buck and Shimmin (1959) ,(Industrial Psychology Research Group of the Medical Research Council), stated: 'there are many opinions about the supposed effects of overtime on, for example, attendance at work during normal working hours, but few systematic studies appear to have been made of these problems'. There were thought at that time to be two key ways in which overtime and absence were inter-related, these being: i) 'When a man has worked long hours on overtime he may take time off, knowing that he has covered the financial loss... because he needs rest to overcome the fatigue caused by his longer hours... ii) Alternatively, having taken time off for some other reason, the operative may work extra hours to compensate for his potential loss of earnings'.

The first rationale is a function of the proposition that overtime causes absenteeism. The second is associated, but only loosely, with the proposition that absenteeism causes overtime. Therefore, this analysis, while not quite parallel to the two propositions given at the start of this section, shows that, even in the post World War II era, some confusion was recognised over the precise relationship between overtime and absence. Overtime was cited as both the cause and the effect in different circumstances. It was, however, firmly established in the Buck and Shimmin (1959) study that the two variables, absence and overtime, were positively correlated.

Between World War II and the early 1960s, the view was held that the 40 hour week 'resulted in highest worker efficiency and least amount of time lost because of absenteeism' (Greenbaum 1963; Whybrew 1964). It was implied by Fishwick (1979) that the relationship between overtime and absence was one of overtime causing absence. While Jamal and Crawford (1981), reviewing Canadian official statistics, stated: 'there had been no prior systematic studies of the human or corporate outcomes or consequences of extended working hours in present day industry'. Their survey of six companies from the manufacturing and service sectors in the Canadian metropolitan area revealed that 'Absenteeism was highest among overtimers, second highest among moonlighters and lowest among modal employees'. These differences were found to be statistically significant. (Although experience suggests that the difference may be reducible to a single or group of different independent variables; for instance: type of worker, manual or non-manual, or type of occupation).

Kopelman and Schneller (1981) undertook extensive longitudinal research, (U. S.), into the potential control mechanisms for reducing overtime and absenteeism. Following the application of various controls, the previously rising trend in absence was turned around and overtime fell by 54%. These results were claimed to 'clearly indicate the value of... decreasing unplanned absence' and also indicated the positive correlation between overtime and absence. However, this research did not offer any means of establishing the causal relationship between overtime and absenteeism.

The link between 'extra work hours... and an increase in absenteeism' was recognised in Israel by Kats and Goldberg (1982) who also found long hours to cause some degree of worker alienation. Similarly, Greis (1984), in the U.S. found that the breakdown in industrial relations, caused by worker discontent with long hours of overtime, would eventually create absenteeism. Greis went on to state that 'Unions call for an end to mandatory overtime... because they claim it is exhausting for current employees and is one of the major causes of the high absenteeism'. Similar results were found in Canada, (Worklife Report 1987) and in Ireland (Carby *et al* 1981). While Nadzynski (1984) found, in Western Europe, that systematically high overtime gave, 'aggravated absenteeism' in addition to production inflexibility. Unions in the U.K. have long held fears that overtime and absenteeism are related. In 1981 the TUC issued a consultative document to guide 'negotiators' in the examination of the characteristics of working time issues such as the use of overtime 'in the face of high levels of sickness, absenteeism or turnover' (EIRR 1981b). They went on to call for action to improve health and safety, 'where these are affected by overtime used as a cover for sickness and absenteeism'.

An alternative but supporting view of the relationship is offered by White and Ghobadian (1984) who found that, in one U.K. organisation, overtime had been cut back, as a result of union pressure at a time of redundancies. In the event, the organisation found it could operate effectively without the overtime. This was believed to be due to a partially compensating 'marked reduction in absence rates at the factory'. Clearly, overtime is thought by many researchers to be an important cause of absenteeism throughout industrialised nations.

In apparent contradiction to the majority of the literature, Caulkin (1976) reported that workers 'on high overtime are quite dramatically less sick and absent than those who do none'. Caulkin's analysis was supported by statistics from the NBPI survey of 1968 which found that almost a quarter of male manual workers who did not work overtime, lost pay through sickness or absence; reducing to only 4% of those who worked 20 or more hours overtime. This finding does not necessarily deny the positive correlation between overtime and absence, it does, however, suggest that the relationship is not as straight forward as sometimes appears to have been assumed.

Another factor was suggested by Brennan and Kelly (1985) who found that, in several case studies, absenteeism was a major problem actually caused by overtime, but the causal process was given as: 'high overtime earnings leading to employees being able to then afford to go absent at other, normal times of the week'. This finding was supported by Buck and Shimmin (1959) and Leonard (1986), in the U.S. Another novel finding is offered by Fishwick who revealed that, in Belgium, absenteeism during Saturday overtime became so serious that the Saturday overtime had to be abandoned at various plants (Fishwick 1974).

There is probably no single explanation for the phenomenon, each of the different views being correct to a degree, depending on the circumstances. There is clearly a lack of information regarding the distribution and perceptions of the phenomenon in the U.K, and of the causal relationship between absenteeism and overtime.

3.3.7 'Systematic' Overtime

The concept of 'systematic' overtime is central to the traditions and use of overtime in the U.K. but it is by no means unique to the U.K. The extent to which overtime is used consistently, to meet normal demand, because it is believed to be less expensive than hiring new employees, has been the subject of debate in: Canada (Reid 1986); Ireland (Brennan and Kelly 1985); Australia (International Labour Office 1985); Sweden (Axling 1983); New Zealand (Sinclair 1983). Even countries with centrally planned economies, such as Czechoslovakia and Poland, recognise the ubiquitous problem of 'regular built-in overtime' (Karnakov 1984). In the Federal Republic of Germany, the use of systematic overtime has been widely decried: 'the systematic use of overtime should in principle and in the opinion of all social actors, be reduced to the lowest level possible' (Kading 1986). Moreover, in Italy 'systematic' overtime is generally unlawful in industrial enterprises (ILO 1986).

In 1850, with industry still in its infancy, the Amalgamated Society of Engineers, (ASE), passed a resolution repudiating overtime working. In addition, specific opposition to 'systematic overtime' was written into the ASE rule book (Burgess 1975). A prime ASE objective was to eradicate unemployment in the developing industry by controlling overtime. Almost 100 years later, between the wars, Katin (1937) reflected pre-war worries about the 'consistent application of overtime', and the 'uneven distribution of work under which some men work too long, while others have no work at all'.

More recently, Whybrew (1968) continued the reproach of systematic overtime, asking what could be done to control overtime which is 'systematic, inefficient but not inevitable'. He stated 'legislation is not part of the tradition of industrial relations in Britain; systematic overtime certainly is... both traditions should be broken. All the evidence supports those who have criticised systematic overtime as a major cause of inefficiency in Britain'.

Despite the continuous flow of criticism which has followed in support of Whybrew's unequivocal conclusion, no answer has emerged, and no fundamental change has occurred. Clearly, the lack of definition of the term 'systematic' overtime is one of the ingredients of the propensity of this ubiquitous and universally denounced phenomenon: 'like an elephant it's difficult to describe but easy to recognise when encountered and hard to stop when in progress!' (Spink and Brewster 1989). Calls from businesses, government ministers and trade unions, for the reduction or abolition of 'systematic' overtime (EIRR 1980), can be of little pragmatic value without such a definition. The European Commission (1983) declared that 'systematic overtime does not have a place in economies with high and rising unemployment and where it still exists it should be more strictly limited and if possible, phased out'. This declaration is clearly more applicable to the U.K. government than to others in the EC, which already apply controls on overtime working. Even the

normally reticent CBI (1980) denounced systematic overtime, stating: 'systematic overtime should be limited by law or actively discouraged... there is ample room for some reduction of overtime'.

The term 'systematic' overtime is commonly used to imply a number of overtime working phenomena and has come to represent a syndrome covering a variety of situations. It is often described by its characteristics such as: 'self perpetuating' (Caulkin 1976; Nedzynski 1984; Brennan 1985); 'institutionalised and little related to fluctuations in market demand' (Evans 1979); 'regularly scheduled' (Clegg 1962; Ehrenberg and Schumann 1982); 'regular and has persisted for a long time' (NBPI 1970); 'invariable' (Palmer and Kitchen-Smith 1970); 'in excess of 20 hours per month' (IRRR 1978); 'accepted as part of the working week whether needed or not' (IRRR 1982); 'stable' (ERO 1982); 'customary' (White 1984); 'used to smooth peaks in demand' (Sinclair 1984); 'unnecessarily habitual' (Desmonds and Vidal Hall 1987); 'policy overtime' (Davies and Caves 1987). Terms such as: long time, regular, customary, scheduled, institutionalised, self-perpetuating and stable, are descriptive to a point, but they lack any precision or common understanding.

Systematic overtime is also often described by its supposed functions, for example: to support pay systems and to increase low pay (Leslie 1976; Labour Research 1980; Sinclair 1984; Axling 1983; Rathkey 1984; Sherman 1986); to support shift systems (White 1982; PA 1982); for normal operating requirements (NBPI 1970; Fishwick 1979; European Regional Organisation 1982; Brennan and Kelly 1985; Reid 1986). These various descriptions both illustrate a lack of common definition of the syndrome, and show an acceptance of its existence and importance. Nevertheless, given that there is no common understanding of systematic overtime, it is of little value for a government minister to consider legislation to: 'restrict systematic overtime working and thereby contribute to the creation of additional jobs' (EIRR, Ireland, 1980;); or for the TUC to urge: 'get to grips with excessive, unnecessary and systematic overtime' (EIRR 1981).

Management often claim that overtime is preferred to recruitment, capital investment or other means of meeting demand, in order to obtain a more rapid response to that demand, and it is perceived that overtime can easily be cut back if demand falls-off. In these circumstances, one would expect there to be a clear relationship between overtime per worker and managements' own assessment of output. However, many researchers have found that much overtime is unrelated to output. For instance, analysis of the evidence collected by NBPI (1970) revealed that overtime was used for normal levels of demand by more than half of the organisations surveyed. Moreover, White (1980) found that overtime was very similar between those manufacturing companies with fluctuating, rising and stable demand, yielding 4.9, 4.9 and 4.8 average overtime hours per worker per week respectively. This result clearly indicates that overtime was not used to achieve demand adaptability and suggests that overtime may in fact have been largely systematic.

Fishwick (1979) found that, in the motor industry, managers claimed flexibility as a reason for overtime. Notwithstanding this evidence, a study of the circumstances showed overtime to be remarkably invariable in relation to output. The conventional wisdom on the problem with systematic overtime is objectively summed up by Brewster and Connock (1986): 'once introduced to handle variability in the supply of work, overtime may not subsequently revert to previous levels. Instead it can become institutionalised, and the flexibility to use overtime again to meet peak

demands is reduced'. In short, systematic overtime is thought to reduce operational (day to day) flexibility.

3.3.8 Industrial Relations

It is not possible to consider overtime without reviewing the time honoured industrial relations context which goes back to the Industrial Revolution. The Amalgamated Society of Engineering Workers introduced a national overtime ban in support of their demands for the abolition of 'systematic overtime and piecework' (Burgess 1975; Benson and Lloyd 1983). This early example of formal industrial action is particularly interesting in that it exhibits the two ways in which overtime and industrial relations are inter-linked. These quite separate issues are:

- i) Overtime bans/restrictions used by workers as a weapon, lever or sanction against the employer;
- ii) The use, restriction or withdrawal of overtime by employers such that industrial relations problems are caused.

This relationship is not restricted to the U.K. In Australia it is exemplified by the Industrial Award System which seeks to regulate overtime working with the objective of creating a better climate for industrial relations. One report (ILO 1985a) found that a quarter of these 'Awards' contained a clause providing that unions must not in any way be a party to any ban, limitation or restriction on the working of overtime.

In reviewing the extent in the U.K. to which overtime bans or restrictions are used by workers, it may be useful to consider a few topical examples. For example, the miners dispute (Telegraph and Argus 1988), the rail workers dispute (Whitfield 1989b) and the ambulance staff (Whitfield 1989c), all used the overtime ban as the key sanction and were all of national importance. A national overtime ban, together with a series of one day strikes, was used in 1979-80 to secure a reduction from a 40 to a 39 hour week, in the engineering industry (Huges 1980). There was a certain amount of irony in this use of overtime, in that a number of researchers have linked increasing overtime to the shortening of the working week.

The Donovan commission found that an overtime ban was a more common form of sanction than unofficial strikes, and the IDS (1988) found that overtime bans are a common, and often the most effective, form of industrial action. The use of overtime bans or restrictions as a weapon against employers was reviewed in two important surveys of industrial relations in Britain. The CBI supported Marsh in a survey of manufacturing industries, from which it was found that overtime bans represented 55% of all the non-strike industrial action in multi-establishment companies and 62% within single establishment companies (Marsh 1982).

More recently, Millward and Stevens (1986) conducted a survey of all sectors in all regions of Britain, sponsored jointly by the DE, ESRC and Policy Studies Institute. This survey revealed that overtime bans or restrictions accounted for 43% and in 1984, 55% of all non-strike industrial action by manual workers in 1980. The equivalent figure for non-manual workers was 38% for both 1980 and 1984. The equivalent figures for all workers were 40% in 1980 and 46% in 1984 (Millward and

Stevens 1986). This data reveals that overtime bans, among both the manual and non-manual workforce, were as widespread as strikes of one day or more, in both 1980 and 1984, with around one in ten workplaces being affected by such action. Two important facts clearly emerge from these statistics:

- i) Overtime bans or restrictions form the greatest proportion of non-strike industrial action;
- ii) The use of overtime as a proportion of industrial disputes increased over the period 1980-84, for manual workers and remained steady for non-manual workers.

Employees run some risk, in restricting overtime, of dismissal or restraint by a court injunction (IDS 1988). The Employment Protection (Consolidation) Act (1978) establishes an employer's right, in certain circumstances, to dismiss all, but not selective individuals, of those taking part in an overtime ban, with no recourse to an unfair dismissal claim. The court of appeal has held, (BBC v. Hearn 1978 and Faust v. Power Packing Casemakers Ltd 1983), that dismissal can apply even if there was no breach of contract involved in the overtime ban. The terms and conditions of employment can include those which are understood or implied by custom and practice, in addition to those which are specifically contractual. Moreover, industrial law now enables an employer to seek a court injunction restraining an overtime ban unless the action is in contemplation or furtherance of a bona fide trade dispute, has received majority approval in a properly constituted secret ballot and does not represent unlawful secondary action (IDS 1988).

The second association between overtime and industrial relations is the propensity of overtime to be the actual cause of a dispute. As with overtime bans, this phenomenon is not restricted to the U.K. A review of overtime working in Australia found that regular or customary overtime working can create an industrial dispute (ILO 1985a): 'workers come to regard overtime as a right and the reduction of overtime in these circumstances can create industrial relations problems'. In the US, a prolific source of industrial grievances and arbitration was found to be complaints from unions that employers have not offered employees suitable opportunities to work overtime (Greis 1984). Also, the use of mandatory overtime has been the source of a great number of disputes in the United States (Greis 1984; Landvater 1985)

There are many examples of industrial disputes caused by the use, restriction or withdrawal of overtime in the U.K. The London Transport strike in 1978 which saw workers protesting against the curtailment of their rest-day working (Carby and Edwards-Stuart 1981), or the Times Newspaper dispute of 1979 which resulted in a settlement giving improved overtime premium rates (ILO 1982). More recently, the Post Office dispute in 1988 which saw strike action to secure the right to work overtime handling a postal backlog (Chittenden and Beresford 1988). This was a particularly ironic dispute since the work backlog had been caused by the earlier strike action of those very workers. Moreover, management's solution to the backlog problem was in sympathy with TUC policy: to bring in temporary workers, from the unemployment register; this was bitterly resisted at local union level (Chittenden and Beresford 1988).

The Television industry, according to Jones and Thynne, (1988) had long relied heavily on overtime. In 1988 there was a concerted management effort to change working practices to reduce the use of overtime and work demarcations (Bassett 1988; Bassett and Gapper 1988), but this was strongly resisted by unions and resulted in strike action. For example, the TV-am strike

over manning and overtime levels (Jones and Thynne 1988) and the ACTT, TV-am strike to resist the reduction of overtime, which accounted for £10,000 of technicians' take-home pay (Daily Telegraph 5th December 1988). Another important strike was that caused, allegedly, by the government's attempt, through the 'Fresh Start' programme, to reduce the amount of overtime worked by prison officers. This eventually led to a riot at Risley remand centre (Johnson 1989).

The corollary to the phenomenon of overtime, as a cause of industrial relations problems, is that of the use of overtime to motivate or reward workers which is seen by some managers as an industrial relations booster. There is little reported in the literature base regarding the use of overtime in this way, other than as a support for low pay. Although Smith (1989) identified one use of ineffective payment systems to: 'indulge peaceful inefficiency on the shop floor'. It is widely believed that overtime can help the firm to recruit, retain and motivate staff, even when the pay levels can not be classified as 'low'. Moreover, it is believed on the shop floor that the gift, or the withholding, of overtime are sometimes used by supervisors or managers in their dealings with particular employees. as a reward or a punishment.

3.3.9 Employee Attitudes, Motivations and Manipulation

Each individual employee exhibits a unique set of motivations and responses. It is therefore hardly surprising that there is a high degree of variability and controversy in the literature on the issue of employee attitudes to overtime. Those employees who work overtime tend to do so habitually and the overtime pay which they receive is, on average, a substantial proportion of their pay, (see Section 2). Some workers can double their pay through overtime working (Richards 1988). In fact the choice for the average overtime worker is not so much one of: 'should I work overtime', as 'can I stop working overtime'. This is a subtle, but crucial, difference especially for those workers who have come to depend on overtime pay to meet their fixed financial commitments (White 1984).

The pivotal question: why do employees work overtime?, seems, in view of the levels of earnings, to be superfluous. The 'simple, obvious and unassailable' explanation of workers' readiness to work overtime is, according to White (1984), the additional income provided. White concludes that the 'evidence as a whole leaves little doubt that for many workers overtime pay is part of the regular earnings on which they rely'. Indeed, much of the literature admits of no contributing motivation for the individual to work overtime, other than the cliched financial theory (e.g. Sinclair 1983; ILO 1985).

Of course, there are other supporting or alternative reasons which help to explain employee willingness to work overtime. The NBPI (1970), for example, concluded that workers were willing to work high levels of overtime, 'clearly to raise their earnings', but that other factors could enter into the motivation equation. De Lange (1986) found that employees in France judged working time issues mainly in terms of 'quality-of-work' and leisure aspects. He went on to explain that the worker's 'private situation, especially family life, plays a leading role but there are other considerations, such as transportation problems'.

A number of studies undertaken in the 1970s, in the U.S., all of which support the NBPI's premise,

were reviewed by Jamal and Crawford (1981) who concluded that people do not work extra hours entirely for financial reasons. They suggested that factors such as: 'change of pace, developing new skills, being one's own boss and doing work which is enjoyable' entered the equation. White (1984) quotes the lack of overtime on Fridays as an exemplar of the move by workers to enhance quality of life by choosing to avoid inconvenient overtime. Buck and Shimmin (1959) explained the balance of potential on the overtime decision for the worker, stating: 'overtime can mean greater fatigue, disruption of domestic and social life, and the uncertainty of fluctuating earnings, but against these disadvantages can be set increased earnings at a higher hourly rate of pay'. They concluded that, in a free situation where the overtime was not compulsory, individual inclination to work overtime is determined in part by individual financial responsibility, 'a factor which lies outside the control of the factory'.

Whybrew (1968) revealed that employee willingness to work overtime was affected by financial and family responsibilities. However, he found that in all groups: 'there are usually variations in attitudes... some dislike overtime, and some wish to get as much of it as they can'. Similarly, the ILO (1985), which reviewed Australian workers' preferences for overtime, and White (1984) acknowledge the high degree of variability between groups of employees, for instance, manual and non-manual workers, occupations and industries, but stresses the limitation of some analyses because greater proportions of non-manual workers in some sectors can cloud the issue.

It is obvious that there will be considerable variation between individuals, the question is: 'to what extent is this variability a function of some independent variable such as characteristic or type of worker, industry or geographical region?' There is considerable research into the extent of actual overtime hours, analysed by these variables, but there is relatively little analysis of actual worker attitudes.

In considering the supply side issue of employee desire for overtime, most studies have found a high level of employee pressure for substantial overtime (Taylor 1978; Carby and Edwards-Stuart 1981; PA International Management Consultants 1982; White 1984; ILO 1985). NBPI (1970), for example, reported 'considerable shop-floor pressure' for overtime and adopted the view that was a key driving force in the overtime phenomenon. The desire for overtime and the extent to which some workers will go in order to 'manufacture' overtime opportunities are connected issues. Perhaps two examples will suffice here to demonstrate the dimensions of the phenomenon and establish the pressures which are sometimes present.

An example of the insatiability of demand for overtime is found in the circumstances of the Clapham rail disaster which is used elsewhere in this thesis as a powerful exemplar. The engineer responsible for the wiring error stated to the inquiry that he 'had worked every Saturday and Sunday in the two months before the crash and nearly every weekend for six months before that'. It emerged that this was by his own decision which was based on financial reasons. Of equal interest is an example of the extreme lengths to which workers are sometimes prepared to go in order to secure overtime. This example is found in a number of reports about the Sellafield nuclear power plant. British Nuclear Fuels, (BNF), were accused of 'deliberately falsifying worker radiation badges of men exposed to high levels of radiation' (Independent 24th May 1988). BNF said 'the incident was minor'. However, it was reported on News Night (BBC2 23rd May 1988) that overtime was so highly prized and sought by the workers, that they falsified their own photo-

radiation badges by putting them in their pockets and switching them off, or covered their personal air samplers with tissue paper in order to falsify the readings so that they could continue to work overtime.

There is, however, a body of research which suggests that workers generally resist overtime. Best (1978) concluded that 'workers, (US), may be willing to exchange earnings for more free time'. He found that the distribution of work over extended periods had 'important implications for many major social issues' and went on to explain: 'a large proportion of 791 non-randomly selected workers say that they would exchange income for time if the options for more free time match personal needs'. White (1981) found similarly evidence, at a pharmaceutical plant. Management had wished to increase overtime following a move to shorter hours but the workers successfully resisted this, for quality of life reasons. Harling (1974) noted that some workers would prefer to work less overtime, 'even if this meant sacrificing earnings'.

Irrespective of the ability of the individual to make a choice on overtime working, which may be severely constrained by financial circumstances, there is the question of the consequences of the overtime on the individual. It is therefore considered appropriate to review the positive or negative effects of overtime with regard to individuals' job satisfaction and morale, of which 'attitude' must be a function.

There is considerable conflict in the literature which arises from the interpretation of the degree and nature of the effects of overtime. It is difficult to generalise with any certitude over these issues, which will clearly be influenced by the circumstances. Nevertheless, a number of studies give some guidance. In support of the premise that: 'overtime improves job satisfaction and morale'. Hollmann's (1979) survey found a direct correlation between employees' willingness to work overtime and 'job satisfaction, their identification with the organisation and their perception of the fairness of the rewards for overtime work'. Kats and Goldberg (1982), in Israel, and Leonard (1983), in the U.S., found some employees indicated that 'job satisfaction' was the main reason that they worked overtime.

On the other hand, the majority of evidence would seem to support the opposite proposition, that: 'overtime is associated with poor job satisfaction and low morale'. Baird and Beccia (1980) concluded that overtime was 'negatively related to satisfaction with job and pay... overtime was neither productive nor motivational'. This conclusion has generally been supported by a wide range of research across the world (e.g. Fottler and Schaller (1975); Axling 1983; ETUI 1984).

Katin (1937), much earlier, established that the effect of overtime was 'generally' to depress employee morale and job satisfaction: 'overtime in the long run makes him, (the employee), stale and irritable... the brain becomes stagnant'. Nevertheless, Katin was equivocal, he acknowledged that there were some circumstances where the individual could derive a 'sense of unity, of pleasure in co-ordinated effort, that working late (in moderation) gives one'. He also mooted, as was mentioned by Jamal and Crawford (1981), the desire, among some employees, for self-improvement at work, which may lead them, as individuals, to the choice of longer hours, irrespective of financial considerations.

Lynch (1985) concluded that overtime in the U.K. should be reduced, which in his view would

bring considerable benefits to the individual worker, in terms of both morale and job satisfaction. While Fishwick and Harling (1974) found evidence that employees dislike fluctuations in overtime opportunities. This is sometimes recognised as a negative factor on employee motivation (Buck and Shimmin 1959).

Cultural questions are difficult, if not dangerous, to approach in management research. However, the so called 'protestant ethic' has been raised within the literature and there is clearly a valid association with overtime. Superficially, it could be presumed that there would be a positive correlation between work ethic and overtime, but the opposite might be argued in so far as overtime is 'manipulated' by the worker. Traditionally, in western culture, the concept of work ethic gives work, for the male species, a higher degree of esteem than leisure. According to Kats and Goldberg (1982), in Israel, forecast that the work ethic may well decline or be abandoned in 'post-industrial society', they found no evidence of this change as yet. They found in some circumstances that work remained 'central to the self-image of the individual, with a resultant desire for maximum time at the workplace'. Blyton (1985) argued that a long term shift in work values, 'away from the work ethic', would increase the perceived desirability of a 'work and income-leisure trade-off'. However, Blyton also found that there was little sign of such a shift at present. Galbraith (1972) went somewhat further stating: 'those who wish may, by working overtime or moonlighting, work more, none may work less'. Tennant (1978) conducted research into the work ethic in Canada using the provocative proposition: 'only losers work late'. He found that the work ethic was still a significant driving force and that long hours are still perceived, in some quarters, as the price that more senior staff 'have to pay to get ahead'.

Employee attitude may be influenced by taxation, not least because of the U.K. system of increasing marginal tax rates, which can have a disproportionate effect on the net overtime earnings yield. However, Whybrew (1968) pointed out that 'there is little or no evidence that levels of taxation affect the willingness of workers to agree to overtime'. White (1984) supported this conclusion, stating: 'there is no clear evidence of personal taxation having a strong influence on individuals' propensity to work overtime in the U.K.' It is not surprising that different countries exhibit different attitudes on this issue. For instance, in Israel, Kats and Goldberg (1982) concluded that 'in this study only 8% of workers felt that taxes made working overtime not worthwhile'. While in Ireland, Brennan and Kelly (1985) found that high taxation of overtime earnings generally discouraged overtime working by employees.

Finally, a somewhat novel discovery is that of the 'income effect' which Fottler and Schaller (1975) articulated. They found an unexpected distortion in the overtime hours supply curve in that those groups consistently associated with a lower propensity to work overtime, in the U.S., included both low-wage and high-wage employees: 'the finding of lower overtime acceptance among both high and low-wage employees and higher overtime acceptance among medium-wage employees implies a forward sloping supply curve for overtime hours which reaches a maximum in the medium-pay category, and then bends backwards as wages rise further'. The extent to which this phenomenon is replicated in the U.K. is unclear.

Turning now to the vexed question of employees manipulation of overtime, which is the improper creation, by employees, of circumstances which will create or maintain overtime. This uncomfortable question is shrouded in uncertainty, there being little information in the literature,

but no lack of conjecture. The discussion of this phenomenon in the literature is by no means a balanced review, since little evidence would be presented that such practice specifically does not exist. Moreover, there is little 'employer' pressure to review worker manipulation. Few establishments would want to embrace the very real risk of aggravating industrial relations by raising such a sensitive matter which in any event, may well reproach the management more than the workers. Even if manipulation were present, it may well be perceived as offering the organisation an effective means of achieving 'give-and-take'. In any event, the manipulation of overtime would be unlikely to present in the form of a critical situation which demanded specific management action. Nevertheless, there are many instances known to supervisors and managers, where the practice is suspected and the anecdotal evidence is indeed substantial.

Firstly, the unusual 'denial' of manipulation must be mentioned. Leslie and Wise (1980), somewhat tentatively, refuted the existence of manipulation. They based their analysis on an NBPI (1970) large-scale survey into overtime, covering over 2000 firms. One of the questions related to the comparative productivity between normal and overtime hours. Only 25% of respondents made the comparison, of which 69.2% stated levels were the same, only 2.6% felt overtime productivity was higher, and the balance that it was lower. This result, obtained by survey, is unremarkable in that managers would be unlikely to state that their control was ineffective. There must, therefore be some concern over the reasons for the 75% non-response on this particular issue only. Nevertheless, the NBPI survey was used by Leslie and Wise (1980) to suggest that there is: 'little support to the idea that workers deliberately waste time at work during normal hours in order to guarantee overtime to supplement their earnings'. This is the only reference found to denounce the manipulation theory and it is interesting that Leslie and Wise felt compelled to raise the matter in the first place. In fact Leslie (1977) had previously taken the position of tending to defend a degree of manipulation, or at least, in shifting the blame to poor management and inadequate payment policies, he stated: 'the hard-pressed low-paid worker spins out the work week to ensure overtime to guarantee a minimal level of earnings'.

Leslie's assessment was sound and it is easy to understand his somewhat sympathetic interpretation. However, such measured terms on this issue are not usually found in the literature. Caulkin (1976), for example, critically questioned the role of overtime, asking whether 'its the inefficiency which gives rise to the overtime or the other way around', going on to quote the uncompromising Alan Flanders: 'I do not know a single case where systematic overtime is not associated with deliberate time-wasting to keep it in being'.

Katin (1937) was equally forthright when, many years earlier, he identified the trait of the overtime-hungry worker and his 'wheedling of overtime from the foreman or employer'. Similarly, Rathkey (1984) does not prevaricate, he denounced overtime as being generally: 'habitual, detrimental to job creation and indicative of economic inefficiency... Contrary to popular belief, overtime is often a consequence of over-manning rather than under-manning. Making work for the weekend in order to get time-and-a-half and double-time does not represent efficient production'. In categorising managers' fears about overtime, Jamal and Crawford (1981) stated: 'overtime is frequently used to compensate for low productivity during regular hours, which could reflect mismanagement, technical (e.g., maintenance) problems, or conscious manipulation of output'. Similarly, White (1984), suggested worker manipulation of the 'pace of work' in order to make overtime necessary. In common with the vast majority of the literature, White did not elaborate

further, neither indicating the possible extent and degree of such activity, nor the source of his evidence, and this represents another gap in the knowledge of overtime in the U.K. White subsequently explains the meaning of the vernacular: 'soldiering', which has now entered the language in both the U.K. thus: 'Soldiering means to systematically pretend to be working intensively while in reality restricting output'.

On the question of proof, a search of the literature for firm evidence on this issue reveals little of value. However, one quotation from the Inquiry into the Clapham rail disaster would seem appropriate: 'he told me "there's no need to rush because there isn't much to be done" so I took my time' (Guardian 15th March 1989). These were the words of the Engineer who tragically left the loose wire, after enduring months of excessive overtime working, and presumably anticipating more of the same, spinning-out the work. Fishwick and Harling (1974) provide further specific examples of manipulation: 'managers... (at various U.K. plants), alleged that some maintenance employees "paced" their work in order to ensure an even rate of overtime earnings... At another U.K. components plant, management expressed concern at the growing volume of weekend overtime. It was alleged that, because of the overtime premium, the pace of work was slowed down'. Carby *et al* (1981) reported on a questionnaire based survey of 50 establishments stating: 'another widely held belief about the control of overtime concerns the extent to which managers or supervisors collude in creating overtime to aid relations'. It is interesting to note that, since 'several' of the 50 respondents thought collusion occurred, and yet this represented a 'substantial' reduction on previous years, the collusion must have previously been rife.

It is interesting to note that the NBPI (1970) study, cited above refuted claims of manipulation, in fact itself quoted evidence of worker manipulation stating: 'It was generally agreed that there was spinning out of work in order to raise earnings'. This practice was noted in particular in the road haulage industry where the NBPI stated there was 'clear evidence of a close link between high overtime and low productivity'.

The manipulation of work to secure overtime is not unique to the U.K. Greis (1984) in the U.S. discussed the loss of efficiency which was brought about by the tendency for workers to 'pace themselves for the longer day'. Likewise, Baird and Beccia (1980), also in the U.S., demonstrated that low-producing groups are associated with high overtime. Interestingly, the corollary to this discovery, that high-overtime groups provide a good starting point for the investigation of productivity, has been further developed as a result of Baird and Beccia's original work (Collons 1981). According to Collons, the need for overtime is caused by the work group operating below its capacity, and management's authorisation of overtime, rewards the work group for holding back production. When this occurs, the low-producing work group experiences a benefit from working below its capacity and the practice continues'. Furthermore, supervisory and lower management levels are, according to White (1982; 1984), most usually responsible for the day-to-day control of overtime. If these lower management levels are themselves rewarded for overtime at premium rates, this may create adverse pressures. It is surprising that this particular feature does not appear to be addressed in the literature. Other commentators who have developed similar themes include: Jevons (1965), U.S.; Sinclair (1983), New Zealand and Reid (1986), Canada. They all refer to the loss of efficiency due to manipulation.

There is clearly concern in the literature regarding the possibility of worker manipulation. This

issue has been addressed by a number of researchers, but only as an adjunct to their work on the use of overtime. There is little indication of the extent or degree to which manipulation may take place, or indeed, may be endemic.

3.3.10 Employee Welfare

Again, this section is divided into three areas: quality of life; health, safety and accidents and, finally, mandatory overtime. The question of quality of life is summed-up by Katin (1937) who argued that: 'if overtime is heavy and frequent, the worker gets home too late and too tired either to enjoy the advantages of his extra money or to increase his chance of promotion by self education'. This uncompromising view was expounded between the World Wars and has not been substantially modified by subsequent research. Indeed, there are few 'overtime issues' which lack controversy. However, the association of long hours of work with lower quality of life for the worker, *ceteris paribus*, (particularly take-home pay), is almost without challenge in the literature.

There is, of course, an exception to this generalisation. Fishwick (1979) suggested that workers obtain some reward for their overtime work in addition to obvious financial one. Fishwick raises the interesting question: 'why do employees not demand reductions in overtime?'. No answer to this question is offered by Fishwick but he goes on to state: 'the apparent absence of any widespread demand for more leisure time remains remarkable'. Fishwick is interested in the possibility that overtime may provide a desirable outlet for some workers who, in the absence of better alternatives, derive a higher 'quality of life' through the ability to work late and achieve fulfilment of 'higher-level' motivators such as job satisfaction. Certainly there is believed to be a substantial body of non-manual workers who choose to stay late to work unpaid overtime (Carby and Edwards-Stuart 1981; White 1984; IDS 1988d) and although there may be indirect financial and career motivations involved, the 'Fishwick' theory can not be discounted.

Over this century, the ILO have been the leading proponents of the improvement of conditions of work (Taqi 1982). One of their key means of pursuing this objective has been the adoption of International Labour Conventions and Recommendations aimed at setting standards and providing guidance to governments, trade unions and employers. The term 'conditions of work' can have different meanings but, in this context, it is intended to be used in the narrow sense to embrace 'working time, workers' welfare and special conditions' (Taqi 1981).

The ILO see working hours as a main concern and have accordingly adopted a number of conventions (ILO 1982b) which limit working hours but these have not been ratified by U.K. governments. Even so, they have exerted an enormous and world-wide influence on national law and practice (Taqi 1981).

The ILO Report of the Committee of Experts (ILO 1984) re-affirms the ILO's commitment to the reduction of long hours: 'the committee has always attached great importance to the limitation of additional hours'. The ILO Medium Term Plan 1990-95 (ILO 1988a) gives the objectives of the ILO as: 'social progress and social justice'. In this plan the ILO target improved working conditions as a major future challenge. A principle objective within this more general aim was given as the

'protection of workers against excessive hours'.

Turning now to the historical literature on the issue of workers' welfare Thompson (1968) showed that there has been concern, from the early period of industrialisation, about the 'damage to both health and way of life' resulting from long hours of work. It is convenient to separate the issues of 'health', which attach to the individual worker, and 'way of life' which perhaps concerns more the wider context of the worker, his family and the community in which he lives.

So far as the individual worker is concerned, Katin (1937) stated: 'the continuance of overtime in the long run makes the average worker stale and irritable'. The working of extra hours is criticised in this context, not just in the U.K., but world-wide. For instance, in Israel, Kats and Goldberg (1982) criticised overtime for its 'negative consequences such as stress, fatigue, accidents and low work commitment'. Long hours are universally associated with the intensification of negative influences on the individual such as: fatigue, boredom and stress (NBPI 1970; Fottler and Schaller 1975; ETUI 1979; Rathkey 1984; Blyton 1985; Leonard 1986; Greis 1984; White 1987).

In the U.K, the TUC proposed a strategy on working time, the essence of which was to create jobs, but which also embodied the secondary objective of improving working conditions by reducing working time (EIRR 1981). With fundamentally the same intentions, the ETUI have established the principle that overtime should be compensated by time-off-in-lieu, (TOIL) (ETUC 1982). This was promoted essentially by two arguments: 'the refusal of workers to trade-off bad working conditions; working hours being taken as an essential part of working conditions.

As regards the 'way of life' of the individual worker, Kats and Goldberg (1982) summed-up the general feeling of the literature base stating simply that overtime can cause the 'ruining of family life'. Katin (1937), in more colourful terms, denounced overtime as 'a work beast', stating: 'not only the brain becomes stagnant, but all that one acquires of culture, of interest in society, goes by the board. Good music, good reading, good talk - all these are as fleeting shadows after a long spell of day-and-night labour. Domestic relationships themselves become strained and unreal'. Perhaps more soberly, the Federation of Labour in New Zealand have pointed to the 'disruptive effect of overtime on family and community life', as well as on the adverse 'fatigue of workers... during overtime periods' (Sinclair 1983). In consideration of the positive side of the argument, the European Commission (1983) stated: 'the reduction and reorganisation of working time can make a continuing contribution to the improvement of living and working conditions'.

There is considerable evidence that overtime denigrates the social life of the worker, notwithstanding the worker's need to fund a social life, as well as, possibly, to meet essential financial commitments, by earning the extra cash that is offered through overtime (Katin 1937; Buzzard 1973; Sinclair 1983; ILO 1985c; Blyton 1985).

White (1987) addressed the question of 'Shorter Hours as a Contribution to Health and Quality of Life' in the U.K. He stated that the 'first, and perhaps most basic, argument of the advocates of shorter working hours has been its important contribution to the health of workers and, more generally, to their quality of life'. Furthermore, White argued, very reasonably, that health can be regarded as one aspect of overall quality of life, and that health is adversely affected by excessive hours of work. Thus White established a fundamental link between hours of work and quality of

life.

It is perhaps interesting to consider in a little more detail some of the factors which comprise 'quality of life'. We turn again to White (1987), who revealed that advocates of shorter working hours have claimed that these would result in 'wide improvements in quality of life for both workers, their families and for the community'. White (1987) found that shorter hours of work can result in 'better motivated workers who produce more and give customers higher standards of service, and reduced hours are likely to do so if they form part of a general policy of improving the quality of working life'. More particularly, he concluded that the benefits to accrue from the reduction of excessive hours were: 'i) Improvement in the quality of life for workers - including improved standards of health, avoidance of accidents due to fatigue, and provision of adequate time for relaxation and domestic activities; and ii) Adoption of more efficient working practices appropriate to modern types of industry and service.' Zachman (1987) summarises the literature, stating: 'obviously, a decline in working time can be considered to be an improvement in quality of life', no doubt this would be particularly so were the working time to at a relatively high level to start with, as is the case for many workers in the U.K, where 36% of the male workforce work more than 49 hours per week, (see Appendix 2-1). Clearly, therefore, the issue of welfare is relevant to the overtime debate.

Two slightly more obscure notes may be of interest. Firstly, it is a common assertion that there is an association between unemployment and poor quality of life. Furthermore, many researchers have pondered the extent to which overtime reduction might redistribute working time and therefore reduce unemployment (Nussbaum and Wise 1977; ETUC 1982; Leonard 1983; ILO 1985; Carr 1986; White 1987). Thus the link is indirectly established between the worksharing aspect of overtime reduction and improved quality of life, although this is not specifically addressed in these terms in the literature.

Secondly, from the workers' point of view, overtime has an additional disadvantage of being an insecure source of income, in theory if not in practice (NBPI 1970). Although this 'insecurity' may have only a marginal effect on the welfare of the worker, this would certainly be, in essence, another depressive factor. However, this factor is also not addressed in the literature.

Turning now to a different factor in the issue of welfare, that of health and safety and accidents. A rail worker, killed by an express train, was ending a 22 hour shift. The worker 'failed to hear shouted warnings from his work-mates... as he worked on the track'. The inquest recorded a verdict of accidental death (Daily Telegraph 4th July 1989).

It is generally believed that overtime work leads to fatigue, which, in turn, increases the likelihood of accidents (Schuster and Rhodes 1985). There is a considerable body of research, across many industrialised nations, and extending well into the history of British industrial relations (Thompson 1968), which associates long working hours with an increased propensity for accidents. The question arises regarding the precise causal relationship between long hours and accidents and little evidence appears to exist regarding the degree of positive correlation between these variables.

In Canada, a Task Force was appointed to enquire into hours of work and overtime. This inquiry

found evidence (Worklife Report 1987) of an association between overtime hours and accident rates. However, the Task Force went on to state: 'it is not known... whether this occurs because of the overtime per se or because of other changes that are occurring when overtime increases, such as an increase in the pace of work or a reduction in supervision or safety maintenance. Determining the underlying causal relationship is important if we are to know whether the appropriate policy response is to reduce overtime or to enforce health and safety standards more strictly'.

In fact there is considerable evidence, originating in the U.K, associating accidents and poor health and safety with overtime working (Rathkey 1984). White (1987) recounted the documentation, during the First World War, by the British Industrial Fatigue Board, which identified 'a heightened level accidents' as a probable repercussion of long hours. Vernon (1918, 1921, 1936) has provided a key work linking overtime, fatigue and accidents. In essence, it was found that, when longer hours were worked, there was an increase in the accident rate per hour (Vernon 1936). This finding is supported by research reviewed by Whybrew (1964), Greenbaum (1963), and the NBPI (1970) who linked long hours with 'factors such as fatigue and boredom'.

The TUC, in 1981, voiced their concern stating that the basic conditions of employment should be improved by eliminating all systematic overtime in order to improve health and safety factors (EIRR 1981). More recently, White (1987), in reviewing the effects of long hours on health and safety, found that the literature generally accepted a positive correlation between long hours and poor health factors. White, however, suggested an alternative argument, that the process of shortening working hours could lead to intensification of work, and hence to more rather than less fatigue and stress. No evidence was offered in support of this alternative hypotheses, but White concluded that the expected benefits of reductions of hours would include 'improved standards of health and avoidance of accidents due to fatigue', which would appear to be in support of the substantive hypothesis: that overtime is positively correlated with poor health and safety factors.

In the US, Schuster and Rhodes (1985) conducted a systematic study which established that overtime work was related to the incidence and severity of accidents. While a Canadian Task Force found 'evidence that overtime hours are associated with higher injury and accident rates' (Worklife Report 1987). Kats and Goldberg (1982), concluded that there was an association between working extra hours and accidents. While overtime in Nordic countries, tends to be controlled by health and safety committees, thus establishing a link between those factors (ETUI 1982). Sinclair (1983), in New Zealand, reported that the Federation of Labour were concerned about the effects of overtime on accidents and Sinclair, ILO (1979) and the Canadian task force (Work Life Report 1987), were concerned about the occupational health threshold limits, which could be adversely affected by longer exposures to hazardous substances during overtime.

One study which gives a different view is that by Jamal and Crawford (1981). This systematically reviewed 'Mental Health' among a number of variables with respect to overtime. No statistically significant difference was found between 'overtimers' and modal employees. Nevertheless, it was interesting to note that absenteeism, which is connected with welfare, was significantly higher among 'overtimers'.

A corollary to the relationship between overtime and poor health is the propensity of long hours to

result in a reduction in quality of work, (see Section 3.3.6). This would clearly put at risk third parties, who either rely on the quality of service or product, or who are simply unfortunate enough to be coincidentally involved, when a system, product or service fails. An example of this lies in the 1988 Clapham rail disaster, previously mentioned. British Rail, (BR), accepted responsibility for 'bad working practices' (including excessive working hours), which caused the accident (Guardian 15th March 1989). The trend of 'soaring overtime giving excessive hours of work' was highlighted at the subsequent inquiry, which found this to be the case in this instance. Worries were expressed at the inquiry that 'overtime can mean overtiredness for manual workers doing safety related jobs'. The engineer involved stated in evidence that he had worked 'every Saturday and Sunday in the two months before the crash and nearly every weekend for six months before that', this was on top of his 39 hour basic week (Bournemouth Evening Echo 30th October 1989; Daily Telegraph 8th November 1989).

Hindsight is, of course, the perfect science, but this incident had in fact been foreshadowed although this has, surprisingly, not yet been articulated publicly. The Transport Salaried Staffs' Association, (TSSA), in 1988, six months prior to the Clapham disaster, revealed that BR staff are able to 'Double wages by doing excessive overtime'. BR advised that average overtime was about 10 hours per week and TSSA claimed that, during one mid-January week in 1988, 15,022 staff earned between 200% and 400% of basic pay and some earned over 400%. Against this backdrop, the TSSA called for BR to fill 'up to 20,000 staff vacancies'. Moreover, overtime was confirmed as being common for all grades of staff at BR. Mr. Lyons, General Secretary of the TSSA, condemned excessive hours of working and called for an 'urgent inquiry and it should cover the important aspect of health and safety' (Richards 1988).

In the event, the final report of the disaster inquiry was uncompromising, it labelled working practices as 'positively dangerous', criticised BR for maintaining, among other things, 'excessively long hours' and stated that management had 'failed abysmally'. The report identified fault in the 'historic character' of the running of the railways which are characterised by exceptionally long hours of overtime. Among its recommendations the report called for: 'an end to excessive levels of overtime'. This would suggest an association between overtime and bad management.

The potential 'third-party' consequences of long hours of work is not as obscure as might be assumed from the lack of comment within the literature. White (1987) quoted the graphic example of a survey of truck drivers in France, among whom long hours were common. It was found that 'the incidence of accidents rose sharply towards the end of long spells of driving, particularly at night, despite the lower density of traffic' (Organisme National de Securite Routiere 1977). Such issues raise questions of safety for both the general public and the worker.

It would be naive to assume that there is a simple direct relationship between accidents and long hours of work. Clearly the overwhelming body of research indicates that there is a positive correlation between the two. However, this is likely to be due to multi-factorial and complex reasons, involving the characteristics of the individual and the environmental circumstances, as well as the fatigue factor (Schuster and Rhodes 1985).

Mandatory overtime: the workers' 'right-to-say-no', is clearly linked to employee welfare. This is not an issue in many European countries where legislation restricts or completely outlaws any

overtime, other than in carefully prescribed circumstances (ILO 1986). However, mandatory overtime has proved a problem in other areas of the world. The ILO Medium Term Plan 1990-95 identifies that improved working conditions remain an important area of concern and under this heading the 'fundamental' question: 'under what circumstances could a worker refuse to work overtime?' is listed for investigation (ILO 1988a).

In Canada, Reid (1985) found that only 15% of major collective agreements in Canada, define overtime as voluntary, 23% give the worker a qualified right to refuse overtime for 'sufficient reason', the balance of agreements presume the employer to have the right to enforce overtime. A Task Force, established by the Ontario Ministry of Labour to enquire into hours of work and overtime, recommended that overtime should, by law, be voluntary after a 40 hour week of 8 hour days (Worklife Report 1987). The law previously stipulated that overtime became voluntary only after 48 hours of work in the week.

A similar situation exists in New Zealand, where the employer is presumed to have, in common law, the right to require the working of overtime when necessary (Sinclair 1983). While in Australia, some groups of worker are required to work compulsory overtime, (ILO 1985) in which case the only element of choice for the worker lies in their selection of occupation and job. There is also a group of Australian workers which feel compelled to work overtime when requested, in order not to jeopardise their job security, although the ILO, could adduce no evidence that this was a widespread problem (ILO 1985). However, in common with many countries with unemployment problems, Sinclair (1983) found that in New Zealand, the issue is not so much one of resisting mandatory overtime, but more one of job security. People are generally happy to accept either overtime, or the lack of overtime if this is crucial to retaining their job.

As regards the U.K., there is very little evidence concerning the use, distribution or the extent of mandatory overtime, the major contemporary reviews of overtime and hours of employment do not cover this issue in any detail. There is also little passing comment regarding mandatory overtime even though one would expect this to be a valid area of concern. The exception to this is the existence of notes regarding the findings of the courts in respect of the worker's right to withdraw overtime during a number of industrial disputes. For instance, the IDS (1988) reported a court ruling that overtime had been found to be 'not voluntary'.

The IDS (1979) survey of overtime listed seven firms, apparently from 29 surveyed, which had a 'contractual obligation to work overtime'. There would appear to be questions about the accuracy and representativeness of the sample before drawing conclusions.

The ILO is concerned that workers, particularly in industrially developing nations, should have the 'right-to-say-no' to working additional hours. Long or excessive hours are seen, in developing countries, as a major and unacceptable affront on of workers' conditions of employment (Conversation between the author and J Thurman, ILO 1988, Geneva).

Nevertheless, the major debate over the use and legislation of mandatory overtime has taken place in the U. S. Fottler and Schaller (1975) suggested that compulsory overtime had been 'one of the major industrial relations controversies in the United States during the seventies'. A brief review of this debate may help to give context to the issues as they affect the U.K. Within the US

the employer has the right to require an employee to work overtime unless that right has been modified by an employment contract (Dilts and Paul 1983). Most union contracts, in varying degrees, limit this employer prerogative, and unions are strongly opposed to mandatory overtime (Greis 1984). However, employers who retain this right may be able to operate more flexibly and continue operations which otherwise may have been curtailed (Levitan and Belous 1977). According to some commentators the free acceptance of the contract of employment, makes the employee a volunteer for overtime and in these circumstances (Steele 1986).

Ehrenberg and Schumann (1982) presented both sides of the debate for legislation to prohibit mandatory overtime. The proponents' case was, in essence, restoring freedom of choice to the worker, while the opponents' argue that such legislation would restrict employers' flexibility in scheduling production, increase costs and reduce the international competitiveness of American industry. Considerable doubt was expressed about the ability to enforce such legislation and Ehrenberg and Schumann concluded that the cases for and against legislation remained un-clear.

It is claimed by many commentators that mandatory overtime can exert an adverse effect on employee motivation and job satisfaction, and can manifest itself in lower productivity and higher levels of absenteeism and labour turnover (Schwab and Cummings 1970; Lawler 1973; Fottler and Schaller 1975; Mahoney 1979; Greis 1984). Furthermore, Best (1981) stated that there was a 'notable incidence of human hardship' resulting from mandatory overtime. Indeed, unions, representing the workers' viewpoint, called for an end to mandatory overtime on the grounds that it reduces employment opportunities and is exhausting to workers, being one of the major causes of high absenteeism and thus indirectly, of firings (Greis 1984). In sympathy with this proposition, Landvater (1985) implied that mandatory overtime was a function of bad management in that it would not be needed if it were not for management's poor planning.

From the employers' viewpoint, the ability to mandate overtime work is very important in keeping costs down and maintaining flexibility according to (Greis 1984). The importance of these arguments to the opposing groups is exemplified by the United Automobile Workers' strike against International Harvester in 1979-80 which focused on a rule change to allow the company to schedule mandatory overtime; the strike lasted five months (Greis 1984; Landvater 1985).

Hollman (1980) revealed that there were a number of reasons for the worker's reluctance to work overtime, some of which are not immediately obvious. For instance, the avoidance of higher marginal taxation rates. Hollman went on to state that organisations should only give overtime to those employees who are 'readily willing to work overtime' and in this way they would maximise the productivity during overtime hours. Similarly, Dilts and Paul (1983) concluded that voluntary overtime was 'probably' more productive than mandatory overtime.

The implication of this conclusion flows from the use of the word 'probably'. There is throughout the literature a great deal of conjecture but no unequivocal answers. This research identifies a gap in the knowledge of the extent, distribution and use of mandatory overtime in the U.K.

3.4 MACRO-ECONOMIC OVERTIME ISSUES

3.4.1 The TUC Dichotomy

It was stated by Leslie (1977) that 'whilst trade unions and others do from time to time make pompous and pious statements about their exploited members, (and lately about work sharing among the unemployed), they do not in practice oppose overtime'. Most union leaders, according to Taylor (1978), agree publicly that 'overtime is a social and economic evil that should be abolished'. Yet the TUC find themselves in a difficult position with regard to this policy (White 1984). A series of disputes in 1988-89 has again raised the issue of the industrial relations implications of overtime. Such difficulties are not restricted to the U.K. The Australian trade unions (ILO 1985) and the Canadian trade unions (Benimadhu 1986) are committed to reducing overtime, but find that their members resist any such moves. Within the U.K., local level resistance to the reduction of overtime is frequently reported (Fishwick 1979; Dawkins 1983). Carby *et al* (1981) found, in their survey of overtime working practices, that a number of companies complained of artificially high manning agreements which necessitated more people working overtime than was justified, and one company were unable to fill a vacancy because 'the union' insisted on retaining overtime.

The TUC's 'overtime dichotomy', *viz.* official resistance, but grass-roots demand, represents an enigma of British industrial relations. The leader of the TUC, Norman Willis, explained that the public generally hold 'mistaken beliefs' about the TUC (Grice 1989) but the Economics Secretary to the TUC stated it was 'hypocrisy for unions to call for the reduction of overtime but resist this at the local level' (Callaghan 1989). This view concurred with that of Basnett (1979) who called, at the TUC, for the reduction of overtime in order to reduce unemployment, stating: 'if we continue to allow unlimited overtime.... we will stand accused of hypocrisy; we will show that our real priority is self interest... this time we mean business'. A similar motion was debated again at the 1989 TUC Conference (Whitfield 1989a), a decade on, but overtime as a proportion of basic hours has increased to half again as much as the previous 'unacceptable' levels. Union membership has fallen over the late 1970s and early 1980s and this has weakened their influence on management decisions (Whitfield 1989a). There is, however, no evidence that this development has had any effect on overtime working practices over this decade. That is not to say there would not be an effect if this trend continued.

Indeed, overtime has been called the enemy of the working classes (Robins *et al* 1982); and unions around the world have fought to reduce its levels. Unions decry it as a major cause of bad working conditions (ETUI 1982; BIM 1985), and a contributing factor in the uneven distribution of work where some work very long hours, whilst others are unemployed (Katlin 1937; DOE 1978; Basnett 1978; ILO 1982; TUC 1983 and 1987; Richards 1988). Even though this is anathema to U.K. unions, frequently act, at the local level, as the vehicle for the promotion and control of overtime (NBPI 1970; White 1980 and Curson 1986).

The question of the attitude of individual unions to overtime is raised, and Taylor (1978) gives several examples. For instance, the National Union of Mine Workers made a hard push for reduced working hours in 1977-78, but without success. 'The main trouble is the members' one senior officer stated... the lads are not supporting it'. Ken Thomas, of the Civil and Public Services

Association, at the 1977 TUC stated: 'thousands of our members are working overtime which, if we cancelled it and banned it, would create jobs'. The General and Municipal Workers Union argued that 'overtime reduction could provide thousands of jobs, but no action was taken'. Indeed the inability of unions to act decisively on overtime is well illustrated by the attempt by unions in the Confederation of Shipbuilding and Engineering Unions to try to reduce overtime in the late 1970s. Posters and leaflets were distributed to the members to explain the evils of overtime and the national committee of the then AUEW made a special effort to drive the message home, but the campaign was a failure. As Taylor explained, district committees hold the real shopfloor power on overtime.

As long ago as 1972, the TUC began the 'target 35' campaign for a 35 hour week although this campaign did not gather momentum until the late 1970s. This policy requires the 'eradication of systematic overtime' (TUC 1980; ILO 1982). In 1987 the Trade Union Congress carried two resolutions calling for: reduced working time through, among other things, 'the reduction and control of overtime, and the elimination of overtime other than that required for safety and maintenance or emergencies'. Although they hold as a proviso, the protection of those on low wages who rely on overtime pay (IDS 1988).

While the TUC recognise that some overtime results from fluctuating production levels, they believe that a large amount of overtime is due to employers avoiding the costs of taking on extra workers, and that many workers are forced to work overtime to supplement inadequate basic earnings (IDS 1979), although there was no analysis of such costs and this highlights a major research gap. The TUC had issued a list of areas for action on overtime reduction. That general list was superseded in 1981 by a new three point strategy on working time and jobs (TUC 1981):

- 1 Negotiations on working time and jobs;
- 2 Immediate action to cut overtime;
- 3 Possible legislation on working time.

The first strategy was given top priority. Negotiators were advised to particularly question whether overtime has become 'systematic' or 'institutionalise', although these terms were not defined other than to contrast these types of overtime from those genuinely used to adjust for demand fluctuations. Systematic or unnecessary elements of overtime were singled out for special attention and other areas for consideration were: limits on overtime; increased premium rates; phased overtime reduction with hourly rate increases to protect pay; use of time-off-in-lieu, TOIL and new shift staffing arrangements.

The second strategy involved immediate action to cut overtime, particularly where workers faced redundancies, as a means of saving jobs. It was accepted that such action would not be effective in situations where there was a shortage of skills. In addition, the TUC were at pains to stress that no action should be taken where the effect of an overtime ban would give an unacceptable reduction in wages, particularly where the worker was already 'low-paid', although no definition of 'low-paid' was suggested (TUC 1981; EIRR 1981).

The third strategy was the investigation of possible legislation on working time. In this respect three courses of action were mooted for discussion (TUC 1981): i) Immediate legal limits on

working hours; ii) immediate phased approach, bringing in legal limits on working hours which diminish progressively each year and iii) maintaining the *status quo* with no legal limits but an intensified effort to voluntarily 'get to grips with excessive, unnecessary and systematic overtime'.

There is no evidence that this TUC initiative met with any success in reducing overtime (EIRR 1981). The TUC and CBI had earlier joined together to find ways to reduce overtime working. In 1979 the joint TUC and CBI working party called for the reduction of 'systematic' overtime, (which remains undefined), in conjunction with the introduction of new technology. The text of the statement was agreed in July 1980 by both sides at NEDC and was endorsed by the 1980 Trade Union Congress. However, the statement was subsequently rejected by the CBI's Grand Council (Benson and Lloyd 1983). This *laissez-faire* attitude highlights another great enigma of British industrial relations, the difficulty of identifying common goals for the benefit of all within the system, thus perpetuating the low wage, low productivity, poor working conditions economy (Spink and Brewster 1989). Subsequently, a special TUC conference, held in February 1984, revealed a high degree of frustration among delegates (White 1984). Basnett stated that 'unions still had to tackle some major problems, for example high overtime hours at a time of high unemployment' (TUC 1984).

Overtime is now regulated by industry agreements which do not, in practice, offer effective controls (White 1984). At the European level, the general resolution of the General Congress of the ETUC reaffirmed the position they have adopted previously *viz.* 'reduction and eventual elimination of regular overtime... compensation of exceptional overtime by time off' (ETUC 1982). In view of the single market initiative and the anticipated social and socio-economic reforms which are now mooted for the EC, (the so-called Workers' Charter), the pressure for working hours reforms and a more interventionist approach from the U.K. government is likely to grow. The TUC have a positive role to play in facilitating this innovation. White (1984) summed up the current effectiveness of the TUC's involvement in working time issues stating 'the TUC's initiative has so far failed to stimulate a national debate about the continuing problem of high overtime'. The need for such a debate to be promoted remains even today. While the problem for the U.K. unions remains that few shop stewards who value their position will deny their members the 'right' to work overtime.

3.4.2 Legislation of Working Hours

This issue is subdivided into three areas: government responsibility; the European dimension and a resume of international regulations of working hours. These are addressed in turn.

British governments have held an extraordinary position on the world stage since, in contrast to many other countries, there is little political consensus on the way the economy should be run (Brewster and Summers 1986). It is generally accepted that the labour market is an important system within the economy and that the government are responsible for the economy. It must, therefore, follow that the government have a role in the management of the labour market and therefore in setting a framework for regulation and control. Nevertheless, as Sherman (1986) points out, 'all European countries, with the exception of Ireland and the U.K, have statutory limits on the amount of overtime'. The system which operates in Britain has been referred to as

'voluntarism' (Evans 1979). Both employers and trade unions prefer the voluntary approach according to White (1984), who points out that the post-war trend in voluntarism has been towards an increasing degree of decentralisation. White rationalises the avoidance of legislation in this area as a 'matter of choice rather than of negligence by successive governments' and expresses the opinion that the voluntary system has actually promoted overtime working. (White 1984).

Overtime restrictions are not generally found in the U.K, and where they are established, (essentially through collective agreements), they are not commonly applied in practice (White 1984; Steele 1986). Many other countries use collective agreements to control overtime working and remuneration, but they do so generally within a framework of statutory legislation (ILO 1986c).

A prominent labour lawyer in Britain, Khan-Freund, wrote: 'there is, perhaps, no major country in the world in which the law has played a less significant role in the shaping of (industrial) relations than in Great Britain' (quoted in Clegg 1976). Not only is the U.K. system informal, but as Bell (1983) points out, it is disposed to be unstable to some degree: 'legislative intervention has tended to be increasingly partisan towards the interests of either the employers or trade unions since the 1960s, and successive governments have consequently tended to repeal their predecessors' labour laws and institutions'. This is the backdrop against which governments need to consider legislation to limit hours of work.

The success of the voluntary system is central to the debate and uncompromising evidence is provided by Rathkey (1984), who states: 'in Britain the voluntary approach to overtime reduction has proved to be totally unsuccessful... the TUC has struggled for years with overtime reduction, but has failed... the question of excessive overtime working and the implications of its reduction on employment creation are matters for serious investigation'. Clearly there is dissatisfaction with the current system, but there is no unequivocal acknowledgement of the legislative alternative, for the U.K., where proponents of legislation are overwhelmed by those who denigrate the proposition.

It may be interesting to review the most recent parliamentary development in the area working time. A Bill to cut the working week to 35 hours was raised in the Commons on May 17 1988 (Daily Telegraph 18th May 1988). The Bill did not receive the approval of the house but the sponsor, Labour MP Mr Grocott, stated: 'it might surprise the House to hear that the average working week has increased since 1983, because of the increasing tendency of employers to require more and more overtime from people who are at work, rather than take on additional workers. I look to a substantial reduction in overtime as well'.

What then is the policy of the Government? and what should be their role? The government themselves, through the DE argued (Employment Gazette 1978) that overtime represented a substantial number of full time jobs and that overtime reduction may, in spite of some difficulties, offer a way to 'open up more jobs for the unemployed'. They went on, ambiguously, to say: 'a legislative approach would be too rigid, and any action would be best obtained through voluntary negotiation at workplace level'. Since that time, unemployment more than trebled and is now double the 1978 level, while overtime has continued to rise and now stands, remarkably, 66% above the levels which endured when the DE made their pronouncement (see Section 2.2).

There was no such vacillation from the National Board for Prices and Incomes, (NBPI 1970), an arm of government. They were completely in opposition to the introduction of legislation for the control of working hours. They drew this conclusion primarily to prevent the restriction of man-hours available for production, and gave secondary reasons as the absence of support for legislation, the extension of moonlighting (dual job-holding) and the rigidity of external controls. As for employers, the CBI (1980) pointed out that: 'in Britain, governments, unions and employers have paid lip service to the need to reduce overtime but little has happened'. This analysis would suggest that the CBI were unhappy with the achievement under the voluntary regime and would, perhaps, be amenable to more formal controls. However, in a paradoxical turn of the analysis, the CBI set themselves firmly against any action to legislate for the control of working hours. They argued: 'it is doubtful whether legislation would be effective', and concluded, *deja vu*, that what was needed was more of the 'failed' 'joint voluntary approach by employers and unions' (CBI 1980); notwithstanding their inability to accept the joint CBI/TUC working party initiative, (see Section 3.4.1).

Surprisingly, the position of the trade unions has been remarkably similar to that of the employers, although there is evidence that this position may now be changing with the current drive for a 35 hour week. Traditionally, the U.K. unions have been reluctant to bring legislation into the sphere of industrial relations. However, the TUC draw a clear distinction between 'protective' legislation, such as for young workers, which they would promote, and 'legislation designed to inhibit trade union activity' which they do not support (EIRR 1981; TUC 1981). In the light of the success of the former classification of legislation in other countries (eg France, Italy, West Germany, etc EIRR 1978), the TUC suggested that 'legislation of this kind should be considered as a possible means of restricting working time and curbing overtime in the U.K.' (EIRR 1981).

Whybrew (1964) found 'good evidence for the effectiveness of the legislation in regulating actual hours of work'. He found that the Dutch were able to obtain an effective reduction of working hours and that the legal restrictions on hours was 'undoubtedly' an important feature of their success. Nevertheless, ambiguously, he formed the conclusion that such external regulation of hours of work would be 'quite unacceptable for Britain'. Whybrew (1968) later returned to the question of legislation and again exercised the difficulties that legislation could bring. This time, however, he seemed to move, by inference, towards a different conclusion, although he proposed no formal recommendations. He gave sketch details of how a scheme of statutory regulation might operate and suggested a scheme whereby overtime might be progressively reduced, from an initial limit of 8 hours per week, to 2 hours per week, over a number of years. In conclusion, and rather enigmatically, he stated: 'legislation is not part of the tradition of industrial relations in Britain; systematic overtime certainly is... it is not often possible to legislate for efficiency but some form of control on overtime might involve just that'.

Leslie (1977) stated that 'Labour markets in this country may be woefully inefficient and ineffective' and he advanced a rationale for restrictive legislation for systematic overtime which is used for low pay protection. However, he concluded that the labour market inefficiency would not necessarily be improved by 'interference' and he viewed with 'scepticism' the efficiency of legislation in general. Hanagan (1982) was less diffident, he concluded: 'in summary the government should make statutory provision for a ceiling on overtime of 2 hours a week for workers in production industries'. Curiously, White (1987), in his investigation: Working Hours, Assessing the Potential

for Reduction', pays careful attention to the positions of the trade unions and the employers, but does not directly address the role of the third of the tripartite players, the government.

The National Economic Development Office, (NEDO), together with the DE, commissioned the Institute of Manpower Studies to carry out a 'major study' of changing work patterns. The research aims were extremely wide-ranging and reviewed working time regimes in detail. This study was effectively commissioned by the Government. It is therefore telling that no consideration was given to the interesting dynamics of the European labour market, or to the possibility or viability of legislative controls of any kind. This seems to offer some evidence in support of the claim that there appears to be a tacit tripartite alliance, between the TUC, CBI and Government departments, to resist the reduction of overtime (Spink and Brewster 1989). Similarly, Rathkey (1984) suggested that barriers to the removal of overtime are the 'conservatism of governments, employers and trade unions'.

Bassett and Gapper (1988) further pointed out that 'the Thatcher Government had paid little attention to how people work'. They explained: 'working practices comprise one of the few areas of trade union and employee activity which the Government has not touched in its extensive labour legislation. It prefers change to be governed by company requirements in response to market pressures'. It may indeed be the case that non-interventionism is an appropriate policy to pursue. The inference which is evident from the analysis of the literature is, however, that alternatives to this policy have not been properly considered, or even may have been tacitly suppressed.

What then of the prospects for legislative controls, if these were shown to be helpful? There is mooted (IR-RR 1982) the possibility that future governments may look more favourably at statutory controls on working hours; but this is by no means certain even if the political complexion of government were to change. One might think that a socialist government would be more sympathetic to working time legislation. However, this was not so during the last period of Labour rule. Worksharing and the control of working hours was not mentioned in any of the TUC-Labour Party liaison committee documents from 1974, nor in Labour's Programme (1976).

As far as working time arrangements are concerned, the fact is that, irrespective of whether or not governments should intervene, they have not. Government has largely eschewed responsibility for intervention in the labour market (Rathkey 1986). The general belief is that the Thatcher Government would not countenance intervention; they would resist any pressure to legislate for overtime limits; but as the IR-RR (1982) predict 'future Governments may not'.

This raises the increasingly important dimension of European-wide legislation. In 1978, the European Commission instituted consultation with the Social Partners on the possibility of a Community instrument with regard to the restriction of overtime (ETUI 1979). The ETUC Secretariat subsequently asked the ETUI to compile information concerning overtime and to submit an opinion on the proposals put forward by the Commission. The conclusions subsequently reported by the ETUI are important, particularly in view of the single market, and cover: overtime limits; low pay protection, overtime premia and TOIL (ETUI 1979).

The Council of Europe (1983) took a balanced position with regard to these findings. On one hand they supported the need for legislative controls to regulate the labour market and to restrict daily and weekly overtime within a general legal framework. On the other hand they advocated the strengths of decentralised negotiations. It was however, stressed that collective agreements could only operate effectively within a legal regulatory framework that would both prevent individual abuses, such as excessive hours, and promote social policies, such as unemployment alleviation (Council of Europe 1983).

The European Commission (1983) promoted the view that governments have a positive rather than a passive role to play in the control of working time. They argued: 'although there is a responsibility with the social partners in this area, this does not obviate the need for governments to adopt a clear and positive approach to the reduction and reorganisation of working time within a Community framework'. Indeed, a principle role of governments was seen by the EC (1983) as: 'reviewing and where necessary changing legislative and administrative provisions' and particularly in the public sector, where an effective example can be set, (and, incidentally, where much overtime is worked in the U.K.). This was opposed by the British Government on the ground that it constituted unwarranted interference in national policies. Moreover, the U.K. employers' organisations have also opposed the proposals (Evans and Palmer 1985). It appears that, of U.K. institutions, only the TUC supported the Draft Recommendation and this clearly leaves the U.K. somewhat exposed, as the only member nation not to centrally control overtime. In the event, the Draft was not adopted (Kading 1986).

Finally, the Council of Europe (1983) promoted a European-wide approach to legislation on employment matters such as the regulation of working time and the restriction of overtime working. This supra-national legislation concept has a wide basis of support (Sherman 1986). Indeed Nedzynski (1984) calls for the involvement of all Europe, not just the EC nations.

Moving now to the third area for this Section, the regulation of overtime hours. The U.K. stands alone among European Industrial nations in having no statutory basis for their limitation, there being only a few minor exceptions (White 1984b; IDS 1988) and these are under review. The leading proponent of restrictions of working time over this century has been the International Labour Office, (ILO), (Taqi 1982) who have adopted International Labour Conventions and Recommendations in order to set standards and provide guidance to governments, trade unions and employers. The U.K. government have been reluctant to ratify these conventions; these have, however, exerted an important world-wide influence on national law and practice (Taqi 1981).

The U.K. relies almost entirely on voluntary collective agreements to regulate the length of the working week and the extent and remuneration of overtime. The two exceptions to this rule are: Wages Council orders and protective legislation. Collective agreements generally seek to control only basic hours and overtime premium rates, and do not usually regulate total hours. Moreover, when such agreements do seek to control total hours, or otherwise to limit overtime, these controls are not commonly applied in practice (White 1984; ILO 1986). General protective legislation, until recently, restrained the basic hours of work for women and young people under 18 years old. However, the Sex Discrimination Act (1986) amended the legislation to exclude women from the controls. The regulations are established under the Factories Act 1961:

Statutory limitations, for overtime hours, covering young people aged 16 and over, are: 10 hours maximum in any day, with an annual limit of 50 hours per year. In addition, young people under 18 years old can work overtime to deal with 'pressure of work' in any factory, but not for more than an aggregate 100 hours per year or 6 hours per week, in not more than 25 weeks per year.

Exemptions can be granted by the Secretary of State. Employers must notify the Factory Inspectorate of the intention to require young people to work overtime, and obtain special permission (Factories Act 1961). In addition to the general legislation, there are a great number of specific regulations for particular industries, relating to the hours of work of young people.

The current British Conservative government have proposed the repeal of most of the limitations on the hours of work of young people (IDS 1988).

Appendix 3-2 sets out a general outline of the working time arrangements, for various industrialised nations. Special provisions apply, in most countries, to give protection to vulnerable groups such as young workers and women. In addition, there are many exceptions to these general guide-lines, and the statutory maximum limits are often over-ruled by collective agreements. The 'Statutory Normal Weekly Hours' indicates the statutory maximum limits, the actual 'Normal Weekly Hours' are often much lower than these statutory maximums.

3.4.3 The Use of Premia As a Worksharing Instrument

Overtime premia were originally adopted purely as a compensation mechanism. However, there was a shift in emphasis at the turn of the century. In 1910, Higgins declared that 'there is no doubt that a little foresight on the part of employers prevents the necessity for much overtime, and the fact that they have to pay (high premia) for overtime will tend to induce such foresight' (Jones 1981). The evolutionary development of more sophisticated and compound objectives for overtime premia continued until the great depression of the 1930's. At that time, premia began to emerge as an instrument for restricting overtime, in order to promote employment. In the U.S., the FLSA, fixed an overtime premium of 50% which was then a relatively high rate. The intention was to discourage overtime which would, it was believed, 'encourage the hiring of more workers and therefore reduce unemployment' (Carr 1986).

There is conflicting evidence as to the effectiveness of high premia as a job creation measure. In essence, the debate is between the alternative and irreconcilable controls of overtime 'demand' or 'supply'. The restriction of employer 'demand', is achieved by imposing *high premia*, and is aimed at increasing the cost of overtime to the employer. This would have the side-effect of increasing employee 'supply-side' pressures, because it would make overtime more attractive to workers who, some would say, enjoy a great deal of control over how much overtime is actually worked. The diametrically opposite control is that of imposing *low premia* which would restrict the 'supply-side', by making overtime less attractive to the worker. This would, however, have the side effect of putting greater pressures on the 'demand-side' of the equation by reducing the relative cost of overtime to the employer.

There is considerable support for the 'supply-side', (low premia), arguments, particularly as they relate to the worksharing theory. For example, the IR-RR (1978) concluded that increasing the level of premia would not itself lead to reductions in overtime working. Moreover, Hart (1984a), Ehrenberg (1971), and Ehrenberg and Schumann (1982), give evidence showing that higher premiums have at best only had a limited employment creation effect. Similarly, Hart (1987) concludes, from an extensive review of studies conducted in Europe and the U.S., and a review of the theoretical and economic considerations, that 'increasing the costs of overtime is unlikely to lead to employment creation'.

This debate has long exercised academics in the U.S., where one study, by Nussbaum and Wise (1977), confirmed the hypotheses that an increase in overtime premia would cause a reduction in average annual overtime hours worked. However, a second hypotheses, that this reduction would result in a commensurate increase in employment, was not supported. Best (1981) reviews many of the American studies at length but draws no firm conclusions except to say that a minimum premium of 150%, (double-time-and-a-half), would be necessary to foster significant reduction of overtime in favour of hiring.

Taking the supply controls (lower premia) arguments to the limit, it has been argued in the U.K. that one solution to the 'problem of overtime' would be to abolish premium payments altogether (Brittan 1979). Jones (1981), also questioned the value of premium rates, particularly in the Australian hospitality, tourist and retail industries. It was asserted by Jones that premia have an adverse effect on costs. He argues that the evidence is 'conclusive' that viability is threatened by the payment of high premium rates and, far from creating jobs, these have harmful effects on employment levels.

An even more radical suggestion (Small Business Report 1981), is that workers should be paid only half the normal rate during overtime hours. The Small Business Report (1988) gave evidence of the use of a system of negative overtime premia, giving as an example the case of a worker earning only 50% of the normal rate during overtime hours. The object was to discourage excessive overtime. Moreover, the 'rate' was calculated in a novel way, viz. the total hours, including overtime, were divided into the salary and 50% of this is paid for every hour of overtime work. Thus, over a period, the worker would earn an increasingly reduced rate, every time he worked an additional hour in an overtime period. This 'negative premium' was designed to promote job creation.

As a final example of the 'supply-side' argument, a review of the job-creation potential of overtime reduction, was undertaken in Canada by the Ontario Ministry of Labour (Worklife Report 1987). This review found that job creation by increasing overtime premia was 'severely limited'. It was suggested that increasing premium from 50% to 100% would actually result in the *reduction* of demand for labour due to the higher unit labour costs.

The alternative argument, viz. 'demand-control' through higher premia, is put with equal strength. Garbarino (1964), in the U.S., summarised the results of a high premium policy as: 'a combination of more pay for those workers whose overtime is really unavoidable, a reduction of total overtime worked and some increase in employment'. In the U.K., the TUC favour increasing premia to

encourage employers to create jobs rather than use overtime (EIRR 1981; IDS 1988). However, this is by no means a new initiative, Whybrew (1968) reported that trade unions at the national level have traditionally put forward a number of proposals for reducing overtime, the most popular ones being an increase in all premia to double-time accompanied by an increase in basic wage rates.

The ETUC (1982) agree that high premium rates are a valuable mechanism for employment creation. Indeed, many countries have used premia in this way, including: U.S. (Leonard 1983; Carr 1986); Australia (Dawkins 1985); Finland and Spain (ETUI 1982); Greece (Hart 1987) and Belgium and the Federal Republic of Germany (Kading 1986). An analysis by the Australian Treasury, suggested that increases in overtime penalty rates had been an inducement to the substitution of part-time labour for overtime during the period 1966 to 1979 (ILO 1985). There are many examples of the consideration of so called 'penalty rates'. For example, in the FRG, a Regional Labour Minister attempted to introduce a statutory increase of overtime premium to 100% (Kading 1986). In the U.S., the 1964 'Economic Report of the President' again supported the FLSA in linking the heavy use of overtime with curtailed job opportunities. This report proposed legislation to increase premia from 50% to 100%; in the event, the move was defeated (Carr 1986). More recently, Leonard (1983) concluded that 'double-time premium in some labour contracts is doubtless a deterrent to overtime use', although this is somewhat in contradiction of much of the American work on the employment effects of premia which is summarised by Best (1981).

Another interesting development is the use of premia as a fund building device, on a national scale, in order to provide programmes for unemployment alleviation. This mechanism is used in Italy, where the premium rate is set by law at 10% of basic wages and, in addition, the employer must pay 15% of the overtime wage into an 'employment fund' (ILO 1986). A similar system for overtime premia fund building was advocated in the U.S., in 1979, as an amendment to the FLSA, known as Conyers bill (Leonard 1983). The result of this proposal, which in the event was not adopted, would have been to establish a statutory overtime premium of 100%, (double-time), paid by the employer in the proportions of: 50% to the worker and 50% to a 'Special Unemployment Insurance Fund'.

Clearly, there is a fundamental dichotomy, both in the literature and reflected in practice, regarding the effect of overtime premia on employment. This suggests that considerable further research into this topic would be required in order to establish the validity of the opposing arguments.

3.4.4 Macro-Economic Employment Implications of Overtime

This section will deal with overtime reduction in two parts, firstly the job creation potential and secondly the so called leeching effect. The DE (1978) suggested that overtime reduction was one of the key potential areas for creating jobs through worksharing. Overtime is often represented as an equivalent number of full-time jobs, but there is no simple means of estimating the proportion of full-time-job-equivalents, (FTJEs), which would convert into new job White (1984).

In order to set the scene for job creation it is necessary to determine the extent of overtime

working in the economy, viz the theoretical maximum potential FTJEs of overtime. Research across the world has considered this equation, including: EIRR (1980) 40,000 jobs in Ireland; Best (1981) 1.4 million production workers' jobs in the U.S.; Kading (1986) 1.0 million jobs in the Federal Republic of Germany.

The three main structural bodies in the U.K. economy are the Government, TUC and CBI. The DE (1978) calculated: 'If all the overtime hours worked in manufacturing could be converted into full-time jobs this would provide enough work for all the registered unemployed in manufacturing... If half all hours at present worked by manual men in excess of 48 per week were instead worked by additional full-time workers, the unemployment register could be reduced by over 100,000'. This analysis revealed that manual men alone were working in excess of 1.0 million FTJEs. If overtime throughout the rest of the workforce were added, the overall figure would approach 1.5 million. At the TUC Basnett (1979) stated that: 'If we halved the amount of overtime... we could create 250,000 jobs'; (although Basnett's interpretation of 'British Industry' appears to be limited to male manual workers in the manufacturing sector). The TUC were more comprehensive in their analysis, reporting (Labour Research 1980): 'if overtime working were eliminated... 1,300,000 new jobs could be created'. For their part, the CBI (1980) calculated: 'if only half the hours of overtime worked by male manual workers were turned into full time jobs, theoretically half a million jobs could be created'.

A clear and intriguing pattern emerges from the above analyses. Quite typical of the literature, the preoccupation is with male manual overtime in the manufacturing sector; thus leaving enigmatically out of focus, female and non-manual overtime, and the service sectors, where the majority of employment and employment growth pertains. Nevertheless, each claimed that overtime represented a significant number of FTJEs. Each, tantalisingly, suggested the possibility of a trade-off between overtime reduction and new jobs. Yet, each body proffered its reasons or excuses and took no action. For example, the DE (1978) stated that overtime reduction could create jobs, but as White (1984) observed: 'it (DE) did not, however, suggest steps by which overtime reduction is to be pursued'. More recently, White (1988) stated that: i) overtime in manufacturing is the equivalent of 400,000 full-time workers; ii) overtime in the service industries is the equivalent of more than 800,000 workers and iii) total overtime worked is equivalent to around 1.25 million full-time jobs. He also stated that overtime 'is now both roaring back and underestimated by official figures'.

Section 2.2 supports White's observation, showing that overtime across the whole economy has grown to a staggering 1.5 million FTJEs. If only 15% of paid overtime hours were converted, the first-round worksharing effect would yield 240,000 new jobs.

The potential implications of overtime reduction on the creation of new jobs has often been contemplated, but remains a question to which few answers emerge. As stated above, there is no simple means of converting FTJEs into new job opportunities (DE 1978; Leslie and Wise 1980; CBI 1980). Quite the contrary, there are a number of obstacles to such a process which the DE (1978) identified as: indivisibility of task; loss of flexibility; low pay protection and skill shortages.

This analysis of 'problems' has been reviewed extensively in the literature, (e.g., IR-RR 1978; Carby *et al* 1981; Hanagan 1982), and appears to have been taken as definitive, but it should be more

critically examined. The extent to which overtime, in reality, is used for the somewhat idealistic purposes indicated above is a key question and has not yet been satisfactorily addressed by formal research. The extent to which some of these problems of overtime reduction could be circumnavigated by effective management at plant level or on a macro-economic scale also begs further investigation.

The CBI (1980) stressed the problem that: 'getting even a limited degree of consensus (on worksharing) will be far from easy'; and then, with supreme irony, if not ignominy, they proceeded to make their prediction self full-filling (Benson and Lloyd 1983), by refusing to agree to their own representative's recommended joint CBI/TUC approach on the reduction of overtime (see Section 3.4.1).

Labour Research (1980), on behalf of the TUC, were only slightly less ambivalent in their approach, suggesting overtime reduction problems such as 'occupational and geographical mobility' and 'short-term problems of redeployment'. However, by far the most important issue for the TUC was, and still remains, that of overtime 'systematically worked to provide a reasonable income in the face of low basic wage rates' (Labour Research 1980). Unlike some within the TUC, Basnett (1979) was quite uncompromising, he stated: 'in 1975, Congress called for a reduction in overtime working. Since that date it has risen... That doesn't impress the trade unionists who have no job at all... If we continue to allow unlimited overtime... we will stand accused of hypocrisy; we will show that our real priority is self interest... Unemployment breeds misery. It robs people of their self respect; it fosters racialism, vandalism and violence'.

Interestingly, many other countries have not perceived the same level of difficulties as the U.K. For example, the Irish Government sponsored extensive research into the scope for increasing employment through overtime reduction (EIRR 1980). The conclusion of the project was that up to 30% of overtime hours could be replaced with additional full-time jobs. As a result, the Irish Government commenced legislation to restrict working time, which was considered to be the most effective means of achieving a reduction in overtime.

White (1980) stated: 'to the extent that overtime is highly regular and habitual-reflecting the customary make-up of working time and the pay packet-the notion that it could be partly converted into more full-time jobs is likely to be valid. To the extent that it is variable-used for balancing other uncertain factors in demand and in the manufacturing process-then it may be more costly to reduce overtime than to reduce other forms of working time'. White goes on to state that overtime working is: 'doubtless a mixture of the purely customary and the truly variable' but he does not estimate the proportions. Clearly, the evaluation of the distribution of overtime across the whole economy, grouped by appropriate classification of function or type, would be a valuable further step in the conundrum of worksharing potential. If a significant proportion of the total overtime was found to be 'systematic', this would be of considerable importance to the debate.

The question of worksharing generally, and overtime reduction in particular, are difficult to separate, as Leslie and Wise (1980) have explained. When working time is reduced by means such as a shorter normal working week or increased holidays, etc, there is a need to balance a number of possible consequential changes; for instance, hourly productivity, output demand and

the levels of overtime working. The increase in overtime as a consequence of worksharing has been called the 'Leeching' Effect by the author.

Clegg (1962), in summing up the precedents established in the late 1950s to the early 1960s, declared: 'we must expect as the probable result of a further reduction in working hours a further addition to the already monstrous problem of overtime, at least, so far as adult male workers are concerned'. The economy has undergone considerable change since Clegg made his prophesy, but it still rings true.

It was shown above that the potential for overtime reduction to increase job opportunities is a question to which there is no simple answer. However, overtime is certainly one of the key issues of the worksharing philosophy (DE 1978; White 1980; Metcalf 1982; Calmfors and Hoel 1988). A major criticism of worksharing has been that it would result in 'leeching', viz. higher overtime rather than greater employment opportunities (CBI 1980; Blyton 1985).

The concept of 'first' and 'second round' effects of overtime reduction was established by Spink and Brewster (1989). The first round effects consists of the net worksharing job gains which could be represented by the mathematical extrapolation of hours of overtime reduction, at a particular conversion rate depending on the circumstances.

The second round effects involve more esoteric, but equally important, new-work creation, rather than simple worksharing aspects. These second round effects are of crucial importance to the efficiency and competitiveness of the individual business as well as the economy as a whole and were defined, on the macro-economic scale, as: 'reduced unit costs and improved productivity and quality. Improved competitiveness and resource allocation... in turn stimulating demand for U.K. products and services both at home and abroad, thus giving economic growth. Employment prospects would consequently improve, as would the balance of payments. In so far as employment would increase by both the first and second round effects of overtime reduction, the burden on the Exchequer would be lessened. This would give scope for further tax reductions (e.g., Employers' NIC) or investment which could further improve demand and employment'. This second round effect, 'positive-spiral' analysis finds some support in the literature (Metcalf 1982; Bosworth 1983; Zachmann 1987).

However, a contra-argument also exists, predicting that worksharing would increase labour cost per unit of output, and firms would raise prices in response. This would lead to a fall in the real value of money wages, involving some transfer of real income from those at present employed to those at present unemployed. It would also damage British firms' competitiveness in international markets and could therefore harm long-term job prospects (DE 1978). This argument appears, curiously, to be made equally for all forms of worksharing, including that of overtime reduction, notwithstanding the unique premium and other cost saving. Moreover, the analyses do not take account of the very likely increase in hourly productivity which would result from the reduction of long hours (see Section 3.3.6 'Overtime and Operational Performance').

Greis (1984) explained the impact of worksharing on overtime thus: 'the decline in annual hours reduces productivity, and thereby has serious consequences for the demand for labour. Another disincentive to employment is the fact that most fringe-benefits are employee based not hourly-

based. Thus the reduction in standard hours to an extent induces increased overtime'. Whilst Greis's arguments are rational, they go only part of the way to explaining the total worksharing effect. It can clearly be seen from the previous section that overtime reduction itself is an important worksharing mechanism. Yet overtime is doubly important in that any other worksharing measure could be rendered ineffective, or worse, counter productive, if it were offset by overtime hours paid at premium rates.

The proclivity for working hours reductions of any type to induce overtime working, could both rob the worker of the benefits of a shorter working week, and saddle the employer with an intransigent block of systematic overtime hours, remunerated at premium rates and embracing any consequential negative effects of such overtime. This analysis is by no means novel, it has long been recognised that increases in overtime have the potential to undermine attempts to secure the benefits of worksharing, (e.g., ETUI 1979; Leslie and Wise 1980; Rathkey 1984; Evans and Palmer 1985; Bodo and Giannini 1985).

Hanagan (1982) stated that the idea of worksharing, had been 'poorly received' in the U.K. Yet this is not the case in other nations where worksharing has been positively pursued by governments, unions and employers' alike (Ehrenberg 1971; ETUI 1979; Ginneken 1984; Kading 1986). The European Commission and the ETUC have long considered pragmatic ways to promote worksharing on an international scale, thereby avoiding one of its claimed local difficulties, viz. the denigration of international competitiveness (ETUI 1979; Nedzynski 1984). Moreover, the ILO (1983) have promoted measures to prevent leeching, such as premium payments and hours of work restrictions. Leslie and Wise (1980) argued that the effect of an increase in overtime, in response to a cut in the normal working hours, could have a dramatic impact on the 'worksharing' effectiveness of the hours cut. Indeed, the literature is almost unanimous on this point, the only question lies in the extent to which worksharing measures would leech into increased overtime (White 1980; Calmfors and Hoel 1988).

Many commentators argue that the reductions in normal working time in the U.K. have neither resulted in a reduction in the actual hours of the workers nor increased employment; they have simply added to the overtime (Allen 1980; IR-RR 1982; Metcalf 1982; Rathkey 1984; Sherman 1986). Clegg (1962) observed that the reduction in hours since the war has been used 'merely to increase overtime', and Fishwick (1979), in analysing the NBPI (1970) evidence on the evolution of working time, found that: 'for men in manual occupations most of the reduction in basic hours had been transferred to overtime'. More recently, the IDS (1988) stated: 'the cuts in basic working hours negotiated over the last ten years have been largely offset by increased overtime working'.

A somewhat alternative view was given by Hughes (1980) who found: 'reductions in normal or basic hours of work *do* result in reductions in actual hours, and not simply in a substitution of overtime hours for normal hours'. The Treasury tend to support Hughes, suggesting that about 40% of the potential loss in output following a cut in hours would be made up by additional overtime (Allen 1980). White (1980) conducted a survey of 400 establishments to investigate the potential and actual effects of reducing working time. He found that those establishments which had reduced working hours enjoyed 10% lower overtime levels although there is a great step between acknowledging an association and establishing cause and effect! Nevertheless, this suggested that leeching may not be the norm, and organisations which introduce lower hours find

ways to improve the effectiveness of working time across the board (Hill 1984).

Finally, it is clear that some overtime has been used to substitute for the reduction in hours. The extent and distribution of that overtime is uncertain, but it is likely to fall within the 'systematic' category of overtime classification.

3.4.5 Low Paid Worker's Earning Dependency Syndrome

It has long been claimed that overtime is positively correlated with low pay and there is extensive coverage of this issue in the literature but this issue is not without controversy. A significant minority of commentators doubt that the association is valid, but first the evidence in support of the common perception will be reviewed.

Clegg (1962) stated 'overtime working is used by workers and their employers to produce a weekly wage packet which is regarded as tolerable by both sides'. This was echoed by the NBPI (1970) who found that overtime tended to be worked more in those industries where rates of pay were low, stating 'low pay and the consequent low hourly earnings have been frequently cited as a major cause of high overtime working'. This conclusion was also reached by Buck and Shimmin (1959) and the Donovan Commission. More recently, Sherman (1986) agreed with the positive correlation, but turned cause and effect on its head, stating that 'overtime is used to raise weekly earnings to acceptable levels... management and unions have often colluded in this, resulting in low basic rates'.

The TUC, and others, unequivocally argue the case for the low-pay link. They have stated that many industries and individuals rely on overtime earnings (Whybrew 1968; Basnett 1978; EIRR 1981; Hanagan 1982; TUC 1981 and 1983; IDS 1988). In the opinion of Labour Research (1980), the prevalence of overtime working among the lowest paid is best shown in the public sector. Indeed, in analysing overtime by occupation, Labour Research found that, of 56 manual worker agreements, half of the ten occupations where most overtime was worked, fell within the bottom fifth of the wage rate league, and they used this fact to support the overtime/low-pay association. A more detailed review of this data, however, reveals that some of the higher wage occupations, for instance: electrical contractors (ninth highest wage rate) and mechanical construction (second highest wage rate), also worked the second and fifth highest levels of overtime respectively. Remarkably, this evidence was not given by Labour Research.

Specific examples of the phenomenon are common. Fishwick and Harling (1974) found that maintenance workers in the motor industry had relatively low hourly rates of pay compared to production workers and overtime was used 'as a means of increasing earnings to an acceptable level'. While Blyton (1985) theorised that the link between overtime and low pay in the U.K. may have explanatory power in both facilitating the maintenance of low rates by employers and in the more general operation of the British economy, which he described as 'low-wage, low productivity, high-overtime'. A more recent example is found in the case of a rail worker who told the inquiry into the Clapham rail disaster that overtime was essential for 'a reasonable standard of living' (Bournemouth Evening Echo 1989).

Considering now the alternative view, that overtime is not associated with low pay. White (1987) referred to the association of overtime with low-paid work in explaining one of the difficulties involved in overtime reduction. However, in an earlier work, White (1984) found there to be a weak but positive relationship, ($r = +0.23$ full time male manual workers), between wages and overtime hours; *viz.* the higher the pay the higher the overtime hours. Smith and Palmer (1981), in reviewing the use of substantial and regular overtime to boost earnings, found no statistical evidence to support this hypothesis. Similarly, Carby *et al* (1981) found the relationship between overtime and low-pay to be 'un clear'.

In fact, there is only a superficial conflict in the literature on this issue. The apparent difficulty is in the use of averages for widely different groups of occupations and industries. It is necessary to disaggregate the various groups in order to establish the true and complex relationships, and it is important to review the motivations of both the individual worker and organisation in order to avoid averaging problems.

Although the low pay dependency syndrome is an important factor in the U.K., it is by no means unique to the U.K. The ETUI (1982), stated that overtime was an 'integral part of the wages of a considerable number of workers, notably in the U.K. and in Italy, but also in other countries'. It is interesting to note that much of the literature regarding other countries denies the positive relationship between low-pay and overtime. However, as in the U.K, the evidence is ambiguous. Van Atta (1967) found in the U.S. that there was no statistically significant relationship and Fottler and Schaller (1975), (US), concluded: 'the finding of lower overtime acceptance among both high and low-wage employees and higher overtime acceptance among medium-wage employees implies a forward sloping supply curve for overtime hours which reaches a maximum in the medium-pay category and then bends backwards as wages rise further'. Ehrenberg and Schumann (1982) supported this conclusion, finding that increasing premia in the US benefited middle and upper income families most. Sinclair (1983) found no statistical evidence that overtime was associated with low pay in New Zealand. Indeed, his analysis revealed that the 'third and fifth highest paid groups showed the second and first highest numbers of overtime hours worked respectively'. Similarly, in Australia (ILO 1985) higher levels of overtime were found to be associated with both high and low basic average earnings.

In summing-up, there is sufficient evidence to show that overtime is positively associated with low pay for certain individuals and industries and for some types of occupation. The question which remains to be answered is the extent and distribution of this phenomenon within the economy.

4 FURTHER DEVELOPMENT OF THE RESEARCH OBJECTIVES, RESEARCH QUESTIONS AND THE RESEARCH HYPOTHESES

4.1 RESEARCH OBJECTIVES

In this section it is briefly explained how the detailed rationale of the fieldwork phase of the research was developed. The original research goals, discussed in Section 1, were two fold:

- i) Provide a database regarding the use and management of overtime across the whole U.K. economy;**
- ii) Investigate the management of overtime working and perceived problems regarding the increasing use of overtime.**

Analysis of the literature confirmed these as the principal goals. In particular, the literature identified a clear need to provide a comprehensive database and plainly indicated a wide degree of controversy and specific perceived problems. A number of research hypotheses flowed from the review of these problems. This led to the development of two disparate levels of approach:

- i) The general 'Economy' level;
(In order to establish the general statistical evidence)**
- ii) The Individual organisational level.
(In order to discover the detailed nature of the processes involved)**

These two levels clearly demanded different research paradigms. Therefore, as will be seen in the following section, two quite separate fieldwork methodologies were developed and the study became bifurcated, to merge again at the analysis stage. The above principal goals were developed, and three more detailed objectives emerged. These were to:

- A) Extend the general understanding and knowledge of the use of overtime, and specifically about the management and control of that overtime which is worked, covering all sizes of organisation and all sectors and regions of the economy, and to achieve this by means of providing a comprehensive database;**
- B) Obtain answers and statistical information regarding a range of general research questions, flowing from the literature review, regarding the management and use of overtime and its implications for the employer and the worker;**
- C) Test a number of specific hypotheses, flowing from the analysis of the research questions, regarding the use and management of overtime.**

These objectives are reviewed below, in turn, starting with the first and most general aim of establishing a database.

4.2 DATABASE

A number of research projects into overtime working were conducted in the manufacturing and production sectors following Whybrew's definitive study of 1962-63; although these have not comprehensively covered the issues. There are no recent accounts of research into the use of overtime across the economy as a whole, or specifically in the service industries, this issue is addressed more fully in Section 5.3.2. The latest overtime research which was intended to cover the whole economy, appears to be the NBPI (1970) survey, 'Hours of Work, Overtime and Shift Working', although this work was in fact biased towards the manufacturing sector and did not comprehensively cover the range of overtime issues. Also, in common with similar projects, the NBPI project did not provide a database on overtime and did not reveal the distribution of data on overtime issues, between the major structural variables within the economy.

White has touched on overtime in the service sector *en-passant* in various of his research projects for the Policy Studies Institute, but not specifically so. Indeed, White (1980), regarding his research work into shorter working time, in which overtime was a significant issue, stated: 'the restriction to manufacturing industry is undoubtedly the main limitation of the sample'. Similarly, Zachmann (1986) stated: 'It is plain that not enough statistical information and research are at present available on many working time and employment-related issues, particularly for small enterprises and in the service sector.' There is clearly a lack of data regarding the use of overtime across the whole economy and its distribution between the major structural variables.

There is plainly a need to provide comprehensive, accurate and detailed information regarding the use of overtime and certain overtime associated issues, and to analyse this data by the structural variables. White (1984), for example, stated: 'a great deal has been made in the past about the differences in overtime between industries. Moreover, Whybrew (1964) based a key part of his interpretation on industrial differences'. The independent variables to be adopted are defined in Section 5.2.2, and consist of the primary segmentation control of SIC group, and secondary controls of regional location and size of establishment. In addition, a substantial level of analysis was considered necessary in order to reveal any influences flowing from the amount of overtime actually worked in the establishment, the type of employee, (manual or non-manual), and the reasons given for the use of overtime.

4.3 RESEARCH QUESTIONS

A number of specific differences of opinion and shortfalls in the availability of information were highlighted in Section 3, 'Literature Review'. Analysis revealed a remarkable level of controversy in the literature, even allowing for the fact that the issues relate to the management sciences and economics, where controversy is common. Much of the conflict appears to arise from the interpretation of special circumstances for which generalisations are inappropriate, even though they may superficially seem to be valid.

The controversy is associated with perceived problem areas for which the broadest common denominator appears to be the management of overtime. This confirmed the view taken from the outset: that the management of overtime is of central importance. Nevertheless, the range of problems and conflicts reveal clear gaps in the knowledge and understanding of the use of overtime throughout the economy. This lack of information was absolute in certain areas. For example, there is much assumed but almost nothing known about the use of mandatory overtime and overtime limits, as management control techniques, or the application of overtime premia across particular sectors or types of employee.

Although broad assumptions appeared often to be made by both managers and commentators, these frequently reflected only common perception, and were, typically, not found in the literature review to be formally supported by evidence, (see Section 3). The controversies and research gaps, identified in the literature review, led to the formulation of a great number of specific and detailed questions. (These are covered in detail in the 'Questionnaire', Appendix 5-1, which was used for the general survey. The 'Case Study Programme', Appendix 8-1, was designed to reveal the more detailed evidence of attitudes, interpretations, actual processes of control and consequences, which a questionnaire would not effectively reveal.)

These problems and research gaps were highlighted as they arose in the literature review. It may be helpful to group them at this point, in order to illustrate the development of the research questions and, flowing from these, the genesis of the hypotheses. The major areas of concern, viz. those areas where a need for further targeted or prospective research was required, are listed below in the order they arose in Section 3, Literature Review. The major gaps in knowledge were identified as:

a) **Overtime Management**

Details of systems adopted for the management and control of overtime, at both the corporate and plant levels and, in aggregate, for all areas of the economy;

The use made of financial budgets for controlling overtime at plant level;

The use made of overtime limits, guaranteed overtime, mandatory overtime, and other such instruments;

The notice given to employees of the need to work overtime;

The corporate and plant level decision processes leading to the use of overtime.

b) Functions of Overtime

The reasons for overtime working at plant level and aggregated for the various structural variables eg. the establishment's size, sector, region, etc;

The validity and accuracy of the reasons given by managers and the extent to which the commonly perceived reasons fairly represent the use made of overtime at plant level;

The extent and distribution of specific functions and types of overtime such as labour shortages as opposed to skill shortages, etc;

The extent to which overtime is 'legitimate', (viz. is actually needed at all for demand satisfaction), rather than being used by management or workers for some extraneous function.

c) Local Financial Implications

The extent and distribution of the major cost factors, within the balancing equation, between overtime and the alternatives;

The character and level of financial analysis of management's overtime decision, at the corporate and plant levels;

The general overall effectiveness of overtime as a means of meeting corporate objectives.

d) Overtime Pay

The levels and patterns of overtime premia, both in detail and aggregated for the economy as a whole;

The effect of overtime premia on levels of overtime and on employment and job creation at plant level;

The relationship between overtime premia paid and independent variables such as type of worker, (manual or non-manual), size of organisation, etc.

e) **Quality of Management**

The association between the use of overtime and the 'quality' of management as defined by the classical management model.

f) **Operational Performance**

The impact of overtime on the productivity and quality of work, both during overtime and in normal hours, and particularly in the more ephemeral service industries, where output measurement can be problematic;

The level of association between overtime and absenteeism and, particularly, the cause and effect relationship.

g) **Systematic Overtime**

The definition, extent and distribution of systematic overtime and its significance in the management of overtime.

h) **Industrial Relations**

The perceptions, attitudes and actions of plant level union representatives' regarding the use of overtime within their organisations;

The need to promote a more vigorous and critical debate on the place of overtime in the changing U.K. economy, and the effects of overtime on the U.K. labour market.

i) **Employee Attitudes, Motivations and Manipulation**

Actual workers' attitudes and motivations;

The extent and degree to which worker manipulation, to secure or maintain overtime opportunities, takes place.

j) **Employee Welfare**

The impact of overtime on workers' quality of working life, general quality of life and health and safety factors.

- k) The impact of overtime on the individual worker's financial position and the association of overtime with low pay at the level of the individual worker.

Thus the literature review led to the development of a range of specific, though to a considerable degree inter-related, research questions which offered the opportunity for research. These questions are given below:

RESEARCH QUESTIONS

- 1 What overall strategies are adopted for the management of overtime and what are the pragmatic consequences of overtime working in terms of corporate objective achievement and employment?
- 2 What types of management and control techniques are applied to the use of overtime, and what are their distributions across the economy?
- 3 Are managers aware of the range of alternatives to overtime working and are these fully and properly considered?
- 4 Why do employers schedule overtime, and are the reasons for overtime as suggested by managers in the questionnaires and initial interviews, accurate?
- 5 Is overtime a more cost-effective option?
- 6 What are the patterns and levels of overtime premia and their effects on levels of overtime?
- 7 What use is made of Time Off In Lieu?
- 8 How extensive is unpaid overtime, what perceptions are held about it and why is it worked?
- 9 Does absenteeism cause overtime, or is it the other way around?
- 10 To what extent is overtime systematic, and what are the patterns of overtime working?
- 11 What are the effects of paying overtime rates to supervisors and managers?

- 12 What attitudes are generally held about overtime by the workforce?
- 13 Do the workforce exercise any control or manipulation of overtime working, or is overtime totally in the control of managers?
- 14 Is employee welfare affected by overtime working?
- 15 What are the unions doing about overtime at the local level?
- 16 Is overtime associated with good or poor management?
- 17 Is overtime associated with low pay at the level of the individual worker.

The methods of resolution of these questions is a matter for the methodology section of this thesis. However, a general survey approach is clearly necessary. There would also be great value in pursuing a case study technique, in order to obtain the more detailed evidence which would be needed to provide explanations for the various phenomena. These questions, which were developed from the literature review, themselves led to the development of a set of research hypotheses.

4.3 RESEARCH HYPOTHESES

Consideration has been given above to the collection of a wide range of data and the analysis of that data, in order to reveal distribution patterns and to investigate the specific research questions. It was also considered helpful to attempt to test a number of specific hypotheses, which relate generally to the research questions, these are set out below:

- H1 The use of overtime is a function of the following variables:
 - a) SIC group;
 - b) Regional location;
 - c) Size of establishment;
 - d) Amount of overtime worked by the organisation;
 - e) Type of employee, manual or non-manual;

- H2 The management of overtime is a function of the following variables:
 - a) SIC group;
 - b) Regional location;
 - c) Size of establishment;
 - d) Amount of overtime worked by the organisation;
 - e) Type of employee, manual or non-manual;

- H3 The use of overtime promotes 'operational flexibility';
 'Operational flexibility' is defined, for the purposes of this thesis as: the ability to respond effectively to satisfy short-term and un-anticipated, day-to-day needs;
- H4 The use of overtime promotes 'corporate flexibility';
 'Corporate flexibility': the ability of an organisation to respond efficiently to medium and longer term changes in the demand for labour, about which there is uncertainty in the short term.
- H5 Overtime working is a more cost-effective means of meeting demand than the potential alternatives;
- H6 The use of overtime is not associated with poor management practice;
- H7 Workers depend on overtime pay to meet their fixed financial commitments.

The aims of this project were thought to be ambitious given the circumstances. The attempt to review the literature, without the limitations of national barriers or particular issues, and the intention to cover, for the first time, the whole of the U.K. economy with the survey, were both examples of the risk-strategy which was consciously adopted. However, it is commonly understood that research must take risks; in this project the risks were understood and controlled so far as was possible. The justification for this strategy, therefore, does not lie in the results, or in the 'perfection' of hindsight, but in weighing the judgement in the context of the development stage.

The relationship between the specific questions and the hypotheses is not at all straight forward, some hypotheses being associated with many of the questions, others being more specifically targeted. These relationships are defined in Section 9, 'Further Analyses' since they developed and became clearer as the research progressed and it would have been unduly restrictive to define arbitrary linkages before the fieldwork was undertaken. It was plain from the outset that there would be no definitive, simple test of the hypotheses, and that those conclusions which did emerge, would flow from a complex analysis of many variables.

5 METHODOLOGY

5.1 RESEARCH STRATEGY

It is the use of scientific method which confers legitimacy on management research and hence a central question over every research project concerns the methodology which has been adopted. In particular, the methodology must be appropriate with regard to the epistemological issues and the research objectives.

One of the original motivations for this particular research project, and one of the key research objectives, was to re-establish and further the debate on the potential employment effects of overtime reduction within the U.K. labour market. In order to achieve this objective, the study would clearly need to embrace the whole of the economy, a daunting but nevertheless unavoidable requirement. This was the starting point for consideration of the project design.

It was equally clear that, in order to properly test the hypotheses, it would be necessary to gather empirical information on a number of levels. First, it was necessary to review the general working time trends, both within the economy as a whole, and by specific sectors and areas (White 1984). Secondly, it was important to establish, across the whole economy, fundamental, detailed and contemporary, information about the use, characteristics and nature of overtime in general. The only effective means of doing this was, in the circumstances, the mailed questionnaire (Cragg 1987). Finally, there was a requirement to establish the underlying reasons for, and circumstances of, the various working time issues. This involved a study of the behaviour of managers and workers at plant level and was best conducted through a series of case studies (C. Smith 1988) which would, obviously, be limited in scope by the resources and time available.

The strategy adopted for this research was, therefore, that of using more than one methodology in order to resolve the research problems, collect empirical data and test the hypotheses. This involved the powerful blend of all the three basic methodologies which traditionally have been adopted for research into working time issues, *viz*:

- Analysis of the available statistical evidence and literature;
- Survey data collection and analysis;
- Case studies conducted at plant level.

This study was therefore structured to cover different levels of the whole economy using this three-part methodology and it appeared novel in two fundamental respects, *viz*: i) the use of all three methodologies in the one study of overtime working; and ii) the survey section was designed to precede the case studies rather than to follow them.

The justification and design of each of the methodologies is presented later in this Section. However, the strength of adopting all three methodologies for this project lies in each one supporting and taking further the findings of the preceding research, thus giving an additional input into understanding the overtime phenomena. It is the validity, comprehensiveness and conduct of each which is drawn upon but the analysis uses the power and synergy of all three

levels together.

The rationale for timing the survey phase to precede the case studies rested primarily on four factors:

The detailed and extensive experience of the researcher regarding the use of overtime within the U.K. economy, to a great extent reduced the need for the usual plant level familiarisation, during the initial stages of the research;

There was a need to validate the use, at face value, of the survey responses in this particular area of research, where there is a substantial risk that the response to questions could be defensive rather than objective (see, for instance, Fishwick 1979);

It was considered that the general survey would reveal specific areas of concern for more detailed checking and research, therefore the earlier survey could be used to aid the design and conduct of the case study phase of the research;

There was a need to identify suitable target organisations for the case study phase.

It was thus hoped that the adopted tripartite methodology would lead to a powerful analysis supporting strong conclusions and, at a later stage, recommendations.

5.2 QUESTIONNAIRE BASED SURVEY METHODOLOGY

5.2.1 Selection of the Questionnaire Based Survey Approach as a Research Method

Industrial relations research has traditionally been conducted through the use of the inductive case study (Beaumont 1987). However, from the 1970s, increasing use has been made of the survey instrument in this particular field of study (Brown 1981; Marsh 1982; Daniel and Millward 1983; Millward and Stevens 1986). Industrial researchers and academics now extensively use the mailed survey as an efficient data collection instrument (Jobber et al 1986) which, according to Brudvold and Comer (1988), continues to be an important primary field-work technique.

Research in the area of human resource management is particularly suited to the use of surveys according to Gallup (1988), although the predictability of Gallup's comment and their vested interest are obvious. A survey conducted by Gallup (1988) found that 93% of the 429 responding human resources directors, believed employee research to be useful. Indeed, the use of the questionnaire as a survey instrument for strategic human resource audit, is growing rapidly. Examples of the use of questionnaire based surveys into specific working time issues include the government sponsored study of 'Hours of Work, Overtime and Shiftworking' (NBPI 1970); various surveys into working time in the manufacturing industries conducted by the Policy Studies Institute (White 1980, 1981, 1982; White and Ghobadian 1984); the study of employee willingness

to work overtime in the U.S.A. (Hollman 1980); the University College Galway study into the job creation potential of overtime reduction in Ireland (EIRR 1980) and the study of annual hours agreements (Desmonds and Vidal-Hall 1987).

An assessment of the strengths and weaknesses of the mailed questionnaire based survey technique is given by Kane (1984) who concluded that this methodology was wholly appropriate for research problems such as the collection of data on, and study of, working time issues. It was therefore decided that the survey method, based upon a questionnaire administered by mail, was the most effective means of collecting the bulk factual empirical data regarding the use and characteristics of overtime, across the whole economy.

5.2.2 The Sample Frame and Sampling Procedure

The main object of the survey phase of the research was to be able to generalise to the entire population. Sampling is the systematic means of choosing a group that is small enough to be convenient for data collection and yet large enough to be representative of the population (Nelson 1988). There is no set of rules that will cover every sampling problem and the researcher must be prepared to use his or her ingenuity in devising procedures that will provide reasonably unbiased data from a reasonable expenditure of time and effort (Hammond and McCullagh 1980).

It was decided, as explained earlier, that the population to be surveyed should comprise of all establishments in all sectors of the economy with the exception of certain areas of public administration and defence, *viz*: SIC 0 to 9 1980: sectors 91-3 and 96. These areas were specifically excluded primarily because the concept of overtime was, within these areas, inconsistent with that which generally endured within the rest of the economy.

The choice of sampling frame database to be used presented the difficult problem of achieving both pragmatic and technical utility. In the event the database adopted was the commercially available Dun and Bradstreet (D&B) database of active operating establishments which comprised 415,000 establishments drawn from the 1.8 million records within the main D&B database. This database was the largest, most comprehensive and up-to-date, found to be available. Moreover, the database's profile exhibited the closest fit to that of the actual population segmentation controls which were chosen, see below. In addition, the D&B database enabled the necessary sampling procedures and selection criteria to be adopted.

The theoretical survey sample size was taken as 1000. This represented a large sample relative to those which have been undertaken by other researchers in the investigation of working time issues. For example, the 'Hours Of Work' surveys of 1000 and 2000 (NBPI 1970); the Department Of Employment 'Working Time' survey yielding 281 responses (White 1982); the 'Extra Hours' survey of 232 (Kats and Goldberg 1982) and the 'Overtime' survey of 131 firms (Brennan *et al* 1982). Nevertheless, the intention was to cover a weighted distribution of the whole economy, based primarily on SIC groupings, some of which are very small relative to others. This sample size was, therefore, in pure statistical terms, rather small and thus could represent a theoretical limitation on the study. The sample size was however pragmatically limited by resource and cost implications on this piece of individual research. Moreover, the

effect of the small size of the sample was predicted to have little practical effect other than to reduce the statistical significance of some of the findings. The philosophy of 'quantity versus quality' recognises that a large sample size does not necessarily yield more information (Madut 1985).

Having decided upon the sampling frame and the sample size, it was necessary to ensure that an appropriate sampling procedure was adopted in order to eliminate bias and to facilitate the subsequent control and analysis of the response. This was particularly important since it was decided, as a matter of policy, that the sample would not be weighted towards any particular levels or characteristics of overtime as determined by previous research or published statistics. Thus the survey was designed to yield a comprehensive and unbiased review of the whole economy with respect to the increasingly important overtime working issues.

A stratified sampling procedure was adopted in order to tightly control the sample, and therefore the response, using the overall population shape. This was achieved by detailing as the primary sample fraction control, a key independent variable and, in addition, a number of secondary independent variables. This key variable was that of the sector of the establishment by primary SIC group. This structural variable is widely accepted as the most important with respect to overtime working practices (Whybrew 1964; White 1984).

The secondary independent variables were taken as the geographical region within which the establishment was located and the size of the establishment, defined as the total number of people employed at, or directly controlled from, the particular site being surveyed. The regions were taken as the 11 administrative geographical areas into which the country is divided for research of this nature (White 1984). It was found by Whybrew (1968) that the regional patterns of overtime working could not be reduced to differences in their industrial structure *viz.* the number of female or part-time workers or the occupations of workers. There was no specific evidence to support the assertion that size of establishment would be a factor in determining overtime phenomenon. It was the researcher's own experience which suggested that it would be prudent to include this elemental control. The researcher, in particular, suspected that the important management and control systems for overtime might be to some degree a function of size of establishment. Thus it was one of the objectives of the research to discover the relationships if any between size and the use of overtime, by particular industries. The definition of size of establishment was problematic with apparently no definitive option available. In the circumstances, the researcher's intuition and the classifications used in the Census of Employment units: Size Analysis (Department of Employment, Statistics Division 1985), were combined as the basis for the size classifications.

Other independent variables were considered for use in the sample segmentation controls, including: occupation of worker, gender of worker, ethnic groupings, type of worker: manual or non-manual, degree of unionisation, etc. These were, in the event, all disregarded due to the practical difficulty involved in controlling a national sample based on these.

Thus the population was divided into sub-sets of SIC groupings and, effectively, separate samples were drawn from each. This was an important facet of the overall methodological strategy, since the population is clearly made up of distinct sub-populations of different sizes and characteristics.

For this reason it was decided that no data weighting techniques would be applied subsequent to sampling and any significant mismatch in the response from the various sub-populations would be controlled by additional and selective application of follow-up response inducement techniques or additional sampling. Thus the integrity of the data could be maintained across a very large population of distinct sub-groups. The segmentation control characteristics, for both the population and the response, are given as Table 6.1 in Section 6, Analysis of Survey Response.

The sampling procedure adopted was that of random sampling as defined by Alder and Roessler (1964). This procedure was applied within the pre-specified percentage sample fraction controls of SIC groupings, geographical area and size of establishment.

5.2.3 Questionnaire Design

Industrial relations and management surveys generally have two major features in common. First the questions have been essentially factual in nature and, secondly, they have sought to obtain the relevant information from a single respondent in each organisation (Beaumont 1986). This was the starting point for the design of the questionnaire for the collection of empirical data on the use and characteristics of overtime working across the U.K. economy. The specific objectives of the questionnaire were, across the whole U.K. economy, to:

Assist in testing the research hypotheses;

Collect the most comprehensive set of data possible on the use and characteristics of overtime working and, in so doing, to support, update and develop the literature in this area;

Discover the extent and methods of plant level controls and management systems for overtime working;

Investigate the potential employment effects of current and anticipated overtime levels;

Investigate worker's and manager's attitudes and perceptions with respect to a number of overtime related issues;

Identify specific organisations or areas for the case study phase of this research project.

The target respondent for the questionnaire was defined as the person in the establishment who was closest to the overall direct management and control of overtime working. The questionnaire layout and content design was based essentially upon the Dillman Total Design Method (Cragg 1987) and the work by Tull and Hawkins (1980). The meaning of '*don't know*' responses have potentially important ramifications in conducting data analysis and interpreting results (Durand and Lambert 1988). Particular emphasis was therefore placed on the item phrasing and the sampling plan for the questionnaire, thereby minimising the possibility of such responses (Francis and Busch 1975; Faulkenberry and Mason 1978; Presser and Schuman 1980).

A 'Questionnaire Logic Flow Chart' was developed in order to ensure that the questions were correctly structured, and that they covered, without omission or overlap, the necessary areas to test the hypotheses, achieve the questionnaire objectives and to secure the 'Perceived Research Outcomes'. Six basic sections comprised the questionnaire, these being:

- 1 General Information;
- 2 Human Resource Management Details;
- 3 Overtime Statistics;
- 4 Overtime Management Systems;
- 5 Overtime and Employment;
- 6 Attitude and Perception on Broad Overtime Related Issues.

The questionnaire, which is exhibited as Appendix 5-1, was extensively pre-piloted at all levels and within the key sectors of its application. Maximum use was made of closed - multiple choice questions, both for ease of completion by the respondents and for ease of the researcher's data capture and analysis. The majority of responses were designed using 'Likert' scales, being firmly anchored at each end of their range and including a neutral position. All questions were pre-coded for analysis using the SPSSx (Statistical Package For Social Scientists) systems.

5.2.4 Survey Procedure and Response Control

A number of experimental studies have revealed factors which can be used to increase both the quality and volume of responses and these works were reviewed and synthesised by Jobber *et al* (1986) and further developed by Andrews (1987). In addition, Yu and Cooper (1983) conducted research into identifying significant response facilitators and Bruvold and Comer (1988) published a comprehensive review of research into response inducement techniques. The adopted design and follow-up procedures took full account of the research into these techniques and included:

- Pre-notification where possible;
- Personalisation of address and covering letters;
- An altruistic appeal;
- Guaranteed anonymity and confidentiality;
- Piloting;
- Closed question design and questionnaire structuring;
- Incentives for those returning the questionnaire;
- Careful control of the physical design of all the media;
- Follow-up telephone calls and letters;
- Careful control of the actual postal activity; etc.

It was necessary to check for the reliability of results and the key instrument which was adopted for this purpose was the use of previous research and published statistics as a check on the results following the initial analysis stage. In particular, both temporal and situational stability were to be established. The predictive and internal validity of the instrument were also intended to be established using the comparison with previous research findings.

Checking the predictive validity was of particular importance in view of the *a-priori* knowledge concerning the possibility of defensive survey responses. Rosenberg (1969) identified 'evaluation apprehension' as a possible source of bias, the most potent effect of such bias being towards the socially or professionally acceptable response. The tendency to present oneself in a perceived favourable light when answering evaluative questions, as was necessarily the case with this questionnaire, clearly exists. Moreover, a number, albeit small, of the survey questions unavoidably involved subjective or perceptual based concepts such as employee attitudes to overtime. Accordingly, it was recognised from the outset that these measures were not amenable to scientific measurement and that substantial controls would be needed to ensure that selective perception by individuals did not bring undue bias into the results (Stagner and Rosen 1965). It was therefore decided that the predictive validity, (accuracy and lack of bias), of the sample would be further checked by including a number of the surveyed establishments within the case study programme, and reporting in the analysis of the case studies, on the validity of the earlier questionnaire responses.

5.3 CASE STUDY METHODOLOGY

5.3.1 Selection of the Case Study Approach as a Research Method

The case study has been the research instrument which has traditionally characterised industrial relations research in Britain (Cappelli 1985; Beaumont 1987). The aim of the case study phase of the research was to discover more detailed information in support or explanation of the survey results and in support of the specific research questions and hypotheses. The methodology adopted for this phase of the research needed to be systematic and rigorous, but not so restrictive as to obscure or distort the investigation of the real processes of overtime working. Therefore a pragmatic and flexible approach was adopted using a case study programme within a semi-structured regime.

The research questions and hypotheses which this research project set out to test were essentially focused on the behaviour of managers and employees in that the key decisions with regard to overtime working are largely judgementally rather than quantitatively based. Indeed, culture is seen to play a significant role in the use of overtime (Riso 1987). It is therefore wholly appropriate that the detailed investigation of these behavioural phenomena is based on a qualitative case study approach. The basic premise which was adopted was that of behaviourism, *viz.* that all human actions admit of analysis into stimulus and response and, given adequate knowledge, such actions can be understood, predicted and influenced.

An assessment of the strengths and weaknesses of the case study method, which highlights its potential in the vital role of theory building, led Smith (1988) to conclude that this method has much to commend it to management researchers. There is, however, some debate about the use of qualitative methods in the study of management science (Dainty 1983). Science creates order, makes sense of facts and finds patterns or regularities; the use of qualitative methods in the scientific process is not universally held to be 'necessarily' valid. Indeed, the principle criticism of the case study approach in research is that it is unrepresentative (McClintock *et al* 1979; Jauch *et al* 1980). Qualitative research is accepted for exploratory studies but, according to Bonoma

(1985), quantification is felt necessary in order to establish the validity of any findings.

Science enables theories to be built through a process of systematic observation, description, explanation and prediction (Smith 1988). This begs the question: what place does the case study method hold in the scientific research process? Concern about the representativeness of case studies is readily acknowledged in this thesis. However, as Smith stated: 'representativeness is irrelevant for many research purposes, particularly when the distinction is made between logical and statistical inference. The validity of explanations or theory derived from case studies depends on the logic of the analysis and acknowledgement of *ceteris paribus* conditions, not on how typical the cases may be.'

Mitchell (1983) also presents powerful arguments in favour of the use of the case study method for sociological analysis such as the investigation of overtime phenomena. He states: 'The validity of the extrapolation depends not on the typicality or representativeness of the case, but upon the cogency of the theoretical reasoning'. Moreover, Worsley *et al* (1970) stated: 'The general validity of the analysis does not depend on whether the case being analysed is representative of other cases of this kind, but rather upon the plausibility of the logic of the analysis.'

Particular care was therefore taken in this research project to ensure that the detailed case study methodology enabled cause and effect to be properly distinguished thus enabling the theory building to be structured rigorously.

The National Board For Prices and Incomes Report (1970) made it clear that decisions about actual hours of work are normally taken in individual plants. Therefore any examination of hours of work, in greater depth, would need to be conducted at workplace level by interview of the actual decision making individuals and the workers themselves, particularly where they can directly influence their hours of work, as appears to be the case with overtime. Riso (1987) found that the case study approach was the most effective way to investigate overtime working within the U.S. Department of Interior. Specifically, he found that 'on-site managers know how to reduce overtime costs better than anyone at the departmental level' even though it is at the department level that policy decisions regarding working time issues are most often taken.

It is plain from a review of research in the area of human resource management, both specifically into overtime working and more generally, that the case study method is widely accepted. Case studies are often supplemented by analysis of either published statistics or surveys, administered by questionnaire, or as in this research project, by both of these. Whybrew (1968), for instance, used case studies as the key methodological tool for his definitive work on overtime. Moreover, the Institute of Manpower Studies (1988) in their research into employer attitudes on job-sharing and job-splitting, used case studies as did Marchington (1988) in his review of management issues on working time.

Other researchers in the management sciences and in the investigation of working time issues who have adopted the case study method include: Katlin (1937); IDS (1979); White (1980), (1984a) and (1984c); The Industrial Society (1981); Brennan *et al* (1985); BIM (1985); Curson (1986) and Summers *et al* (1987). Accepted management research practice, is thus seen to support the use of the case study approach.

Finally, in support of the case study method, it cannot be denied that the qualitative approach in management research brings the researcher closer to the phenomena under investigation. The ethnographic approach was felt essential for the discovery of the actual overtime decision process keys and the motivations of the key subjects who are involved in the use of overtime.

One of the *a priori* conditions was thought to be the possibility of defensiveness on the part of the managers responsible for the scheduling of overtime. In addition, there was a possibility that overtime workers may feel they could endanger that overtime which they currently enjoyed, by exposing it to the researcher as in some way inappropriate for the organisation. These risks were carefully controlled by design of a semi-structured interview regime and by the sensitive application of ethnographic research techniques.

Notwithstanding the above critique, the detailed case study methodology was designed to ensure that the researcher did not get too close to the subject and thus lose objectivity. The achievement of this difficult balance was carefully addressed.

5.3.2 The Rationale For Selection of a Specific Sector For Case Study Based Research

It was clear from the analysis of the survey data, section 6, that further research would help to deepen the understanding of specific overtime working phenomena. In order to secure the best research result, with the available resources, it was essential to target a particular sector. It would have been too great a task, within this research project, to attempt to conduct the detailed case studies across the whole economy, although this restriction is readily acknowledged as a limitation on the value of research. The question which therefore needed to be answered was: 'Which sector and which particularly types of organisation should be addressed?' This question was pivotal to the case study element of the research.

It is widely accepted that Whybrew's monograph (1968), 'Overtime Working In Britain', is the definitive contribution to the understanding of overtime working in Britain. Whybrew based a key part of his interpretation of overtime working on industrial (sectoral) differences and this analysis has to some extent been supported and developed by subsequent research. For instance, White (1982) stated: 'the differences between the manufacturing and non-manufacturing sectors in overtime working are almost wholly compositional: they result from the differing proportions of the sexes and of the manual and non-manual occupations in the two sectors.' Although White (1984) qualified this stating: 'Among manual men, overtime was actually slightly higher on average in the non-manufacturing industries than the manufacturing industries'.

White (1984), whose work for the Policy Studies Institute has done much in recent years to advance the understanding of working time issues, stated: 'We have pointed on several occasions to a relative lack of detailed information concerning the service sector.... It certainly seems that too little attention has been paid to the question of overtime in service industries in the past. The importance of giving greater attention to services is increased by consideration of the growing importance of this sector in the make-up of total employment... There is also the need for detailed examination of the use of overtime in service industries, to examine the scope for

alternative patterns of working.'

White made these unequivocal observations in the light of an increase in service sector employment from 12.2 million in 1975, representing 55% of total employment, to 13.1 million in 1983. Thus when he made these observations, service sector employment represented 64% of total employment. In fact, service sector employment has continued to increase and now stands at 15.4 million, representing over 69% of total employment which stands at 22,233 million (DOE 1989C). In the light of these developments it is submitted that the importance of the service sector is now even greater than when White made his comments.

It is clear that recent employment trends have seen service industry employment increasing while employment in the manufacturing and production industries continues to decline (DOE 1988A). Furthermore, this trend is likely to continue under the influence of the increased substitution of capital for labour in the non-service industries and this is happening on an international scale. Freedman (1983), for instance, stated: 'there is little or no question that... industrial societies are experiencing a continuing decline in the share of employment accounted for by manufacturing.'

Moreover, in at least some of the service industries, there is every likelihood that employment will remain buoyant (Freedman 1983). A specific example of this is the British tourist industry which is rapidly expanding as a provider of wealth and jobs (DOE 1989A). An overall estimate of the anticipated growth in the civilian labour force in Great Britain is given by the Department of Employment as an increase from 27.2 to 28.1 million from 1987 to 1995 (DOE 1988A). The greatest proportion of this increase, it is predicted, will occur in the female work force, within the service sector. The labour market share taken by females workers has risen steadily from 37% in 1971 to 42% in 1987, and is predicted to rise further to 44% in 1995, (DOE 1988). These additional female workers will predominantly take employment in the service industries.

White (1988) stated: 'Overtime... is now both roaring back and under-estimated by official figures which measure only manufacturing and ignore what is happening in the service industries.....We calculate: Overtime in manufacturing is the equivalent of 400,000 full time workers; Overtime in the service industries is the equivalent of more than 800,000 workers.' This supports White's previous findings, (1984) where he stated: 'It seems highly probable that actual overtime working by non-manual workers is under-estimated by the formal forms of overtime working and that the difference in overtime working between male manual and non-manual employees in this respect is accordingly overstated.'

From the survey of the UK economy as a whole, reported in section 6 of this thesis, it is clear that there is a greater proportion of non-manual workers in the service industries than in other sectors. The New Earnings Survey (1988) (tables 86 & 87, Analysis By Occupation) support this conclusion. It has also been reported (White 1984) that the incidence of unpaid overtime is by far the greatest among non-manual workers who tend to be employed in the service sector. Therefore the incidence of unpaid overtime in the service industries is likely to be different from that found in other sectors. There are also compositional differences between the sectors in that there are greater proportions of female workers in the service sectors (White 1984; DOE 1988A; New Earnings Survey 1988).

Clearly the changing working patterns within the service sector will, potentially, have an important impact upon the structure of working time, including overtime practices. It is equally clear that the service sector will have an important role to play in the U.K.'s future labour market, probably the key role.

Following Whybrew's definitive study of 1962-63, a number of overtime working research projects have been conducted in the manufacturing and production sectors. There are, however, few recent accounts of research overtime activity specifically in the service industries, or indeed, for the economy as a whole (Section 4.1, q.v.). The latest major research work covering overtime in the service sector appears to have been the NBPI Report (1970): 'Hours Of Work, Overtime and Shift working', which was intended to cover the whole economy. However, even this work was somewhat biased towards manufacturing and did not attempt to embrace overtime working in a comprehensive manner.

It was clear, therefore, that it would be of interest to conduct detailed research specifically aimed to discover more information about overtime within the service sector, and, particularly, to include the very small organisations within this analysis. The decision was taken, therefore, to focus detailed research in areas of the service industries, SIC (1980) 6 to 9; and to conduct this research by means of a series of separate case studies.

In summary, the key reasons for selecting areas of the service industries for detailed research were:

- i) An apparent lack of previous research in this area;
- ii) The growing relative importance of this area in the employment of people within the UK labour market;
- iii) The opportunity to test the research questions and hypotheses specifically in this previously neglected area;
- iv) The opportunity to address and discover new information on a number of potentially interesting overtime issues which may involve specific issues in the service sector; eg. unpaid overtime; the use of overtime to support otherwise inadequate payment policies and structures.

5.3.3 Objectives of the Case Study Programme

The general objective of the case studies was to investigate overtime working within certain areas of the service sector, viz. SIC (1980) 6 to 9, and therefore to increase the knowledge and

understanding of overtime, particularly with respect to its use, remuneration, controls, employment effects and the attitudes which are held towards it.

In particular, the case study phase of the research was designed to:

- * Test the research questions and hypotheses;
- * Provide a detailed interpretation of specific areas of the survey results;
- * Discover up-to-date and detailed information regarding overtime working within specific areas of the service industries.

The key practical question was: 'What now maintains the use of overtime in the service sector from the employer's viewpoint?'

In order to provide answers to these questions, and therefore to meet the objectives of the case study phase of the research, it was necessary to investigate the potential and actual effects of changes in the structure of working time in the economy and, in particular, change in overtime working practices. Care was taken, therefore, to investigate and understand the present context of the overtime, or the alternatives to overtime which had been adopted, and the rationale for the pre-existing working time arrangements, both formal and informal, within those organisations under investigation.

For each of the hypotheses and research questions there was a predetermined set of perceived possible outcomes and these helped to guide the investigations without establishing barriers to the discovery of the real process and motivations. In addition, a more obvious and pragmatic review was necessary in order to cover the following issues: the 'real' reasons for the overtime; the analysis of potential alternatives; a review of historical working time and pay statistics; a demand analysis; etc. It was clear that this would involve the field worker in actual point of decision, real time investigation into, for instance: Why and how is 'this manager' making this particular decision at this juncture? How will this decision affect the worker and the organisation? How is the decision implemented and controlled? Does the decision actually deliver the required result?

5.3.4 The Overtime Management Process Model

Any study of the management of working time must take account of the broader context within which working time structures operate, (Pettigrew 1985A). A model was developed to illustrate the process for the organisation of working time and, in particular, overtime, within the context of the whole organisation. This model, which is given as Appendix 5-2, represents a synthesis of the literature on the process of corporate strategy with regard to working time (Pettigrew 1988). A number of extra-organisational features represent the exogenous context of change. These include the social and economic climate; technological development; the local labour market; external employer and employee organisation policies and the competitive environment or, for a public body, the need to perform to certain targets. These factors influence the demand and supply issues for the structure of working time.

These external forces are mediated by a second, endogenous context which comprises the structure of the firm, its culture, politics, strategy, performance requirements, operational technology and its reward systems. Within this 'internal context' the rules for the overtime decision at the macro level may be set out and the macro level policy decision is referenced to a number of detailed analyses. Where the policy decision is taken to allow or promote overtime at a certain level, then this must be properly translated into action through both formal and, equally powerful and legitimate, informal systems of control (Brewster 1983). Finally, the model illustrates a decision review stage which is a vital yet frequently neglected ingredient of the formal system of control.

Thus overtime, where adopted by an organisation, should exist within both formal and informal, but rational, decision and control structures. The case study programme has been designed to discover the actual control mechanisms which exist and the decision process and motivational forces which lead to the use of overtime or the use of alternatives to overtime, where these can be seen to have been specifically adopted.

5.3.5 Case Study Schedule

Care was taken in designing the process of selecting and gaining access to research sites, although the process, in the event, can best be described as 'planned opportunism', which is quite typical in the circumstances and was essentially pragmatic (Pettigrew 1988). The strategy adopted was to find cases which would demonstrate: change; extreme situations and critical incidents and social dramas with respect to the use of overtime. In particular, the specific cases were chosen to ensure that a variety of organisations were covered in terms of size, type, method of working time structure, unionisation, the amount of overtime used and the methods for control of that overtime. Particular care was taken to find organisations where overtime had been successfully reduced, to find how this had been achieved and the consequences of the change.

On the question of the number of cases which should be reviewed, again the research design philosophy was essentially pragmatic and it is readily agreed that the availability of time and resources were major limiting factors, as often must be so in such projects. Nevertheless, those cases which were undertaken were relatively generic in each instance and thus allowed reasonable and cogent inductive logic to be developed.

5.3.6 Methodology Strategies

Yin (1984) and others have reviewed the ideal skills profile for case study field workers which, briefly, they found to include characteristics such as the ability to ask and interpret apposite questions, to listen, to be adaptive and flexible, to be knowingly unbiased, to be politically and socially adept, and to have a firm grip of the issues or phenomena under investigation. These needs were considered and an attempt was made to identify and cover shortfalls in the fieldworker's experience and skills. Works such as Smith and Dainty (1988), Van Maanen (1983), Madut (1986) and Pennett (1986) were used in this respect.

In order to achieve the research objectives, it was necessary to conduct investigations using a number of approaches best suited to the epistemological issues which prevailed. Essentially the case studies involved the following:

Documentary and archive data:

Time series analysis of the historical working time Human Resource Management and pay data;

In-depth Interviews:

Semi-structured interviews covering managers, supervisory staff, workers, trade union representatives and executive board members;

Semi-ethnographic research:

Observations and investigation of the circumstances surrounding the overtime working both internal and external to the organisation;

Systematic decision analysis:

Financial analysis of the overtime decision from both the organisation's and the worker's viewpoint; analysis of the alternatives to overtime available to the organisation and the worker.

A skeleton programme (case study investigation design guide) was adopted in order to guide the initial structure of the case studies and this is given as Appendix 5-3. In particular, this structure was used as a tool to facilitate the initial access and planning strategies but was by no means followed slavishly at the expense of rational research methodology. The skeleton programme covers: the endogenous phase preliminary and preparatory study activities and the main study formal and ethnographic activities. In further support of an efficient and orderly research process, use was made of a number of 'Guides To Research Structure' and 'Semi-Structured Questionnaires'. The skeleton programme, indicates each of the detailed areas of research where, typically, specific use was made of these tools.

At plant level, use was made of the single, non-comparative, case study technique involving both formal and informal ethnographic elements. Historical records and documentation of working time and remuneration were reviewed as were all the related overtime issues at each establishment. Use was made of computer based statistical and time series analyses of the available data and this was used to reveal patterns in the processes of change in the use of overtime as a proportion of basic working hours.

This analysis gave a quantitative basis on which to build the research processes. These were based around a number of semi-structured questionnaires. Once access had been achieved, via senior management, the process started with interviews of the managers most directly responsible for the overtime decision. Those managers and supervisors who were responsible for the

subsequent planning and control of the overtime were also interviewed. Numerous interviews covering other managers, workers and worker's representatives, were held. These interviews were informal, but controlled within the framework of the questionnaire structure. By this means it was hoped to reduce bias (Pettigrew 1987) and maintain, as far as possible, a common structure during these investigations to facilitate some level of cross comparison between establishments and industries. The structure of these interviews and observations allowed the research to take account of the contextual implications and interplays regarding the use of overtime.

Detailed investigation of the establishment's working time needs and structure was undertaken and the research investigated the implications of these as regards the research hypotheses in areas such as: operational flexibility; profitability; quality of life for the overtime worker and also the context of the local labour market. These investigations included, where possible, board level interviews in order to ascertain the corporate policy, perceptions and opinion, regarding the use of overtime within the organisation.

The fieldwork for each case involved between 1 and 12 days on site at each establishment, spread over an extended period which in some cases covered 3 months. There was, in each case, intermittent contact both before the main on-site investigations, and thereafter. The attendance on-site, where possible, covered the full range of overtime working hours as well normal hours. Extended elapsed time was needed to establish relationships and achieve a perspective that would enable a real level of ethnographic understanding and to allow the true reasons and processes to reveal themselves, bearing in mind the potentially defensive stance of management and workers on the issue in question. The subsequent analysis of the fieldwork took between 3 and 10 days for each individual case.

Pettigrew (1985A; 1985B) stressed the importance of contextualism in the practical day to day conduct of management research and the process of empirical inquiries. Greiner (1985) also offered support to contextualism which is used here in its simplest form; that of drawing upon the temporal, organisational, processual, social and behavioural interdependences of the overtime phenomena.

6 PRIMARY ANALYSIS OF THE SURVEY RESULTS

6.1 ANALYSIS OF SURVEY RESPONSE

The overall aggregated results of the survey are presented and reviewed in this section. In addition, the initial analysis, concerning the survey results in isolation, are presented. Section 7, which follows, breaks down the data to give detailed analyses based on their distribution by the key independent variables.

The evidence is rationally structured and presented in this and the following sections, mirroring the structure of the questionnaire. The intention is to provide a database regarding the use and management of overtime across the whole economy, and thus to satisfy one of the two principal aims of the research. Those research questions and hypotheses which are not directly related to the establishment of the database, are specifically addressed in Section 9, 'Further Analyses'. In that Section, the evidence gathered from the application of the different methodologies is drawn together to give a balanced appraisal by each specific issue.

6.1.1 The Survey Yield

A sample of 1000 establishments was surveyed yielding 225 usable cases representing a 22.5% response rate. This response was obtained only after the careful application of considerable response control and enhancement procedures which are described in Section 5.3.4. In the circumstances, this response was considered satisfactory. Response rates reflect, to a large degree, the very careful balance struck at the questionnaire design stage between the quality of information and the ease of response. The decision was taken to aim for a rigorous survey in terms of quality, depth and range of information, rather than to use a more superficial instrument that would yield a higher response.

When considered at the sectoral level the response was relatively low for the following sectors (SIC 0-9; 1980): SIC 0, Agriculture, Forestry & Fishing and SIC 1, Energy & Water Supply. This reflected the relatively small size of these sectors within the economy. An analysis of the sample by sector is set out in Figure 6-1 'Sample Segmentation Control Analysis'.

The response represented over 40,000 employees and in this respect was a relatively large sample in overall terms. Other research projects in this area have used samples of the same order of magnitude or smaller. For example, the IRRR's survey of overtime arrangements in Britain covered only 30 organisations (IRRR 1978); the 'Overtime Working Attitudes Survey' (Hollman 1980) used 126 responses; the Department of Employment's survey into 'Working Time' (White, Policy Studies Institute 1982) was based on 281 responses; the CBI survey covered 156 manufacturing companies, comprising 29,000 employees (Marsh 1982) and the National Economic Development Council survey (NEDC 1986) covered only 72 organisations.

6.1.2 Analysis Of Sample Fraction Controls

The survey collected data across the whole range of sectors of the U.K. economy, all regions of the U.K. and the whole range of sizes of establishment. The only areas not to be addressed were those sub-sectors of public administration and defence covered by SIC (0 to 9, 1980) classifications 91-3 and 96. Those sectors are covered by the case study programme, (Section 8 qv).

A stratified sampling procedure (Hammond & McCullagh 1980; Jolliffe 1986) was adopted, using fully randomised samples based on the 'equal probability of selection' method, (Section 5.3 qv.), and controlled to the key population sub-set of: 'Standard Industrial Classification' (SIC). The sample was further checked against secondary population sub-sets of: 'Administrative Region' and 'Size of Establishment'. This gave a means of rigorously evaluating the true representativeness of the sample in terms of these key variables. Figure 6-1 sets out the sample fractions, by percentage of employment within the economy as a whole, thus giving a precise population profile. The response was analysed in terms of the primary segmentation control and the secondary segmentation checks, for direct comparison with the known population profiles.

It was decided, after very careful consideration of all the factors and particularly in the light of the original sample design basis of 'equal probability of selection', not to make any constructive and selective adjustments to what was considered to be a representative sample. The rationale for this decision is set out below.

The un-adjusted response was a reasonable approximation to the population, in terms of its macro-economic profile, for the primary control of SIC grouping. There was one exception to this, *viz.* that of the public administration returns which were low, reflecting, in part, the decision to exclude areas of this sector, as explained above. Consequently the relative weightings achieved within the responses for the other sectors were proportionally higher than the equivalent population statistic. This was particularly noticeable in the analysis of generic types of sector, eg. service and non-service industries, as a result of the large size of sector 9 which alone accounts for about 30% of total employment in the economy, much of which was excluded from the survey.

Following the initial mailed questionnaire and letter, there was an unacceptable level of non-responses, about 85%. There were, however, very few item non-responses in the returned questionnaires which were of a remarkably high quality. The pattern of returns was typical of that modelled by Vigderhous (1977) and it was clear that follow-up mail-shots and telephone investigations would be necessary. Subsequent contact of the non-responding organisations revealed that a major cause of the non-response was the mistaken assumption that if no overtime was being worked, or overtime was little used, the response would be of little value. The subsequent re-mail of all non-respondents targeted this problem in order to maximise the number of responses. This alleviated the original problem to some degree and explains why the manufacturing sector yielded a proportionally greater response than some others.

Figure 6-1 also sets out the adjusted SIC sample profile which has been augmented by pro-rata weighting to compensate for those areas of the public sector which were excluded. The adjusted sample profile appears visually to be a good fit to the population profile. The chi-square test of

FIGURE 6-1

SAMPLE SEGMENTATION CONTROL ANALYSIS

	NUMBER OF UNITS	VALID % OF SAMPLE	EMPLOYMENT AS A % OF THE WHOLE ECONOMY
STANDARD INDUSTRIAL CLASSIFICATION (1980) ¹			
0 Agriculture, forestry & fishing	7	3.2	1.5
1 Energy & water supply	3	1.4	2.1
2 Mineral & ore extraction	12	5.4	3.5
3 Metal goods, engineering & vehicles	40	18.0	10.1
4 Other manufacturing industries	44	19.8	9.5
5 Construction	10	4.5	4.6
6 Distribution, hotels, catering, repairs	58	26.1	20.8
7 Transport & communications	16	7.2	6.3
8 Banking, finance, insurance, etc	20	9.0	11.5
9 Public administration & other services	12	5.4	30.1
Unclassified	3	-	-
RECLASSIFICATIONS			
1-4 Index of production industries	99	44.6	25.2
2-4 Index of manufacturing industries	96	43.2	23.1
0-5 Index of non-service industries	116	52.3	31.3
6-9 Index of service industries	106	47.7	68.7
ADMINISTRATIVE REGION ²			
1 Greater London	22	9.8	15.8
2 Remainder of South East	30	13.3	18.5
3 East Anglia	5	2.2	3.8
4 South West	18	8.0	7.3
5 East Midlands	9	4.0	7.0
6 Yorkshire & Humberside	9	4.0	8.2
7 North	13	5.8	5.0
8 Scotland	48	21.3	8.5
9 Northern Ireland	26	11.6	2.3
10 North West	14	6.2	10.2
11 Wales	18	8.0	3.9
12 West Midlands	13	5.8	9.5
RECLASSIFICATIONS			
1-4 Defined South	75	33.3	45.4
5-12 Defined North	150	66.7	54.6
Continued over...			

FIGURE 6-1 (Continued)

CLASSIFIED BY NO. OF UNITS ³	NUMBER OF UNITS	VALID % OF SAMPLE	UNITS AS A % OF THE ECONOMY
COMPANY SIZE			
1-10	47	20.9	69.7
11-24	46	20.4	16.7
25-49	44	19.6	7.1
50-99	34	15.1	3.4
100-199	23	10.2	1.8
200-499	15	6.7	1.0
500-999	7	3.1	0.3
1000+	9	4.0	0.1
RECLASSIFICATIONS			
1-49	137	60.9	93.4
50-199	57	25.3	5.2
200-999	22	9.8	1.3
1000+	9	4.0	0.1

CLASSIFIED BY NUMBER OF EMPLOYEES ³	NUMBER OF UNITS	% OF EMPLOYEES SAMPLED	EMPLOYEES AS % OF THE ECONOMY
COMPANY SIZE			
1-10	47	1	16.1
11-24	46	3	13.1
25-49	44	5	11.7
50-99	34	8	11.1
100-199	23	9	11.6
200-499	15	11	13.7
500-999	7	13	8.7
1000+	9	50	14.0
RECLASSIFICATIONS			
1-49	137	10	40.9
50-199	57	14	22.7
200-999	22	25	22.4
1000+	9	50	14.0

NOTES

- 1 Employment Gazette February table 1.4 (1989).
- 2 Employment Gazette February table 1.5 (1989) (adjusted for Northern Ireland).
- 3 Department of Employment Statistics Division (1988) & Marketing Pocket Book (1989).
Excluding Order 1 of the Standard Industrial Classification.

goodness of fit was applied to the adjusted sample and a null hypothesis was constructed, viz. that there was no difference between the adjusted sample and the population profile for the SIC groupings. This test determines whether the discrepancies between the sampled frequencies and those which are known to exist in the economy as a whole, are due to the process of random selection or indicate a bias within the sample. The 0.05 significance level which is usual for this test (Freud and Williams 1975) was adopted. Chi-square was found to be lower than the critical number and therefore the null hypothesis was accepted. Therefore, the sample was found to be representative of the population within the significance level $p < 0.05$.

The secondary sampling check of region was, in terms of overall shape, a reasonable approximation to the population profile. The tendency for the sample to be weighted towards the 'regions', which are herein defined 'North', was found, on investigation, to be a function of the programmed bias of the database selection procedure. This was not considered to be a fundamental flaw since the selection was randomised and, overall, the sample and population profiles were similar in shape if not exactly so in degree.

Moreover, the primary analysis was conducted by use of crosstabulation techniques which are able to deal with the inequality of samples well within that of the sample obtained. More importantly, any subsequent manipulation of the sample, to adjust the profile towards the secondary segmentation checking profile, would involve the risk of disturbing the primary segmentation control and would need to be highly selective. This would challenge the random objectivity of the sample obtained (Jolliffe 1986) and was felt to be inappropriate in view of the relatively close fit between sample and population.

As regards 'Size of Establishment', based on number of employees, the response, in the event, was biased towards the larger organisations by the inclusion, through random chance, of two very large organisations. In addition, there was certainly some difficulty experienced in obtaining responses from small establishments. Considerable effort was therefore put into encouraging very small organisations to respond. A second mail-shot was specifically targeted to these and a number of follow-up telephone calls were made. However, this difficulty, which is typical for this type of research (Smith and Dainty 1988), was not totally overcome, although this was not considered to present a major problem.

It is interesting to note that other research has met with similar problems. For example, the important 1984 industrial relations survey, sponsored jointly by the DOE, ESRC and PSI, over-sampled large establishments. Methodological work on the equivalent 1980 industrial relations survey had suggested that the accuracy of the employee based estimates could be obtained without 'noticeably sacrificing the accuracy of establishment-based estimates' (Millward and Stevens 1986). It was, however, accepted that the weighting of the sample gave greater sampling errors than would have been the case if simple random sampling alone had been used (Millward and Stevens 1986) as was the case in this survey, and this fact is used as justification for not arbitrarily weighting the survey response obtained in this research.

The sample response analysis for 'Size of Organisation' (Figure 6-1) has been conducted in terms of both the number of units employing certain class intervals of employee numbers, and also by the absolute number of employees employed in those units. Two further problems were

encountered in this respect. The first was the lack of any definitive classification of class intervals in dealing with company size and the lack of a standardised method of classifying size viz. by absolute number of employees or by number of units employing certain class intervals of employee numbers. The second was the lack of statistical information regarding the distribution of different sizes of company, by employee numbers, across the whole economy. It was therefore decided to present the analyses by size of company, with a clear statement of the limitations which, whilst important to understand, do not over-ride the value of the size analyses.

Notwithstanding the above limitations, the survey covered 93 establishments employing 1 to 24 staff and 137 establishments employing fewer than 50 staff. This was intended to break new ground in capturing information on overtime working from small establishments. In the circumstances, the variance between the sample profile and the population profile was not considered to be of over-riding significance. Any subsequent weighting to correct the 'size' profile misfit could have been counter productive, in that it could create arbitrary bias in the other more important segmentation controls. Selective re-sampling would risk disturbance of the primary segmentation control and would compromise the established objectivity of the random sample that had been obtained from the original survey and follow-up measures (Jolliffe 1986).

This research is believed to represent the only survey, within the field of overtime working, which has taken responses from the complete size range of organisations across all sectors and regions of the economy, (with the exception of SIC 91-3 and 96). As such this project was ambitiously designed to push forward the knowledge in this area. Perhaps, in view of the difficulties experienced, it is understandable that others have not carried out such a wide-ranging survey (White 1984; NEDC 1986). Most research into working time has applied cut-offs, removing smaller organisations, and often whole areas of the economy, by region or by sector. For instance, White (1984) reported on two connected surveys sponsored by the Department of Employment and carried out by the Policy Studies Institute. These investigated working time issues and establishments with less than 100 employees were excluded. Such a sampling policy could well be considered to give a more fundamental limitation on representativeness than those inherent in this survey.

Finally, the sample size which would be required to obtain a 'good' fit to the 'organisation size' population distribution would have been unreasonably large, particularly in view of the substantial bias that could be established by simply randomly selecting just one very large company of several thousand employees which would distort the whole sample. Perhaps most importantly, as in the analysis of the regional secondary segmentation check, any subsequent manipulation of the sample to adjust the profile towards that thought to represent of the whole economy, would certainly involve the risk of disturbing the primary segmentation control and would need to be highly selective. Again this would further challenge the random objectivity of the sample obtained (Jolliffe 1986) and it was therefore decided to accept the lesser 'organisation size' limitations of the sample obtained.

It is therefore suggested that the sample used in the analysis was, within acceptable limitations, properly controlled and as representative of the economy as a whole, as could reasonably be expected.

6.1.3 Respondent Profile

The questionnaire was intended to be completed by a single individual in an organisation, as is usual in this type of survey (Smith and Dainty 1988), (Section 5.3.3, qv). A small number of questionnaires appear to have been 'passed-around' for selective completion, presumably at the most appropriate position within the establishment. This was particularly prevalent in the larger organisations, although it did not significantly affect the results. The respondent profile was:

FIGURE 6-2

RESPONDENT PROFILE

JOB TITLE	FREQUENCY	VALID PERCENT
Owner/Partner	19	9.0
M.D./Chief Executive	38	17.9
Personnel Director	5	2.4
Finance Director	19	9.0
Director (Unspecified)	44	20.8
General Manager	13	6.1
Personnel Manager	31	14.6
Manager	18	8.5
Supervisor/P.A./Etc.	11	5.2
Secretary	14	6.6
Undeclared	13	-

The primary target respondent for the questionnaire was, in the first instance, the 'Personnel Manager' or the senior person at the establishment responsible for the management of overtime working. This target seems largely to have been achieved. Some 60% were completed at director or owner level and 30% at personnel or general manager level. Obviously, smaller organisations, which form by far the largest grouping in the economy in terms of numbers of establishments, tended not to have dedicated personnel staff and this explains the inclination towards the apparently more senior job titles in the respondent listing. Overall, the respondent profile was considered to be a reasonable mix within the limits of the study and therefore, substantially, to avoid the risk of bias from that source.

6.1.4 Respondent Organisation Profile and Human Resource Management Statistics

Respondent organisations employed, on average, 178 people of whom 80 were non-manual and 98 were manual employees. The CBI survey (Marsh 1982) found that, on average, single establishment companies, which comprised by far the greatest proportion of this sample, employed 188 people. This lends credibility to the sample obtained in this survey.

Analysis of the 'Respondent Organisation Profile' and the 'Human Resource Management Statistics' are set out in Figure 6-3. More detailed tabulations of the statistics obtained are set out in the appendices supporting Section 7 of this thesis, under the appropriate sub-groupings of SIC Group, Regional Location or Size of Organisation.

Notably, only 19% of organisations had a formal manpower plan even though many of the respondent organisations were sensitive to employment issues and the majority relied on 'people' as a major asset. Employment trends for respondent organisations revealed that, over the previous five years, 60% had increased employment, 26% remained stable and 13% had shed employees. The expectation of future employee numbers showed that, over the coming year, 45% would increase, 49% would remain stable and 6% would shed employees. This reflected the buoyancy at the time of the survey, late 1988, early 1989, which had moderated by the time this thesis was presented in 1990.

The current market demand for respondent organisations' products or services was perceived by 61% as increasing, 34% stable and only 5% as decreasing. It was interesting to note that employee numbers were predicted to 'increase over the coming year', in only 45% of organisations. The 61% increasing demand, it seemed, would be met by either increased productivity or by increased working hours. This directly challenged the CBI's (1989) statement that 'companies plan to cut overtime'. This was a very important finding in that it supported one of the phenomena of overtime working in the U.K. which is identified elsewhere in this report; *viz.* that clear and soundly based *intentions* to reduce overtime do not appear to result in any pragmatic change. In addition, this phenomenon will be shown to be applicable to four of the major communities within the economy *viz.* the TUC, CBI, Government and the individual employers themselves.

Therefore, even at this early stage of the analysis of overtime working, there were indications that the overtime phenomena in the U.K. was a function of more than rationally based management or corporate objectives and decisions. There was evidence of substantial tradition-based factors in the process which could not be reduced to any operational rationale. It followed, therefore, that the solution to the 'problem' of change in overtime practices, if change was thought appropriate, would need to be based on more than just rational management analysis. Indeed, it would need to involve a sea change in attitude and 'culture'. A major emphasis of the case study stage of this research was therefore placed on the behavioural aspects of the overtime phenomena. In particular, regard was paid to the implementation strategies of corporate level objectives and decisions on overtime working and the factors governing the success of those strategies.

FIGURE 6-3

RESPONDENT ORGANISATIONS' PROFILE AND HUMAN RESOURCE MANAGEMENT STATISTICS

STATISTICS	RANGE		Mean	Mode	S.D.
	Low	High			
Number Of Employees					
Non-Manual	0	3000	80.4	3	309
Manual	0	4000	98.1	0	367
Total		7000	178.5	15	628
Degree of Unionisation (%)					
Manual	0	100	22.1	0	38
Non-manual	0	100	9.2	0	24
Formal Manpower Plan	Valid Percentage of Establishments				
Plan Exists					19.4%
No Plan Exists					80.6%
TRENDS (%)	INCREASING		STABLE		FALLING
Demand For Products Or Services	61.2		33.5		5.4
Total Number Of Employees					
Past (Previous 5 yrs)	60.5		26.5		13.0
Current (Next 1 yr)	45.4		49.1		5.6
Degree of Unionisation (%)					
Manual Employees	1		95		5
Non-manual Employees	0		96		4

Human Resource Management Statistics								
STATISTIC	Range		Mean	Mode	S.D.	Current Trend		
	Low	High				Increasing	Stable	Falling
Labour Turnover (Per cent)	0	100	12.4	10	13	10	78	13
Absenteeism (Per cent)	0	25	4.8	5	3	4	91	6
Normal Week (Full-T Hours)								
Manual	31	48	38.7	40	4	3	92	6
Non-manual	30	48	36.4	36	7	4	92	5

6.2 ANALYSIS OF THE STRUCTURE AND USE OF OVERTIME

6.2.1 Overtime Levels and Trends

Only 20% of the organisations which took part in the survey did not work overtime. This is felt to be non-representative of the U.K. economy, bias having occurred due to some potential respondents choosing not to return the questionnaire because they worked no overtime. In these circumstances it was felt appropriate to refer to the published overtime statistics (NES 1989 and Employment Gazette 1989) and these are analysed in Section 2. Overtime was worked in 181 of the respondent companies; 160 companies reported manual employee overtime while only 121 companies reported overtime working by non-manual employees. A summarised analysis of the overtime levels and trends for these companies is given in Figure 6-4 'Overtime Levels and Trends', (more detailed tabulations are set out in the appendices supporting Section 7). These results are consistent with the published national statistics and show that manual employees are more likely both to work overtime, and when they do, to work longer overtime hours, than their non-manual colleagues.

FIGURE 6-4

OVERTIME LEVELS AND TRENDS

Employee Types	Weekly overtime (Hours)				
	Range	Mean	Mode	S.D.	
	Low	High			
Manual	1	30	7.8	10	5.5
Non-manual	1	40	6.0	2	5.5

Employee Types	Overtime Trends (per cent)					
	Past 5 years			Next 12 months		
	increasing	stable	falling	increasing	stable	falling
Manual	41	41	18	19	69	13
Non-manual	23	63	14	10	83	8

The data exhibited a high level of variability and the maximum reported overtime was forty hours per week, worked in this case by non-manual employees. This particular company, (denoted 'X') was based in Aberdeen and offered a technical agency type service to the oil extraction industry. Company X had shed employees over the previous 5 years due to the oil price collapse. The company held no overtime policy and relied on custom and practice. Most overtime being

worked during week days. No change was anticipated in either the future overtime levels or the future levels of employment. However, demand was thought to be now increasing and the impact of this on the currently excessive overtime levels had apparently not been considered. The key reasons for the overtime at Company X were given as: local skill shortages; normal demand; more cost effective use of resources and unexpected demand, (in view of the stability of the overtime, the latter reason would probably be difficult to sustain). Curiously, the respondent, a Finance Director, agreed with the proposition that: 'systematic overtime should be eliminated', but thought that overtime reduction in his organisation would not create employment, presumably because the skilled staff were unobtainable. The evidence suggests that the overtime at Company X was largely systematic and a function of culture and local skill shortages; and, in any event, potential solutions were available for both these problems.

Leaving aside Company X and returning to the general survey analysis, the revealed past trend in overtime levels was similar to that reported in the national statistics with no evidence that there has been any general or determined effort to reduce overtime. Indeed the past trend analysis indicated that the majority of organisations had basically stable or rising overtime levels with only 18% of manual and 14% of non-manual overtime actually falling. The reported future trend, by contrast, gave an entirely different picture with a low employer expectation of an increase in overtime working viz. 19% for manual and 10% for non-manual staff. Indeed, employers believed that overtime would fall: 'over the next 12 months' among only 13% of manual and 8% of non-manual employees. This again conflicted with the findings of the CBI (1989) report which stated that employers 'intend to *now* make a determined effort to reduce overtime'. It seems clear, therefore, as we demonstrated earlier, that both our own survey findings and the predictions of bodies such as the CBI, can not be taken at face value, since expectations on overtime working have been most unreliable as indicators of future levels.

6.2.2 Overtime Working Patterns

Summarised details of when, during the week, overtime was scheduled are set out in Figure 6-5 'Overtime Working Patterns', (more detailed tabulations are set out in Section 7).

These results were consistent with previous research (White 1984), there being relatively little overtime worked on Friday afternoons, with only 18% stating that they often work overtime on Friday afternoons in contrast to the 46% who state that they often work overtime on the other weekdays. Many companies, particularly in manufacturing and construction, have reduced their working week to 39 hours or less, by reducing the length of Friday working (White 1984). One of the reasons for focussing the reduction of basic hours into Fridays is suggested by the TUC (1988) to be that Friday afternoon overtime is 'no longer an option'. The generality of that conclusion was supported by the survey results.

FIGURE 6-5**OVERTIME WORKING PATTERNS.... (DAYS WHEN OVERTIME IS WORKED)**

Overtime is Worked on:	Percentage of Respondents Who Worked Overtime			
	Always	Often	Little	Never
Weekday	33	46	20	1
Friday pm	14	18	47	22
Saturday am	24	44	25	7
Saturday pm	4	18	52	26
Sunday	2	18	52	28
Holiday	3	11	42	44

Nevertheless, it was clear that some establishments which finished normal work at Friday lunchtime, were organising Friday afternoon overtime in a systematic manner, for normal production activities, in much the same way as Saturday mornings have traditionally been set aside for overtime. Interestingly, 14% of organisations stated that they always worked overtime on Friday afternoons. This was thought to be an increasing trend, although no evidence of such a trend was provided by this research.

There was a tendency to schedule overtime for specific 'slots' during the working week. Almost a quarter of organisations reported always working Saturday morning overtime and only one third said they rarely or never worked overtime on Saturday mornings. Interestingly, this result was often inconsistent with the corresponding replies to other questions covering the reasons for overtime and the use of systematic overtime. Organisations often cited 'unexpected demand' and similar variability based factors as the major reason for their overtime, and such reasons would conflict with the use of regularly scheduled overtime. This apparently capricious tendency is further addressed in the crosstabulation analysis.

6.2.3 The Remuneration of overtime working: Premiums, Time-Off-In-Lieu and Unpaid Overtime

A summary analysis of the patterns and levels of compensation for overtime working is set out in Figure 6-6 'Overtime Premiums Paid'. This has been structured to show manual and non-manual employees separately in order to demonstrate the highly significant differences which these groups exhibit; (more detailed tabulations are set out in Section 7 of this thesis).

The use of time-off-in-lieu, TOIL, as an alternative to payment for overtime was most prevalent for holiday working. Non-manual employees were approximately three times more likely to receive TOIL than manual workers and, conspicuously, ten times more likely to be unpaid for their overtime work. Caution must be used in considering unpaid overtime since this was probably under-reported in this survey and also in the national statistics (White 1988). Many respondents may not have defined staying late, unpaid, as formal overtime and this matter was reviewed during the case study phase of the research. It was nevertheless remarkable to find that one third of non-manual employees work overtime without pay.

The premium levels revealed by the survey are generally in line with those suggested by other researcher (NBPI 1970; White 1984; IDS 1984; Whiting 1985; CBI 1989) with mode levels being time and a half Monday to Saturday and double time for Sundays and holidays. However, these results present a much more detailed picture than had previously been available. About 15% of establishments have stepped agreements, for instance, time and a third for the first two hours and time and a half thereafter, and these were fully accounted in the analysis of premiums. Weighted average analysis of these results indicate an overall average premium of 52.4% for all categories of worker, all times of the week and all types of organisation. An overall average premium had not previously been established for the U.K. economy.

These results show not only that the non-manual worker was much more likely to be unpaid for overtime, but when payment was made, it was likely to be at a relatively low level, pitched on average at time and a third rather than the time and a half paid to manual workers. Section 3 explains that there was a school of thought that low premiums discourage overtime by depressing demand (eg. Dawkins 1985). A conflicting and widely held theory asserts that overtime can best be reduced by increasing premiums and thereby depressing supply (the supply of overtime from the employer), though of course not the demand for overtime from the employee (eg. Ehrenberg 1971). There was yet a third school of thought which held that almost whatever premium was levied, overtime would not be reduced because poor management would prevent the rational cost decision (eg. Best 1981), although there appears to be no research to support this assertion. The correlation between higher overtime levels and higher premium levels within this data was clear but it was not possible to infer a direct causal relationship between overtime premium and level of overtime working. Indeed a more plausible explanation of this relationship was the effects of the structural variables such as worker type, (manual or non-manual), and industry.

FIGURE 6-6

OVERTIME PREMIUMS PAID

Pattern	% of Workers Working Overtime		Overtime Premium		
	TOIL	Unpaid Overtime	Mean	Mode	S.D.
Weekday					
Manual	3.2	3.2	47	50	24
Non-manual	11	33	33	50	32
Friday pm					
Manual	3.3	3.3	48	50	25
Non-manual	11	33	33	50	33
Saturday am					
Manual	3.3	2.0	54	50	25
Non-manual	11	29	38	50	31
Saturday pm					
Manual	3.3	2.8	66	50	34
Non-manual	11	31	42	50	36
Sunday					
Manual	2.8	4.3	92	100	35
Non-manual	15	32	61	100	47
Holiday					
Manual	14	6.3	98	100	51
Non-manual	23	36	62	100	54

6.2.4 Employee Attitudes To Overtime

Only 7% of workers were reported to resist overtime, while 68% readily accepted it and 25% wanted more. This result implied that there was considerable elasticity in demand for overtime from employees, as found by other researchers such as Ehrenberg (1971). Employee attitudes to overtime working were at this stage of the research taken purely as hearsay evidence, reported by the 'manager' respondents rather than by the workers themselves. Therefore caution must be used in interpreting the resulting statistic, (a limitation to be corrected in the case study section of this research). This result was, however, similar to those reported elsewhere in the literature (Whybrew 1968; Carby et al 1981; White 1984).

6.3 REASONS FOR THE USE OF OVERTIME

The reasons given by management for the use of overtime are analysed and presented in summarised form, in rank order, in Figure 6-7 'Reasons For The Use Of Overtime', (more detailed tabulations are set out in Section 7). The ranking system is based on the respondents' choice of major factors, using the secondary factors quotient as the tie breaker, rather than weighting the major and secondary factors together. This is acknowledged as somewhat arbitrary, although it was thought to be the most appropriate system available.

As stated previously, the reader should be cautious in interpreting the results of survey data where the respondent could be motivated to be defensive, rather than to give objective, in answering inculpatory questions. The results obtained support this assertion.

Plainly there is no simple answer to the question of why managers schedule overtime, although definite patterns do emerge from these results. The top three reasons, in rank order, are directly related to variability in demand and as such would be sound management reasons for scheduling overtime. The reasons were: i) unexpected demand; ii) emergency cover; iii) seasonal demand. These imply the efficient use of overtime and represent perhaps the more defensible 'flexibility' reasons. A number of alternative solutions exist for these particular demand problems and clearly overtime would be one of these. The review of these alternatives is not possible in depth within this research project, although alternatives are covered to some extent in Section 6.7 and the case study analysis section of this thesis.

Organisations were encouraged to offer a variety of reasons for their use of overtime and the majority of organisations which claimed the 'flexibility' reasons also claimed 'normal demand' and other reasons which would imply the systematic use of overtime. There was a clear contradiction in this result and it was intended that this should be investigated this in the case study phase of the research.

It would be prudent at this stage to offer a definition of 'systematic' overtime. Section 3.3.7 outlines many of the various uses of the expression 'systematic overtime', and it was clear that a single definition would need to be very broad to cover all of these; even then some would denounce such a definition as inadequate. Nevertheless, and difficult as it may be, it would be

FIGURE 6.7

REASONS FOR THE USE OF OVERTIME (Frequency Table)
(Percentage response)

Rank	Reason	Major Factor	Secondary Factor	Not a Factor
1	Unexpected Demand	58.1	24.0	17.9
2	Emergency Cover	41.3	24.6	34.1
3	Seasonal Demand	36.5	31.5	32.0
4	Outlook Uncertain	36.5	27.5	36.0
5	Normal Demand	33.1	29.2	37.6
6	More Cost Effective	29.2	22.5	40.3
7	Skill Shortages	23.6	20.2	56.2
8	Regular Maintenance	17.4	21.9	60.7
9	Increase Utilisation	16.3	16.9	66.9
10	Custom and Practice	14.6	21.3	64.0
11	Shift Patterns	11.8	12.4	75.8
12	Absenteeism	11.2	33.7	55.1
13	Holiday Cover	10.6	52.5	36.9
14	Increase Low Pay	9.0	18.5	72.5
15	Labour Shortages	5.6	16.9	77.5

helpful to establish a definition, for the purposes of this thesis.

The term 'systematic' overtime is used to describe: overtime which could have been foreseen. This implies that management would have had the opportunity to establish plans to meet the particular need, other than by the use of overtime, had they so wished. Therefore, 'systematic' overtime is defined as '*predictable*' overtime. The time scale of predictability is, of course, central to this definition and this is taken to be that period which would have given professional management the opportunity to consider and plan for alternatives, if this was found to be appropriate. It is not suggested that this definition would be suitable for general application.

This definition does not imply that systematic overtime is necessarily bad practice, quite the contrary, it establishes that overtime is one of the alternative means of matching capacity to volume, (or service levels). One difficulty with this definition is the degree of certainty which is assumed in the ability to predict the future. This would render the definition somewhat ineffective for general use, but it covers the specific needs of this thesis. It is firmly believed that it would be possible to establish a formal definition, in both qualitative and quantitative terms, and this is one of the specific jobs which it is hoped can follow this research.

Those reasons which are listed below in the rank order they were indicated by respondents, constitute the overtly systematic overtime.

RANK ORDER	REASON
3	Seasonal Demand
4	Outlook Uncertain
5	Normal Demand
6	More Cost Effective
8	Regular Maintenance
9	Increase Utilisation
10	Custom and Practice
11	Shift Patterns
14	Increase Low Pay

In addition, some proportion or elements of those reasons ranked: 2, (Emergency Cover); 12 (Absenteeism) and 13 (Holiday Cover), could also fall within the systematic overtime classification. A high proportion of overtime, in the region of 75% on a weighted average basis, could therefore be classified as 'Systematic' in the colloquial sense of the term. It would, however, be incorrect to fix too high a reliance on this figure since it can not be rigorously tested from the results obtained.

Two surprising results which appeared to contradict previous research findings were 'Outlook Uncertainty' and 'Low Pay'. The former ranked unexpectedly high, at fourth out of fifteen; it was defined in the questionnaire as: 'long term demand uncertainty (ie overtime instead of hiring people)'; and represented a measure of perceived 'corporate flexibility'. While the 'Low Pay' factor ranked very low at 14th out of 15, whilst, plainly, there was a strong perception that overtime

and low pay were closely associated (ie. NBPI 1970; Blyton 1985; Sherman 1986).

6.4 FACTORS INHIBITING THE REDUCTION OF OVERTIME

Respondents were asked: 'what, if any, are the major factors inhibiting overtime reduction?' in their establishment. The analysis of the replies is set out, in summarised form, in Figure 6-8 'Reasons For Not Reducing Overtime', (more detailed tabulations are set out in Section 7). This question was the corollary to that of the reasons for overtime discussed above and was aimed essentially at discovering the key 'road blocks' to the reduction of overtime. The results showed that the primary factor inhibiting the reduction of overtime was the manager's perception that overtime helped to increase flexibility or to maintain productivity or service levels. In other words, the managers did not choose to reduce overtime in their establishments.

FIGURE 6-8

REASONS FOR NOT REDUCING OVERTIME (Frequency Table)
(Percentage response)

Rank	Reasons	Major Factor	Secondary Factor	Not a Factor
1	Impede productivity	58	11	31
2	Give undue exposure to long term uncertainty	22	18	60
3	Adversely affect low paid workers	14	15	70
4	Increase unit costs	10	25	65

A secondary inhibiting factor was found to be that of 'corporate flexibility' which was defined as the tendency for managers to avoid the commitment of hiring new staff or changing working patterns because, as one respondent asked rhetorically: 'Over the next months who knows what will happen to demand?'. Managers seem generally to prefer the apparently easy route of taking the day to day 'decision' to work overtime which, ironically, was perceived as having no long term commitment. The 'overtime tomorrow' decision generally would avoid the need for managers to conduct any formal analysis, case presentation and formal commitment to higher levels in the

organisation. Perhaps the most telling quote from a line manager was: 'we work overtime every Tuesday and Thursday night and Saturday mornings, and have done for many years in order to meet unexpected demand'.

The effects of overtime on low paid workers' earnings and on unit costs are, surprisingly, not indicated as significant inhibiting factors, although the 'cost effectiveness' of overtime ranked sixth out of fifteen in the analysis of reasons for its use. This would suggest that managers are using the 'cost-effectiveness' argument to support their overtime decisions, whilst not really believing this argument. The low ranking of the low pay factor, (70% said this was 'not a factor'), supported the similar finding on the reasons for overtime scheduling and contradicts the common wisdom.

6.5 THE MANAGEMENT AND CONTROL OF OVERTIME

The overtime decision process and the management and methods of control of that overtime which was worked, are set out, in summarised form, as Figure 6-9 'Overtime Management Systems'. Many of the findings of this section of the questionnaire, which it is stressed were volunteered by the managers themselves, were quite remarkable.

It is reasonable to assert that general management should operate within an overall strategy or direction. It was therefore interesting to find that only one third of establishments had a formal policy regarding the overall management of overtime, 12% relied on collective agreements and 54% did not formally hold any policy on overtime at the corporate level. Most managers, however, acknowledged the great importance of overtime with respect to issues such as financial performance, flexibility, industrial relations, quality of product or service, employee welfare and, indeed, external employment issues. This was particularly so in establishments where 'people' represented the key resource, as is the case throughout much of the U.K. economy.

In defence of this somewhat perjorative finding, 93 organisations, (29% of the response), employed fewer than 25 staff and this would have a significant bearing on this statistic. The size of establishment was positively correlated to the use of the management functions and this aspect is covered in Section 7.4.

Interestingly, in view of positions taken centrally, only one fifth of unions were perceived by respondents to have a national overtime policy and almost two thirds were said to have no policy at all. It is stressed, however, that the survey provided only hearsay evidence on this issue. Similarly, Hogan and Milton (1980) found, in Australia, that a majority of unions had no policies on overtime issues at the local level, even though overtime in Australia was of great importance both as an industrial relations and an employment issue.

Some 40% of overtime hours were supervised below the normal level or were entirely unsupervised. Overtime limits were set at less than nine hours per week in 10% of organisations and over 80% had no limits at all on the amount of overtime that an individual could work. 'Mandatory overtime', where the employee could not refuse to stay late, was prevalent in 15% of organisations. This was a surprisingly high level of use in view of the propensity for mandatory

FIGURE 6-9

OVERTIME MANAGEMENT SYSTEMS (Frequency Table) (Percentage response)

OVERTIME MANAGEMENT PHILOSOPHIES			
How is overtime controlled?			
Formal policy	Collective agreement	Custom & practice	No policy established
34.1	11.7	26.8	27.4
Do your unions have a formal overtime policy?			
National level	Local level	No policy	
20	21.8	58.2	
What is your supervision level during overtime hours?			
Above normal	Normal level	Below normal	Often Unsupervised
1.1	59.6	18.5	20.8

ARE THE FOLLOWING OVERTIME CONTROLS APPLIED?

Overtime limits (Hours per week allowed)					
Not used	1-2	3-4	5-6	7-8	9 or more
81.5	1.1	1.7	2.8	2.2	10.7
Mandatory overtime					
Not used	Used				
84.9	15.1				
Guaranteed overtime (Hours per week guaranteed)					
Not used	1-2	3-4	5-6	7-8	9 or more
94.4	1.1	1.1	2.2	0.6	0.6
Overtime budget					
Not used	Used				
74.2	25.8				

FIGURE 6-9 (Continued)

Exclusions on those paid for overtime (Applied by:)

Not used	Grade	Supervision	Salary
50.0	19.1	20.8	10.1

Where salary was used to exclude employees from overtime the following statistics were reported:

Range low	Range High	Mean	Mode
10,000	15,500	13,030	15,000

Overtime hours commitment scheme

Not used	Used
85.5	14.5

Overtime forward scheduling (Time frame planned ahead)

Not used	1 week	4 weeks	12 weeks
69.8	22.3	6.1	1.7

Overtime authorisation system (Mandatory authorisation level)

Not used	Supervisor	Manager	Director
30.2	19.6	38.5	11.7

Overtime allocation procedure (Allocation by:)

Not used	Volunteer	Supervisor or manager	Union rep
43.6	15.1	40.8	0.6

Forward notice given to employees to work overtime

Not used	Rarely used	Generally used	Always used
26.8	17.9	44.7	10.6

Periodic overtime embargoes

Not used	Used
80.9	19.1

Non-pay related overtime monitoring system (Frequency of reports)

Not used	Weekly	Monthly	Quarterly or longer
55.9	26.8	15.1	2.2

Overtime performance measurement (Type:)

Not used	Comparative production	Comparative quality	Production & quality
80.3	16.3	1.1	2.2

overtime to result in depressed productivity and poor industrial relations (Hollman 1980).

The financial control of overtime appeared to be rather lax, with only a quarter of responding organisations actually having an overtime budget. This is remarkable in view of the high cost and financial importance of overtime (discussed in Section 2). It was generally held that overtime premium should be a separate cost centre (Whiting 1985) and the premium element should be segregated as an overhead by the accounts department when subsequently analysing wages.

Half the respondent organisations applied exclusions on who was paid for overtime working. This goes some way to explain both why overtime was often supervised below the normal level and the tendency for non-manual employees to work unpaid overtime. Of these exclusions, 38% were based on grade, 42% on supervision level and 20% on salary. In the latter event, the average salary used was £13,000, a surprisingly low level. The IRRR (1978) found that salary cut-offs and ceilings for non-manual staff were common to both the private and public sectors.

A higher than expected number of organisations, 15%, used an 'overtime commitment scheme', (where employees undertook contractually to work a certain amount of overtime). Conversely, fewer organisations than expected, only 30%, formally planned ahead for overtime working and when this was planned, the time scale was short. This would tend to support either the 'operational flexibility' hypothesis or, alternatively, the 'poor management' hypothesis. This also suggested an anomaly in that systematic overtime appeared from this response to be used less frequently than the 'reasons' for overtime indicated would be the case. There was indubitably a problem with the definition of the concept of 'formal planning'.

About 30% of organisations remarkably, did not require any authorisation for overtime working and over 40% had no formal system for allocating overtime between workers. Only 25% of organisations did not give advanced notice of overtime to their workers and this statistic conflicted with the low number of organisations which claimed to plan ahead for overtime. Organisations can, in many circumstances, place a periodic embargo on all overtime and this can be a sound mechanism for controlling the systemisation of overtime and forcing a review of the overtime decision, although only 20% of establishments used this tool.

Records of overtime working, other than for payment purposes, were kept by 44% of organisations, but only 20% actually measured performance during overtime hours for comparison with performance during normal hours. When this measurement was taken it was almost invariably for the level of productivity rather than quality.

6.6 FINANCIAL FACTORS IN THE OVERTIME DECISION PROCESS

The survey methodology was severely limited in collecting detailed information regarding the complex and detailed financial implications of the overtime decision and the comparison between overtime and the available alternatives. The opinion of managers, however, carries a considerable degree of relevance and therefore, was sought. Figure 6-10 sets out the responses.

FIGURE 6-10

SELECTED FINANCIAL IMPLICATIONS OF OVERTIME WORKING
(Percentage response)

Respondents were asked whether the following factors make overtime a lower cost option than hiring employees							
Financial factors	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Generally Agree	Generally Disagree
Training and Induction costs	8.0	57.6	19.6	13.6	0.9	82	18
Fringe benefit costs (sick scheme, pensions, etc)	2.7	53.6	25.0	17.0	1.8	75	25
Employer's NIC	12.1	45.1	18.8	21.9	2.2	70	30
Lay-off costs or redundancy	3.2	41.4	29.3	23.9	2.3	62	38

Four 'costs' were proposed in the questionnaire and respondents felt them all to mitigate in favour of the use of overtime. 'Training and induction costs' were particularly felt to be important, with 82% of valid responses generally agreeing with the proposition. It was surprising that 25% of respondents generally disagreed that the costs of Employer's NIC favoured the use of overtime. Clearly the costs issue is an area which is best considered during the case study phase of the research.

6.7 ALTERNATIVES TO SCHEDULING OVERTIME

There are many alternatives to scheduling overtime, but managers are often not aware of the range of possibilities. The results to the questions relating to these alternatives are set out in Figure 6-11. Managers were suspected of being defensive in making responses, (Section 5.2 qv), and the responses to these questions provided clear evidence on this matter. Only 6.7%, (15 respondents), 'admitted' in the questionnaire to not being aware of the innovative Average Hours scheme and also the Annual Hours scheme. During the case studies, however, fewer than 10% of

FIGURE 6-11

IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING
(Percentage response)

Respondents were asked if their establishment had used the following alternatives to overtime working.				
Alternatives to overtime	No	Yes	May consider in future	I am not aware of the technique
Change of payment policy to increase productivity	67.6	18.0	12.2	2.3
Capital investment	55.2	38.6	4.0	2.2
Hired new staff	31.1	65.8	3.2	0
New or changed shift patterns (incl. twilight)	69.8	27.0	3.2	0
Part-time workers	52.0	42.6	5.4	0
Agency temps.	71.7	27.4	0.9	0
Temporary/fixed-term employment contracts	69.5	28.7	1.3	0.4
Sub-contractors	57.8	41.7	0.4	0
Outworkers or homeworkers	84.3	15.7	0	0
Staggered working hours	73.0	24.3	2.7	0
Preventative maintenance	70.9	24.9	0.9	3.3
Average hours scheme	88.8	3.6	0.9	6.7
Annual hours scheme	90.6	2.7	0	6.7
Flexible working schemes	69.1	23.8	4.9	2.2
Job splitting/sharing	89.7	5.4	3.1	1.8

managers were found to be aware of these schemes. This serves to highlight the defensive response and the care needed in using and interpreting general survey material in all research.

The alternatives which had been most used were hiring new staff, the use of part-time workers or subcontractors and capital investment. A more detailed analysis of this issue is given in Section 7 where the distributions are shown between the structural variables.

In interpreting the likely future use of alternatives it is important to consider the declared previous use for that alternative. For example, only 3.2% of respondents thought themselves likely to consider, in the future, hiring additional staff as an alternative to overtime working; the reason for this would appear to be that the majority, (66%), had *already* used this means and presumably may consider using it again in the future. Changes to payment policy stood out as the most likely new initiative to be pursued in the future. This was followed by the use of part-time workers, flexible working schemes and capital investment.

6.8 PERCEPTIONS OF OVERTIME-RELATED ISSUES

The use of individual respondent's perceptions of issues, some of which were controversial, demanded great caution. It would not be prudent to attempt to analyse the results of this question based on the distribution across the structural variables such as SIC grouping. There would be little inherent logic in such an analysis, since the perceptions 'belonged' to the respondent rather than the organisation.

Nevertheless, since it was these respondents who largely controlled the overtime used, their views and perceptions were a valid area of concern. It was interesting to note where these views supported the previous literature, and where they did not. 68% of respondents to the survey felt that new technology would reduce the need for overtime, as did 60% for capital investment. This supported the findings of Caulkin (1976) and Collons (1981) who both stated that technological progress and capital investment can remove the physical causes of overtime. Part of the fundamental rationale for this research, was that there would be significant change in the use of overtime in the coming years. This research was designed, in part, to provide the detailed information needed to enable such change to progress in an orderly and controlled manner (see Section 1.).

The full set of results are set out in Figure 6-12 and the reader may wish to sift these for items of particular interest. Three such findings of those respondents making a choice, are given here as an example:

- i) 70% believed that unions would 'resist the reduction of overtime';
- ii) 73% believed that 'systematic overtime should be eliminated';
- iii) 85% generally disagreed with the proposition that productivity was higher during overtime.

FIGURE 6.12

PERCEPTIONS OF OVERTIME RELATED ISSUES
(Percentage response)

PROPOSITION	Response (Percentage)					
	Generally Agree	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Employees are dependent on overtime pay	83	24.6	51.3	8.5	12.1	3.6
Unions would resist overtime reduction	70	13.3	41.4	21.2	19.2	4.9
Employees manipulate productivity to secure overtime	67	7.6	50.0	14.3	24.1	4.0
Supervisors overtime payments promote overtime	71	8.2	49.5	19.1	17.7	5.5
Productivity in overtime is higher than in normal time	15	1.3	10.3	23.7	55.4	9.4
Overtime reduces productivity in normal time	46	1.8	28.8	33.8	30.2	5.4
Overtime promotes or maintains unemployment	50	4.9	34.1	21.5	33.2	6.3
Overtime is beneficial to the U.K. economy	38	2.7	20.3	39.2	29.7	8.1
Capital investment would reduce future overtime levels	60	5.8	31.3	37.9	23.7	1.3
New technology would reduce future overtime levels	68	8.0	42.9	25.4	22.8	0.9
Increasing productivity would reduce future overtime levels	74	6.3	50.0	24.1	19.2	0.4
Overtime helps recruitment, retention and motivation	66	4.9	46.0	21.4	24.6	3.1
Overtime causes industrial relations problems	44	5.9	28.1	23.1	37.1	5.9
Systematic overtime should be eliminated	73	17.9	43.0	17.0	18.4	3.6

6.9 OVERTIME AND EMPLOYMENT

The value of opinion in analysing the employment effects of the use or reduction of overtime is somewhat un-certain, and care is needed in interpreting these results. However, the respondents were generally the decision makers within the organisations surveyed. Therefore, their perceptions should be to some extent indicative of their likely actions with regard to working time and employment decisions in the future.

The issue of the worksharing impact of overtime working was addressed in the survey and again care is needed in using general perception and opinion as a basis for analysis. The question was nevertheless put and the results which were obtained are given below:

QUESTION: In the event of worksharing, (ie. working hours reduction, increased holidays, etc.), what would be the effect on your overtime?

FIGURE 6-13

OVERTIME AND WORKSHARING

Response: OVERTIME WOULD... (Percentage response)

	Increase	Remain Stable	Decrease	Unsure
In the Respondent's opinion, overtime would:	44.8	18.2	14.5	22.4
Removing the unsure category, the valid percentage becomes:	57.8	23.4	18.8	

58% of respondents predicted that overtime would increase. Section 6.8 shows that 73% of respondents thought that 'systematic overtime should be eliminated'. Paradoxically, any increase in overtime, as a result of worksharing measures, would be essentially systematic. The expectations of managers on matters such as these are central to the likely outcomes. It was these managers, after all, who would largely determine those outcomes. The so called overtime 'leeching-effect' has been predicated and discussed in the literature (see Section 3.4.4) and on the evidence of this survey it remains a significant factor. The definition of 'overtime leeching' was given as: 'the proclivity for a reduction of basic hours to result in a smaller decrease in total hours due to a compensating increase in overtime'.

The worksharing question elicited the highest number of nil responses, in fact 60 respondents did not offer an answer, representing 26.7% of the returns. This was thought to be largely due to the fact that 20% of respondent organisations worked no overtime which rendered this particular question somewhat inapplicable to them.

As the final survey question, the respondent was asked to choose between a range of responses to the following proposition:

PROPOSITION: Overtime reduction on our establishment would result in increased employment opportunities... (e.g., more full or part-time jobs, temporary workers, new shifts, etc.).

FIGURE 6-14

OVERTIME AND EMPLOYMENT

RESPONSE	(Percentage response)				
	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
Respondent's opinion:	5.1	25.6	19.5	39.5	10.2
Summary of the Respondent's view after removing the 'unsure' responses		General Agreement		Disagreement	
		38.2%		61.8%	

There were 10 declined responses representing 4% of the returns. These nil responses were removed from the analysis in order to give a valid response. Again, there was little hope offered by this survey that managers believe there was any value in the use of overtime reduction as job creation measure. In fact, this response may have been subtly influenced by the 'defensive' stance which managers appear to adopt when faced with matters which could call into question their use of overtime. Managers with a social conscience would plainly not admit too freely that their policies and possible 'shortcuts' were adding to the unemployment problem. This matter can not be conclusively dealt with by the survey methodology; the case study phase should shed more light on the true mechanisms which were operating.

7 ANALYSIS OF RESULTS BY KEY STRUCTURAL VARIABLES

7.1 CROSSTABULATION STATISTICS INTRODUCTION

As with the previous section, the evidence below is presented in a rationally structured manner, to meet the database objectives. This evidence is subsequently gathered together, with the other evidence, under each specific issue, in Section 9 'Further Analyses'.

This section of the analysis draws upon only a small proportion of the many possible crosstabulations of the 150 variables. The intention is to illustrate some of the relationships, differences or lack of differences which have been discovered or investigated. These statistics are presented in the Appendices and a selection of the tabulated findings are referred to in the relevant text. All variables were considered by reference to a predetermined set of independent variables. These are referred to as the 'structural variables' and represent the factors used for the survey sample segmentation control. The lack of differences and associations, as well as the existence of these, can aid the understanding of a phenomenon or issue and these are therefore occasionally highlighted in the analysis.

Appendix 7-1 gives, for illustration, a sample of a single crosstabulation table showing establishment location, re-coded by North - South, as the independent variable and the number of non-manual employees as the dependent variable. This example is intended to be illustrative of the range of statistics calculated for each of the separate crosstabulation values. Furthermore, it demonstrated an important structural variable which affects the analysis of working time across the whole economy.

A highly significant ($p < 0.01$) difference was found between the number of non-manual employees in those regions defined 'North' from those defined 'South', with the South employing more non-manual staff as a proportion of the work force. This finding supported the published statistics regarding the regional structure of employment (NES 1989; Employment Gazette 1989). The NES (1988) indicated that the average non-manual employee worked only one quarter of the average manual worker's paid overtime. Thus there was an important structural difference in employment between the North and South. This qualification was given further weight by the highly significant ($p < 0.01$) difference in level of normal hours worked between regions (see Appendix 7-2). This was again structurally based (NES 1988), in that non-manual staff tend to work longer hours in the South, (no significant regional differences were found in hours of work for manual employees).

7.2. LOCATION RE-CODED NORTH - SOUTH

The definition of the re-coded classes North and South is given in Figure 6-1. It is important to bring into context the now common assertion of a 'North - South divide'. The Conservative government, in the 1980s, rejected the Keynesian approach of a regional policy, of subsidies and strict planning constraints (in favour of the 'North'), and took the market based approach;

notwithstanding the problem that the 'market' was structurally imperfect, particularly the labour market (Smith 1989). Those regions defined South represented 38% of the land area, but account for 58% of the population and more than 62% of GDP. Estimates by Cambridge Econometrics indicated that, during the period 1979-88, economic growth rates in the South were well above those in the North (Smith 1989); viz:

FIGURE 7-1
REGIONAL GROWTH RATES

Growth Rate 1979-88	(%)
South East (including Greater London)	23.3
East Anglia	44.5
South West	29.9
East Midlands	25.5
West Midlands	17.9
Yorkshire & Humberside	20.0
North	16.3
North West	12.4
Wales	15.9
Scotland	17.5
Northern Ireland	17.6

Surveys have consistently shown the South to have the fastest growing and most prosperous towns in the U.K. (Smith 1989). The population was still moving, on balance, from the North, to the service-dominated economy of the South. The labour market had tightened to 1989, the middle phase of this research, and unemployment had fallen faster in the South than in the North. It was claimed that the key structural regional imbalances include: skilled labour shortages; restrictive practices and labour immobility (Smith 1989).

There was, of course, an alternative argument which supported the monetarist approach to macro-economic management. In such an analysis, regional imbalances were accepted as the price of a more dynamic, responsive economy. In addition, the uneven distribution of income and rewards was thought to promote enterprise and initiative. The unemployment black-spots of the 'North' were said to have enjoyed good growth over the last decade and were certainly better off than they had been previously (Smith 1989), even though the 'gap' had become relatively wider.

A sample of the crosstabulation results, by regional location, is set out in Appendix 7-2. A 'North - South divide' clearly emerged from this analysis, with the bias tending towards greater prosperity in the South. For example, employee numbers were predicted to grow at a faster rate in the South and labour turnover was much higher, (indicating greater mobility, confidence and opportunity in the labour market). In further support of the bias towards greater Southern prosperity, shortages of both skilled (significance $p=0.02$) and unskilled labour (significance $p=0.07$) were more frequently indicated in the South as reasons for overtime working. Moreover,

long-term demand uncertainty, 'outlook uncertain' (significance $p=0.03$) was much less significant in the South.

The South had apparently greater manpower demands and difficulties, viz. greater levels of: labour turnover, higher future demand for staff and skill and labour shortages. Yet, paradoxically, less use was made in the South of formal manpower planning techniques. This may tend to increase dependency on overtime working as the proverbial 'permanent stop-gap measure'; rather than the sound and well thought-out management of capacity and demand.

There was no discernible difference between the North and South in the unionisation of non-manual staff. However, the North appeared to be more unionised than the South for manual workers, although this difference was not significant ($p=0.33$). There was no regional difference in the trend towards increasing or decreasing unionisation, for either manual or non-manual staff. Interestingly, there was also little regional difference reported in employee attitudes to overtime working with employee demand in the South reported at 28% as opposed to 23% for the North, (not significant, $p=0.68$). As was explained in Section 6.2.4, this was hearsay evidence and the case studies should be used to give a more powerful analysis of employee attitude. The weak but discernible difference was similar to that found for 'low pay protection', with the South tending towards a more significant low pay syndrome. This would tend to support the difference found in employee attitude, and the greater proportion of low paid, service based female employment.

There was a greater tendency to work 'no overtime' in the North, (24% North, 11% South; significance $p=0.02$), yet manual workers, who tended to work overtime more often, formed a greater proportion of the work force in the 'North' (NES 1988). This result was therefore extremely significant and challenged the common perception of overtime as a function of the Northern 'flat cap' culture.

There were no significant regional differences, where overtime was worked, in the amount of overtime per employee, the pro-rata premiums paid to non-manuals or manual workers and the various times of the week when overtime was worked. The examples given in Appendix 7-2 were typical of the whole range of results on patterns of overtime work and remuneration. There was however a clear and consistent, if somewhat weak difference between premiums paid in the North and those paid in the South the latter being generally greater. This would support the 'demand-pull' theory which associates the increased use of overtime with employee demand created by higher premiums.

The regional differences of reasons for the use of overtime were only significant for 'skill shortages' and 'outlook uncertainty' which are discussed above, and 'regular maintenance' which was less likely to be a reason for overtime working in the South (significance $p=0.02$), reflecting the structural difference in the type of industry. To a lesser extent, the 'reason' differences of 'unskilled labour shortage' (significance $p=0.07$) and 'emergency cover' (significance $p=0.10$), were biased towards the South. There were no other significant differences in the reasons given for the use of overtime working.

There were few notable regional differences in the specific control techniques adopted for overtime. It was again telling that, on the issues of for management overall policy, perceived

union policy and level of supervision, the South fell well short of the standards achieved in the North. This may help to explain the greater use made of overtime in organisations in the South, in spite of their tendency to be biased towards the 'lower-overtime' service industries compared to their Northern counterparts.

On the question of keeping records of overtime working, other than for payment purposes, the North, with 48% of organisations maintaining records, were again higher achievers than the South, with only 38%. This lack of fundamental information at plant management level was also found, in a general sense, by White (1980), who discovered that the greater proportion of managers did not keep records of the amount and frequency of overtime worked by their staff. These managers had therefore to rely on their perceptions and judgement alone, in making overtime decisions (White 1980).

Organisations in the South could plainly be seen to work more overtime and, where differences in controls existed, fewer formal management controls were used in the South. This seemed, at face value, to deny the hypothesis that 'overtime is not associated with poor management'. However, one might intuitively feel the structural influence of the size of organisation, sector type and sex of worker and working hours, were in reality more important variables than that of 'regional location' in this respect.

There were no significant regional differences concerning the factors inhibiting the reduction of overtime. However, although not statistically significant, it was fascinating to note that longer term uncertainty was less significant as an inhibitor of overtime reduction in the South and it was comforting to note that this supported the finding reported earlier in this section, that 'outlook uncertainty' was less-often given in the South as a reason for overtime working. It was also interesting to note that, in the South, more significance was placed on the protection of those on low pay, than in the North, although this was not statistically significant ($p=0.47$).

7.3 INDUSTRIAL SECTOR RE-CODED SERVICE - NON-SERVICE

The definition of the re-coded industrial sectors as service and non-service is set out in Figure 6-1. A sample of the crosstabulation results is set out in Appendix 7-3 and a few examples of these findings are discussed below. The service sector made less use of manpower planning (significance $p<0.01$). Ironically, the service sector, exhibited more positive employment trends, both over the past 5 years and anticipated for the future. Normal hours in the service industry tended to be lower than those in the non-service sector, particularly for manual workers, reflecting in part the structural differences of greater proportion of female and part-time workers. There was no difference in reported employee attitudes to overtime working, with only 7% in both sectors, likely to resist the opportunity to work longer hours.

In the non-service industries only 9% of employees worked 'no overtime' at all, while 30% of employees worked more than ten hours per week. In the service sector the equivalent figures were 30% working 'no overtime' and only 16% working more than ten hours, these differences being highly significant ($p<0.01$). Likewise, there were significant differences in overtime

premiums with a tendency for higher rates to be paid in the service sector to both manual and non-manual employees, at all times of the working week. The examples given in Appendix 7-3 are typical of the range of results covering premiums, with the exception of manual overtime premium rates for Saturday afternoon, Sunday and holidays, which were lower in the service sector which was a function of its employment structure. These results superficially support Ehrenberg and Schumann's findings (1982) that penalty, (*viz.* high), premium rates reduce overtime levels, (ie. the employee 'demand pull' theory), but this should not be taken as sound evidence in view of the structural differences between sectors. For instance, there were more female and part-time workers in the service sector (White 1984) and these important independent variables clearly had a great influence.

Another key difference was the anticipated effect of worksharing measures, (such as the introduction of a shorter working week or longer holidays); which appeared to be highly sector dependent. Some 66% of non-service establishments believed that overtime would increase in the event of worksharing, against only 47% of those establishments in the service sector (significance $p < 0.01$). This was further evidence that overtime was to a large extent a function of culture and tradition, tending to become institutionalised and accepted custom and practice.

The sectoral differences in reasons claimed for overtime working were very significant. The non-service sector more frequently cited: skill shortages; unskilled labour shortages; long term outlook uncertainty; maintenance; cost effectiveness; increased utilisation and emergency cover. There was, however, no sectoral difference in the use of overtime to meet normal demand or to increase low basic pay to acceptable levels. In part support of this, low pay protection was given equal weighting by the sectors as a factor inhibiting the potential reduction of overtime. In comparison, the service sector was significantly ($p = 0.01$) less inhibited in the reduction of overtime by factors such as 'impeding productivity or service levels' and 'increased costs'.

There were few significant differences in the management and control of overtime but those differences which were apparent all pointed towards a less formal and less structured approach to overtime management in service industries. The only exception was the use of guaranteed overtime, which was used by 10% of service and only 3% of non-service establishments and while being superficially a 'management tool' is in many circumstances, highly questionable in application.

7.4 SIZE OF ESTABLISHMENT RE-CODED BY NUMBER OF EMPLOYEES

Size of establishment was defined, (Figure 6-1 *qv*), by total number of employees and a sample of the crosstabulation result is set out in Appendix 7-4. The review of the existence and extent of differences, as a function of size, was necessary in order to develop a comprehensive understanding of overtime practices. Not surprisingly there were very important significant differences such as with smaller organisations which were predictably found to be less unionised and made less use of manpower plans. Employment trends show that larger organisations anticipated a lower increase in employment in the future. The analysis confirmed the common perception that absenteeism was significantly ($p < 0.01$) lower in smaller organisations where

working hours were significantly ($p < 0.01$) longer. Analysis of the anticipated effect of worksharing measures showed that it was perceived that it would cause overtime to increase more in medium sized establishments of 20 to 200 staff, than in either small or large organisations. There was no 'size' effect in employee attitudes to overtime working.

The amount of overtime worked was associated with the size of organisation with smaller organisations more often working 'no overtime' and, when overtime was worked, medium sized establishments worked longer hours on average than either large or small organisations. The results clearly illustrated that the larger the organisation, the greater the overtime premium for all patterns of overtime working and for both manual and non-manual staff.

There was a possibility, albeit at a low level, of interplay on this statistic from other variables in that both the level of unionisation and non-service sector establishments tended also to be positively correlated to size. It was fascinating to note that this phenomenon has been found in other countries, including Japan where the minimum overtime premium was set by statute at 25%, this was exceeded in 38.5% of large establishments compared with only 16.2% of medium sized and 6.2% of small establishments. There appeared, however, to be no significant differences in overtime working patterns and the examples set out in Appendix 7-4 were typical of the whole range of results for both premiums and working patterns.

Significant differences were found in the reasons given by management for overtime working. For example, regular maintenance, shift patterns and plant utilisation were, predictably, all cited progressively more as the size of establishment increased. Interestingly, large organisations made significantly ($p = 0.01$) more use of overtime for normal demand which was a function clearly associated with the systematic and inefficient use of overtime. Large establishments also made more use of overtime to increase low basic pay to acceptable levels. Small organisations, which were shown to enjoy lower absenteeism levels, naturally made less use of overtime for that purpose.

A number of predictable and highly significant differences in the management and control of overtime working were reported with smaller organisations making less use of budgets, overtime embargoes, exclusions on who was paid for overtime and the forward scheduling, authorisation and monitoring of overtime. Medium sized organisations made the greatest use of Mandatory overtime. The adoption of an overall management control policy for overtime, and the level of supervision during overtime were, intriguingly, no greater in large than in small organisations and medium sized establishments appeared to be less formal in both these respects.

7.5 AMOUNT OF OVERTIME WORKED RE-CODED BY HOURS PER WEEK PER EMPLOYEE

The average number of hours overtime per week per employee was analysed and a sample of the crosstabulation results is set out in Appendix 7-5. The lack of manpower plans was significantly ($p = 0.01$) linked to longer overtime hours. Unexpectedly, rising current demand did not significantly correlate with higher overtime and this reflected the extent to which overtime was

systematic within the economy. Increasing employee numbers in the past (significance $p < 0.01$) was positively correlated with longer overtime hours, as might be expected. Ironically, unionisation appeared to be linked to longer hours of overtime which highlighted the TUC's overtime dichotomy of 'central resistance but local demand' and showed that local demand appeared still to be winning.

The results of the worksharing questions were remarkable in that the longer the overtime hours the greater was the anticipated tendency for any cut in normal hours to result in yet further increases in overtime. This was the so called 'leeching effect' where the reduction of normal hours causes overtime to rise (see Section 3.4.4). This finding indicated that overtime was largely systematic and tended to become embedded in culture and tradition. Intriguingly, the tendency for lower normal hours to be positively associated with lower overtime levels was highly significant for both manual and non-manual staff. This can not be taken as denying the Leeching effect since it was likely that organisations which made the more discriminating use of overtime were also those which were more progressive and therefore enjoyed better conditions of work and, it seems rational, higher hourly productivity rates. It could well be that the relationship was dichotomous and further research is necessary to establish this.

There were few differences found between the size of the overtime premium and amount of overtime worked. There was, however, a significant, rational and predictable relationship between overtime working patterns and the amount of overtime. For instance, longer overtime hours correlated positively with the consistent use of specific times for overtime working, eg. Saturday mornings. No particular relationships were found between longer overtime hours and the reasons for overtime, the exceptions being: low pay protection and temporary or seasonal demand, which were positively correlated.

An important finding was that the use of overtime to meet normal demand, and the closely associated use of overtime as a more cost effective means of meeting normal demand, were both positively correlated with overtime hours. This further highlighted the systemisation of overtime and indicated rejection of the hypothesis that 'overtime promotes operational flexibility'.

The crosstabulation results for the management of overtime broadly indicated that the use of controls such as budgets, embargoes, exclusions, forward scheduling and authorisation systems, correlate negatively with high overtime levels. This finding tended to support intuitive logic and clearly indicated that overtime was indeed associated with poor management. On the other hand, controls such as mandatory overtime (significance $p = 0.13$) and overtime commitment schemes (significance $p = 0.22$) were positively correlated to overtime levels, again as expected, even though in these cases the correlation was rather weak.

Surprisingly, however, the results showed that where limits on overtime levels were adopted, there was a clear tendency for overtime levels to be higher. This suggested that the management 'control' either tended to be used more where overtime was already very high, or that the 'limits' acted as surrogate targets with tacit or implied authorisation. If the latter was found to be the case by ethnographic based research, this would add weight to the thesis that overtime is in such instances both systematic and associated with ineffective management.

8 CASE STUDY FINDINGS

8.1 INTRODUCTION

The overall 'Schedule of Case Studies' is set out in Appendix 8-1. Eleven service sector organisations were studied in depth, covering 26 separate establishments, employing 9,550 staff. During the course of these studies, 261 interviews were conducted, covering all levels of management, all sub-categories of employee and employees' local representatives.

A brief summary report for each of the case studies follows in this section. The reader will become aware that there is a need to compare these cases and to seek explanations for the phenomena and contrasts which were discovered. Such interpretation and comparative analysis is embodied in Section 9.2, this section presents the summarised findings for each individual case.

The reader will also note that these are summary reports, a sample of more detailed case study reports are given as Appendices 8.2, 8.3 and 8.4. The reader is urged to explore these fuller reports which give a clearer understanding of the extent and detailed methodology of the case studies. These appendices sample each of the major economic sectors which were reviewed, representing: 8-2 Case 1, Police Forces; 8-3 Case 5, Wholesale and Retail Distribution and 8-4 Case 10, Public Sector.

The case study phase of the research was designed to assist in testing the research hypotheses and to uncover the more detailed information which could not be obtained from the general survey. These cases were selected to be representative of a range of applications of overtime, from its legitimate and efficient use, to its unnecessary and ineffective use.

The general research objectives, given in Section 4.1, were interpreted as requiring, of the case study phase the following investigation: ✓

- i) The discovery of detailed information regarding the use of overtime within certain industries;
- ii) The investigation of the management of overtime;
- iii) A review of the implications of overtime for the employer and employee.

The specific research questions and hypotheses are listed in Sections 4.2 and 4.3 respectively and therefore are not repeated here. It must be stressed that each case offered evidence on a range of the questions and hypotheses, but did not necessarily cover all of these. The reports outline the essence of the case and include a listing of the key points which related directly to the research questions and hypotheses. This account of 'Points Arising' conforms to a standardised structure for ease of cross-reference, and this is outlined below:

CASE STUDY POINTS ARISING: STANDARD STRUCTURE

- A** The general strategy towards overtime;
- B** The consequences of the strategy on:
 - 1 Corporate objectives;
 - 2 Employment;
- C** The management of overtime, particularly the:
 - 1 Overtime decision,
 - 2 Overtime procedural and administrative control systems in use,
 - 3 Pragmatic work-place supervision of overtime,
 - 4 Management understanding of the 'real' processes involved;
 - 5 Consideration and implementation of alternatives to overtime;
- D** The extent of systematic overtime;
- E** The actual and perceived reasons for the use of overtime;
- F** The effect of overtime on:
 - 1 Operational Flexibility;
 - 2 Corporate Flexibility;
- G** Attitudes towards overtime:
 - 1 Management;
 - 2 Employees;
- H** The levels of overtime premia and non-wage labour costs;
- I** The cost effectiveness of overtime;
- J** Peripheral matters:
 - 1 TOIL;
 - 2 Unpaid overtime;
 - 3 Overtime pay for supervisors;
 - 4 Employee manipulation of overtime;
 - 5 The relationship between overtime and absenteeism;
 - 6 Overtime payments to supervisors;
 - 7 Positions taken by local employee representatives;
 - 8 Employee welfare;
 - 9 The extent of low-paid worker 'dependency' on overtime earnings.

The data was gathered by means of semi-structured interviews with representatives of all levels of management and supervision, workers and official employee representatives, where this was possible. A common structure of questioning was used for all cases and types of interviewee. However, significant differences developed depending on the particular areas of interest which presented as the circumstances were unravelled. In addition, the time spent at each particular establishment, and the extent to which the researcher became ethnographically involved in the processes under investigation, varied according to potential value of the information which was forthcoming. In the event, the case studies proved a necessary and valuable step in establishing the evidence and information needed to satisfy the research objectives.

8.2 CASE STUDY SUMMARY REPORTS

8.2.1 Police Force A CASE NUMBER 1

Type of Organisation	Police Force A
Location	South-East/Midlands
Number of Employees	1060 Police and 490 Civilians
Sector	Public Administration, Police Service (SIC 1980, 913)

HEADLINE:

An English Non-Metropolitan Police Force, which had reduced overtime by more than 50%, essentially by the management decision to cut the overtime budget.

SUMMARY

This summary does not give all the detailed evidence supporting the 'Points Arising'. The reader is referred to the full account of this case which is included in this thesis as Appendix 8-2.

In essence, this case illustrates that the primary requirement for overtime reduction, can simply be the senior management determination to achieve the reduction. Overtime in the Police Force is in some ways not relevant to overtime in other sectors, although there were a number of general lessons to be obtained from the police case studies.

This and the other Police Force studies were focused on serving Police Officers rather than civilians who worked very little overtime. Force A had cut overtime from a level around 17% of basic salaries and NI in the early 1980s, to 7% last year. The overtime budget had been cut by 26.5% in real terms over the previous three years. Detection rates had improved over the same period but there was no evidence to link corporate objective achievement with levels of overtime.

The cut in overtime was achieved through a specific management initiative, promulgated by the Chief Constable, with the objective of providing funds to employ more officers. There was no clear evidence of any fundamental link between overtime hours and additional employment. Some officers believed that overtime should increase pro-rata with any manpower increases. It was argued that demand so outstripped the potential supply of man hours, and operational needs were so great, that each new officer would effectively bring with him his own overtime 'quota'. However, the Chief Constable did not entirely subscribe to this analysis and was continuing a policy of moving funds from the overtime budget in order to recruit more officers.

The mechanism used to cut overtime was simply the decision to cut the overtime budget and to control overtime tightly to that budget. No other substantive changes, (ie. working methods,

training, working time structures, payment systems, etc.), were made to facilitate the overtime reduction. Of course, the organisational means of communicating clearly this corporate intention, and the ability to measure and control the overtime at operational level, were well developed and greatly assisted the Chief Constable in his achievement of corporate intention.

Middle management and the officers made efforts to resist the reduction of overtime, but had been unsuccessful in the face of senior management determination. All officers accepted overtime as part of their job. About two thirds of Police Officers would have liked more overtime to be available, the motivations for this being the extra pay and increased job satisfaction. Indeed, there were strong moves from officers and lower levels of management, for increased overtime opportunities. These were reported in the local press some time after the case study was completed. Many officers, however, found that their performance was denigrated by excessive hours and this matter is covered more fully in Appendix 8-2. Excessive sickness had become a problem and this was associated with increasing stress in the job and the unsocial hours, and was exacerbated by overtime working.

There was little general direct involvement in the use of overtime from the Police Federation, (in effect, the Police 'trade union'). There was, however, a major exception to this *laissez-faire* attitude, the Superintendent's Association', (in effect, middle management), had attempted to resist any further reduction of overtime, principally by bringing formal pressure on the Chief Constable with respect to the policy on future overtime budgets.

POINTS ARISING FROM THIS CASE

- A The corporate strategy of a clear, well communicated and determined decision to cut overtime, and to maintain pressure on budgets to hold overtime at the lower level was remarkably successful in this particular Force.
- B There was no evidence, either from the Force-level statistics, or at the level of the individual officer, that the recent reductions of overtime had in any way impeded the effectiveness of the organisation.

As regards employment, there was no evidence of any fundamental link between overtime hours and staffing levels. Indeed, irrespective of the theoretical arguments, the clear pragmatic effect of the policy to reduce overtime was increased employment. Paid overtime in Force A, after the recent reductions, was equivalent to 112 full time officers. Managers tended to consider paid overtime as the total overtime. However, total overtime was 43% higher than the paid overtime due to TOIL and unpaid overtime.

The 'overtime decision' at the corporate level was carefully and professionally considered. However, at the operational level, there was little understanding or consideration of the cost and consequences of overtime working, it was seen simply as a 'convenient tool'. Sound and properly applied management systems were established for the control of that overtime which was worked. Without those controls it would clearly have been more difficult to reduce overtime and to maintain the lower overtime levels.

There was considerable evidence regarding the quality and application of overtime management at the middle and lower levels. For example, the tendency for managers to mis-perceive the real reasons overtime was being used; the 'use all we can get' philosophy of middle management; an inability to schedule ahead sufficiently to cover anticipated events; the fact that overtime tended to be budget, rather than operationally driven, etc. Indeed, with anything other than the most resolute corporate belief and direction, overtime would not have been cut and the additional jobs would not have been created.

A number of alternatives to overtime working had been considered at corporate level. However, there was no fundamentally rigorous equation for the exchange of overtime hours with additional bought-in hours, in the particular circumstances of the Police Force.

- D About 75% of the overtime was systematic, in that it was predictable and often pre-planned and avoidable by various means, although the cost-effectiveness of the alternatives could not be estimated from this case study.
- E Overtime was largely used to deal with work which could be anticipated and controlled within normal hours, given professional scheduling and control of the workload and a more appropriate shift system; (it should be noted that the shift system was essentially a function of home office controlled Police Regulations and not in the control of local management).
- F About 25% of the overtime was used to give operational flexibility. The major proportion of overtime, however, did not enhance operational flexibility, or the flexibility could have been achieved in more appropriate ways. Overtime had no impact on corporate flexibility in the context intended in hypothesis H7.
- G Lower and middle management resisted reductions in overtime levels and changes in practices such as the recent more rigorous formal control procedures. It was difficult to generalise about officer (worker) attitudes to overtime. About 60% wanted more, 20% were happy with the current levels and 20% resisted overtime. These attitudes followed the commonly perceived norms of younger male officers, with family responsibilities, tending to actively seek more overtime; while older and female officers tended to avoid overtime. However, there were a wide number of exceptions to this rule. For instance, a middle aged CID officer, sought very long hours, exclusively because he had no preferred use of his time; and an older, senior ranking officer, who 'put in the hours' because he believed this would enable him to 'do a better job'.
- H Overtime was more cost effective than increasing police strength. The balance between the fundamental variables was: 52% average premium cost of overtime hours; 66% non-wage labour cost of hiring new staff. The high NWLCs resulted from a pension of 30% and substantial rent allowances.
- I Overtime often caused a fall in the effectiveness of individual officers, although this was not generally recognised by management.

- J TOIL accounted for about 25 % of overtime, equivalent to 28 full time jobs in the Force. TOIL was often used by officers as a means of avoiding capture by the 'excessive paid overtime' control system. Women officers and older officers had a greater tendency to use TOIL, without the ulterior motive described above. A significant amount of unpaid overtime was worked, generally by higher ranking officers, but also by a small number of dedicated lower ranking officers, particularly in CID. Police Officers were able to, and on occasions did, 'create' overtime.

Overtime was claimed by individual officers to be a cause of casual absenteeism. However, the statistics showed absenteeism to have increased as overtime had declined. There was no set pattern at the individual level, with some high overtime workers exhibiting low absenteeism while others exhibit high absenteeism. Overtime working, along with the unsocial shift system, adversely affected the quality of life for Police Officers, in some instances, to a very significant degree. Welfare was an area of increasing concern in all Police Forces and it was clear that the quality of service offered was adversely affected by the use of excessive hours. The greater the notice given to the officer to work overtime, the less disruptive the impact of that overtime was on the officer's private life.

Local Federation officials had not given any lead on the use of overtime, nor had the local officials received any guidance from their central organisation. The Superintendents' Association were actively resisting any further reduction of overtime. Pay levels were excellent. It was clear that only a very few, generally younger male officers with family responsibilities, relied on their overtime earnings for their fixed financial commitments, and this was usually a transitory phase.

8.2.2 Police Force B CASE NUMBER 2

Type of Organisation	Police Force B
Location	North
Number of Employees	2300 Police Officers, 750 Civilian Staff
Sector	Public Administration, Police Service (SIC 1980, 913)

HEADLINE:

An English Non-Metropolitan Police Force, exercising excellent and innovative control of overtime for the benefit of both the organisation and the individual officer. An example of the association between controlled overtime and sound management practice.

SUMMARY

Great pride was taken by this Force in the standards of management generally, and not least in their pro-active management of overtime. It was felt at the corporate level and, to a lesser degree, throughout the organisation, that tight control of overtime levels, within a specific policy of containment, helped both the individual officer and the Force. These attitudes were found to be justified.

Civilian overtime was very low, accounting for only £130 per employee per year, therefore this study concentrated on police overtime. As in all Forces, manpower represented the greatest element of costs, standing at 83.4% of total Force B costs. The 'official' Force policy was that overtime should be used for operational policing only.

In the early 1980s the systematic use of overtime, for conferences and paperwork, was stopped as part of the governing County Council policy to reduce overtime and create more jobs. In addition, there was a move towards the tighter control of overtime through the initiative of a particular individual who joined the Force in 1983 and found overtime to be then 'out of control'. Overtime had since been reduced to below half the levels which existed in the early 1980s. This had been achieved by the establishment of firm and clear corporate leadership supported by a specific policy of moving money from the overtime budget to fund increased manpower, and introducing new controls for remaining overtime. Overtime during the study represented 4.3%, (Non-metropolitan average 7.7%), of basic salaries (CIPFA Estimates 1989).

There was no evidence that either the effectiveness of the Force had been adversely affected by the cut in overtime, or the Force achieved at a lower rate of 'success' than the Non-Metropolitan 'average'. Overall, 37.8% of offences were detected in 1988, an improvement on the Force's achievement over recent years and reflecting a similar pattern of achievement in other Forces. Force B had for many years 'represented' a relatively high crime area, exhibiting known serious crime about two thirds higher than the Non-Metropolitan average.

Overtime was classified within this Force by 'reason', with so called 'pots' of overtime provision maintained separately. These 'pots' comprised:

- i) Special services (eg. football, for which the 'client' may pay directly);
- ii) ACC's (Assistant Chief Constable's) major incidents account;
- iii) Bank holidays;
- iv) Court duties;
- v) General operational overtime (including absenteeism cover).

General operational overtime accounted for about 45% of total overtime, while the ACC's pot accounted for about 25%. The amount of overtime in the bank holiday pot depended on the number of bank holidays in the financial year, which could vary from 8 to 12, depending on the date of Easter. When the ACC's overtime budget was likely to be under-spent, a policy decision was taken to switch funds between budgets before the year end, in order to fund special initiatives.

Notwithstanding the above analysis, about a third of the Force's overtime was systematic, in that it was 'predictable'. Although this did not mean that the overtime was ineffective, on the contrary, the use of overtime to cover predictable events, particularly in the Police Force circumstances, could reflect sound management of resources. For instance, the use of overtime to staff bank holidays, special services and court duties could all be classified as avoidable to a degree.

Overtime was allocated to divisions from the general operational 'pot' on a manpower-based formula. Within this formula, CID were allocated four times the pro-rata level of uniformed officers' overtime. There were moves to consider more sophisticated ways to allocate operational overtime. For instance, based on specific crime rates, rather than simply on manpower, where each officer attracted his 'quota' of overtime, irrespective of need.

According to a number of senior officers, Police Regulations, which control working hours in all forces and were established by the Home Office, were too restrictive and enforced a great deal of systematic overtime. They prevented systems being developed which would enable 'planned policing' to deliver the manpower at times of peak demand in normal working hours. Officers stated that Regulations were often 'interpreted' in order to achieve better policing.

Management systems for the control of overtime were relatively advanced and were rigorously and professionally implemented. Prior authorisation needed to be obtained in all but the most exceptional circumstances. Allocation was strictly by volunteer or rota depending on the circumstances and mandatory overtime was quite rare. Budgets were strictly applied, right down to sub-divisional, Duty Inspector level, and, most unusually, were based on an assessment of the operational needs for the coming year, rather than on a negotiation based on the previous years levels. All officers had to complete an overtime claim form which recorded in some detail the circumstances and reasons for the overtime. These forms were analysed using a spread sheet programme and were actively used for control purposes.

A senior officer told of 'howls of anguish' from line management officers when these new levels of accountability and control were introduced, he went on to say: 'but they have done a good job in bringing overtime down, reducing the abuses, making overtime more effective and saving officers 'from themselves' and 'for their families'. These systems were now fully accepted and worked well. The report on overtime consumption was originally a financial report but was developing into a more useful management report, giving details of the reasons and circumstances of the overtime.

Innovative systems had been developed to motivate line management to husband overtime resources more carefully. For instance, any overtime unspent, (saved), from the monthly budget was split 50% to the ACC's account, and 50% was retained by the department which had saved it. Officers at the operational level would have liked to have been able to retain more than 50%, but all agreed that the system genuinely motivated them to be more prudent and some used the scheme to keep overtime resources 'up their sleeve' in case of unexpected events. Prior to this system, under-spending the overtime budget was unknown. One sub-divisional commander stated that he 'now only gives out one sixth of his monthly total per week'. He stated that whatever he puts out would be seen as the 'target to be used' and would be quickly 'used up' by the Duty Inspectors, (line managers), who he said 'do not manage overtime properly'. In this way he

kept back an amount which he could use: 'to stay out of trouble if the unexpected happens'. In short, he was now actively managing his situation, using overtime as a tool to help him.

The relationship of 'more men, less overtime' was seen as fatuous. Some officers put the case of the 'success trap', viz. the better the Police Officer, the more arrests and therefore the more operational and court-duty overtime needed by that officer. Others stated the arguments rehearsed in Case 1 regarding 'infinite' demand.

There was a feeling within the lower to middle ranks that the Special Constabulary effectively 'robbed' the uniformed officers of overtime opportunities. For instance, at football matches and fetes, etc. This was indicative of attitude towards overtime. Older members of the Force recalled that, up to the mid 1980s, there was an attitude among most officers that 'each must get his share of overtime'. This attitude had now disappeared and uniformed officers were altogether more relaxed about overtime. It appeared that the Officers' expectations of the availability of overtime had been adjusted to the policy of very restricted overtime opportunities and demand had fallen off as a direct consequence of this. Some Officers still sought overtime and took every opportunity to work the extra hours for the extra money. However, others were increasingly putting a higher value on their family lives, and were resisting the increasing 'job-stress' by reducing the time spent at work. One older officer told of how he 'now looked back with sadness at twisted priorities', having missed his children growing up, due to long hours of work.

Pay levels were excellent and this was said by some officers to have contributed to the reduction in their demand for overtime. Dependency on overtime pay was quite rare with only a few, generally younger officers falling into this trap. For instance, one officer was interviewed who was 25 year old, married with two children. He had a mortgage of £32,000 and earned £11,300 plus £212 per month rent allowance. He sought all the overtime he could obtain and specialised on working the Friday/Saturday night 'lates' with football duty on Saturday afternoons. He told of his tiredness during the week but said this was: 'the price to pay for getting on in the world'.

It was widely acknowledged in this Force that long hours can adversely affect welfare, as one officer stated 'men get tired, quality drops off, they become wooden, I could not even conduct an intelligent conversation on Monday morning with... after his weekend overtime'. Indeed another officer related the story of Sgt Challenor of the London Metropolitan Force, who in the 1960s used excessive overtime as the prime reason causing his stress and irrational acts, in order to escape a criminal prosecution.

Interestingly, a welfare officer told of the use of overtime by some officers as a 'social avoidance tool', in contrasted with the 'anti-social' effects that overtime had on other officers. In other words, some officers prefer work to the alternative uses of their time, similar to the Fishwick (1979) theory (described in Section 3.3.10). Officers were adversely affected by 'stop-go' overtime, where it was withdrawn for a period of a few months, generally due to budgetary constraints. There were many examples found of long hours causing serious domestic problems and even medical retirements, particularly in the past when overtime levels were less controlled.

Any officer working more than 40 hours overtime in the month was automatically 'reviewed' by a senior officer. TOIL was used extensively, accounting for 25% of total overtime, and was seen as a means of officers circumventing the control procedures. There were moves to bring TOIL under more direct and rigorous control.

POINTS ARISING FROM THIS CASE

- A A sound and well communicated corporate policy on overtime was established. The strategy was to constrain its use by tight budgetary controls and administrative procedures, and to focus its use on increasing operational flexibility and cost-effectively manning special situations within the constraints of Police Regulations.
- B Overtime generally helped this Force to attain its corporate objectives and the reduction of overtime did not appear to have denigrated performance of the force at the corporate level. Overtime reduction had resulted directly in increased employment.
- C The overtime decision was carefully considered at the corporate level and policy was formally reviewed annually. Overtime controls were innovative and professionally applied. Management were making efforts, with some success, to understand the real process and effects of overtime working. Moreover, alternatives to overtime working were actively being considered.
- D About 30% of overtime was systematic although this largely represented an effective use of the resource. The use of overtime was correctly understood by management at the more senior levels. The key reason for overtime being the achievement of greater operational flexibility, which was generally successful.
- G Senior management accepted the well established lower levels of overtime. Lower levels of management and the officers were, however, divided in attitude. About half the officers sought increased overtime, for reasons of money and job satisfaction; a quarter were happy with the current levels and the other quarter avoided extra hours, but were content to work these if they were unavoidable due to operational circumstances.
- H The average overtime premia was 53% of basic pay, while the non-wage labour costs amounted to 63% of basic. Overtime was, therefore, at the primary level of analysis, a cost-effective means of satisfying demand relative to the alternative of recruiting and training more officers.
- J TOIL accounted for about 25% of total overtime. TOIL was more prevalent with older and women officers. However, TOIL was increasingly being used to avoid the paid overtime control systems. Unpaid overtime was worked only by senior officers and a small number of other ranks, such as Community Affairs staff. Typically, a Chief Inspector told of usual levels of 12 hours per week, with some paperwork taken home, he said 'its expected of these ranks'.

Officer manipulation to obtain overtime was said by a number of the management team and officers to have been 'rife' in the early 1980s but was now believed to be a much less common occurrence. This was the result of the improved pay, the administrative controls and the budget pressures, all of which meant that overtime had become a much more scarce and therefore tightly controlled resource.

There was no direct or clear link between overtime working and absenteeism, although a senior officer told of instances when officers who had been allocated to overtime against their wishes had 'gone sick'; no evidence was, however, found that this was in any way a common occurrence. Employee welfare was adversely affected by long hours. Dependency on overtime pay was quite rare with only a few, generally younger officers falling into this trap; indeed, pay levels were excellent. The Police Federation and the Superintendents' Association held no particular policies towards overtime working.

8.2.3 Police Force C CASE NUMBER 3

Type of Organisation	Police Force C
Location	South West
Number of Employees	3000 Police Officers, 950 Civilians
Sector	Public Administration, Police Service (SIC 1980, 913)

HEADLINE:

An English Non-Metropolitan Police Force, which had allowed traditional relatively low overtime levels to increase and now sought to reduce them. An example of sound corporate policy, not effectively carried through to implementation.

SUMMARY

Overtime had been traditionally low in this Force, running at about half the English Non-Metropolitan Force average until about 1986. It then gradually increased to the average level. Over the last two years, it had been purposely brought back under greater control through budget reductions. A senior officer claimed that manpower had been purposely held below establishment, (by 75 head), during 1988, in order to provide funds for increased overtime. This virement practice was now disallowed by the governing County Council.

In fact at the time of the study, overtime stood at 6.2% of basic pay, (English Non-Met. average: 7.7%). The objective to reduce overtime had not been well communicated and was not perceived as being resolute. Middle management were often either not aware of this objective or were expecting to circumvent it. A Chief Inspector stated that the intention was to reduce overtime, 'but', he said, 'this will not work in my area', although systematic overtime was to be found in his

area. Since this manager was responsible for overtime controls, it was not surprising to find that the Force was seriously over spending its overtime budget. Indeed, the current budget year of 1989-90 was estimated to close overspent, notwithstanding the emergency controls applied by complete overtime withdrawals in the final periods of the year.

There was evidence that the standard shift system, (Police Regulations), frustrated the need to match manpower to demand. For instance, a special task force had needed to be established which used a high level of overtime to deal with public order control, particularly Friday and Saturday nights.

The specialist sections of mounted police and dog handlers were reviewed at some length. These sections appeared to be more vocationally based, officers doing these jobs appeared to gain greater job satisfaction than the norm. There was a clear understanding of responsibility to the animal on which the officer relied. There was also a feeling that the specific job was in many ways a privilege and that the demand for such positions was high within the Force. In addition, these divisions appeared to those within them to be somewhat vulnerable, in that the Force could choose to disband some of the activities. In these circumstances, the officers were collectively aware of the need not to book high levels of overtime, which might draw undue attention, and therefore to work such hours as necessary, but to moderate the booking of overtime hours. About 40% of the overtime worked was unpaid and unpaid overtime was common for all ranks in these areas, although it only amounted to about 2 to 4 hours per week for lower ranks. There was no 'long hours fatigue' syndrome and little stress generally in these areas, where perhaps the different type of work and attitudes, and possibly the animals, operated to reduce susceptibility to these factors.

Overtime was used for much the same reasons as in the other Police Forces studied. It was claimed by a number of officers that the managers do not schedule accurately or in a timely manner for known events such as bank holidays. Many officers claimed that overtime was needed because the Force was 'undermanned', (as a result of Home Office restrictions). This was not found to be sustainable from an analysis of the uses to which the bulk of overtime was being put by the Force.

A Detective Constable explained that he worked 10 hours overtime every week, working from 0700 to 0800, 'to clear paperwork before the phone starts up' and the other five hours during the evenings. He took 5 hours as TOIL and the balance as paid overtime and this way he avoided being targeted as a 'high overtimer'. A chief Inspector explained that he claimed overtime if he was required for operational out-of-hours work, but did not claim any pay or TOIL for 'administrative overtime', such as late meetings or paperwork taken home. He estimated this unpaid overtime to be about 10 hours per week.

It appeared from the comments of officers, that a higher value was increasingly being placed on free time. There were a number of reasons put forward for this: i) the Improved pay for Police Officers; ii) the increased stress in the job; iii) the increased difficulty of obtaining overtime opportunities. Interestingly, however, one WPC, an unmarried lady in her mid twenties, explained that she enjoyed the job, obtained substantial job satisfaction and liked the company of fellow officers; she sought overtime at every opportunity.

Moreover, one young officer explained there was, for him, 'more to overtime than the pay', (which nevertheless he said was important). He said he 'enjoyed the buzz of the Friday night Special-Squad... its great to go on a *real job*... the camaraderie of the squad had to be seen'. Another officer worked all the overtime he could obtain because, as he said: 'I'm getting married and I need the money'. There was, however, little evidence of any serious dependency on overtime pay for fixed financial commitments.

Officers spoke of their frustration over the loss of overtime during the last few financial periods, when the budget 'runs out'. This pointed to shortcomings in management controls and to the potentially inappropriate use of overtime.

Absenteeism was considered by many officers to be directly associated with high levels of overtime. Levels of absenteeism had increased to 50% above previous levels at the same time as overtime had increased. There was no detailed analysis of individual's absenteeism and overtime available, therefore cause and effect could not be established nor could any correlation between overtime workers and levels of sickness.

Overtime was found to directly cause social and welfare problems. For example, the high divorce rate, particularly among the high overtime working plain clothes branch. It was widely stated that long hours 'sap judgement and reduce the effectiveness of the officer', particularly during the following shift. The periodic withdrawal of overtime caused frustration for management and officers alike, and was not conducive to operational flexibility or planned policing. Moreover, it was a source of worry for those few officers who had come to depend on their overtime earnings.

POINTS ARISING FROM THIS CASE

- A Overtime had been recognised as growing out of control and a corporate strategy had been adopted to constrain this growth by strict budget limitation. This strategy was working to a degree, but was neither fully understood nor positively received by the whole of the management team.
- B Overtime enabled the organisation to meet its corporate objectives, at least in part, *viz.* to staff for peak demands and special events. It was not clear, however, that this Force was achieving better corporate results, as a result of the use of overtime, than other Forces which used lower levels of overtime. There was a relationship between overtime and employment in that recruitment had been held back in order, specifically, to fund overtime.
- C The overtime decision had recently been given careful consideration at the corporate level, but not generally at the middle management level. The management and control of overtime now appeared to be somewhat outdated and ineffective. In essence it comprised of 'stop-go' budgetary control. Middle management were often not aware of the real processes of overtime and the use to which it was put.
- D About 75% of all overtime was systematic. Yet, according to management, all overtime was used to meet unexpected operational needs. Overtime improved operational flexibility

in that it facilitated staffing for peak demands, court duties and was used to meet so called unexpected demand, (which in fact was often predictable overtime such as staffing for Friday and Saturday night public order duties). These needs could have been met in other ways, but no consideration had been given to the alternatives.

- G About two thirds of the officers and the majority of middle and lower management sought increased overtime, .
- H Overtime premia averaged 53% of basic pay while non-wage labour costs averaged 63% of basic pay. Overtime was therefore cost-effective on this elementary basis.
- J Many officers perceived TOIL to be unpaid overtime. This thesis makes the distinction between unpaid overtime and overtime remunerated by TOIL or premium pay. Unpaid overtime was worked by the more senior officers and also by the specialist dog handling and mounted divisions.

One officer stated: 'it would be naive in the extreme to believe that there was no Officer manipulation for overtime'. This view was generally accepted as fair and some officers explained various standard mechanisms used to achieve overtime. It was stated, however, that manipulation had been more common in the past.

Absenteeism was considered to be exacerbated by high levels of overtime. This linked overtime to adverse welfare although not significantly. There was, however,. substantial evidence that long hours of work, linked to the unsocial Police Regulations shift system, denigrated employee welfare. One senior officer stated that his family were very understanding and supportive of his job, but that there had been 'many times of stress when relationships were sorely tested'. Another officer told of a period of high overtime when he began to feel 'a stranger in his own home'. Other officers told of becoming very tired after a period of long hours, particularly when the shift system prevented adequate recovery. Some officers, and a number of managers stated that they believed job performance fell due to the stress and tiredness brought on by the overtime.

Younger officers, with family responsibilities, often found that overtime pay helped them to pay their mortgages, although this was not a major problem, the basic pay was excellent. The Police Federation and Superintendents' Association did not actively pursue any particular policies with regard to overtime.

8.2.4 Chandler and Gas Bottler CASE NUMBER 4

Type of Organisation	Chandler and Gas Bottler
Location	South West
Number of Employees	5

Sector

Retail distribution
Service (SIC 1980, 648)**HEADLINE:**

A small Chandlers using overtime to avoid hiring extra staff and to meet fluctuating demand levels.

SUMMARY

Five staff were employed, three non-manual and two manual. Overtime was worked for on average five hours per manual employee, and 10 hours per non-manual employee, per week. Wages were relatively low, in the third quartile for the type of work and locality (Reward 1989). Overtime premia was high given this was a small family based firm, being 50% standard with 100% for Saturday afternoon and Sundays. Relatively frequent use was made of the higher premium rate.

The proprietor used overtime primarily as a means of avoiding hiring another employee. There was an opportunity for casual or fixed term contract employment or the employment of two staggered time part time workers. Indeed, there were a number of possible alternatives to the use of overtime, but there was little awareness of these.

This proprietor was very defensive regarding his use of overtime, even though the researcher took great pains to guide the process in a positive direction to avoid positions being taken.

POINTS ARISING FROM THIS CASE

- A** In this case, corporate strategy was simply the game plan of the individual proprietor. He was using overtime in order to avoid hiring additional staff and had consciously pursued this strategy.
- B** The use of overtime enabled the business to satisfy fluctuating demand, but, it appeared, not in the most effective way. On balance, however, overtime was helping the business to achieve its objectives. This particular use of overtime was denying employment to another person.
- C** The decision to use overtime had been addressed by the proprietor, but he had not contemplated any alternative other than that of hiring a new employee on the standard contract. He had conducted no formal or informal analysis and there was little or little appreciation of the financial consequences of the overtime or the alternative which had been considered. There was no need for overtime controls and records were kept only for payment purposes.
- D** Almost all the overtime was systematic, in that it was predictable, and it generally could have been avoided by more effective organisation and staffing. In fact, the major use of the overtime was to smooth demand peaks and to avoid hiring an additional member of staff.

Moreover, the proprietor firmly believed that his use of overtime gave him operational flexibility, to meet 'unexpected' demand peaks and indeed it did, but it achieved this in an ineffective way. He also believed that the overtime gave his business increased corporate flexibility, in that it enabled him to respond more effectively to long term demand changes. In fact the overtime did achieve this end, although there were, apparently, other viable alternatives and it could be argued that corporate flexibility was not valid a concern in the circumstances.

- G** The two manual employees sought as much overtime as they could get. The three non-manual employees worked higher levels of overtime and two were pleased to accept these levels. The third, a married lady with school-aged children, found the overtime an imposition on her family life and this was causing some difficulties with family relationships. Nevertheless, the job security was important to her.
- H** Overtime premia averaged 60% of basic pay while non-wage labour costs averaged 22% of basic pay. The overtime appeared therefore not to be cost-effective when compared with the viable alternatives. In this case, the options would have included hiring an additional non-manual employee on a flexible contract and a small amount of industrial engineering in the gas bottling process.
- J** TOIL and unpaid overtime were not encountered in this business, other than with the proprietor, who did not consider staying late as overtime, and did not vary his pay according to his hours of work. There was no obvious manipulation of overtime by employees, who were closely controlled by the proprietor. An apparent relationship existed between absenteeism and overtime working, with the 'third' non-manual employee taking increasing levels of sickness, although the proprietor had not yet linked cause to effect on this matter. Indeed, overtime was adversely affecting welfare for this particular employee and this was having an adverse impact on her work, but was not an issue for with other workers. One of the non-manual employees depended on the normal levels of overtime to meet his fixed financial commitments.

8.2.5 Mail Order Distribution CASE NUMBER 5

Type of Organisation	Mail order books and computer software
Location	West Midlands
Number of Employees	1277
Sector	Retail distribution Service (SIC 1980, 653-656)

HEADLINE:

A progressive company successfully managing variable demand and, at the same time, reducing overtime, in a tight local labour market.

SUMMARY

A full account of this case, with supporting detail, is given as Appendix 8-3, therefore this summary is brief and covers only the more general points. The Company had experienced turnover growth at 15% per year, annual seasonal demand peaks of 40% above average load. There was a high profile union presence at the operational level. Operational methods and technology were rapidly changing, in order to secure improved response times and accuracy, and to reduce unit costs.

Overtime had been reduced in all areas from previous high levels. This had been achieved through a complex and wide ranging innovative management programme. This process of overtime reduction involved: increasing productivity; the creation of new jobs, often using innovative employment contracts, eg. new shift systems and temporary contracts; labour-displacing capital investment; industrial engineering and a concerted effort to improve management controls.

There remained, however, a number of departments where senior management considered overtime was still excessive and systematic. Moreover, management believed that there were latent pressures for overtime to increase in the future, in response to a tightening local labour market.

The organisation continued to seek solutions to the problems of: demand variability; profit improvement and tight labour market. They particularly wished to further control and reduce overtime levels. In addition to their current initiatives, management intended to consider innovative alternatives for the more effective supply of capacity, without resort to overtime. These included: annual hours contracts; geographical relocation of some operations and new payment policies to secure improved recruitment, retention and motivation, and controlled unit costs.

The reduction of overtime had been achieved against a difficult backdrop of rapidly changing and increasing demand, significant and increasing skill shortages at all levels and a well organised workforce in which the predominant pressure was to resist any reduction in overtime levels.

The key to the success in reducing overtime lay in a management team, with a clear and well communicated objective and the courage to seek out and implement innovative solutions. The organisation was well developed and very effective in communicating policy down to the operational levels. Overtime had been addressed as a specific issue at main board level and a specific policy developed which was both well communicated and understood by all levels of management, even though some middle managers did not readily agree with it. There was no opportunity offered for the policy to slide in any way since great interest and care was taken, at the senior management levels, to execute the policy. Overtime was strategically managed using a

carefully constructed budget, and controlling tightly to that budget, at the same time as alternatives were developed and implemented to displace the overtime.

POINTS ARISING FROM THIS CASE

- A A complex and innovative strategy for the structuring of working time and capital and industrial engineering investment had achieved a successful reduction of overtime. This success was based on a clear, determined and well communicated management policy, supported by sound systems for monitoring and controlling the overtime which remained. In addition, the innovative development of alternatives to overtime working enabled the organisation to replace the overtime.
- B The achievement of corporate objectives did not appear to have been adversely affected by the reduction of overtime. Increasing demand had been met each year and unit labour costs, as a percentage of turnover, had fallen from 15% to 13.5% over the relevant period. The reduction of overtime directly yielded new jobs, although it was not possible to accurately estimate the number of jobs created or the 'conversion rate'.
- C It was interesting to note that, even in this very healthy and professional organisation, no financial analysis of the overtime decision had apparently been conducted and senior managers were unaware or misinformed about the actual costs of overtime working and the most obvious alternatives. The management of that overtime which remained was very sound, with established and rigorously applied procedures. The decision between overtime and the potential alternatives was professionally driven from the most senior management level, and controlled tightly within formal and professional manpower plans which were regularly maintained. Many alternatives to overtime working, some of them innovative, had been considered, developed and implemented with some success.
- D Notwithstanding the above positive comment, about half the remaining overtime was systematic. The same people tended to work overtime during the same time slots in the weekly cycle, although this cycle was interrupted during the annual seasons. Indeed, the overtime used to meet the high level of seasonal and campaign peak demands was systematic, in that it was readily predictable. This organisation gave an example of the effective use of systematic overtime in some of the circumstances. The reasons for the use of the remaining overtime were correctly perceived by management at all levels. The key reason being the seasonality of demand, which accounted for about 50% of the total overtime, other reasons included meeting specific targets or dealing with demand pressure points, unexpected demand and a small amount of systematic overtime determined to some extent by the nature of the job, eg. cleaning.
- F Corporate dependence on overtime working had previously exposed the company to damaging industrial action and in this respect overtime had reduced 'corporate flexibility'. Indeed, higher and more secure levels of 'corporate flexibility' had been achieved by the use of temporary contracts and fixed term (seasonal) part-time shift working to replace overtime.

- G** Senior managers were keen to continue to reduce overtime, which they saw as costly, difficult to control and giving exposure to industrial action, if production came to depend upon it, as in the past had been the case. The lower levels management were concerned to obtain more overtime which, they perceived, would make their jobs easier by increasing their flexibility to deal with day-to-day pressures and meeting worker demand. In the absence of the overtime, the onus was clearly on the management at all levels to avoid the problems in the first place, insofar as these were in their control.

Workers generally wanted more overtime, but there were exceptions. Manual, male and younger employees generally sought out overtime opportunities. Non-manual female and older staff, tended more often to accept what overtime was offered, or to avoid it. The same ages, sex and general pay levels, exhibited different attitudes towards overtime, with manual staff seeking more overtime than their non-manual colleagues. The difference in attitudes, therefore, appeared to be partly cultural as well as structural.

- H** The cost of overtime premia averaged 41% of total pay, a low figure because the bonus did not attract premia. The non-wage labour cost of employing additional staff represented 31% of total pay. Both middle and senior management believed, quite incorrectly, that overtime was the cheaper of these options.
- I** High and regular overtime, both in the past and in some circumstances currently, depressed productivity and quality across all working hours. It was not possible to quantify this phenomena, but it was clear that overtime, through both this mechanism and the premia, actually increased unit costs.
- J** TOIL was not an option for the workforce, other than in some non-manual areas, where flexitime allowed some versatility in timekeeping. Management grades could informally take TOIL by agreement with their own boss, but this did not happen to a significant degree. Unpaid overtime was only worked by management grades, and generally only the more senior grades. A vibrant 'management machismo' effect surrounded this phenomenon, which was based on organisational culture. There were strong feelings, and some hearsay evidence was found establishing that overtime payments to supervisors encouraged overtime, or would if the opportunity was allowed to develop. The evidence was, however, not confirmed by direct observations.

Trade union influence at local level had, over the five years prior to the study, been minimal. There was no pressure to reduce overtime, but occasionally pressure to increase it and some discussion about its distribution. The unions had received no significant support or guidance, regarding overtime, from their central organisation over the last few years. However, as indicated above, they had, in the early 1980s, used the restriction of supply of overtime, upon which the Company critically depended, as a very powerful weapon against the Company.

There was no evidence that welfare was adversely affected by the current 'normal' levels of overtime, i.e. one or two evenings and Saturday morning on a number of occasions during the year. There was, however, evidence that high levels of overtime, regularly worked,

caused workers to suffer from fatigue. This was claimed by management to have affected both their normal hours work-performance and their general welfare and this was confirmed by the workers to be the case. Pay levels were relatively good at the lower end of the organisation's pay scales. Few employees were dependent on their overtime earnings for fixed financial commitments. Those who were identified, were generally younger male manual workers, with family commitments and the situation was likely to be temporary.

8.2.6	Retail & Distribution Food and Drink	CASE NUMBER 6
Type of Organisation		Retail and Distribution Food and Drinks
Location		North
Number of Employees		11
Sector		Retail Distribution Service (SIC 1980, 641)

HEADLINE:

A small retail sales and distribution company which relied on overtime as an effective means of balancing capacity and demand. The proprietor hired new staff to avoid the extension of relatively expensive and 'unnecessary' overtime on site.

SUMMARY

A small privately owned business concerned with direct sales and wholesale distribution of groceries. The business was expanding and employment, which stood at eleven, including the proprietor, was growing. An average of five hours overtime per week, per manual employee, was worked. There were four non-manual staff who do not work overtime.

This company relied on overtime to carry out its work effectively. Long distance deliveries were undertaken, this took drivers outside their normal working hours and was the key reason for overtime. In addition, there was a small amount of 'on-site' overtime to meet random peaks in demand. Where higher levels of demand appeared more permanent, the proprietor decided specifically to avoid staff pressures for overtime, and hired additional staff. In this way he, he believed, he avoided high overtime premium costs and kept a firmer control on the workforce. The proprietor was aware of the potential for overtime to become 'worker controlled' he stated: 'I can remember when I controlled my overtime, to keep up my wages, I'm not letting that happen here'. The use of part-time and casual workers was under consideration.

Wages were relatively good, standing at the median level for the type of work and locality (Reward 1989). Untypical of many small companies, overtime was paid at the high rate of 50% premium for all hours except Saturday afternoons and Sundays, when the premium was 100%. There was

no unionisation.

The manual staff liked their overtime very much. They were generally not directly under anyone's control while 'out on the road' and they were able to earn a good premium rate. There was no evidence that overtime affected their welfare in a negative way. The non-manual staff, with one exception, wanted the same opportunities as their manual colleagues to work overtime, but this was denied to them by the proprietor who, in view of the high cost of overtime, sought to meet demand by hiring new staff whenever this could be justified. The proprietor was not worried about the possibility of demand fall-off in the longer term. He stated, 'I manage the business for today, I run a tight ship and this gives me the best protection for the longer term'.

POINTS ARISING FROM THIS CASE

- A The proprietor had a well considered policy of avoiding overtime by firm management of pace of work in normal hours and hiring additional staff to meet the increasing demand; while using overtime as necessary to meet the needs of the job as effectively as possible.
- B The achievement of corporate objectives was clearly assisted by the use of overtime. Further employment would not displace that overtime which was worked. Indeed, a decision had been made to hire additional staff instead of working overtime, wherever this was possible.
- C Overtime had consistently been resisted for the on-site staff and new staff hired in order to meet increasing demand. In addition, the proprietor had kept reasonable pressure on the drivers to minimise their overtime. This formed a rational and calculated decision to avoid the relatively high cost of overtime.

There was no need for complex systems of control within such a small organisation. The proprietor was aware that a certain amount of abuse of overtime did occur among some drivers, (although not among others). He tolerated this manipulation, at a low and controlled level, as part of the 'perks of the job', but kept a careful watch to ensure it did not get out of hand. It appeared that there were acceptable corridors of 'give and take' were tacitly accepted by the management and the workforce. The manual staff were not directly controlled during overtime since most overtime was 'on the road'. In these circumstances, none of the overtime was systematic, it was used to meet normal demand but was largely 'job-driven'.

- F Overtime was the most effective means for the company to achieve the necessary operational flexibility. However, corporate flexibility was not gained from the use of overtime, on the contrary, the avoidance of overtime was seen as improving corporate prospects.
- G The proprietor rightly saw no alternative to overtime in the circumstances, but he applied a healthy degree of scepticism regarding its use. The manual staff liked the overtime, they sought to maximise their overtime and there was a constant, and not altogether unhealthy 'pressure' between the drivers and the proprietor regarding the amount of overtime booked;

indeed, this sometimes turned into a bartering session. The non-manual staff wanted the opportunity to work overtime at premium rates, but this was denied them by management.

- H Overtime premia averaged about 58% of basic pay, while non wage labour costs amounted to 19% . Overtime was therefore not cost-effective on the basis of this elementary comparison. However, given that there was no 'better' alternative available to the organisation, such as hiring additional staff to meet the particular demand, overtime was the most cost effective solution.
- J TOIL and unpaid overtime were not worked, although the proprietor worked very long hours. Employees did abuse the system a little by extending their time on the road, but was conducted within tacitly accepted corridors. There was a degree of dependency on overtime earnings among the manual workers, but at the 'soft' level in that if overtime was not available this would cause discomfort and not affect their ability to meet fixed financial commitments.

8.2.7 Butchers Shop CASE NUMBER 7

Type of Organisation	Shop C
Locations	Wales
Number of Employees	7
Sector	Retail Sector Service (SIC 1980, 641)

HEADLINE:

A small family run catering and retail butchers, using systematic overtime to avoid the need to employ an additional member of staff and to meet seasonal peaks in demand.

SUMMARY

This case highlighted the effective use of overtime, to meet seasonal demand peaks and large orders which arose randomly, without much notice. The ineffective use of overtime was also found in this case, in the working of systematic overtime every week, with no real benefit to the organisation, and at a higher cost than some of the alternatives such as hiring another employee, possibly on a complimentary shift.

This firm was a small family run butchers shop, with stable employment and good staff relationships. The proprietor decided to use overtime to enable him to respond to seasonal peaks in demand and to give some flexibility across the year. In fact, overtime was institutionalised, with the same three employees working overtime on the same days every week. At key times during the year, such as Christmas and Easter, all employees worked extra hours.

Three members of staff worked eight hours overtime each per week and the proprietor worked long hours. Other members of staff worked overtime on an ad-hoc basis, in order to provide cover for absenteeism or unexpected events. All members of staff worked long hours during the butchery trade seasonal demand peaks. Occasionally, large catering orders resulted in longer overtime to satisfy the contract. In all, the non-seasonal weekly overtime amounted to about one additional member of staff, who could have worked on a slightly overlapping shift. The proprietor acknowledged that it would be relatively simple, and quite possible, to hire an additional employee to cover this regular demand.

POINTS ARISING FROM THIS CASE

- A The management strategy was to use overtime to avoid the need to employ an additional member of staff and to meet seasonal peaks in demand.
- B Overtime enabled the business to meet its objectives to a degree, *viz.* to satisfy seasonal demand peaks and meet unexpected orders. However, the systematic weekly overtime was not a cost-effective means of meeting normal demand. Moreover, it suppressed the employment of an additional member of staff.
- C No decision to work overtime, or to review any alternatives had been considered. Overtime was simply 'the way the business had always been run'. About two thirds of the overtime was systematic and used to meet normal anticipated demand, the balance being used to meet seasonal demand and unexpected orders.
- F Operational flexibility was diminished by the current overtime patterns in that the proprietor had difficulty on some occasions in meeting unexpected demand from overtime, because his workers were already using the overtime which *they* wanted to work, for the normal demand. However, the proprietor did not perceive that this was so and claimed overtime to enhance his day to day operating flexibility. A key reason for the use of overtime was the proprietor's feeling that this would enable him to meet demand without commitment to another member of staff, and therefore give him corporate flexibility in the event of a downturn in business. In effect, overtime was giving corporate flexibility in the proprietor's opinion, the need for and value of such 'protection' was, however, dubious.
- G The staff were very pleased with the extra money earned through overtime and were happy with the normal levels of overtime.
- H The overtime premium was 44% and non-wage labour costs amounted to about 20%. The systematic weekly overtime was not cost-effective compared to the simple and available alternative of hiring an additional member of staff and reorganising the normal working hours of some employees to overlap the demand peaks, although the proprietor had not considered any alternatives to overtime, other than hiring more staff on the normal contract.
- J No TOIL or unpaid overtime were worked in this business other than by the proprietor. There was no manipulation of working hours by employees. No relationship was found

between absenteeism, (which was very low), and overtime. Moreover, employee welfare was not adversely affected by the overtime patterns apart from a very slight problem when workers were expected to work additional overtime to meet an unexpected large order. The employees sometimes found this to impinge on private lives, particularly when sufficient notice was not given, although, when the very high levels of overtime were needed for the anticipated seasonal butchery peaks, this caused no problems. There was no union involvement. There was evidence of overtime pay dependency, affecting two of the employees who worked overtime systematically each week for a number of years. Pay levels were low relative to local 'skilled' industrial wages.

8.2.8 Hotels A CASE NUMBER 8

Type of Organisation	Hotels A
Locations	Greater London
Number of Employees	660
Sector	Hotels and catering Service (SIC 1980, 66)

HEADLINE:

A group of three dissimilar hotels within a large chain, anxious to update management systems in order to improve competitiveness and customer service. Paid overtime had become minimal and was very effective and well managed.

SUMMARY

The essence of this case was that a considered and measured level of overtime, tightly controlled, can greatly assist an organisation to achieve its corporate objectives.

A group of three hotels from a large chain were reviewed over a period of two months. The interview schedules covered 36 employees and 14 managers. There was no formal organised trade union presence. The hotels were situated in Greater London, one was an exclusive first class hotel in the city, the others being a middle ranking hotel and a budget level hotel. A remarkably healthy level of identification with corporate objectives and organisation structure was found and this helped with the effective control of overtime in that the staff knew and understood the corporate level policy regarding, for example, overtime and quality of service.

Very little difference was found in the use of overtime across these hotels. There was a relatively small amount of systematic overtime in areas such as Concierge, Front of House and Food and Beverage, in order to facilitate the shift systems. There was relatively little casual, operationally driven overtime, and that which was worked was needed to provide cover for unexpected absences or emergencies. In fact, when an emergency arose the workers identified so

closely with the organisation and its objectives that they were often observed to stay late with no expectation of pay of any kind. Neither was there any expectation of TOIL in return for the extra hours. The workers realised that they were very busy and 'tightly' staffed, and would not consider putting others under unnecessary pressure by taking extra time off. Indeed, there was a healthy team-working attitude within the staff, which was the consciously developed product of the very sound organisation.

Overtime levels stood at 4.3% of basic hours, 6.1% of basic pay. Levels of staff turnover were very high for particular departments which was typical for the industry. For example, front of house staff turnover stood at about 45% and chamber maids left on average after only 7 months. Even management grades of all levels exhibited a high rate of turnover. On the other hand, the more stable and highly prestigious concierge staff tended to stay in place for many years with very little turnover.

POINTS ARISING FROM THIS CASE

- A** The overall management strategy on overtime was to minimise its use in order to secure the corporate objectives of profit maximisation and improved service to the customer. This appeared to be working well. This Corporate objective achievement was assisted by the excellent management controls which were established. There had been a clear increase in employment as a result of the policy of minimising overtime, although it was not possible to retrospectively quantify the employment impact.
- C** The central management team controlled overtime by rigid budgeting which effectively inhibited any management discretion. That overtime which was worked, was not tightly controlled, using authorisation and reporting systems. This was quite easy to achieve, since the function was essentially service driven. Senior management levels, in the organisation's central support services, had considered very carefully the alternatives to overtime and had developed a policy of meeting demand through carefully designed shift systems and appropriate manning levels. This enabled the organisation to concentrate on the key objectives of customer service, from which higher charge rates and occupancy rates could be supported and the corporate objectives of profit, excellence and viability could be accomplished.
- D** Overtime was very little used, and the majority that was worked, was necessary for unpredictable emergencies and enhanced operational flexibility. About 25% of all overtime was systematic, this being essentially the shift in-fill overtime. Overtime was not used to aid corporate flexibility, there was no necessity to consider this issue in view of the high levels of staff turnover in most departments.
- G** Higher and middle management were keen to minimise overtime. About half of the supervision and employees sought increased overtime opportunities, primarily as a means of increasing their pay. A quarter of the staff were happy with current levels and the remaining quarter would resist overtime. Three comments re-occurred from this latter group: i) 'the hourly rate is too low to justify the effort even with the premium'; ii) 'the work is very hard and I'd be too tired to work longer' and iii) 'the shift hours are unsocial enough

without overtime as well'. Some of these reluctant staff were among the lowest paid in the hotels. It was interesting to note that the demand seemed to reflect the availability and general supply of overtime. It was clear that staff had adjusted their expectations to the tight control and lack of supply of overtime.

- H Overtime premia averaged 48% of basic wages while non-wage labour costs stood at 39% of basic wages. This somewhat high level of NWLCs reflected the provision of accommodation for some staff and the generally very low basic pay. That overtime which was worked, was very cost effective due to the low relative cost of the overtime, the 'service' nature of the work which effectively prevented 'pacing', the excellent direct management of the staff and the positive attitude of employees. Moreover, there were no obvious alternatives to that overtime which was used for truly unforeseen events. The one question mark lay with the use of systematic overtime for shift in-fill, which could possibly have been designed out, although this was not fully investigated within this project.
- J TOIL was not used, however, there were high levels of non-paid overtime, the culture in these hotels, particularly the two higher class hotels, being one of 'service'. Great pride was taken in caring for the guests and there were regularly occasions when staff remained late to finish administration work or to provide cover, with no thought of payment. The fact that some staff lived-in was only a small part of explanation for this phenomenon.

There was no employee manipulation to obtain overtime, quite simply, overtime was not available and the effort would have been futile. Absenteeism gave rise to a small amount of ad-hoc overtime, and here the cause and effect were clearly that the absenteeism caused the overtime, since overtime levels were low and controlled. The shift workers, who worked overtime as part of their shift, took lower sickness time off than the average, largely due to fact that their jobs were the more stable. First line supervision staff would receive overtime payments, and were generally keen to take overtime opportunities in order to boost their own pay. There was some evidence that the shift systems made employees over-tired, particularly on some busier shifts, where the employee was constantly facing the public and stress easily became a problem. Such high pressure situations were observed to prevail quite often, and overtime in these circumstances would clearly have been counter productive for both the employee and the organisation. Since overtime was not generally available, there was little dependency on overtime pay, even though pay levels were relatively low. In the case of the shift workers who worked shift-in-fill overtime every cycle, there was specific and clear dependency on the overtime element of their pay, for their fixed financial commitments.

8.2.9 Hotel B CASE NUMBER 9

Type of Organisation	Hotel B
Locations	North
Number of Employees	70
Sector	Hotels and catering Service (SIC 1980, 66)

HEADLINE:

A privately owned hotel using high levels of systematic overtime, with little knowledge or control of the consequences. This organisation was in the grips of a 'negative spiral', where the use of overtime as a solution was in fact exacerbating the problems.

SUMMARY

Overtime can help to solve operational difficulties but, if used without care, it can create even greater difficulties. This was an example of the latter process. This case very sharply contrasts with the previous one.

Overtime levels were high with an average of 16 hours per week per employee, with some workers completing 24 hours every week. There was often little or no notice given to workers of the overtime requirement, particularly when this was occasioned by casual absenteeism. Employees, particularly those who lived in, often felt 'put upon' by management in having to work unexpected extra hours. Indeed, a few staff, eg. porters, front of house and housekeeping, resisted overtime on the basis that the rewards did not justify the extra effort and inconvenience involved. This was particularly so for those staff who lived off-site. These were isolated individuals, representing about a third of the staff, all of whom shared one common feature, viz: they did not rely on their overtime earnings to meet their fixed financial commitments. These were generally either older, or very young, unmarried employees.

Casual sickness and absenteeism was running at the very high level of 17%. Typically, three staff were off sick at any one time. The unreliability of staff was the focus of the energies of the whole hotel, rather than customer care. Very high staff turnover rates, over 100%, existed in most of the non-management areas.

Employees worked under sufferance to a degree, feeling that the long hours and very low hourly rates of pay were to a degree, 'exploitation'. In fact the pay levels were within the lower quartile for the geographical region and type of work (Reward 1989). Moreover, the pay, particularly for the younger members of staff and the part-time workers, (there were six part-time workers), was below wage council minimum levels. It appeared that neither the employees nor the management were aware that statutory minimum wages existed.

The tendency for employees to resent their conditions of work and to use subtle but effective means to 'compensate' for their poor treatment was, in the circumstances, understandable. Staff attitude to the guest was rarely overtly negative, nevertheless, inappropriate customer service was observed to be widespread and the general ambience was uncomfortable. A part of this overall syndrome was the staff attitude towards overtime the need for which was exaggerated in order that a felt-fair wage level might be achieved. The result was that the staff working long hours were ineffective and suffered from welfare problems and high absenteeism. This exacerbated the problems, which became self-fulfilling.

There was no common staff identification with the corporate body. For example, front desk staff on the various shifts stayed late, with the tacit 'approval' of fellow workers, in order to boost their pay, even though there was no operational need for their extra hours, since the porter and shift supervisor could easily have handled the workload. In effect, they created the overtime in order to compensate for their otherwise poor pay levels.

Senior management were over-sensitive and defensive about their use of overtime. They stated, in 'defence' of overtime levels, that they believed that overtime was a means to reduce their exposure to any fall-off in future demand, in an industry which is known to suffer from periodic demand slumps. Of course, the high staff turnover rendered this rationale invalid. No formal analysis had been conducted on the use of overtime, it was simply 'the way that the business had always been run'. After all, the proprietor had always worked long hours, and stated: 'long hours are a way of life in the hotel trade'. In many ways, there was a blind acceptance of traditional methods; this was the way it had always been done.

There was no realisation or rationalisation, by management, of the negative spiral which saw the company using overtime to solve problems of high staff turnover and absenteeism, while the overtime itself exacerbated these factors and disguised the real structural problems of an under-developed organisation and management, a lack of direction and an inadequate payment structure. Nor was there any management awareness of the syndrome of the high levels of stress caused by long hours, where the customer and the staff both suffered, and the result was under achievement on two interconnected strategic business fronts. The first was that occupancy rates were relatively low, (a significant proportion of the business potential was 'professional' where 'return visits' based on customer service rather than price are often a successful marketing strategy). The second was the relatively low room rates which management used, ineffectively, to address the poor competitive position. This was a syndrome of which the inappropriate use of overtime was one factor.

POINTS ARISING FROM THIS CASE

- A No considered management strategy on overtime had been undertaken, other than to tolerate its use, it was simply accepted as the nature of the business. Indeed, overtime was thought by senior management to facilitate the achievement of corporate objectives, viz: profit and viability maximisation. While, in fact it appeared very clearly to be frustrating the achievement of those objectives.

- B** There was no doubt that overtime was, pragmatically, displacing employment, and management thought this to be a sound policy.
- C** There was no analysis, or even formal decision, to work overtime, as the hotel director stated: 'simply, it is used when necessary'. There was no specific overtime budget and no formal management controls for the overtime that was worked. Although this lack of management and administration of the overtime caused no problems in view of the nature of the service given, there would clearly be difficulty in bringing overtime under improved controls without the help of such tools. The lack of sound management procedures also helped to disguise from senior management the true nature and effects of the use of overtime.
- D** Almost all the overtime was systematic in that 40% was used to facilitate the shift system, the balance was used to meet 'unexpected' staff shortages according to management, although, in reality, these were quite regular and predictable and were to some extent self-generating. Overtime was in fact used for three main reasons: i) to meet normal workloads in the face of random staff shortages; ii) to avoid the need to hire additional staff, in order to give 'corporate flexibility' in the light of some nervousness about the future levels of demand; and iii) and to maintain more acceptable take-home pay levels. In fact there is doubt that these objectives were indeed satisfied by the use made of overtime.
- F** The effect of using high levels of systematic overtime was very clearly to inhibit operational flexibility. This was due to the inability to utilise unplanned overtime to meet unexpected needs. In addition, the depressive effect of high levels of absenteeism, reduced the whole organisation to a constant state of crisis management. Yet it was plain that the long hours were directly causing high absenteeism, much evidence of this phenomenon was revealed by analysis and from the statements of the staff themselves. Thus overtime depressed operational flexibility. Corporate flexibility was not in fact gained through the use of overtime, since, in the circumstances, there was little pragmatic opportunity to reduce the overtime levels without major structural change to the management philosophy. In any event, the high levels of labour turnover abrogated this argument.
- G** Management simply used whatever overtime they considered was appropriate and found this to be a convenient arrangement which required little effort on their part. Employees did not like the long hours and found them to be a burden. But many workers actively sought as much overtime as they could obtain, they felt they had little choice due to their dependency on the 'extra' money and the need to secure their jobs.
- H** Overtime premia was, on average, 39%, reflecting relatively low premium rates. Non-wage labour costs were high, averaging 36%, reflecting a number of living-in employees, although there were few fringe benefits for the employees. Management believed that overtime was most effective in that it helped to solve the problem of random staff shortages, was relatively inexpensive and avoided the corporate risk of establishing higher levels of employment. In fact overtime was not at all cost-effective in that much of it was contrived and unnecessary. Moreover, it depressed staff morale and quality of service and had become self-generating. Overtime was exacerbating the structural problems within the organisation, (eg. staff

turnover and absenteeism), and was one of the factors inhibiting the achievement of corporate objectives.

- J TOIL was not used and unpaid overtime was not generally worked, even by the management staff. Supervisors were paid for their overtime work at premium rates, but this was not observed to be the source of any manipulation. Employees manipulated their overtime working, indeed, they could work almost as much as they liked, and they did. Overtime caused excessive absenteeism in that it caused employees to become stressed and fatigued, it lowered morale and caused institutionalised resentment and it gave employees the higher hourly earnings which enabled them to take a rest in straight time. The quality of the product, (service), indubitably suffered, directly as a result of the long hours of overtime. Added to all of these problems, about 12, (14%), of the employees relied on overtime pay to supplement their earnings.

8.2.10	Industrial Civilians	CASE NUMBER 10
Type of Organisation	Ministry of Defence A Civilian Industrial Employees	
Locations	South East & South West	
Number of Industrial Employees	760	
Sector	Public Sector Service (SIC 1980, 915)	

HEADLINE:

An organisation under pressure to improve effectiveness, operating with poor wage competitiveness for some grades. Substantial systematic and ineffective overtime was worked, with little management control. No particular initiatives were in hand to review the use of overtime.

SUMMARY

A full account of this case is given as Appendix 8-4. The key message of this case was quite obvious, but worth noting since it appears that it can still be missed by a 'defensive' management team operating under pressure, viz: unless overtime was actively and professionally managed, it became ineffective and damages the organisation. Increasing pressures were being brought to bear on this organisation to improve productivity, although there were no plans to bring overtime into this general review. This management option had not been specifically excluded, it simply had not been considered.

The organisation comprised a range of activities, about half the staff being employed in a service capacity, eg. transport, stores and distribution, and the other half being concerned with jobbing

type repair, test and very specialised manufacturing. About 10% of the employees were concerned with very sensitive processes and materials, and much of the work was classified. Staff turnover had been running at between 10% and 18% depending upon the area. Vacancies were running at up to 20% in some areas and a lack of wage competitiveness was claimed to be the key problem, particularly for the more qualified craft and technician grades.

Overtime was worked by about 30% of employees, each averaging 8.4 hours per week, although some workers completed 20 hours overtime per week. The levels of overtime found during the study period had been static for a number of years. It appeared that the employees, rather than the managers, often exercised the real control of overtime working, within the overall budgetary constraints. Managers were, particularly at the higher levels, not generally aware of the costs and true reasons for the use of overtime within their areas, while middle management tended to be more informed, but reluctant to 'rack the boat' and sometimes very defensive. Indeed, overtime was found, during the ethnographic phases of the study, to be grossly ineffective and to depress the productivity of all hours.

POINTS ARISING FROM THIS STUDY

- A** No direction or strategies existed for the management control or reduction of overtime.
- B** Overtime did not appear to assist in the achievement of corporate objectives, which in any event were quite unclear to most employees and managers. Indeed, the inappropriate and unnecessary use of overtime actually added to the very real viability threat to the organisation.

Cash was diverted, by specific management decision, within the organisation to fund overtime instead of additional employment, (eg. an overtime budget increase had been justified using skilled staff shortages). Therefore, in the negative sense, there was a clear relationship between overtime and potential new jobs. This was the pragmatic rather than theoretical consequence of the use of overtime, since, in many areas of the organisation, a high proportion of the overtime could have been abolished with no increase in staffing due to the potential to dramatically improve productivity. Furthermore, it was clear that overtime was adding to the structural problems which were seriously threatening the viability of the organisation, and therefore the jobs sustained by it.

- C** There was no evidence of any formal or even informal analysis of the overtime decision and managers appeared not to have considered any alternative means of balancing capacity and demand. The decision to fix an annual budget for the level of overtime appeared to be the only effective management control and the budget was fixed in reality by reference to previous years' overtime levels. Indeed, typically one or other of two phenomena operated at the various sites. Either the overtime budget, and consequently the overtime, would periodically dry-up, irrespective of the needs of the organisation or the employee, or the overtime would be held back 'for a rainy day' and at the end of the year, there would be a rush to use all the overtime budget in full, in order to prevent the budget being pared down the following year. No financial analysis had been made of the overtime 'decision', nor had the impact of overtime on overall productivity levels been considered.

Employees exercised a high degree of control of overtime working, within the overall budget constraints. Formal administration systems, for plant-level overtime control, were found to be sound both procedurally and in application. However, they were applied without reasoning, it was of little consequence to find a rigorous authorisation and reporting system when, as appeared to be the case in this instance, the authorising manager did not address the question, 'is the overtime necessary?' but only 'do we usually work overtime tonight and is there sufficient budget left?'

The man-management of overtime work, physically during the actual event on the shop floor, was achieved through charge hands and supervisors and was found on occasions to be totally ineffective. This was the only instance where, in some departments, productivity in the actual hours of overtime was found to be relatively low. One of the reasons for this was that lower levels of management were found to identify more with the needs of the employees, than with those of the organisation. Some of the more senior managers were unaware of the true processes and uses involved in overtime working in their organisation and the true impact of overtime on unit costs. They were found to simply not know what really was going on.

In addition, there were a number of managers who generally had risen through the ranks, who were quite aware of the ineffectiveness of overtime. These managers were surprisingly frank during the private interviews. They revealed a laissez-faire management style, within which they rationalised their position through a series of common assertions. For example, their workers needed the overtime earnings and would be otherwise underpaid, the overtime was used simply used as a mechanism to achieve a felt-fair level of earnings, as indeed, to a degree, was the institutionalised bonus system. Overtime enabled them to maintain equilibrium industrial relations, meeting employee expectations, and avoiding damaging disputes; they saw 'keeping the ship moving, almost at any speed', as a superior objective to that of efficiency. Moreover, these managers were also ultra-cynical about the ability, inclination and determination of the organisation to address restrictive practices such as unnecessary and ineffective overtime; they did not feel they would have the backing 'from above' to manage professionally; there was a strong union presence and little real executive human resource management power. In short, they felt impotent as managers.

- D More than 80% of the organisation's overtime could be defined as systematic, overtime being generally used for the normal workload, although managers did not state this to be so in the initial interviews; they most often stated that their use of overtime was for unexpected and emergency demand, although many dropped this pretence during the course of the study.
- F Overtime had an inhibiting effect on operational flexibility in that it was essentially systematic and therefore not available to deal with real unexpected events. Moreover, overtime was found to cause the depression of productivity across normal hours, due more to 'pacing' than to fatigue factors.

- G** Both managers and employees were generally found to want more overtime provision.
- H** The cost of overtime premia represented 52% of basic pay, while the NWLCs of employing an additional worker amounted to an average of 35%, for those departments using overtime. Overtime was found to be generally either unnecessary or ineffective, and sometimes unproductive.
- J** TOIL was not used and little or no unpaid overtime was worked other than by higher grade management staff, who worked on average about eight extra hours per week, without thought of extra remuneration. The local union officials pursued no particular policy on the use of overtime, nor had they received any direct guidance from their central organisation. The tendency was for local unions to seek to regulate the distribution of overtime. Indeed, it was pointed out on a number of occasions that the local union officials worked the longest overtime hours, it was implied, as a result of 'mutual assistance'. Overtime bans had been used in pursuit of industrial action, but not for some time.

There was no evidence that normal levels of overtime caused employees any particular welfare problems or fatigue. However, where groups of employees worked very long hours, above 12 hours per week, problems of fatigue and stress were found. These became manifest primarily through sickness rates more than double the organisation's normal levels. Pay levels were relatively poor, particularly for the skilled craft and technician grades. It was therefore, not surprising that there was a degree of overtime earnings dependency at the lower pay levels. Such examples were not widespread and were limited to specific circumstances, such as younger male employees, with family responsibilities.

8.2.11 Industrial Civilians CASE NUMBER 11

Type of Organisation	Ministry of Defence Civilian Industrial Employees
Locations	North West
Number of Industrial Employees	400
Sector	Public Sector Service (SIC 1980, 915)

HEADLINE:

The organisation were unable to satisfy corporate objectives due primarily to two problems, lack of abilities among lower levels of management and the lack of wage competitiveness. High levels of systematic overtime were worked, and this strategy was adding to the problems.

SUMMARY

The key message of this case was that it is not effective, in the longer term, to use overtime as a substitute for a sound and competitive pay structure, either to reward the workforce, or to give adequate production cover. Overtime was not the cause of the problems, but the inappropriate use of overtime both exacerbated the problems and inhibited their solution. In such circumstances it was inappropriate to simply tackle the symptoms, a longer term view was needed to tackle the underlying causes of the problems.

This organisation was under pressure both to demonstrate to the central civil service administration that it was giving 'value for money', and to provide a highly technical and rapidly changing engineering and technological service. The fundamental corporate objective was to provide an effective, highly specialised repair, maintenance and jobbing manufacture service for the MOD. The focus of the effort, until about five years ago, was on the achievement of delivery performance. However, this focus had shifted since the mid 1980s, to the provision of a cost-effective, timely and high quality service. The reasons for this change were two-fold: i) the Ministry generally became more aware of the need to achieve higher efficiency and embarked on a 'value for money' campaign; ii) satisfaction rates for delivery had improved considerably during the mid 1980s and this facilitated the change in emphasis.

The staff were split between two separate sites, both of which were visited extensively over a period of six weeks. Interviews were completed with seventeen management grade staff, fourteen skilled craftsmen and technicians, five unskilled workers and four local trade union representatives.

Levels of overtime were variable across the whole organisation, with average levels of about 6% of basic hours. This average disguised the fact that some areas, particularly the administration functions, worked very little overtime, while others, for example, the craft shop floor areas, worked long hours of systematic overtime. Overtime working was geared to specific nights of the week and Saturday mornings. The patterns of overtime working were stable with some individual workers, seeking every possible opportunity to work additional hours while a few avoided overtime. Pay was uncompetitive for the skilled and technician grades.

Staff were leaving the organisation for better pay and this was causing increasing difficulties in meeting production targets. Labour turnover had been increasing year on year, since 1984 and had reached 18% and even 28% in some of the more sensitive skilled areas. Unskilled staff exhibited normal industrial levels of turnover, their wages being much more competitive within the local labour market. Over the two years prior to the study, the personnel department conducted exit interviews. These showed that 65% of the core high-skilled employee turnover related to

wage competitiveness, while only 38% of un-skilled or semi-skilled turnover related to that cause. One area which served to highlight the problem was the apprentice training function. Each year about thirty new apprenticeships were commenced and about the same number of employees in their first few post-apprenticeship years left the organisation, generally for 'better jobs with more pay'. One disillusioned manager stated 'the better the lad, the more likely he is to leave'.

The age and length of service profiles were becoming increasingly top heavy and this was posing great sensitivity to the long term corporate viability of the organisation. The abilities and attitude profiles of the remaining staff were being diluted by the loss of the 'better' and more motivated employees. The wage competitiveness structural problems were at the time of the study starting to be addressed and the corporate intention was to totally review the payment structures.

Sound and professional middle management skills existed, but were widely thought to be stifled by pay policies emanating from the central bureaucracy. In addition, there was little opportunity to exercise 'real' human resource management in the highly unionised environment, where all workers were civil servants, and with no proper sanctions, for instance, no ability to hire and fire, or even to undertake normal industrial discipline as necessary.

Lower levels of management and supervision were, however, largely ineffective and tended to 'isolate' workers from sound professional controls and to constrain communications, rather than to manage effectively. Indeed, worrying examples of supervision-led, (rather than simply tolerated), bad working practices were observed during the shop-floor phase of the study. For instance, some supervisors were observed to systematically take formal 30 to 40 minute tea breaks in the afternoon, when tea breaks were not formally allowed. There was considerable pressure from lower levels of management and supervision, for an increased overtime budget.

POINTS ARISING FROM THIS CASE

- A There was no overall considered corporate strategy regarding the use of overtime. The management strategy which tended to be adopted was to use overtime both as a means of recruitment, retention and motivation and as a means to increasing capacity to compensate for key skill shortages.
- B Overtime helped the organisation to continue to meet its corporate objectives, but only in part; (*viz.* to satisfy demand, but not in the most cost-effective way). A purely academic relationship existed between overtime and employment; (*viz.* overtime was used instead of hiring new staff, but recruitment was difficult due to the low wages). It could, however, be argued that if pay and training programmes were properly balanced, overtime could be reduced and more staff employed. It certainly appeared that the use of overtime alone was not an appropriate or cost-effective solution.
- C The balance between overtime and employment was carefully considered at the corporate level and the maintenance of a steady overtime budget was by formal decision, but related to past overtime levels rather than to future demand. Sound and properly applied procedures were used for the control of overtime. The supervision of overtime at the workplace was often casual and the true effects of working the overtime had not generally

been considered by management and were not known. The only alternative to overtime working which had been considered was that of hiring new staff. The organisation had recently commenced a review of the underlying problems of wage competitiveness and the quality of supervision and management.

- D** Almost all the overtime worked was systematic in that it was planned and the demand could have been met by other means if management took the decision to do so. The key reason for overtime working was to supplement capacity for the losses due to high labour turnover. A secondary and connected reason was to allow workers to supplement their earnings and therefore to improve retention. Indeed, overtime opportunities were cited as a benefit in recruitment advertisements and interviews.

It was argued that overtime augmented operational flexibility in that it improved delivery performance. This was a mistaken thesis however, since overtime was not able to assist in dealing with emergency or unforeseen demand, because it was already systematically built into the working week and in this respect it clearly denigrated operational flexibility. Corporate flexibility was not enhanced by the use of overtime. This was partly because it would be dangerous from the industrial relations viewpoint, and difficult, to simply withdraw the established overtime, without other changes, in order to meet a fall-off in demand. Also, too many employees relied on their overtime earnings and labour turnover would be exacerbated.

- G** Middle managers, supervisors, employees and their official representatives, with few exceptions, sought increased overtime.
- H** The average overtime premia was 47% of total pay while the non-wage labour costs represented 32% of total pay. Managers believed overtime to be less expensive than the option of hiring additional staff. In this respect they were probably correct when considering the secondary associated costs which were very high in view of the considerable training and learning curve effects of the skilled tradesmen positions. There was, however, no means of conducting a detailed investigation of the secondary costs within this study. The effect of overtime on productivity was unclear. It appeared that overtime was as productive as work carried out in normal hours, and this was what management claimed and it certainly appeared that the managers were correct, although a full production study would be needed to establish this categorically.
- J** TOIL was not used and there was little or no unpaid overtime other than by a few senior managers. Only minor employee manipulation of pace of work or priorities to obtain overtime was found. Indeed, manipulation to secure overtime was not necessary in the circumstances, with extensive overtime available almost on-call. There was, however, extensive and quite obvious employee manipulation of the bonus payment system. This was 'designed' to control the level of bonus, and the success of this employee strategy was demonstrated by the achievement of 100BS with a formal cut-off at 101BS, (within a 5BS pay band structure), for almost every single pay period, for almost all pay groups, over the last eight years. Clearly, such a distribution could not have been achieved without considerable formal 'control'. This illustrates the abilities and level of sophistication of the

employees, collectively, to exercise subtle but effective control in the workplace. It was widely believed that overtime pay to supervisors contributed to the institutionalisation of overtime although no direct evidence was found of this process.

Local trade union representatives worked very high levels of overtime themselves and maintained pressure for the continuation of supply of overtime. There had been no guidance from the central union organisation on the policy towards overtime working. Overtime bans had been used by the unions as a sanction in taking industrial action in the early and mid 1980s, but not since that time.

There was no evidence that overtime affected employee welfare, although a number of employees stated they would like to leave the organisation because they wanted more time with their families. Finally, there was evidence that about 15% of employees were dependent on their overtime earnings to meet their normal financial commitments. This was clearly the case, not only for the lower paid employees, but also for some of those with relatively good basic wages.

9 FURTHER ANALYSIS

9.1 INTRODUCTION

Sections 6, 7 and 8 present the research findings, the primary analysis of these and some degree of interpretation of the findings as they relate to the specific methodology which was used. This section draws together these findings, the analyses and the arguments, and takes these to their conclusions with regard to the specific research questions and hypotheses. In addition, the analysis of the literature review is weighed and contrasted in this section, alongside the research findings. A number of gaps in the literature base are explored, support is given to some of the themes previously developed, and, where necessary, issue is taken with previous assumptions and assertions made by other researchers.

This section therefore relates directly to the issues under review, bringing all the findings and the initial analyses to bear as appropriate. In order to avoid repetition, only the major points of evidence, or those points which are needed to make establish new ground, are set out in this section. Where instances are quoted directly, these are intended to be indicative of the general situation that was found.

The evidence relied upon in Section 9.2 was drawn from the results of the survey, Section 6, and the reports of the case studies, Section 8. Apart from Section 7.5, 'Analysis By Amount of Overtime', Section 7 is essentially used to test hypotheses H1 and H2 which are addressed in Section 9.3. The research in its entirety is used to test the remaining hypotheses. The intention was always to use cases to illustrate, not what *generally* takes place, although they may indeed do that, but what *can* take place in certain circumstances.

9.2 THE RESEARCH QUESTIONS

The specific management of overtime and the systems applied to this for each particular sector of the economy, and certainly across the economy as a whole, have not previously been fully addressed in the literature. The literature review, Section 3, revealed a range of assumptions and assertions about the management of overtime in the U.K. which were often unsupported by research. This project attempts to provide the evidence to fill these gaps. The principle research questions flowed from the literature review and are set out in Section 4.2. These questions and issues fell within particular groupings which are dealt with in the sub-sections below.

It is necessary to establish a number of definitions before embarking on the final sections of this thesis. 'Legitimate' overtime is intended to distinguish between overtime which was found to be used for a 'real' need. A 'phantom-demand' was either simply not present, or had been constructed to facilitate the additional overtime hours for some other purpose. This would include overtime used to meet a demand which could have been satisfied by the application of professional management. The remaining overtime, which was classified as 'legitimate', could be

further classified as either effective or ineffective. Effective overtime was that which was considered to, on balance, best satisfy the corporate objectives of the organisation, given consideration and costing of all the available alternatives to the overtime. Ineffective overtime was legitimate overtime which could have been removed by cost-effective industrial engineering or O&M techniques.

9.2.1 The Functions of Overtime

One of the premise of this research was that the reasons for the use of overtime are central to the question of its effectiveness. It was found that a major component of the confusion surrounding the use and efficacy of overtime was the lack of management understanding of the real functions of its use in the local context. Indeed, this was one of the key factors maintaining the excessive use of overtime within those establishments studied, and it seems appropriate to deduce, within the economy as a whole. The case studies revealed an association between the ineffective use of overtime and management's mis-perception of its functions. This was hardly surprising since its use was, to a great extent, counter-productive. Conversely, Cases 2, 5, 6, 7 and 8 revealed a degree of association between the appropriate use of overtime and a more accurate management understanding and rationalisation of its functions. Again this finding seems quite obvious when stated thus, but does not appear to have been exercised in the literature previously.

The concern that managers might give defensive, rather than objective, responses to survey questions such as: 'why do you use overtime?' was discussed in Sections 5 and 6. That concern was found to be well placed. The survey revealed that the reasons for overtime most often given in the survey were those associated with the efficient and legitimate use of overtime, *viz.* unexpected demand; emergency cover and seasonal demand. While the reasons actually discovered in the case study phase indicated that the use of overtime was essentially systematic.

The reasons for the use of overtime were rarely found to be straight forward and frequently comprised a range of inter-related causes and functions. As explained above, the survey saw the usual 'felt justified' stock reasons being paraded by the management respondents. The case study phase revealed that the managers involved at the overtime decision levels were generally mis-perceiving the uses to which that overtime was being put, sometimes defensively, sometimes because they simply did not know. Many of these managers appeared to perceive that they had weaknesses in their use of overtime. Some actually said so, others were simply unaware: out of touch with the reality of the operational areas of their organisations.

As regards the actual reasons for using overtime, these are set out in rank order and discussed in Section 6.3. Bearing in mind the above qualification, a number of interesting features emerge. Outlook uncertainty was found to rank more highly in the survey responses, (4th out of 15), than had been anticipated or found elsewhere in the literature. This function of overtime was also found by the case studies, Section 8, to be an important reason. It was, however, unusual to find this to be the prime reason in itself, more often it was proffered in support of other reasons. It appeared that overtime was seen by management to be a source of capacity which could be increased or decreased with relatively little management effort. The case studies, however, illustrated how difficult it was to reduce established levels of overtime.

The use of overtime to support and ineffective low-pay structure was found, but not to the extent indicated in much of the literature. This was found to attach more to individual workers' characteristics than to the organisation's profile of structural variables. The one exception to this was, of course, the low-pay industries, such as hotels, (eg. Case 9), which tended to suffer more under this conspicuous misuse of working time, but not exclusively so. Management, in seeking to 'protect' the overtime levels of workers such as those in Case 9, were grossly sub-optimising their position. Their action amounted to treating the symptoms of the structural problem of an inappropriate payment system, in such a way that perpetuated the underlying cause and exacerbated the resultant problems. Both the enterprise and workers suffered in the longer run. It was prima-facie inadequate management practice and unacceptable employee welfare, to adopt overtime as a means of maintaining defective payment systems or shift systems, (eg. Cases 9, 10 and 11).

Overtime was used because managers felt this gave operational flexibility, but this was found generally not to be so, particularly where the overtime levels were high and regular. Overtime was occasionally enforced by the nature of the work, as with the drivers in Case 6, but this accounted for a very small amount of the total overtime.

The distribution of reasons for overtime across the economy were generally uniform, but with a few notable exceptions. More use was made of overtime to cover for 'skill shortages' in the South than in the North and in non-service sector than the service sector. Predictably, the use of overtime to give flexibility in the face of outlook uncertainty was more prevalent in the non-service than the service sector (significance $p=0.05$). The reader is referred to Section 7 and the supporting appendices where the many structural differences, or the lack of these, can be reviewed.

Both the survey and case studies revealed a very wide variety of uses to which overtime was being put and little management understanding of these. This lack of understanding and variety made the control of overtime both complex and difficult, and would repress any attempt at macro-level controls. The problem lies in attempting to draw general conclusions from such a diverse range of functions. Any broad-brush approach to the solution of overtime abuse could yield a host of potential problems for individual organisations. Therefore any general macro-economic strategy, or statutory regulation, would need to be very carefully considered, particularly in view of the unexpected effect of overtime premia levels on levels of overtime which is discussed in Section 9.2.4. below. That is not to say that macro-level controls should not be considered or would necessarily be entirely ineffective.

9.2.2 The Management of Overtime

In considering the competence of the management of overtime it is important to understand the processes which distinguish effective and professional management rather than inappropriate management. In this endeavour the classical model of management is used. This adduces that effective management operates within a consciously structured organisation, in order to achieve a framework of objectives. It involves planning and controlling to the plan, utilising the tools which

will best achieve that control. Where decisions are required, these will be based on a sound understanding and judicious analysis of the situation and the alternatives. It would be difficult for management to be effective without effective communications, innovation and man-management. It is not claimed that the above comments adequately define management, only that they serve to establish a basis on which the management of overtime can be considered in this thesis.

Many of the research questions were concerned with the management of overtime and a considerable amount of evidence regarding the management process was uncovered. These questions related, in particular, to the:

- i) Corporate or overall policies and strategies;
- ii) Decision processes for overtime working;
- iii) Consideration of alternatives to overtime;
- iv) Use of specific management controls;
- v) 'Ownership' of the real control of overtime at the workplace.

These issues are considered below and provide evidence on the fundamental question: 'is overtime associated with good or poor management?'

The case studies revealed strong evidence of overtime used successfully as a considered management tool, to enhance both operational flexibility and the achievement of corporate goals. For example, Case 2, Police Force B (North, 2300 Officers); Case 5, Distribution (Southwest, 1277 staff); Case 6, a small retail company (North, 10 staff) and Case 8, a group of hotels (Greater London, 660 staff); all demonstrated the essentially 'legitimate' and 'effective' use of overtime. The wide sectoral, size and geographical spread of such examples illustrate that overtime can not be branded as bad practice *per se*.

This evidence supported the findings of other researchers; eg. Atkinson and Meager (1986), who observed that, properly managed, overtime had a valid part to play in British industry. However, in these examples of the effective use of overtime, the levels worked were low compared to the average amounts for the particular industry and circumstances, and levels had often been previously reduced and 'brought under control' by specific management initiatives within the organisations concerned. Certainly this 'effective' overtime tended to be less systematic than that in the other organisations which were studied. The corollary was equally established. This suggested that high and systematic overtime was negatively associated with professional management practice.

The survey results and analyses are presented in Section 6 and 7 in detail and can be sifted as necessary. No doubt the reader would wish to do this from their own particular perspective and interests. These results are therefore not re-listed and reviewed in full in this section. However, it might be appropriate to give a simple example of the analyses which are available in those sections. Section 7 revealed interesting structural differences, and some lack of differences, in the use of management controls. For example, an overall 'corporate' management policy covering overtime, was less likely to be formally established in the South and in the service industries, than in the North and the non-service sector. This 'overtime policy' issue is shown below to be of pivotal importance in considering the 'legitimate' and 'effective' use of overtime.

The survey provides interesting but, by its nature, inconclusive evidence regarding the efficacy of the management of overtime and the association of overtime with good or poor management. The general application of formal corporate direction and policy regarding overtime was found to be generally lax within the U.K. Moreover, the controls of overtime appeared to be more rigorous, and levels of overtime tended to be lower, where a resolute overtime management policy was established at the corporate level. Case 2 gave a clear example of this process, particularly when compared to Case 3, where the lack of a well communicated policy had led to difficulties in controlling overtime. Section 6.5 and Figure 6-9 showed there to be an extensive lack of 'corporate direction' of overtime working within the economy as a whole. Only 34% of organisations employed a formal management policy regarding overtime. In addition, the existence of the fundamental overtime management control tool of budgetary control was negatively correlated with high levels of overtime (significance $p=0.01$, non-manual staff and $p=0.05$, manual staff, Appendix 7.5), although the practical use of budgetary controls is questioned later in this section.

It was interesting to note that any attempted restriction of overtime was usually accompanied by resistance from the lower levels of supervision and management and, in some instances, from middle management; eg. Cases 1, 3, 5 and 11.

Management by objectives and the unequivocal mission statement are not new concepts for effective management. It will, therefore, come as no surprise that the case studies found clear and resolute corporate policy to be a prerequisite to the significant improvement in the use of overtime. In debating this point, the view was put to the author that by far the most important factor in success was: 'well trained and motivated first-line management and supervision'. The evidence, however, unequivocally showed that this was not so. Of course, effective first-line management would be helpful and desirable in achieving corporate objectives, but the true catalyst for change was found to emanate from the corporate level. This issue, in essence, reduced to that of: 'who actually runs the show?'

The evidence, in short, comprised two facts. First, the research did not find any examples where overtime had been successfully reduced without resolute and clear policy direction from the top management level. Secondly, examples were found where overtime had been successfully reduced and rationalised as a result of senior management determination, *against* the overtly and actively expressed 'better judgement' of lower and, on occasions, middle levels of management, (eg. Cases 1, 2, 3 and 5).

The case study phase of the research yielded strong evidence on the overtime management issue. There could be no doubt that professional management and direction, at the corporate level, was one of the key factors supporting the legitimate and effective use of overtime. The corollary to this was the tendency for organisations, without a resolute, well communicated and understood policy on overtime, to drift into higher levels of inappropriate overtime, which actually inhibited their achievement of corporate goals (eg. Cases 3, 9, 10 and 11). There was also a tendency for organisations making heavy use of overtime, particularly where the overtime was ineffective, to have not undertaken a formal decision process leading to their use of overtime.

The lack of direction from higher levels of management has been found by other research (NBPI 1970; Carby *et al* 1981; White 1982). The Donovan Commission stated that it was not unusual for directors and senior managers to have little knowledge of the use of overtime in their organisations (NBPI 1970). It was clear that the bulk of overtime was scheduled almost by default. There was overwhelming evidence that formal analysis to support the decision to work overtime was not generally undertaken by managers who were either unable or unwilling to do the necessary work. Moreover, there was no evidence of any general holistic approach by managers to the structural problem of capacity-demand balancing. Overtime was treated as a single issue without reference to the total organisation. The only stage where an actual considered management decision appeared regularly to be taken was found to be during the annual budgeting process.

The use of overtime budgets was quite common and frequently the only real management control of the use of overtime. Operational managers often stated: 'I will use all the overtime I can get'. Frequently managers appeared simply to give-way to employee pressures for overtime. There was considerable evidence of overtime being 'budget driven' rather than flowing from considered decisions based on operational needs at the time the overtime was required. Indeed, even the annual decisions taken in setting overtime budgets were questionable. In all the cases of the inappropriate use of overtime which were found, the overtime budget decisions, where they existed, had been based primarily on the previous year's overtime levels, possibly modified in a bargaining session, and unsupported by formal analysis of forward-load and human resource management. These 'horse-trading' sessions were characterised by Operational Management seeking more overtime, resisted by General and Financial Management. As Smith (1989) pointed out, 'the management of the human resource lags far behind the management of other resources'.

Some managers tended to be over-sensitive, misinformed and defensive about their use of overtime. This was found, in the case studies, to be indicative of the inappropriate use of overtime, (eg. Cases 4, 9 and 10), and indicated that managers were at least suspicious of the possible shortfalls in this policy. Clearly, many managers found overtime to be a ready solution to the problems which can and do arise. The use of overtime to cover for management foibles in planning and scheduling the work and material flows was found to be quite common; eg. Cases 1, 3, 10 and 11. Clearly, overtime, insofar as it was used to cover for problems such as ineffective logistics and poor man-management, tended to perpetuate such problems and therefore was ineffective and inappropriate. This supported the findings of many previous researchers, who have linked the use of overtime with poor management-planning and scheduling of work and materials flows (eg. Gibbons *et al* 1976; Landveter 1984).

Carby *et al* (1981) stated that, traditionally, overtime in the U.K. is controlled by first line management; this was supported by White (1984). This research project also found evidence to support that conclusion, but only in part. A subtle process appeared to operate, where senior management were somewhat disinterested and uninformed regarding the use of overtime in their organisations. Overtime appeared to them to be a banal and old fashioned operational matter, of little corporate importance. At most, their interest was confined to the financial impact of overtime in reviewing the accounts, but not usually embracing any comparison of alternative means of satisfying the demand. Added to this, lower levels of management can benefit through the use of overtime in more easily maintaining 'equilibrium' industrial relations and ostensibly dealing with,

(or 'covering up'), the daily problems which certainly arise.

It is interesting to note that other nations manage quite successfully with much less overtime, often with lower unit labour costs than the U.K, and, presumably, with much the same logistics and man-management problems as occur in the U.K. (see Section 3.4.2). It is therefore difficult to accept at face value the alleged greater need in the U.K. to use overtime for the logistics and emergency cover reasons which are often paraded by U.K. management.

In fact, the true control of overtime was found in a number of the case studies to have been usurped by the workforce. Employee manipulation of working pace and work priorities appeared from the case studies to be common and was particularly associated with higher levels of systematic overtime and, therefore, with poor management; eg. Cases 3, 9, 10 and 11. Similarly, evidence was found that quality can be depressed by the use of overtime. This was found to be the case in the service industries such as the Police Force and the hotel trade, (Cases 1, 2, 3, 8 and 9), although there was not sufficient evidence to establish the general extent of this phenomenon.

The survey, *per se* could not give definitive evidence on this matter, although it revealed that 67% of respondents believed that employees: 'manipulate productivity and priorities to secure overtime'. The case studies however, provided the evidence needed to establish the phenomena. Every type of organisation studied, including the Police Forces, revealed some form of employee manipulation. The proposition is that insofar as overtime was associated with employee, rather than management control, it was *prima-facia* associated with ineffective management.

Miller (1978) found that supervisors were paid overtime rates in order to maintain pay differentials, although it appeared a relatively simple matter to devise other means to achieve this in those organisations studied. The payment of overtime premium rates to supervisors was found to be associated with systematic and higher levels of overtime, although there was no direct association between this practice and poor management. The survey revealed that 71% of respondents believed this practice to promote overtime, again this was of interest, but not conclusive. The case studies gave some additional evidence in support of the proposition for the larger organisations only. For example, Case 11 revealed the worst form of supervision negligence in the plant-level control of overtime working, although this was not promoted exclusively by the payment of premiums to those supervisors. Notwithstanding the above example, the substantive evidence of the case studies indicated that overtime premium payments to supervisors did not generally promote overtime working.

A wide-spread lack of knowledge and understanding of the alternatives to overtime working was found in the case studies; while the survey revealed a coyness on the part of managers to admit this lack of knowledge. This again pointed to the dangers in relying uncritically on survey data. Middle management were often found to be simply unaware of the available alternative options, and senior management were often unaware and disinterested in the level and consequences of overtime within their organisations. Some senior managers, in organisations where the worst overtime abuses were found, were totally unaware of those abuses and often gave genuine, but nevertheless ingenuous, responses during the interviews, regarding their organisation's use of overtime (eg. Cases 9, 10 and 11). Conversely, where senior management did understand the

use of overtime in their organisation, a great deal of effort and planning had been invested to optimise their use of overtime; for example, see Cases 1, 2, 5, 6 and 8. The reluctance of management generally to become involved in detail at this level, is widely accepted, for example, Smith (1989), referring to payment systems, stated: 'management do not do enough to become involved in the basic work of production and the events of the shop floor'.

Effective records and procedural controls were found to greatly help the reduction of overtime, as well as in maintaining it at the lower levels. As regards specific overtime control techniques, the survey revealed the distribution of the use of these, while the case studies gave details of their use in practice. Yet the use of 'controls', laudable as they may seem at first sight, needs to be considered critically. Limits for overtime working, for example, were discussed in Section 3.3.1 and 6.5, where it was revealed that limits can act as surrogate targets with tacit approval, and in this event represent the antithesis to overtime control.

The NBPI (1970) identified a lack of monitoring and records of overtime working. This was supported by the survey and case studies which revealed a serious shortfall in the availability of information on which to base decisions and controls. Interestingly, whilst 70% of organisations claimed in the survey to use a formal overtime authorisation system, the case studies revealed that this was in reality simply 'agreement' of the overtime and often took place 'after the event'. Moreover, the bulk of overtime, was worked regularly at certain times of the week. The only actual authorisation for this overtime was during the annual budget setting time and, presumably, when the overtime pattern had been first established, and this was often said to be 'years ago'. There was little evidence of any formal establishment of management review and 'authorisation' process at the point of delivery of the overtime. Thus, the so-called authorisation of overtime, as far as it implied some kind of management decision, was another instance where survey results which indicated that most overtime was formally authorised could be misleading. The case studies revealed that authorisation was often no more than a simple check of the budgetary provision, (on the basis that if it's in the budget, it must be authorised), and did not reflect the need and circumstances of the overtime.

On a more general note regarding the management control of overtime, Carby *et al* (1981) suggested, that overtime was coming under 'greater control and falling' (Section 3.3.1 qv). This was not found to be so by this research. Similarly, and more recently, the CBI (1989) predicted that increased overtime controls were due to be implemented in 1989. Again, no evidence was found, by this research, of any such perception among managers using overtime. Although, interestingly it was found that, where overtime had come under greater control, and particularly when this control emanated from the corporate level, overtime had indeed fallen.

In conclusion to this review of the management of overtime it is appropriate to address the fundamental question of the overall quality of that management. Caulkin (1976), and others have asserted that the management of overtime was 'sloppy', lacked proper procedures for control and was unaware of its implications for costs and profitability. This research provides specific evidence to support Caulkin's assertions. Section 3.3.5, 'Quality of Management', reviews the literature with regard to the U.K. management of overtime and reveals great concern regarding this issue. There was little in this research to suggest that this concern is mis-placed.

Indeed, the strongest evidence regarding the association of poor management with the unnecessary, inefficient and systematic use of overtime, flows more clearly from the examination of the legitimate and efficient use of overtime, than from that of its inappropriate use.

9.2.3 The Cost-Effectiveness of Overtime

The first premise to be established was that, where overtime was not 'legitimate', (*viz.* unnecessary), in that it was not required to meet demand, it did not matter what the relative costs of the overtime hours were, the overtime was, by definition, not cost-effective. The problem was that overtime appeared to be used for more than simply capacity-demand balancing, although management were often not aware of this, particularly at the senior levels. It would therefore be appropriate to put a value on the alternative reason for the overtime, for example, equilibrium industrial relations or improved earnings, and weigh this 'benefit' in any analysis of cost-effectiveness. Such an analysis is rejected in this thesis as fundamentally flawed, in that it rejects the classical management model.

In the event, a significant proportion of the overtime reviewed in the case studies was found to be unnecessary, even though management initially claimed that it was used for specific, legitimate, reasons. It was not possible to calculate the level of this unnecessary overtime; although if pressed, an 'informed estimate' would be that between a quarter and a half of all overtime observed in the case studies was quite unnecessary for capacity-demand balancing, in that the work could readily have been organised without recourse to overtime hours.

Case 10 revealed a clear example of the unnecessary use of overtime as well as the tendency to focus on the productivity of the overtime hours alone, (see Appendix 8-3). The Transport Manager stated that 'the only time the workers really earned their bread was during overtime' and this was his 'justification' for scheduling that overtime. Incidentally, the interview procedure did not provoke any justification, it was designed to reinforce and to avert the need for managers to become defensive. It was abundantly clear, however, that the overtime so scheduled was generally quite unnecessary. The transport workers were occupied for below 60% of their normal working hours and a simple reorganisation of work schedules and working practices, by sound man-management, could have achieved dramatic savings for the enterprise, without denigrating service levels in any way. The defensive stance of this manager was in fact quite rational in the circumstances. His use of overtime was serving no purpose except, possibly, to give increased earnings, although even so this overtime was intrinsically demotivating to the staff.

This leaves the question of the cost-effectiveness of that overtime for which a real 'demand' existed. The evidence suggested that the actual overtime hours worked were in fact relatively productive. It was also found that the majority of managers took a simplistic view, considering only the 'effectiveness' of the overtime hours themselves, rather than the holistic effect of overtime on the whole organisation and its objectives. Overtime was found to depress productivity and, on occasions, quality, of product or service, in most of the case studies. The exceptions to this were: Case 2, where overtime was very tightly controlled; Case 5 where the bonus scheme tightly controlled the productivity of the core productive tasks and Case 8, where overtime was low and infrequent and the nature of the 'service' prevented any form of pacing.

An example of the potential effect of overtime on the productivity of normal hours, in the service industry, was found in the Police Force. A police traffic crew gave the example that they had made a breathalyser arrest at the shift-end, the resulting overtime was most 'productive' in terms of their objectives (see Case 1). This illustrated that unit output and service levels could be higher in overtime hours than in normal hours. This, however, did not render the overtime necessarily effective. If, as was stated above in the case of the breathalyser arrest, the event was 'selected' by the officers to be towards the end of the shift, in order to promote the overtime, and the earlier quest for an arrest had not been quite so energetic, then the resulting overtime would be arguably ineffective, irrespective of the cost of the overtime hours compared to the non wage labour costs, (NWLCs). It is, of course, much easier to argue, in a manufacturing rather than a service environment, the ineffectiveness of overtime which is generated by worker manipulation of the timing of work priorities, or by inhibiting productivity in normal hours. Indeed, the patterns of service level demands were often determined by extraneous factors. Irrespective of this, management are, of course, responsible for establishing patterns of normal work in sympathy with such factors.

The survey revealed that only 11.6% of managers thought productivity was higher in overtime hours, while 64.8% disagreed with that assertion. As stated above, however, the case studies firmly illustrated that, on balance, the output resulting from overtime hours was better or equal to that achieved in the normal hours, particularly where the overtime was systematic or involved consistently long hours. The paradox of this unexpected survey response is clearly, a function of managers' general lack of knowledge of the use of overtime within their organisations and their tendency to fall back on 'common wisdom', when answering such questionnaires. This also reflected managers' lack of knowledge of the relative productivity of normal and overtime hours. Section 6.5 revealed that performance during overtime hours was measured in only 19.7% organisations.

As with the uses to which overtime is put, there was a great deal of ignorance of the true costs of scheduling overtime and the costs of the alternatives to overtime. For example, Appendix 8-4, illustrated, with one particular manager, a total misunderstanding of the costing of overtime. The inappropriate use of overtime was generally associated with the mis-perception of the comparative cost of overtime working. Many managers believed, incorrectly, that overtime was cost-effective in their situation. This misunderstanding of the relative costs of overtime and the alternatives was particularly evident in the medium sized and larger firms. In the very small firms which were studied there was a very good understanding, by the principle, of the comparative costs. This was hardly surprising since the principle had a clear financial interest and controlled all the relevant costs personally.

The case studies revealed that there was often a fall in performance associated with overtime, particularly where the overtime hours were long and recovery periods were not available to the individual workers. This did not, however, contradict the above analysis in that the most obvious lower performance standards were concentrated in the normal time both before and after the overtime as evidenced by the Police case studies. There were two processes involved. The first was a function of 'pacing' and manipulation, by the worker, before the event, in order to establish a need for the overtime, (eg. Cases 1,3,9,10 and 11). The second was simple fatigue, where the

performance (in terms of both quality and volume of work) fell-off after the event, (eg. Cases 1,2,3,9 and 10). As can be seen, both these phenomena were on occasions observed in the same organisation, but not necessarily so.

In Section 7.5 it was revealed that managers' perception of the 'cost-effectiveness' of overtime was positively correlated with the greater use of overtime, (significance $p=0.01$: manual and $p=0.11$: non-manual staff). The 'cost' reason was closely associated with that of overtime being used for 'normal demand' and these were ranked 6th and 5th respectively, out of 15 reasons, attracting 60% and 62% support at the combined primary and secondary levels. This indicated the extent of management's misunderstanding of the financial implications of their overtime 'decision'. Even where overtime was found to be very well managed, and innovative alternatives were being used, as in Case 5, there was little knowledge of the actual comparative costs of overtime and the alternatives, and apparently no formal analysis had ever been conducted.

Where managers were pressed in the case study interviews to take a view of the costs of overtime, the only equation found to feature in their thinking was that of the fundamental comparison between overtime premium costs and the direct NWLCs. This was actually quite a reasonable, if rudimentary, comparison, (see Section 3.3.3). In all cases, except in the Police Forces, overtime was found to be substantially more expensive, on this basis, than the alternative of hiring additional staff. Indeed, the macro-economic level statistics revealed the extent to which this was true. The NWLCs amounted to, typically, 30% (Employment Gazette 1989), whilst the overall average premium cost of overtime was found from the survey to be 52.4%, (see Section 6.2.3). The difference was therefore significant, being of the order of 20% of basic pay.

The overtime premium costs and NWLCs were dependent on the structural variables and the distributions of these are given in the appendices supporting Section 7. For example, larger organisations and those in the service sector, paid on average higher overtime premiums and encountered higher NWLCs. The average NWLCs for the case studies, excluding the Police Forces, amounted to 30%, whilst the average overtime premium found in the case studies was 49%. These figures were, of course, not intended to be illustrative of the general averages, but simply to illustrate that the cases were not unrepresentative on these particular measures.

9.2.4 The Patterns, Levels and Effects of Overtime Premia

The survey results gave a unique picture of the patterns and distribution of overtime premia and these are discussed in Section 6.2.3 and Section 7. The key findings of these sections are that non-manual staff receive, on average, a third lower overtime premia and higher overtime premia are paid in the South, in larger establishments and in the service sector. The discussion here will be focussed on the paradox, which this thesis highlights, regarding the effects of overtime premia on levels of overtime. This debate is centred around two diametrically opposite arguments, which are developed in Section 3.3.4, *viz*:

- i) *That high premia depress overtime levels, (by reducing the employer-supply of overtime by the price mechanism, eg. Ehrenberg 1971; Carr 1986; ILO 1986C). This rationale is by far the most widely adopted;*

- ii) *That high premia promote higher overtime levels, (by increasing employee-demand, eg. Brittan 1979; Dawkins 1985).*

The substantive finding of this research was that lower overtime premia lead to lower levels of overtime, in the U.K. economy. The evidence leading to this conclusion is reviewed below.

The first evidence to be considered was that of which group exercised the real control of overtime working. The analysis within this thesis illustrates that the workforce exercised a substantial degree of control, although this was not clear to many managers. Insofar as the pragmatic control of overtime was vested in the workforce, then the effect of premia on levels of overtime would certainly be a positive association, given that it is established in this thesis that employees work overtime primarily for financial reasons. This strongly suggests that the higher the premia, the greater the demand for, and therefore the level of, overtime.

The survey reflected this analysis in revealing a positive correlation between higher overtime levels and higher overtime premia. However, as discussed in Section 6.2.3, there was no evidence available from the survey to explain cause and effect. The survey result was therefore inconclusive. The case studies offered the opportunity to review and explain in more detail some of the processes involved. These revealed that managers generally had little understanding of the effects and potential uses of overtime premia. Premia were simply accepted as a 'fact of life' and were not generally the subject of any detailed management consideration.

The exception to this occurred when there were moves from the unions to increase overtime premia. (In this event, premia may enter local pay negotiations as a simple bargaining counter with little attention paid to any considerations, other than the rudimentary financial implications of the premia levels. Moreover, the key argument used by the unions tends to be that of 'typical' levels of premia paid elsewhere. Thus a ratchet effect seems to have operated within the economy, quietly but relentlessly jacking-up overtime premia levels over the years.) This particular argument is conjecture based on the experiences of the author although there is no doubt that premia have increased over the same period as overtime levels have increased over recent times, (see Section 3.3.4). Unfortunately, no evidence on this matter was uncovered by this research project. The above conjecture has been included in this thesis for two reasons:

- i) This research establishes, for the first time, a base line of premia levels and patterns, and the distribution of these by the major structural variables, against which future levels of premia can be tracked. Thus the above speculative proposition can be tested in the future if necessary.
- ii) Attention is drawn to at least the possibility of this potentially damaging process, and the need for managers to look deeply at the consequences of overtime premia levels.

There was no concern whatsoever found within management, in any of the case studies, about the level of overtime premia. Managers perceived that time-and-a-half and double-time were somehow sacrosanct and were generally unaware that these were historically and internationally high levels. The survey similarly revealed managers to be unconcerned or mis-informed about

levels of premia and the costs of overtime. There was, therefore, no evidence that the cost of overtime inhibited the scheduling of overtime, certainly not at the operational level, where the preeminent attitude of managers was found to be one of using all the overtime they could get, and sometimes more, since it was not uncommon for budgets to be found to be exceeded, (eg. Cases 3, 5). Many line managers appeared from the case studies to take the attitude that, if they had an overtime budget, it was incumbent upon them to use it.

The case studies illustrated that employees were essentially, (although not exclusively), motivated to work overtime by financial considerations. It was interesting, however, to note the attitude of some hotel staff, outlined in Case 9, where low basic pay and low premiums acted directly to depress employee demand for overtime. This was particularly the case for those employees, generally older or young-single individuals, who were not dependent on overtime earnings to meet their fixed financial commitments.

The cases studies illustrated that, the greater the financial rewards for overtime working, the greater the demand for overtime from the employees. Most particularly, they demonstrated the high degree of control of overtime working which workers exercise. Operational managers were found, as a rule, to not consider the costs of scheduling overtime, either formally by analysis, or informally. The conclusion that higher overtime premia promoted the use of overtime in the U.K. was inevitable.

This finding was important in that it contradicted the underlying philosophy of the internationally accepted macro-economic management of working time, that high premia inhibit overtime. This philosophy is widely accepted as common wisdom. In the US it is the basis of the Fair Labour Standards Act, which has sought to inhibit the use of overtime within the U.S. economy since 1936 (Carr 1986). Also, in Europe, it is accepted almost without question, that higher overtime premia depress levels of overtime. The ILO (1986C) stated 'overtime is universally restricted indirectly by means of a premium or penalty rate of wages. Conventions Nos. 1 and 30 provide that this premium shall not be less than 25%'. Although as Thurman (1988), of the ILO, theorised for Europe as a whole, the costs of overtime are not as effective a deterrent against overtime as statutory or organisationally based administrative hurdles. Clearly, there is a need to rethink this phenomena.

9.2.5 The Patterns of Overtime Working

The survey disclosed an interesting and again unique picture of overtime working patterns for the whole economy. It was clear that the patterns of overtime working, in a general sense, disclosed something about the nature of the overtime. At least they were one of the signs that overtime may be systematic. Section 6.2.2 discusses the overall overtime patterns whilst Section 7 covers the implications of the distribution of those patterns between the structural variables.

The case studies proved what had been suspected from the survey, that regularly scheduled overtime was generally systematic in nature, in that the need for overtime, where a need was substantiated, could generally have been anticipated and a range of alternatives were available for meeting that need. Moreover, the case studies showed that the timing of the overtime were to

some degree controlled by the workforce, to meet their convenience, rather than the demands of the work *per se*, (eg. Case 10 and 11). This was not necessarily an unhealthy situation for some types of overtime. For example, where the overtime was needed, in the short term, to meet annual fluctuations in demand or skill shortages, it was sensible to arrange that 'predictable' overtime to best meet employees' requirements. However, it is, of course, incumbent on managers to seek the most appropriate solution to problems such as fluctuating demand and skill shortages, and in the longer term, overtime would not necessarily be the only viable alternative, or the best solution.

The most extreme example of workforce control of overtime working patterns was found in Case 10. This revealed that overtime was worked on Sundays in order to meet the transportation and double-time premium desires of the workforce, and this pattern had been established and unquestioned for a number of years, (Appendix 8-4). In this instance, the operational and senior management, revealingly stated unequivocally, before the shopfloor study, that this overtime was worked to meet 'unexpected demand' and 'emergency situations'.

9.2.6 The Extent of Systematic Overtime

Systematic overtime, for the purposes of this thesis, was defined in Section 6.3 and discussed at length in Section 3.3.7. The survey revealed that about 75% of overtime may be defined as systematic. Similarly, the case studies showed that, on average, two thirds of overtime, in the enterprises reviewed, could be defined as systematic, although that statistic was not necessarily indicative of general levels.

The analysis given in Section 7.5 revealed that rising current levels of demand did not correlate with higher levels of overtime, while the use of overtime for 'normal demand', and for the closely related reason of its perceived 'cost-effectiveness', were both positively correlated with the greater use of overtime. Similarly, it was interesting to find a positive correlation between longer overtime hours and the perception of management that any worksharing measures would result in yet further increases in overtime. These findings all point to overtime being intrinsically systematic.

It did not follow that all systematic overtime was ineffective, or that systematic overtime necessarily implied negative overall consequences for the organisation. A number of examples of the appropriate use of systematic overtime were found, (eg. Case 1 and Case 8).

Notwithstanding the above argument, where management exercised firm and rational control of overtime, the levels of systematic overtime were found to be lower. This was confirmed by Cases 2, 5 and 6. The contra argument was also found, in that where management were not in control of overtime working, higher levels of systematic overtime were invariably evident. Thus the extent of systematic overtime can act as a barometer for the general health of the management of working time and the effectiveness of capacity-volume balancing. However, this tool should be used as an indication of the need to look in more detail at the efficacy of the overtime, rather than as evidence-in-chief of its ineffectiveness.

9.2.7 Attitudes Towards Overtime

There was no doubt from the results of the survey, (see Section 6.2.4), and the case studies, that the majority of employees across all the sectors of the economy, wanted to maintain or increase overtime levels. Many saw overtime as a means of controlling their own levels of pay and pace of work. There remained, however, a small section of the workforce which resisted overtime working, primarily because they placed a greater value on their free time than on the premium-pay earnings. These workers appeared to be grouped by their individual characteristics, rather than by any particular structural variables.

The case studies revealed that employees were essentially, (although not exclusively), motivated to work overtime by financial considerations, (eg. Cases 2, 3 and 8). A number of interesting, if minor, sub groups were found in the case studies and it is worth briefly reviewing these. The effect of taxation on attitudes was relatively small, but a few employees took the view that overtime earnings were relatively heavily taxed, due to the system of personal taxation allowances, and this militated against their working longer hours. Intriguingly, there were also a small number of workers, (see Case 9, hotel sector), who took the view that their hourly wages were so low, and overtime premia relatively low, that it was not worth the effort to work longer hours, therefore they avoided overtime where possible. This was a curious distortion of the low pay syndrome. It must be stressed that these groups were generally not associated with any of the structural variables. They tended to simply reflect the normal variability found in any group of people. The one exception being the low paid group which, of course, was associated, in these cases in the hotel trade, with the somewhat structurally based low paid work.

Management attitude to overtime working, of course, is central to the issues. It was clear that lower levels of management sought to maintain the flexibility which they perceived overtime gave them to manage. In fact the case studies revealed that their use of overtime did not, on balance, improve flexibility. Overtime was found by the case studies to be pragmatically used, by lower levels of management and supervision, to achieve a number of objectives. These included exercising discretion to give 'grace and favour' to individual employees, sometimes as a reward or punishment. Scheduling overtime was thought by some managers to 'sweeten' industrial relations, and to avoid pressures from the workforce who wished to control their pay and pace and traditionally had used overtime to do so. Clearly, overtime was used to 'cover-up' management deficiencies in scheduling and controlling work and material flows. The use of overtime to avoid the need to accurately plan ahead and organise capacity to meet anticipated demand was conspicuous. This analysis may appear cynical, yet, on the basis of the case studies, it can scarcely be avoided.

An obvious but important phenomenon, well illustrated by the case studies, showed that the demand for overtime working from workers was found to be, in all cases, directly proportional to the general expectations of availability of overtime; eg. Cases 3, 6, 9 and 10. In short, the greater the availability of overtime, the greater the employee demand for the overtime. Conversely, where overtime had been restricted, and the workforce had become accustomed to this policy, the demand for overtime from the workforce, and from operational management, was much lower, eg. Cases 2 and 8.

Evidently, workers and lower levels of management tended to become 'addicted' to overtime working. Some more senior managers, (eg. Case 10), took the demand for overtime, from the shop floor and line management, as vindication of the need for that overtime. Clearly, this was a very dangerous assumption for them to make; indeed, it might have been more prudent to take such demand as a warning sign that the overtime may be institutionalised and should be fundamentally reviewed, rather than simply accepting it as a self-fulfilling prophecy.

It followed that, all workers, not just the low paid, were able to become dependent on overtime earnings when these were regular, irrespective of their fixed financial commitments, and this syndrome was found in a number of cases, even in the relatively well paid Police Force. It was not only the low paid who would suffer the financial problems of overtime withdrawal in these circumstances.

9.2.8 Employee Welfare and Absenteeism

The primary evidence regarding employee welfare was obtained from the case study phase of the research. The studies unequivocally demonstrated that overtime could, and often did, militate against employee welfare, particularly when hours of work were relatively long or shift systems poorly designed from the welfare viewpoint. In Case 10, for example, employees working over 12 hours per week were found to suffer from directly associated welfare problems, while those below that level exhibited no such problems. To quote from that case: 'overtime caused employees to become stressed and fatigued, it lowered morale and caused resentment'.

The evidence clearly illustrated that, where employee welfare did suffer, this invariably rebounded on the employer in that productivity and quality of product or service were put at risk. Two processes prevailed. First and most obvious, the effectiveness of the employee fell-off on the days following the excessive or inappropriate hours. This was very clear from the reports of 'wooden' Police Officers, following long hours of duty. Secondly, it was clear that employees exposed to welfare problems, quickly learnt to 'pace' themselves prior to and, to a lesser extent, during the overtime, in order to avoid the worst effects of the inappropriate hours. It was surprising that employers appeared to be unaware of the consequences, for both their employee and their product, of long hours of work.

Interestingly, employee welfare and long hours of work was an issue of increasing importance in the Police Force and this is discussed in Cases 1, 2 and 3 in some detail. However, welfare was hardly recognised by management as an issue in the other industries covered by the case studies. There was, for example, little recognition from management that the notice given to an employee of the need to stay late was negatively correlated with welfare, in that the shorter the notice, the greater the disruptive affect of the overtime on the worker.

The survey, as designed, could give very little direct evidence with regard to employee welfare. It did, however, reveal that mandatory overtime was more widespread than had previously been thought (Steele 1986). The ILO (1986 and 1988) identified mandatory overtime as an area of concern with regard to employee welfare, (see Section 3.3.10.). In theory, mandatory overtime would clearly have an adverse impact on employee welfare. However, there was no evidence

found in practice to sustain this argument as far the U.K. economy was concerned. In the Police Forces, where mandatory overtime was prevalent, and working hours systems very poorly designed from the employee welfare viewpoint, mandatory overtime was totally accepted by the officers and the potential adverse consequences were usually avoided. Indeed, the lack of overtime opportunity was found to have a more important influence on employees, and where employees wished to avoid overtime, they generally could do so with little difficulty. It would appear, therefore, that any general statute which gave workers the right to refuse to work overtime would not have a significant impact on employee welfare in the U.K. economy. On the other hand, there are particular jobs where such a statute would be incongruous; eg. in the Police Force.

Workers felt that the consistent availability of overtime was an important factor, they found the stop-go implications of 'badly managed' annual overtime budgets, (where the overtime budget is exhausted and overtime is summarily withdrawn for a period), to be disruptive, both financially and socially. Workers were keen to maintain regular patterns of overtime, fixed on pre-determined days and times of the week. This was helpful for them in preserving and developing non-work relationships and activities. The establishment of fixed patterns of overtime, however, are clearly associated with its systematic, and possibly inappropriate, use.

An ironic interpretation, therefore, was that the more effective use of overtime, diminished employee welfare, whilst employees found the ineffective use of overtime to be desirable and supportive.

As regards absenteeism, the survey revealed that managers did not feel this to be an important cause of overtime, (Section 6.3). Neither were the case studies helpful since they gave conflicting evidence regarding the association between overtime and absenteeism. The literature review, (Section 3.3.6), accepts an association between overtime and absenteeism, but suggests a dichotomy as regards cause and effect, viz:

- i) Overtime causes absenteeism;
- ii) Absenteeism causes overtime.

This controversy was not resolved by this research.

There was clear evidence that excessive overtime can cause absenteeism. Such an example was uncovered in Case 10, (see Appendix 8-4), where one department exhibited absenteeism levels of 16% (against an organisation norm of about 6%). This department was giving a 24 hour cover security service, using a poorly designed shift system which required each operator to work 18.25 hours minimum shift in-fill overtime per week. Similarly, the inappropriate use of overtime, by the hotel in Case 9, caused high levels of absenteeism and, additionally, caused workers to become fatigued, and institutionally disenfranchised.

On a less dramatic scale, some Police Officers claimed that overtime was the cause of absenteeism, however, the detailed statistics showed that absenteeism had increased over the same period that overtime had been reduced, (see Appendix 8-2). Workers in other cases stated that they were able to 'afford' time off, after achieving higher earnings by working overtime. Case

4 revealed that a female worker, with children, was increasingly using absenteeism to avoid overtime; as were some Police Officers, although infrequently so. Other cases, however, revealed a lower propensity for overtime workers to be absent, (eg. Case 8, hotel shift workers).

It was clear that overtime frequently caused absenteeism. This absenteeism in turn gave rise to more overtime as managers used it to solve their resulting capacity-demand balancing problems, (eg. Case 8). In this respect, it was intrinsically the overtime which gave rise to the absenteeism. However, it is not possible to be definitive on this issue because of the number of exceptions which were found in the case study interviews of workers. Nevertheless, irrespective of the precise nature of cause and effect, absenteeism was found to be positively correlated with overtime.

9.2.9 Time Off In Lieu For Overtime Working

The use of TOIL for non-management employees was encountered only in the Police Force case studies, where the levels of TOIL, (actual overtime hours worked, not the premium hours earned), were found to be about 25% of the total overtime hours in each of the Forces. There were special reasons for this free choice of the Police Officers, including: the increasingly high relative value placed by Officers on free time; the excellent rates of basic pay and, significantly, the need for individual Officers to avoid capture by the systems which were in place to control those individuals who worked excessive paid overtime.

It would be dangerous to draw any conclusions from this research about the use of TOIL since it was not formally used in the private sector establishments which were studied. There appeared to be two reasons for this lack of use. Firstly, there was little knowledge of, or demand for, TOIL from the workforce. Secondly, most organisations would have had great difficulties in organising production and service levels, with the added uncertainty of random staff absences due to TOIL. An informal kind of TOIL was used at senior management levels within about half the organisations studied. This gave senior managers some flexibility to take time-off according to their needs, in return for their freely giving time, 'out of hours', in response to the needs of the organisation. Records of TOIL were not usually kept in the private sector, and were kept only for local control in the Police Forces.

Toil in the Police Force had been negotiated by the Police Federation and was calculated at the equivalent premium rate of paid overtime. However, where TOIL was used by managers and senior employees, in an ad-hoc manner, it was not based on a premium rate and did not generally reflect the far greater unpaid extra hours they worked.

9.2.10 Unpaid overtime

Unpaid overtime was often not viewed as overtime at all, by either the workers or the organisation. Records were not generally maintained and it was therefore difficult to establish firm statistics regarding the extent of the phenomenon. The only statistics available were the General Household Survey of 1980, when the question was put to male workers only. White (1984)

analysed this survey and stated: 'the conclusion is that a large proportion of all supplementary hours are unpaid or unrecognised as overtime'. There has not been any attempt to quantify the extent of unpaid overtime within the economy as a whole, and it was not possible from this research.

However, it was clear that the majority of unpaid overtime was worked by non-manual workers who were found by the survey to work ten times more unpaid overtime than their manual colleagues. Similarly, the case studies revealed that the majority of unpaid overtime was worked by management grade employees, and it was clear that the survey had probably seriously underestimated the extent of unpaid overtime, since many managers did not interpret 'taking work home', or 'staying late unpaid', as working overtime, which was one of the factors White alluded to above.

There was a feeling in many organisations that unpaid extra hours were 'part of the job', eg. Case 5, and the Police Force cases. An estimate of unpaid overtime in the Police Force is available from the case studies. It was found that this amounted to between 3.5 and 4.3 million hours per year; (based on the number of 'management' grade officers, Inspectors and above, working an average of six to eight unpaid extra hours per week, which was found from the case studies to be a reasonable estimate). This equated to 2500 to 3000 full time job equivalents in the Police Force as a whole. Clearly, the extent of unpaid overtime was, therefore, seen to be a significant element within the labour market equation and worthy of specific further research.

Unpaid overtime appeared to be a matter of culture, with some organisations embracing high levels and others experiencing little, even among senior employees. Appendix 8-3, Case 5, revealed the existence of a 'matcho' factor in the use of unpaid overtime, where long hours became a matter of 'proof of status' or 'club membership', enjoyed only by the chosen few. This attitudinal phenomenon was also noted in the Police Forces.

Notwithstanding the purely cultural influences, the job satisfaction factor was also important and was illustrated in Case 8, where staff in that particular hotel derived great satisfaction from the quality of the service they gave. The reluctance of these staff to claim payment for overtime was again, however, more a matter of organisational culture than of individual predilection.

9.2.11 Local Union Policies on Overtime

It has been suggested that overtime is best controlled, from the union stand-point, at local level (White 1982; Evans and Palmer 1985). Local level trade unions, (and the Police Federation), had received little or no guidance from their central organisations, regarding the policy to be adopted on overtime working. This was a remarkable finding insofar as it confounded the annual TUC conference resolutions and debates regarding the need to bring overtime under greater control. Interestingly, management were not found to have attempted to exploit the Trade Unions' overtime schizophrenia as a means of bringing overtime under greater control.

The local union 'policy' towards overtime was undeveloped and informal. It was based essentially on supporting whatever demands the local workforce were making. In reality this meant that local

unions were primarily bringing pressure for more overtime and for more control over the conditions of overtime working. The local level officials, in the organisations in the case study programme, had not taken any initiatives to constrain the use of overtime within their members' organisations. Indeed, the most likely contact with overtime working, for the Shop Stewards and Conveners in the establishments which were studied, was pursuing members' grievances regarding the distribution of overtime, or attempting to increase the supply of overtime, or resisting employer's attempts to restrict supply.

As predicted in Section 3.3.8, overtime bans were found to have been used by unions as a sanction in industrial disputes, for example, Cases 5, 10 and 11. Indeed, the issue of the industrial relations vulnerability, which over-exposure to overtime can bring, was found to be of far greater importance than had been expected. Some organisations were putting a high value on the ability to avoid exposure from dependence on overtime hours.

9.2.12 The Employment Effects of Overtime

The substantive evidence relating to the employment effects of overtime arise from the case studies. However, the results of the survey were of some interest and are dealt with in Section 6.9, where the two complimentary factors of 'worksharing' and the 'new jobs yield' from overtime reduction are discussed. The majority of respondents felt that working time reductions would result in overtime increases. Since those respondents were the managers who would have a major input to the decision, their prophesy could well be self-fulfilling, and this is a cause for deep concern.

However, no evidence was found, either in the analysis of previous research findings, the analysis of the published statistics, or in the case studies, that would indicate any cardinal link between overtime and normal hours. Indeed, where hours of work had been reduced in the past, overtime levels had generally fallen rather than risen. Moreover, lower normal hours was positively correlated with lower overtime levels, (see Section 3.4.4), although this issue was not without controversy. For example, the Treasury stated that 40% of the potential loss in output, following a cut in normal hours, would be made up by additional overtime (Allen 1980), although they produced no evidence to support their 'hunch'.

Case 5 was interesting, not in providing evidence of what *usually* happens when normal hours are cut, but in giving an example of what *can* happen. Normal hours were cut for both manual and non-manual workers, over the mid 1980s, from 40 to around 36.5 hours per week. During the same period, overtime was cut by over 75%, unit labour productivity increased, unit labour costs decreased and many new jobs were created. Moreover, the organisation considerably improved its overall corporate performance over the same period. It is readily acknowledged that it would be difficult to separate out the specific overtime management initiatives from the compound effects of the other changes which had been made. There was no evidence, however, that the overtime reduction had been anything other than supportive in the achievement of corporate objectives and the creation of new jobs; this was the unequivocal view of senior management.

The case studies showed very clearly, and somewhat surprisingly, that the potential employment

effects of the redistribution of overtime could be very significant indeed. It has to be acknowledged that a substantial amount of the overtime reviewed in the case studies could have been removed, simply by more effective man-management and management of logistics, resulting in dramatic increases in the productivity of normal hours, eg. Cases 9, 10 and 11. Nevertheless, there remained a considerable amount of genuine overtime which could be redirected into employment in some form or other.

The Police Forces all showed that, irrespective of the validity of the theoretical arguments on this issue, *viz.* that each additional Officer would bring an increased demand for overtime, and the demand massively outstrips the potential capacity; in practice, money had been shifted from the overtime budget, to directly create additional employment, Cases 1, 2 and 3. Cases 4 and 7 illustrated the corollary of the job creation argument, in that overtime was specifically used as a policy to circumvent the need to employ additional staff. Cases 5, 6 and 8 all gave sound evidence of overtime reduction directly creating employment, similar to the Police Force case studies. Moreover, these organisations, perhaps, had created increased employment, indirectly, by overtime reduction, in that the reduction had helped them to secure higher levels of viability and competitiveness, through lower unit labour costs. This would theoretically have the effect of creating increased demand which would result in even greater employment and investment opportunities. No evidence of this secondary phenomenon was, however, available from this research.

This research found that a higher than expected proportion of overtime could be readily converted into new jobs. One reason for this was the new flexibility of the labour market which continues to appear to be developing. Organisations, faced with the demographic changes and local labour market imbalances, are increasingly open to innovative solutions, new forms of contracts and new structures of working time. Case 5 illustrates a number of innovative solutions which have been successfully adopted.

The age old road-block offered by the 'defenders' of current high levels of overtime, was that the nature of the work would prevent the overtime from being packaged into convenient 'job-sized units'. This research provides evidence which firmly rejects that assertion. The majority of the overtime observed in the case studies could easily have been either absorbed by more efficient working practices, more appropriate shift arrangements, or by extending employment in one form or another. Indeed, this research suggested that managers tended to be defeatist with regard to their ability to manage working time.

9.3 THE RESEARCH HYPOTHESES

Section 9.2, above, sets out the primary analysis of the issues, which itself derives from the fieldwork results and initial analyses which are set out in Sections 6, 7 and 8. This sub-section gathers-up, briefly, the various findings and analyses as they relate to the specific hypotheses and presents, in summary form, the substantive findings which are used to test these hypotheses.

The first two hypotheses invited the researcher to establish a database setting out the details of a

wide range of overtime-related issues and statistics. In addition, it was necessary to demonstrate the relationships between the key structural variables and the identified overtime issues. The research was intended to establish if there were any significant differences or distributions, reducible to the structural variables. These hypotheses are given below:

H1 The use of overtime is a function of the following variables:

- a) SIC group;
- b) Regional location;
- c) Size of establishment;
- d) Amount of overtime worked by the organisation;
- e) Type of employee, manual or non-manual;

H2 The management of overtime is a function of the following variables:

- a) SIC group;
- b) Regional location;
- c) Size of establishment;
- d) Amount of overtime worked by the organisation;
- e) Type of employee, manual or non-manual;

Hypotheses H1 and H2 were found proven for each variable. There was only one possible hesitation, *viz*: 'Regional Location', (H1b and H2b), where the level of proof was somewhat lower than for the other variables, although a number of significant associations were established even in this field. It is most important for managers and researchers, especially when operating at the macro-economic level, to understand the particular functions and relationships of overtime in their areas of interest, and to be able to measure the extent of these and explain the nature of the association. This database provides a wide range of information to meet this need. It would be impractical for the analysis of all the relationships found to be covered in this thesis, there being many thousand of these.

The survey was the prime instrument used to establish the relationships between the use and management of overtime, and the key structural variables as detailed above. The Figures set out in Section 6 give considerable data, much of it unique, relating to the use of overtime across the whole economy. In addition, a wide range of associations were identified within varying degrees of significance. These are given in the presentation of results, Section 7 and the supporting appendices. These appendices represent the database propositioned by H1 and H2.

It scarcely needs stating that great care should be used in drawing inferences from any such data and statistical analyses. A degree of common sense and industrial relations knowledge must be applied in interpreting the relationships and indicating where correlations are supported by intuitive or deductive logic, and where they are spurious. For example, it was clear that the greater need for overtime to cover skill shortages in the more prosperous South (significance $p=0.02$) was a sound correlation. Whereas the greater use of overtime to cover skill shortages in the non-service sector (significance $p<0.01$) was not so obviously a sound correlation and the greater use of overtime in large organisations, to cover skill shortages (not significant $p=0.20$) was at first sight not at all obvious, although it would be possible to argue that small organisations tend to be less skill based and more flexible, and therefore have less need for scarce irreplaceable skills

and therefore lower demand for overtime to replace such skills.

No apology is offered for stating those associations which may be thought by the reader to be axiomatic. For example, the extent of unpaid overtime was found to be greater among non-manual workers, who were reported to work ten times the amount of unpaid overtime worked by their manual colleagues. This fact sits comfortably with the common perception of the phenomenon, and the charge that 'this was obvious' might well be made. Nevertheless, this was the first time to our knowledge that this statistic has been factually established or quantified in any way. Conversely, a number of relationships were found to be quite contrary to the common wisdom and this reinforces a basic premise of all research, *viz.* the validity of research does not rest entirely on the outcome.

H3 The use of overtime promotes 'operational flexibility'.

'Operational flexibility', for the purposes of this hypothesis, was defined as 'the ability to respond effectively to satisfy short-term and un-anticipated, day-to-day needs'.

This hypothesis is generally rejected. There were instances where overtime did promote operational flexibility, but these were the exception rather than the rule. There is no doubting that both the case studies and the survey revealed that overtime generally was not used to give operational flexibility. Indeed, about three quarters of all overtime was found to be systematic, in that it was predictable. Such overtime was the antithesis of operational flexibility. It is demonstrated by this research that systematic overtime could have only two effects on operational flexibility; it was either neutral, or, more likely, it actually reduced the establishment's ability to secure operational flexibility by choosing to use overtime in an unforeseen circumstance.

H4 The use of overtime promotes 'corporate flexibility'.

'Corporate flexibility', for the purposes of this hypothesis, was defined as 'the ability of an organisation to respond efficiently to developing medium and longer term changes in the demand for labour, about which there is uncertainty in the short term'.

There was no evidence to suggest that this hypothesis should be rejected. Indeed, it appeared from both the survey and the case studies that corporate flexibility was used as the primary reason for overtime working, much more than previous studies had assumed. Corporate flexibility could be seen to some extent as the use of overtime to avoid the need to establish higher levels of staffing. The use of overtime for this purpose could not be labelled as bad practice *per se*. Indeed, examples of the use of overtime for this reason were found to reflect rational management in some of the case studies. Irrespective of whether the practice was appropriate at plant level or not, it was open to severe criticism from the macro-economic perspective of labour market management. This matter remains, however, to be argued outside this PhD thesis.

H5 Overtime working is a more cost-effective means of meeting demand than the potential alternatives.

This hypothesis is firmly rejected, based on the primary comparison between overtime premia and non-wage labour costs. There was, in addition, considerable evidence that a significant proportion of that overtime investigated in the case studies, was unnecessary, irrespective of the cost equation, and therefore was not cost-effective. Where overtime had been reduced in Case 5, unit labour costs had fallen, although it was accepted that many other changes may have also influenced those costs. In any event, it was clear that managers at all levels were generally quite ignorant of the various levels of cost attaching to their decisions between overtime and the alternatives and could therefore not effectively use comparative costs as a basis for their decision.

The effects of the secondary costs of overtime working, and of the alternatives were not measured in detail in this research. There was no reason, however, to doubt that these were marginal compared to the primary costs and were, on average, fairly evenly balanced. In any event, such costs were highly variable, and associated more with individual establishments, than with any predictive structural variables. There was little opportunity, therefore, to make generalised statements regarding these. It was interesting to note that common perception was again challenged regarding two of the commonly supposed advantages of overtime working; *viz.* overtime used to maintain equilibrium industrial relations and overtime used as a recruitment and retention aid. The case studies strongly suggested that overtime was of potentially negative value to the organisation in respect of industrial relations, and dubious and variable value in respect of recruitment and retention. In any event, it would be difficult to measure, *ceteris paribus*, the effectiveness of such phenomena.

H6 The use of overtime is not associated with poor management practice.

There was compelling evidence to establish that overtime can be used effectively, as a rational management tool, to achieve the aims of the organisation. Even systematic overtime was found, on occasions, to be a sensible use of capacity to meet demand. This rational use of overtime was, however, found to be the exception, rather than the rule. It was not predictable by any particular structural variables, but appeared to be a function of the individual characteristics of the organisation and particularly its senior staff.

The effective management of overtime was found invariably to be based on a resolute and well communicated corporate understanding and policy regarding the use of overtime, a so called 'mission statement'. The overtime found in these circumstances was distinguished by being less systematic in nature, with fewer hours worked by individual employees, than the norms established for the equivalent type of organisation.

Notwithstanding the above qualification, rejection is firmly indicated for H6. The overwhelming body of evidence can only lead to the conclusion that overtime was generally associated with poor management practice. The investigation of examples of the legitimate and effective use of overtime only served to underline this conclusion, by illustrating the differences between managements which used overtime effectively and those which did not.

H7 Workers depend on their overtime pay to meet their fixed financial commitments.

It came as no surprise that an unequivocal response to this hypothesis was not possible. However, in essence, H7 is rejected. The great majority of workers were not found to have fallen into this trap. The use of overtime to support an otherwise inadequate pay structure was found from the survey to be much lower than had been suggested by other research would be the case (see Section 3.4.5) Workers were found to generally take a very rational view of the uncertainty of overtime earnings and to avoid the trap of dependency.

Nevertheless, a few notable examples of dependency were found. These were distinguished more by the individual workers' characteristics, than by any structural profile of the organisation. Indeed, even the low-paid industries did not act as a totally reliable predictor of this syndrome since relatively high paid workers, as well as low paid workers, were found to depend on their overtime earnings, for fixed financial commitments.

Section 9 has attempted to blend together the research findings and analyses which were presented and developed through Sections 3, 6, 7 and 8. It remains now to draw the conclusions.

10 CONCLUSIONS

10.1 INTRODUCTION

The conclusions flow from the results and analyses sections and relate to the specific research questions and hypotheses which were posed in Section 4. The survey yielded a general view of the economy as a whole and enabled overtime issues to be investigated in some detail with respect to the chosen structural variables. The case studies gave a more detailed understanding of the processes and motivations, particularly in small organisations and the service sector which, until now, had both remained somewhat obscure as far as the use and management of overtime were concerned. It was apparent that the use of overtime, in those service sectors reviewed, is very similar to the use of overtime in the manufacturing sector as reported in the literature.

It would be ingenuous to expect that a range of specific questions and hypotheses relating to a whole economic sector could be answered in simple definitive and generalised terms, without substantial qualification. Such a result would be simplistic and, whilst appealing in some ways, might in fact be unhelpful for considering the individual organisation. This research project revealed the detailed complexities which had previously been hidden or glossed over in the literature. Moreover, a number of unequivocal explanations were discovered, some which reinforce the common wisdom, others which challenge it.

The thesis was designed to take the reader through a 'process', from the broad analysis of the literature, through data collection and fieldwork, to analysis and interpretation of the findings. Thus the total process offers an extension of the understanding of the use and management of overtime. The results are intended to augment the information and explanation concerning many of the overtime issues and phenomena, and to extend the understanding of the management of overtime. In addition, a unique, definitive and up-to-date database has been established.

10.2 THE RESEARCH QUESTIONS

The research questions are given below, followed by the broad explanation which was indicated by the research and a brief summary of key points arising from the analysis.

- 1 What overall strategies are adopted for the management of overtime and what are the pragmatic consequences of overtime working in terms of corporate objective achievement and employment?**

The use and distribution of strategic management options are set out in Table 6.9 and the appendices supporting Section 7. One of the many interesting examples of the findings of these data was that larger organisations do not adopt more formalised overtime management policies or strategies, than smaller firms. The case studies revealed that the 'legitimate' and 'effective' use of overtime, as defined in Section 9, was invariably characterised by the existence of three key

features:

- i) A firm and well communicated corporate policy regarding the levels and use of overtime, and resolute corporate determination to enforce that policy;
- ii) A clear and accurate understanding of the reasons for the overtime within the organisation;
- iii) Appropriate and rigorously applied overtime management systems and controls.

It needs stating that the 'intention' to reduce overtime, *per se*, did not appear to result in any actual change. It seemed that overtime could not be simply 'talked down'; specific pragmatic management action was needed to secure change in an area where the inertia of tradition was found to be substantial. This may appear an obvious finding, but it explains a syndrome, not previously expounded, but found to be widespread at both the macro-economic and individual plant levels.

The legitimate use of overtime was found to aid the achievement of corporate objectives. The converse was also found to be true, and to be more prolific, *viz*: the ineffective use of overtime detracted from the achievement of corporate objectives. It is worth emphasising, even though it may appear to be a logical tautology, that the two opposite phenomena were each clearly observed in separate case studies. However, the latter syndrome was generally not recognised by management at any level of the organisation.

The impact of overtime on employment was found to be more obvious and substantial than the literature indicated would be the case. Overtime reduction was found on occasions to have specifically and directly created new jobs. However, no definitive conclusions were possible, from this particular research project, regarding the generalisation of the proportion of total overtime which could be converted into new jobs or, indeed, the 'conversion rate' of overtime hours into jobs. Further research in this area would appear imperative.

A substantial amount, between a quarter and a half, of the overtime observed in the case studies could have been absorbed simply by the adoption of more efficient working practices, or more appropriate arrangements of working time. This overtime was therefore not available to job creation in the direct sense, although any efficiency improvement would embrace the secondary effects which would clearly have a positive impact on longer term employment prospects at both the micro and macro-economic levels. The bulk of the remaining overtime could have been readily converted into suitable jobs, particularly given a degree of management innovation such as was found in Case 5. Indeed, it was clear that the developing flexibility of the labour market and employment contracts was increasing the potential to convert overtime into new jobs.

2 What types of management and control techniques are applied to the use of overtime, and what are their distributions across the economy?

The required data, and their distribution across the economy, by the structural variables, are set out in the detailed tabulations within Section 6 and the appendices supporting Section 7

respectively. It was clear that the use of specific overtime management techniques was not generally widespread and, indeed, larger organisations did not tend to make greater use of the various overtime control techniques. This suggested, but did not conclusively prove, that the management of overtime was deficient.

The key control used by larger organisations, (50 or more employees), was that of the overtime budget. Budgets, *per se*, were found to be a valuable management tool in the strategic management of overtime. However, the budgets were often set with little or no formal analysis of future capacity-demand balance, and often without regard to any alternatives to overtime scheduling, and thus were potentially inappropriate and misleading. Clearly, the misuse of this primary control of overtime was a central factor in its institutionalisation.

3 Are managers aware of the range of alternatives to overtime working and are these fully and properly considered?

Managers were not generally aware of the range of alternatives to overtime working or the need to innovate in seeking solutions to the capacity-demand balancing problem. Therefore alternatives were not adequately considered. Even where managers did have sufficient knowledge of the various alternatives, formal cost-benefit analysis of the overtime decision had invariably not been carried out. Little innovation was found, although where organisations had experimented with new contracts and capacity-demand balancing techniques, the results were evidently helpful.

4 Why do employers schedule overtime, and are the reasons for overtime, as suggested by managers in the questionnaires and initial interviews, accurate?

The case studies revealed that the incorrect perception of the use of overtime within an organisation was positively associated with the ineffective use of overtime. This conclusion may appear axiomatic, but it has not previously been stated in the literature. It was clearly established by this research, that one of the prerequisites to the effective use of overtime was a clear management understanding of the true functions of that overtime in their organisations.

Each organisation was quite unique and had its own complex set of factors governing its use of overtime, reflecting its particular culture, management style and attitudes. It could be misleading to generalise statistically about the reasons for the use of overtime, although these are given in the analysis sections of this work. In any event, there were few important distribution distinctions, based on the structural variables for the reasons for overtime. Added to this, it was quite clear that managers did not generally correctly perceive the real uses and functions of the overtime in their organisations and this cast doubt on all the unqualified survey material which has previously been published.

Nevertheless, 'unexpected demand' and 'emergency cover' were the top two reasons obtained from the survey. Moreover, the initial interviews of management in the case study phase supported the survey result. However, the case study fieldwork showed the reasons given by managers to be most often inaccurate and misleading, the majority of overtime was in fact systematic. Managers, either defensively or through ignorance, misunderstood the use of overtime in their organisation. This finding establishes a need for the analysis and interpretation

of survey data to be circumspect. This is especially important in the analysis of overtime, since much of the previous research is based on survey data of one or other form, and a sound knowledge of the true functions of overtime in an organisation is the foundation upon which analysis and understanding are built.

As regards the specific reasons for overtime working, there were no simple answers, the uses were many and varied. These included both the legitimate and unnecessary uses of overtime, (*viz.* whether or not it was needed in the first place), and both its effective and ineffective use, (*viz.* if it was really needed, whether the overtime was applied and controlled effectively or not, in the light of the alternatives and its management). A further complexity arose from the possibility that an effective use in one circumstance, might be quite inappropriate in another, even within a single organisation.

A key finding was that the majority of overtime was systematic and used to meet normal demand. It was also important to understand that the first line control of overtime was often vested in the workforce, rather than the management. Managers were generally able to give reasons for the overtime they were scheduling 'that day', and these sometimes seemed to be compelling. It was essential to establish why the particular situation promoting the overtime had arisen, or been allowed to arise, in the first place and, taking the strategic view, if overtime was the best way for the organisation to balance capacity and demand. It was clear that these questions had not been addressed at any level of management, within those organisations studied.

5 Is overtime a more cost-effective option?

The plain answer was that it can be, but most often was not.

This question is one of great complexity. In considering cost-effectiveness, it was obviously necessary to appreciate the total cost implications. Many managers took a simplistic view of overtime, considering only the 'effectiveness' of the overtime hours themselves. Indeed, the actual overtime hours worked were often more productive than the normal hours. This fact gave rise to considerable misunderstanding about the overall effectiveness of overtime and, indeed, did much to support its inappropriate use. Nevertheless, as discussed at length in the analysis sections, the productivity in normal time was often found to be depressed as a result of the overtime or its anticipation. The systematic and high use of overtime were found generally to depress overall productivity and service levels and, on occasions, the quality of the product or service. This was one of the key factors in the cost-effectiveness debate.

The first premise to be established was, clearly, whether the overtime was genuinely necessary, 'legitimate'. If it was not, as was the case with a substantial amount of the overtime reviewed in the case studies, then the comparative 'costs' of that overtime would be irrelevant. In these circumstances the overtime would, *prima facie*, not be cost-effective.

Where the overtime was found to be legitimate then management would need to establish which viable alternatives were available to meet that demand. One of these alternatives might be overtime, depending of course on the nature of the demand. All the alternatives could then be analysed, including consideration of all the potential costs and benefits, and the solution chosen

to best meet the overall objectives of the organisation. This could be a composite solution and might include overtime, although the decision would certainly need to be regularly reviewed in the light of changing circumstances. We found little evidence of any such structured or holistic approach to the capacity-demand balancing decision.

The question of cost-effectiveness was posed partly to evoke a debate about the alternatives, and one objective of the survey was to discover how the options were perceived, (see Section 6.7). Where managers had in fact considered the alternatives to overtime working, this essentially comprised a simplistic comparison between overtime and hiring additional staff for the established shift patterns. The fundamental comparison in this event, was between the 'direct' costs only, *viz.* the overtime premium cost compared to the non-wage labour costs. Overtime was found by this research to be substantially more expensive, on this basis, than the alternative of hiring additional staff. The one exception was the Police Force, where the overtime premia cost was lower. Managers were, in any event, not generally aware of the primary costs of the overtime or the principle alternatives such as hiring more staff, and few had considered the secondary costs, (see Section 3.3.3). It must therefore be concluded that overtime is generally not cost effective and managers are not generally in a position to know what the comparative costs actually are.

6 What are the patterns and levels of overtime premia and their effects on levels of overtime?

Lower overtime premiums were associated with lower overtime levels in the U.K. economy. The converse of this also held true, *viz.* higher overtime premia were associated with higher levels of overtime in the U.K. Moreover, there was compelling evidence of cause and effect, that lower premiums actually brought about the lower levels of overtime. It is clear from this research, and from any logical interpretation, that, insofar as the pragmatic control of overtime was vested in the workforce, overtime premia would be positively correlated with overtime levels. This was, indeed, found to be the case.

The patterns, levels and distribution of overtime premia are set out in Figures 6.5 and 6.6 and in the appendices supporting Section 7. These figures give a unique set of data, of pivotal importance to the consideration of overtime. For example, it is revealed that non-manual staff receive, on average and when they are paid for overtime, a third lower premia than their manual colleagues. The average overtime premium, for all sections of the U.K. economy, types of worker, and working times and conditions, was found to be 52.4%.

7 What use is made of Time Off In Lieu (TOIL)?

TOIL was not generally used for non-management grades, with the exception of the Police Force where officers choose to take TOIL for about 25% of their total remunerated overtime. Only very limited and ad-hoc use was made of TOIL in the private sector, covering, essentially, management grade employees.

There was little knowledge of, or demand for, TOIL from the U.K. workforce. Furthermore, most organisations would clearly have encountered difficulty in organising production or service levels

with the added uncertainty of random staff absences due to TOIL. Any move towards TOIL would therefore tend to make overtime less attractive to employers, and the administration of overtime more difficult at plant level. There was no evidence that the use of TOIL would promote employment, as is claimed to be the case in some countries.

TOIL in the Police Force was calculated, in time-off, at the equivalent premium rate of the other 'remunerated-by-money' overtime. However, where TOIL was used casually by managers and senior employees across the economy, it was generally based on a 'straight-time' rate and often did not reward the far greater, and otherwise unremunerated, extra hours that had been worked.

8 How extensive is unpaid overtime, what perceptions are held about it and why is it worked?

It was impossible to estimate the extent of unpaid overtime, for the economy as a whole, from the studies carried out in this research. Records were generally not kept and there is no commonly accepted definition of the phenomenon. We were, however, able to shed some light on the matter. For example, non-manual staff were ten times more likely to work unpaid overtime than their manual colleagues, although it would be unwise, from this research, to attempt to quantify the hours involved at the macro-economic level.

Unpaid overtime was generally worked by management grade staff and some professional and specialised technical staff, but not exclusively so. Some operating level staff occasionally choose to stay late without pay or TOIL, for reasons of job satisfaction, or due to the lack of a more attractive use of their free time. The key motivations leading to unpaid overtime among senior employees were firstly, job satisfaction, and secondly, the organisation's culturally based expectation that extra hours were part of the job. It was also often understood that relatively high senior staff salaries compensated for extra hours as necessary on a trust basis.

9 Does absenteeism cause overtime, or is it the other way around?

Absenteeism was found to be positively associated with overtime. The actual process of cause and effect was somewhat less clear and, indeed, was found to vary according to the circumstances. Nevertheless, it appeared that it was essentially the overtime which gave rise to the absenteeism in the U.K. In considering this issue, it is important to bear in mind that this particular 'cause and effect' association was a function of the relatively high U.K. overtime levels. Therefore this relationship is unlikely to translate across international boundaries where cause and effect conceivably flow in the opposite direction as the literature indicates.

10 To what extent is overtime systematic, and what are the patterns of overtime working?

There was no commonly adopted definition of the much used term 'systematic' overtime. It was defined for the purposes of this thesis as, quite simply, 'predictable' overtime.

Three quarters of all overtime could be defined as systematic in these terms. It did not necessarily follow, however, that all such systematic overtime was either unnecessary or

ineffective, or that such systematic overtime invariably implied negative overall consequences for the organisation. Nevertheless, the majority of systematic overtime was found to be ineffective and was not generally the product of professional management analysis and decision. Thus the extent of systematic overtime could act as an initial barometer for the general health of the management of working time in an organisation or sector.

The patterns of overtime working, in a general sense, disclosed something about the nature of that overtime. At least they were one of the signs that the overtime could be systematic in that regularly scheduled overtime was systematic *per se*. The patterns are given in Section 6 and illustrate a tendency for overtime to be scheduled for specific predetermined times during each week.

11 What are the effects of paying overtime rates to supervisors and managers?

The substantive evidence of the case studies indicated that overtime premium payments to supervisors and managers did not appear to promote overtime working.

12 What attitudes are generally held about overtime by the workforce?

The majority of employees, across all sections of the economy, wanted to maintain or increase overtime levels. Workers found it desirable to control their own levels of pay and pace-of-work and they saw overtime as a means of achieving this.

Employees were essentially, (although not exclusively), motivated to work overtime by financial considerations. There remained, however, a section of the workforce which resisted overtime because, primarily, they placed a greater value on their free time, than on premium-pay earnings. These workers were distinguished by their individual characteristics, rather than by any particular structural variables. For example, older workers more often avoided overtime and nostalgically reminisced about their irreplaceable loss of time with their family in their middle years.

Workers' demand for overtime was directly proportional to their expectations of the availability of overtime; *viz.* the greater the availability of overtime, the greater the demand for the overtime from the workers. Conversely, where overtime had been restricted, and the workforce had become accustomed to this policy, the demand for overtime from the workforce and, incidentally, from their operational management, was much lower, therefore the expectation was accommodated. To this extent, there appeared to be a self-generating aspect to overtime scheduling.

13 Do the workforce exercise any control or manipulation of overtime working, or is overtime totally in the control of managers?

It was clear that overtime was often 'controlled' by the workforce, rather than the management.

Indubitably, this provocative conclusion will be challenged on the basis that some organisations apply strict budgetary control to overtime. However, macro-level budgetary provisions were found primarily to be fixed annually, by reference to previous levels of overtime. This, ironically, may link the essential 'control' back to the workforce, the management control being somewhat

illusory.

It was interesting to note that workers did not just control the extent of overtime working, but also had a significant degree of influence on when the overtime was worked.

14 Is employee welfare affected by overtime working?

Overtime was often harmful to employee welfare, particularly when associated with longer hours of work or poorly designed shift systems. Paradoxically, the legitimate and effective use of overtime, by its very random nature, tended to diminish employee welfare. On the other hand, employees found the generally more ineffective, systematic use of overtime, to better meet their needs. It was found that the adverse impact of overtime on employee welfare tended to rebound on the employer, in that the effectiveness, (productivity and quality of output or service), of the employee was diminished. This may appear a logical and obvious point, but it is one which is not widely considered by management.

It was established that excessive overtime does cause absenteeism and this evidence suggests that overtime causes unfavourable employee welfare. The shorter the notice given to an employee, of the need to stay late, the greater the disruptive effect of the overtime on the worker. Mandatory overtime, however, was not found in practice to significantly affect employee welfare.

15 What are the unions doing about overtime at the local level?

The union 'local policy' on overtime was undeveloped and informal. It was based essentially on supporting whatever demands the particular workforce were making. This meant that, at local level, unions were usually seeking to maintain or increase overtime levels. In addition, they were, on occasions, seeking better conditions, for the workforce they represented, with regard to the distribution and timing of the overtime and the premium levels.

Local level trade unions had received little or no guidance from their central union organisations regarding the policy and tactics to be adopted for overtime working.

16 Is overtime associated with good or poor management practice?

The simple answer is 'with both', but most often the latter.

Sound professional overtime management was associated with lower levels of overtime. A number of examples of the legitimate and effective use of overtime were found and these illustrated that overtime could not be branded as bad practice *per se*. Conversely, there was overwhelming evidence to show that higher and more systematic levels of overtime, most often resulted directly from low standards of overtime management. About three quarters of overtime was found to be systematic, and it therefore followed that overtime was generally associated with poor management.

Insofar as overtime was associated with employee rather than management control, or found to be harmful to employee welfare, it was *prima facie* associated with ineffective management.

Similarly, it was found that a significant proportion of that overtime investigated in the case studies, was either totally superfluous or could have been easily removed by rudimentary industrial engineering.

A wide range of management 'deficiencies' were found to be inherent in the use of overtime. This thesis states that, insofar as overtime was found to be associated with these deficiencies, it was *prima facie* associated with poor management practice. A selection of this evidence is summarised in this paragraph. A prerequisite to the sound management of overtime must be a sound understanding of the purposes the overtime served. This research showed that, particularly in the larger organisations, (50 or more employees), managers simply did not appreciate the real functions of the overtime used in their organisations. Indeed, this was one of the key factors maintaining the ineffective use of overtime. A lack of clear and resolute corporate policy regarding overtime was found, to be widespread throughout the economy and, in addition, to be positively associated with the inappropriate use of overtime. Given this lack of corporate direction, it was hardly surprising to find that management did not, as a rule, formally address the overtime decision. The alternatives to overtime working were rarely considered, and when they were considered, this most often only involved the option of hiring additional staff, for the established shift. Added to all this, the costs of overtime, and of the potential alternatives, were neither used nor understood by management. In fact overtime was found not to be cost-effective on a macro-economic scale, except for the Police Force. Overtime controls were found to be little understood and not generally used, or indeed, were mis-used. Overtime was often found to be 'budget driven', rather than to flow from considered decisions based on operational need at the time the requirement became known or was predicted. Limits on overtime working appeared to act as surrogate targets. A surprising number of organisations did not formally use overtime authorisation systems and those which did use them, often did so only superficially. As a final example of management deficiencies, the effects of overtime on productivity and quality were rarely monitored.

In conclusion, overtime had not generally come under greater control over the last decade, as was predicted by Carby (1981), and following its widespread vilification in the literature, (see Section 3.2.2). It was found that, in the exceptional cases where overtime had come under greater control and when this control emanated from the corporate level, the overtime had indeed been reduced and tended to be less systematic compared to the relevant norms. In this sense, the evidence of the 'legitimate' and 'effective' use of overtime supported the thesis that 'overtime is associated with poor management'.

10.3 THE RESEARCH HYPOTHESES

Each of the research hypotheses are given below, followed by the appropriate response, based on the preceding analyses sections and conclusions to the research questions.

- H1 The use of overtime is a function of the following variables:**
- a) SIC group;**
 - b) Regional location;**

- c) Size of establishment;
- d) Amount of overtime worked by the organisation;
- e) Type of employee, manual or non-manual;

H2 The management of overtime is a function of the following variables:

- a) SIC group;
- b) Regional location;
- c) Size of establishment;
- d) Amount of overtime worked by the organisation;
- e) Type of employee, manual or non-manual;

Hypotheses H1 and H2 were found proven. A wide range of associations were identified within varying degrees of significance. These are discussed in the presentation of results in Section 7. The appendices supporting Section 7 represent the database propositioned by H1 and H2. In addition, the tables set out in Section 6 give considerable data, much of it unique, relating to the use of overtime across the economy as a whole.

Variables H1b and H2b, 'Regional Location', exhibited a slightly lower level of proof than the other variables, although a number of associations regarding regional location were found to be both statistically significant and logically rational.

H3 The use of overtime promotes 'operational flexibility'.

This hypothesis was rejected. There were instances where overtime did promote operational flexibility, but these were the exception rather than the rule.

All superfluous and ineffective overtime would, *prima facie* diminish operational flexibility. About three quarters of all overtime was found to be systematic, in that it was predictable and therefore the antithesis of operational flexibility. This inconsistency was somewhat ironic, since managers claimed 'improved flexibility', in one form or another, as the major reason for scheduling overtime.

H4 The use of overtime promotes 'corporate flexibility'.

The evidence suggesting that the hypothesis should test positive was rather weak. However, there was little evidence on which to reject this hypothesis. Corporate flexibility was found to be much more significant as a primary reason for overtime working than previous research had indicated would be the case.

H5 Overtime working is a more cost-effective means of meeting demand than the potential alternatives.

This hypothesis was firmly rejected, based on two key considerations. First, only legitimate overtime could be cost-effective; all unnecessary overtime would, by definition, not be cost-effective. Second, the costs of any legitimate overtime would need to be considered comparatively, in the light of the costs of all the alternative ways for capacity to be increased to

meet the demand.

A significant proportion of the overtime investigated in the case studies was found to be unnecessary. Furthermore, a significant proportion of the balance of overtime was found to be ineffective. Therefore, irrespective of the cost equation, such overtime was not cost-effective.

The main alternative to overtime was perceived by managers to be that of hiring additional staff. The primary costs comparison showed overtime premia to be almost double the non-wage labour costs, at the macro-economic level. The exception to this generalisation was the Police Force, where aggregate overtime premia were lower than total employment costs.

H6 The use of overtime is not associated with poor management practice.

There was compelling evidence to establish that overtime can be used effectively, as a rational and professional management tool, to achieve the aims of the organisation. Even systematic overtime was found, on occasions, to be a valid means of capacity-demand balancing.

Notwithstanding the above qualification, the research uncompromisingly indicated rejection of this hypothesis, finding overtime to be generally associated with poor management in the U.K.

H7 Workers depend on their overtime pay to meet their fixed financial commitments.

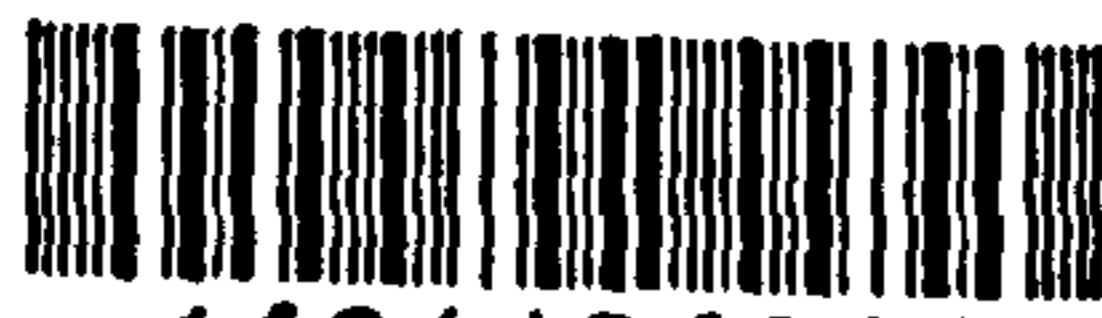
An unequivocal response to this hypothesis was not possible. However, in essence rejection was indicated since the low pay overtime dependency syndrome was found to be the exception rather than the rule.

The use of overtime to support an otherwise inadequate pay structure was found to be less widespread than had been suggested by the previous research. Interestingly, employees who were relatively well paid were also susceptible to the financial problems of overtime earnings withdrawal. The overtime earnings dependency syndrome was found to be associated more with individual workers' characteristics, than with an organisation's 'structural' profile.

Finally, it is perhaps dangerous to attempt a parting comment, yet it has been difficult for this research to avoid giving an adverse overall impression of the use of overtime in the U.K. economy.

On the acid test of: 'what now maintains the use of overtime in the U.K.?', the emerging answer is quite clear. There is no single reason for the use of overtime. Its application is governed by a diverse set of factors, even within a single organisation. Some of those factors were appropriate and rational, others were not. Nevertheless, irrespective of the exceptions, the use of overtime is clearly associated with ineffective management, particularly where overtime is systematic or levels are high.

Looking back over the research, the experience was didactic and therefore, starting again, some things would undoubtedly be done differently. There remains, however, confidence that the research met a need, and the two primary objectives: the database provision and the analysis of key issues were both achieved.



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APPENDICES

APPENDIX 1-1

UNEMPLOYMENT ALLEVIATION TAXONOMY CLASSIFICATIONS

- | | |
|-----------|---|
| 1 | The fundamental generic classification:
Worksharing;
Job creation. |
| 2 | The basic operating mechanisms of the measure:
Expand demand;
Restrict supply. |
| 3 | The instrument's primary operating level:
Social, Socio-economic;
Economic (micro or macro);
Demographic; |
| 4 | Primary unemployment types addressed by the measure:
Frictional;
Cyclical;
Structural;
Discretionary. |
| 5 | Degree of permanence of the measure:
Permanent;
Temporary. |
| 6 | Means of promotion of the measure:
Statutory;
Contractual;
Discretionary. |
| 7 | Selective or general application (targeting):
Geographically (regional or general);
Type of unemployed (length of time, age of person);
Economic Sectors and Specific Industries. |
| 8 | Attitudinal Implications (positive, neutral or negative):
Government (Conservative or Socialist);
Employers;
Trade unions and Employees. |
| 9 | Probable cost per job (created or 'saved'):
Below £5,000;
£5,000 to £11,999;
Above £12,000. |
| 10 | Significance (potential jobs created/saved/shared):
Marginal (below 50,000);
Moderate (50,000 to 150,000);
Major (150,000 and above). |

APPENDIX 2-1

CURRENT OVERTIME STATISTICS

Type of employee	All employees		Employees working overtime		
	Average weekly basic (hours)	Average weekly gross pay (£)	Percentage of total employees (%)	Average weekly overtime (hours)	Average weekly overtime pay (£)
MALES					
Manual	39.1	200.6	56.8	10.1	54.1
Non-manual	37.2	294.1	21.1	6.2	47.5
All	38.2	245.8	39.6	8.9	52.9
FEMALES					
Manual	38.1	123.6	26.8	6.3	26.4
Non-manual	36.3	175.5	18.1	3.5	21.2
All	36.6	164.2	20.0	4.2	22.7

(Source New Earnings Survey April 1988 Full-time employees on adult rates in G.B. all industries and services)

APPENDIX 3-1

INTERNATIONAL REVIEW OF OVERTIME REASONS

Country	Commentator	Key reasons reviewed
America	Ehrenberg (1971) Baird et al (1980) Industry Week (1979) Hollman (1980) Clarke (1982) Dilts (1983) Greis (1984) Carr (1986)	Cost effectiveness. Emergency cover; normal demand. Normal and unexpected demand; maintenance. Capital utilisation; cost effectiveness. Skill shortage; holiday cover; low pay make-up. Normal demand Cost effectiveness. Seasonality; emergency cover; absenteeism; normal demand; skill shortages; corporate flexibility;
Australia	Dawkins (1985) ILO (1985)	Nature of work (i.e. shifts). Seasonality; cost effectiveness; skill shortages.
Canada	Reid (1985)	Unexpected/temporary/seasonal demand.
Czechoslovakia	Karnakov (1984)	Nature of job; emergency cover.
Denmark	Weischer	Fluctuations in demand; unexpected demand.
Germany FRG	EIRR (1986)	Fluctuations in demand; emergency cover; labour shortages
Ireland	Brennan and	Absenteeism; operational flexibility; nature of job; normal production.
Israel	Kats et al (1982)	More cost effective than hiring.
Japan	Yamada (1985)	Normal demand; cost effectiveness; seasonality.
New Zealand	Sinclair (1983)	Normal demand; seasonality; labour shortage;
Poland	Karnakov (1984)	Nature of job; emergency cover.
Sweden	Axling (1983)	Temporary or seasonal demand; unexpected demand; absenteeism; skill shortages.

APPENDIX 3-2

NATIONAL RESTRICTIONS OF WORKING HOURS

Country	Normal Weekly Hours	Maximum Overtime Allowed	Notes
Australia	38 - 40	No General Limits	Regulated By Awards & Collective Agreements
Austria	40 50 maximum	2 hrs/day 10 hrs/week	Statutory Regulation
Belgium	40 50 maximum	2 hrs/day 10 hrs/week 65 hrs/quarter	Statutory Regulation Annualisation of working hours allows limits to be exceeded without payment of overtime premia within max. 40 hrs/wk
Bulgaria	42 (5 day week) 46 (6 day week)	3 hrs day or 2 hrs night per 2 consecutive days 6 hrs day or 4 hrs night per week 30 hrs day or 20 hrs night per month 120 hrs per year	Statutory Regulation Overtime generally prohibited
Canada ¹	40 -44 -48 48 maximum	8 hrs/week	Statutory Regulation 12 Provinces each regulate employment law Federal law influences Inter-provincial law
Czechoslovakia	42 46 maximum	8 hrs/week 150 hrs/year	Statutory Regulation
Denmark	39	No General Limits	Statutory Regulation
Finland	40 48 maximum	20 hrs in any 2 weeks 200 hrs/year	Statutory Regulation Collective agreements may fix lower limits
France	39	130 hrs/year	Statutory Regulation Provisions facilitating annual hours apply
G D R	43 - 45 56 maximum	4 hrs in any 2 days 120 hrs/year	Statutory Regulation
FRG	48 *	2 hrs/day on 30 days per year	Statutory Regulation * 10 hrs daily maximum
Greece	40 *	60 hrs in any 6 months	Statutory Regulation Statutory limit 48 hours per week * Central Collective Agreement

Country	Normal Weekly Hours	Maximum Overtime Allowed	Notes
Hungary	40 36 - 40 *	8 hrs/month	Statutory Regulation * Certain sectors
Ireland	48 60 maximum	2 hrs/day 12 hrs/week 36 hrs/4 weeks 240 hrs/year	Statutory Regulation
Italy	48	2 hrs/day 12..hrs/week	Statutory Regulation Systematic overtime is generally unlawful
Japan	48	15 hrs/week 28 hrs per 2 weeks 39 hrs per 3 weeks 48 hrs per 4 weeks 50 hrs per month	Statutory Regulation Ministry of Labour guide-lines on overtime limits are not legally binding
Luxembourg	40 *	2 hrs/day	Statutory Regulation * 10 hrs daily maximum
Netherlands	48	12 hrs/week men 6 hrs/week women	Statutory Regulation
New Zealand	40	No General Limits	Statutory Regulation
Norway	40	10 hrs/week 25..hrs/4 weeks 200 hrs/year	Statutory Regulation
Poland	42	120 hrs/year	Statutory Regulation
Portugal	48	2 hrs/day 160 hrs/year	Statutory Regulation
Romania	46 44 *	120 hrs/year	Statutory Regulation * Certain sectors
Spain	40 *	80 hrs/year	Statutory Regulation * 9 hrs daily maximum

Country	Normal Weekly Hours	Maximum Overtime Allowed	Notes
Sweden	40	48 hrs/4 weeks 50 hrs/mth 200 hrs/yr	Statutory Regulation
Switzerland	45 * 50 **	2 hrs/day 220 hrs/year	Statutory Regulation * Industrial, Office, Technical etc Workers ** Construction, Craft Trades, Small Retail
Turkey	45	3 hrs/day 90 hrs/year	Statutory Regulation
U.K. Employment	No General Limits	No General Limits	Collective agreements Contracts of Wage Council Orders
USA	40	No General Limits	Federal Law State Laws also regulate overtime
USSR	41	4 hrs over 2 days * 120 hrs/year	Statutory Regulation * (consecutive)
Yugoslavia	42	No General Limits	Statutory Regulation

SOURCES: International Labour Office Geneva 'Conditions of Work Digest' (ILO Volume 5 No.2 1986); Leonard J B 'The Regulation and Use of Overtime in the United States' (Unpublished ILO 1983); Reid F 'Overtime Work In Canada' (Unpublished ILO 1985).

APPENDIX 5-1

QUESTIONNAIRE

THE HUMAN RESOURCE RESEARCH CENTRE

SURVEY OF
OVERTIME WORKING PRACTICES

PREFACE

This survey is part of a doctoral research programme into overtime working practices. It is hoped that the results will help:

- * Managers to make the optimum decision between overtime and the alternatives;
- * Plant level management to deal effectively with that overtime which is scheduled;
- * Labour market management at the macro-economic level.

You are assured of absolute confidentiality, no person or organisation will be identified in any way. If you wish, you may decline to enter your name. We do, however, need to know your type of business, (question 3), as you will surely understand.

COMPLETION INSTRUCTIONS

Please answer only for the establishment at the address to which this questionnaire was sent; ie for the employees who are paid from that location.

Please tick the ONE box, or circle the ONE number which best describes your establishment or your views, unless otherwise instructed. If you wish to change an answer, please strike through and circle or tick another.

If a question is inappropriate, eg if you have no manual workers, please use "NA" (not applicable).

SECTION THREE : OVERTIME STATISTICS

Overtime is defined as work outside basic hours, for which a premium rate is paid.

1-2 On average, how much overtime is worked per employee?
 (If information is unavailable please give an estimate and label 'E')

Manual hours per week
 Non-manual hours per week

3 If NO overtime is worked in your establishment please tick box and []₁
 GO TO Section 5 Question 1.

			Increase	Stable	Decrease	Unsure
4-5	Has your overtime level increased or decreased over the past 5 years?	Manual	1	2	3	4
		Non-manual	1	2	3	4
6-7	What are likely to be the trends in overtime working over the next 12 months?	Manual	1	2	3	4
		Non-manual	1	2	3	4
8	In the event of worksharing (ie. working hours reduction, increased holidays, etc.), what would be the effect on your overtime?		1	2	3	4
9	In your opinion, what attitude do your employees have to overtime?		Resistance 1	Acceptance 2	Would like more 3	

What are your overtime working patterns?		Overtime is worked:	Always	Often	Little	Never
10	Weekday		1	2	3	4
11	Friday pm		1	2	3	4
12	Saturday am		1	2	3	4
13	Saturday pm		1	2	3	4
14	Sunday		1	2	3	4
15	Holiday		1	2	3	4

16-27 What are your overtime compensation patterns?
 Please state the % premium, eg. 25%, etc., and/or 'TOIL' (For Time Off In Lieu).

		Weekday	Fri.pm.	Sat.am.	Sat.pm.	Sunday	Holiday
16-21	Manual%%%%%%
22-27	Non-manual%%%%%%

SECTION THREE: OVERTIME STATISTICS continued

Please indicate why overtime is used in your establishment...		Major Factor	Secondary Factor	Not a Factor
28	Absenteeism (<i>Unscheduled, eg. sickness</i>)	1	2	3
29	Cover for holidays	1	2	3
30	Shortage of skilled labour	1	2	3
31	Shortage of unskilled labour	1	2	3
32	Long term demand uncertainty (<i>ie. overtime instead of hiring people</i>)	1	2	3
33	Overtime is more cost-effective (<i>As a means of production or service</i>)	1	2	3
34	Regular maintenance	1	2	3
35	Overtime is used in order to meet unexpected demand	1	2	3
36	Overtime is used to meet normal demand or is contractual	1	2	3
37	Temporary or seasonal demand	1	2	3
38	Custom and practice	1	2	3
39	To increase low basic pay to acceptable levels	1	2	3
40	Part of a regular shift pattern	1	2	3
41	To increase plant utilisation	1	2	3
42	Emergency cover (<i>eg. bottlenecks, shortages, quality or planning problems</i>)	1	2	3
43	Others; please state:	1	2	

SECTION FOUR: OVERTIME MANAGEMENT SYSTEMS

These questions relate to the possible use, in your establishment, of options for the management of overtime

1	How is overtime controlled in your establishment?	Formal Management Policy 1	Collective Agreement 2	Custom & Practice 3	No policy Established 4	
2	Do your unions have a formal overtime policy?	National Level 1	Local Level 2	No Policy 3	Don't Know 4	We Have No Unions 5
3	What level of supervision do you generally have during overtime working?	Above Normal Level 1	Normal Level 2	Below Normal Level 3	Overtime Is Often Unsupervised 4	

SECTION FOUR: OVERTIME MANAGEMENT SYSTEMS continued

Does your establishment generally make use of the following options for the Management of Overtime?	Technique Is Generally Not Used	If the Technique Is Sometimes Used, Please circle numbers as appropriate
4 Limits on overtime hours per week	1	Number of hours per week allowed... 1-2 3-4 5-6 7-8 9 or more 2 3 4 5 6
5 Mandatory overtime (Employee cannot refuse to work overtime)	1	Technique is used 2
6 Guaranteed overtime	1	Number of hours per week guaranteed... 1-2 3-4 5-6 7-8 9 or more 2 3 4 5 6
7 Overtime budget	1	Technique is used 2
8 Exclusions on those paid for overtime	1	By Grade By Supervision Level By Salary (Please state level) 2 3 4 £.....yr
9 Overtime hours commitment scheme (Employees undertake contractually to work overtime)	1	Technique is used 2
10 Overtime forward scheduling	1	Time frame planned ahead... 1 Week 1 Month 3 Months or more 2 3 4
11 Formal overtime authorisation system	1	Lowest authorisation level... Supervisor Manager Director 2 3 4
12 Formal overtime allocation procedure	1	Allocation by... Volunteer Suprvsr/Mgr Unions 2 3 4
13 Forward notice to employees to work overtime	1	Always Generally Rarely 2 3 4
14 Periodic overtime embargoes	1	Technique is used 2
15 Overtime monitoring system (Records other than for payment purposes)	1	Frequency of formal reports... Weekly Monthly Quarterly or longer 2 3 4
16 Measurement of overtime performance for comparison with basic time performance	1	Comparative Productivity Comparative Quality 2 3

SECTION FIVE : OVERTIME AND EMPLOYMENT

Has your establishment used any of the following alternatives to overtime working or changes in overtime working?		<i>(Please circle as many numbers as appropriate)</i>			
		No	Yes	May consider in future	I am not aware of technique
1	Productivity increase by changing payment policy	1	2	3	4
2	Capital investment	1	2	3	4
3	Hired new employees	1	2	3	4
4	Changed shift patterns or introduced shift working, <i>(including twilight shifts)</i>	1	2	3	4
5	Employed part-time workers	1	2	3	4
6	Agency temps	1	2	3	4
7	Temporary or fixed term employment contracts	1	2	3	4
8	Sub-contractors	1	2	3	4
9	Outworkers or homeworkers	1	2	3	4
10	Staggered working hours	1	2	3	4
11	Implemented preventative maintenance, <i>(if applicable)</i>	1	2	3	4
12	Average hours schemes	1	2	3	4
13	Annual hours contracts	1	2	3	4
14	Flexible working systems	1	2	3	4
15	Job splitting or sharing schemes	1	2	3	4
What, if any, are the major factors inhibiting overtime reduction in your establishment? The reduction of overtime in this establishment would....		Major Factor	Secondary Factor	Not a Factor	
16	Impede day to day productivity/service levels	1	2	3	
17	Increase unit costs	1	2	3	
18	Increase exposure to longer term demand change <i>(eg. possibility of future layoffs inhibits hiring new people)</i>	1	2	3	
19	Adversely affect low paid workers' earnings	1	2	3	
20	Any other major reasons for not reducing overtime; please state....				

SECTION SIX : OVERTIME RELATED ISSUES

Please indicate your views on the nineteen propositions below :	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
1 Some employees are dependent on overtime earnings to meet their financial commitments.	1	2	3	4	5
2 Unions would resist the reduction of overtime.	1	2	3	4	5
3 Employees may try to manipulate their work output & priorities to secure overtime.	1	2	3	4	5
4 Overtime payments to some managers or supervisors encourage or promote overtime working.	1	2	3	4	5
5 Productivity during overtime hours is higher than in normal hours.	1	2	3	4	5
6 Overtime work reduces productivity in normal hours.	1	2	3	4	5
7 Overtime promotes or maintains unemployment.	1	2	3	4	5
8 Established overtime practices are beneficial to the UK economy.	1	2	3	4	5
9 Capital investment will reduce future overtime levels.	1	2	3	4	5
10 New technology will reduce future overtime levels.	1	2	3	4	5
11 Increasing productivity, (output per man-hour), will reduce future overtime levels.	1	2	3	4	5
12 Overtime helps recruitment, retention and motivation.	1	2	3	4	5
13 Overtime causes industrial relations problems.	1	2	3	4	5
14 Systematic overtime should be eliminated.	1	2	3	4	5
The following factors make overtime a lower cost option than hiring new employees					
15 Training and induction costs	1	2	3	4	5
16 Fringe benefit costs (<i>Sickness Scheme, Pensions, Etc.</i>)	1	2	3	4	5
17 Employers' N.I.C. costs	1	2	3	4	5
18 Lay-off or redundancy costs	1	2	3	4	5
19 Overtime reduction in our establishment would result in increased employment opportunities (<i>eg. more full or part-time jobs, temporary workers, new shifts etc.</i>)	1	2	3	4	5

THANK YOU FOR YOUR CO-OPERATION IN COMPLETING THIS QUESTIONNAIRE.

PTO

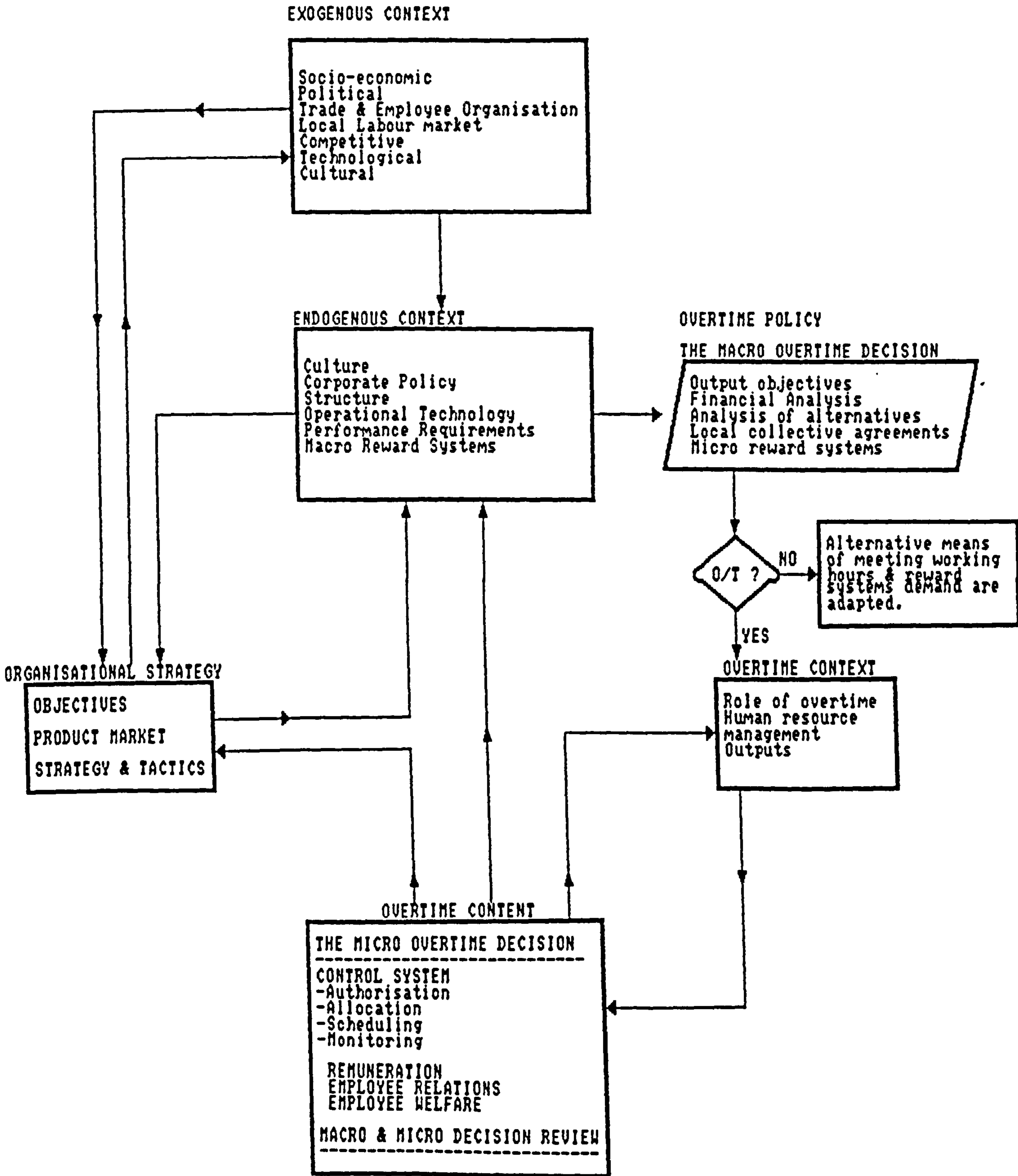
If you have any further comments, please use the space below.

Thank you for your assistance with my Doctoral research. Please return
this questionnaire to me at the address below,
in the freepost envelope provided.

R.M. SPINK
THE HUMAN RESOURCE RESEARCH CENTRE
CRANFIELD SCHOOL OF MANAGEMENT
CRANFIELD
BEDFORD
MK43 OAL

APPENDIX 5-2

OVERTIME MANAGEMENT PROCESS MODEL



APPENDIX 5-3

SKELETON PROGRAMME (CASE STUDY INVESTIGATION GUIDE)

<p>ENDOGENOUS PHASE</p> <p>PRELIMINARY ACTIVITIES AND PREPARATORY WORK</p>	<p>Guide To Research Structure Used</p>	<p>Semi Structured Questnre Used</p>
<p>1 Senior managers - preliminary interviews schedule</p> <ul style="list-style-type: none"> a) Operations or Personnel Director b) Senior Operations Manager c) Personnel Manager d) Financial Controller e) Unions Senior Steward (possibly) <p>Objectives of these interviews</p> <ul style="list-style-type: none"> a) Establish the researcher's credibility b) Establish sound relationships c) Determine key subjects for detailed interview d) Construct & agree the detailed plan of action for the study e) Gauge broad attitudes to key issues 	<p>yes yes yes yes yes</p>	
<p>2 Background information collection including documentary, attitudinal & perceptual data on:</p> <ul style="list-style-type: none"> a) Nature of business and structure of total organisation b) Establishment level organisational structure c) Employee profile: numbers, status, gender, etc. d) Corporate plans and objectives e) Products markets & customers f) Profitability and prospects for future expansion g) Local labour market h) Union representation i) Change: past and planned for working time structures j) Broad perceptions of overtime levels & issues 	<p>yes</p>	<p>yes</p>

APPENDIX 5-3 (Continued)

MAIN STUDY PROGRAMME Formal Activities	Guide To Research Structure Used	Semi Structured Questnre Used
<p>1 Collection of documentary evidence</p> <ul style="list-style-type: none"> a) Working time statistics & historical data (5 years or more if possible) b) Pay statistics & historical data c) Agreements, minutes, plans, papers etc <p>2 In depth interview schedule (key subjects)</p> <ul style="list-style-type: none"> a) Director responsible for Operations or Personnel b) Managers responsible for the overtime decision c) Managers responsible for controlling overtime d) Personnel or Industrial Relations Manager e) Senior Employee Representative, ie Steward etc. 	<p>yes</p> <p>yes</p> <p>yes</p>	<p></p> <p></p> <p></p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p>
<p>Ethnographic Activities</p> <p>1 Observation and detailed investigations</p> <ul style="list-style-type: none"> a) Attend site and observe overtime decisions & control b) Observe & evaluate the actual processes in operation c) Review availability and analysis of alternative working structures <p>2 Discussions with Workers Reps. in order to discover:</p> <ul style="list-style-type: none"> a) Guidance from the center b) Local policy c) Local pressures d) Perceptions of the local overtime issues eg: why, is it properly & fairly controlled, reward systems, etc. e) Perceptions of national overtime issues <p>3 Discussions with workers in order to discover:</p> <ul style="list-style-type: none"> a) Worker's motivations to work overtime b) Alternative uses of time c) Pay dependency d) Alternatives to overtime ie: moon-lighting, increase straight wages, change job, etc. e) Welfare ie: health, quality of life, home environment f) Quality of work implications g) Future aspirations 	<p>yes</p> <p>yes</p> <p>yes</p>	<p>yes</p> <p></p> <p></p>

APPENDIX 7-1

CROSSTABULATION OF LOCATION BY NUMBER OF NON-MANUAL EMPLOYEES

Location (LOCR)		Number of Non-Manuals (NMR) (Re-coded):				Row Total
		<20	20-49	50-199	200+	
STATISTIC		1	2	3	4	
1	Count	32	24	12	7	75
Defined	Row Pct	42.7	32.0	16.0	9.3	33.3
South	Col Pct	23.7	48.0	42.9	58.3	
	Tot Pct	14.2	10.7	5.3	3.1	
2	Count	103	26	16	5	150
Defined	Row Pct	68.7	17.3	10.7	3.3	66.7
North	Col Pct	76.3	52.0	57.1	41.7	
	Tot Pct	45.8	11.6	7.1	2.2	
	Column Total	135	50	28	12	225
100.0		60.0	22.2	12.4	5.3	

Chi-Square	Value	DF	Significance
Pearson's r.	14.99119	3	.00182
Minimum Expected Frequency	4		
Cells with Exptd Frqcy <5	1 of 8 (12.5%)		

APPENDIX 7-2

CROSSTABULATION KEY RESULTS BY LOCATION (NORTH - SOUTH)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
HUMAN RESOURCE MANAGEMENT INFORMATION					
Manpower plan	Plans exist				
	15	27	4.168	0.04	1
Current product demand	Demand increasing				
	60	64	1.089	0.58 ²	2
Employee numbers	Numbers increasing				
Past trend	57	67	1.790	0.41 ²	2
Future trend	40	56	5.210	0.07 ²	2
Labour turn-over	10 % and above				
	45	64	8.597	0.04	3
Absenteeism	5% and above				
	51	56	1.936	0.59 ²	3
Normal hours	Below 37 hours per week				
(Manual staff)	22	23	2.109	0.35 ²	2
(Non-manual staff)	43	24	15.868	0.00	2
Unionisation	Union present				
(Manual staff)	40	33	0.945	0.33 ²	1
(Non-manual staff)	22	21	0.013	0.91 ²	1
Trend over the next year	Unionisation is decreasing				
(Manual staff)	5	4	0.550	0.76 ²	2
(Non-manual staff)	5	3	0.472	0.49 ²	1
Employee attitude to overtime	Would like more overtime				
	23	28	0.782	0.68 ²	2
Effect of worksharing	Overtime would increase				
	54	66	1.839	0.40 ²	2
Effect of overtime reduction	Jobs would be created				
	31	31	2.894	0.58 ²	4
	Jobs would not be created				
	51	47	2.894	0.58 ²	4

APPENDIX 7-2 (Continued 2 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME DETAILS					
Levels of overtime					
No overtime	(Manual and non-manual staff combined)				
	24	11	5.650	0.02	1
Manual employees only	Overtime per week				
No overtime	22	21	3.597	0.31 ²	3
0.1 to 5 hours	27	17	3.597	0.31 ²	3
5 to 9.9 hours	26	27	3.597	0.31 ²	3
Over 10 hours	25	26	3.597	0.31 ²	3
Overtime premiums					
Manual employees: 50% and above					
Weekdays	69	69	0.003	0.96 ²	1
Saturday AM	88	91	0.370	0.51 ²	1
Sundays	93	96	0.435	0.51 ²	1
Non-manual employees: 50% and above					
Weekdays	52	48	0.183	0.67 ²	1
Saturday AM	65	71	0.380	0.54 ²	1
Sundays	68	74	0.462	0.50 ²	1
Overtime working patterns					
All employees: Little or no overtime worked					
Weekday	22	20	2.076	0.56 ²	3
All employees: Overtime is always or often worked					
Saturday am	71	62	2.017	0.57 ²	3

APPENDIX 7-2 (Continued 3 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME REASONS					
Skill shortage	A major reason		7.896	0.02	2
	17	35			
	Not a reason		7.896	0.02	2
	61	48			
Unskilled labour shortage	A major reason		5.446	0.07 ²	2
	3	11			
Outlook uncertain	A major reason		6.756	0.03	2
	42	28			
Regular maintenance	Not a reason		8.098	0.02	2
	54	72			
Unexpected demand	A major reason		0.211	0.90 ²	2
	59	56			
Emergency cover	A major reason		4.577	0.10 ²	2
	36	50			
Seasonal demand	A major reason		1.322	0.52 ²	2
	34	42			
Normal demand	A major reason		0.040	0.98 ²	2
	34	32			
Custom and practice	A major reason		0.286	0.87 ²	2
	14	15			
Low Pay	Not a reason		3.369	0.19 ²	2
	76	66			

APPENDIX 7-2 (Continued 4 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME MANAGEMENT					
Overall control of overtime	No formal policy 51	60	1.310	0.25 ²	1
Union policy on overtime	No formal policy 53	73	1.946	0.16 ²	1
Supervision level during overtime	Supervision or below normal level or no supervision 33	50	5.008	0.03	1
Overtime limits	Not used 82	80	0.145	0.70 ²	1
Mandatory overtime	Not used 85	85	0.000	0.98 ²	1
Guaranteed overtime	Not used 94	96	0.215	0.64 ²	1
Overtime budget	Not used 73	76	0.140	0.72 ²	1
Exclusions on paid overtime	No exclusions adopted 54	44	8.626	0.03	3
Commitment scheme	Not used 84	88	0.487	0.49 ²	1
Forward scheduling	Not used 68	73	0.416	0.52 ²	1
Authorisation system	Not used 32	27	0.415	0.52 ²	1
Periodic embargoes	Not used 84	75	2.015	0.16 ²	1
Records maintained	Do not keep overtime records 48	38	7.66	0.02	1
Productivity and quality	No comparative measurement between normal and overtime hours 75	89	5.447	0.02	1

APPENDIX 7-2 (Continued 5 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
FACTORS INHIBITING THE REDUCTION OF OVERTIME					
	This was not a factor...				
Impeded productivity or service levels	34	26	1.163	0.56 ²	2
Increased costs	66	64	0.633	0.73 ²	2
Longer term uncertainty	58	64	0.836	0.66 ²	2
Adversely affect low-paid workers	73	66	1.494	0.47 ²	2

APPENDIX 7-2 (Continued 6 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING					
This alternative has been used in the following proportion of organisations...					
Payment policy change to increase productivity	22	19	0.160	0.69 ²	1
Capital investment	42	39	0.232	0.63 ²	1
Hired new staff	65	74	1.616	0.20 ²	1
New or changed shift patterns (incl. twilight)	26	31	0.565	0.45 ²	1
Part-time workers	45	46	0.020	0.89 ²	1
Agency temps.	18	47	19.23	0.00	1
Temporary/fixed-term employment contracts	27	34	1.123	0.29 ²	1
Sub-contractors	40	45	0.551	0.46 ²	1
Outworkers or homeworkers	13	21	2.715	0.10 ²	1
Staggered working hours	24	27	0.338	0.56 ²	1
Preventative maintenance	28	21	1.148	0.28 ²	1
Flexible working schemes	24	28	0.395	0.53 ²	1
Job splitting/sharing	6	4	0.412	0.52 ²	1

APPENDIX 7-2 (Continued 7 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
PERCEPTIONS OF OVERTIME RELATED ISSUES					
The Respondent agreed or strongly agreed with the following proposition					
Some employees are dependent on overtime pay...	75	77	0.814	0.94 ²	4
Unions would resist overtime reduction	53	59	4.507	0.34 ²	4
Employees manipulate productivity or priorities to secure overtime	63	47	5.755	0.22 ²	4
Overtime payments to supervisors promote overtime	60	52	5.417	0.25 ²	4
Productivity in overtime is higher than in normal time	11	12	2.717	0.61 ²	4
Overtime reduces productivity in normal time	34	25	7.567	0.11 ²	4
Overtime promotes or maintains unemployment	43	31	7.632	0.11 ²	4
Overtime is beneficial to the U.K. economy	24	20	5.857	0.21 ²	4
Capital investment would reduce future overtime levels	37	38	6.030	0.20 ²	4
New technology would reduce future overtime levels	54	42	7.024	0.13 ²	4
Increasing productivity would reduce future overtime levels	58	53	2.494	0.65 ²	4
Overtime helps recruitment, retention and motivation	51	50	5.242	0.26 ²	4
Overtime causes industrial relations problems	36	29	11.822	0.02	4
Systematic overtime should be eliminated	63	58	4.618	0.33 ²	4

APPENDIX 7-2 (Continued 8 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	North %	South %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
SELECTED FINANCIAL IMPLICATIONS OF OVERTIME WORKING					
In the Respondent's opinion, the following factors make overtime a lower cost option than hiring new employees...					
Training and Induction costs	68	65	4.804	0.31 ²	4
Fringe benefit costs (sick scheme, pensions, etc.)	51	59	2.942	.57 ²	4
Employer's NIC	55	58	0.807	0.94 ²	4
Lay-off costs or redundancy	43	45	3.163	0.53 ²	4

Notes

- 1** These statistics are drawn from joint distribution tables and give the test of correlation for the whole table, not just the key result which is intended to give the essence of the table.
- 2** No statistically significant difference was found at the $p < 0.05$ level

APPENDIX 7-3

CROSSTABULATION KEY RESULTS BY INDUSTRIAL SECTOR (SERVICE - NON SERVICE)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
HUMAN RESOURCE MANAGEMENT INFORMATION					
Manpower plan	Formal plans exist				
	25	14	3.657	0.05	1
Size Of Organisation	(By number and type of employees)				
	Manual Employees				
Below 20	41	68	16.543	0.00	3
20 to 49	24	12	16.543	0.00	3
50 to 199	27	13	16.543	0.00	3
200 & Above	8	7	16.543	0.00	3
	Non-Manual Employees				
Below 20	58	61	0.444	0.93 ²	3
20 to 49	24	21	0.444	0.93 ²	3
50 to 199	13	12	0.444	0.93 ²	3
200 & Above	5	6	0.444	0.93 ²	3
Employee number Trends	Numbers decreasing				
Past trend	17	10	4.515	0.10 ²	2
Future trend	8	3	4.036	0.13 ²	2
Labour Turnover					
10% and above	50	54	3.216	0.36 ²	3
Future trend decreasing	9	18	13.075	0.00	2
Absenteeism	Below 3%				
	29	38	4.174	0.24 ²	3
Normal hours	Below 37 hours per week				
Manual staff	11	35	20.261	0.00	2
Non-manual	35	40	4.746	0.09 ²	2
	Above 40 hours per week				
Manual staff	38	36	20.261	0.00	2
Non-manual	21	29	4.746	0.09 ²	2

APPENDIX 7-3 (Continued 2 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
HUMAN RESOURCE MANAGEMENT INFORMATION (Continued)					
Union present in the establishment					
Manual staff	41	35	0.742	0.39 ²	1
Non-manual	23	21	0.205	0.65 ²	1
Employee attitude to overtime					
	Resistance to working overtime				
	7	7	2.778	0.25 ²	2
Effect of worksharing					
	Overtime would increase				
	66	47	18.824	0.00	2
Effect of overtime reduction					
	Jobs would be created				
	37	24	5.5054	0.28 ²	4
	Jobs would not be created				
	45	55	5.5054	0.28 ²	4

APPENDIX 7.3 (Continued 3 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME DETAILS					
Level of overtime	Overtime per week per employee				
Manual staff					
No overtime	10	36	23.048	0.00	3
Below 5 hours	26	20	23.048	0.00	3
5 to 9.9 hours	31	28	23.048	0.00	3
10 hours & above	34	16	23.048	0.00	3
Non-manual					
No overtime	33	51	7.187	0.06 ²	3
Below 5 hours	33	22	7.187	0.06 ²	3
5 to 9.9 hours	20	16	7.187	0.06 ²	3
10 hours & above	14	10	7.187	0.06 ²	3
Level of overtime trends	Past 5 years trend: level increasing				
Manual staff	43	40	0.869	0.65 ²	2
Non-manual	27	18	1.685	0.43 ²	2
	Future 12 months trend: level increasing				
Manual staff	19	18	2.739	0.25 ²	2
Non-manual	12	6	2.241	0.33 ²	2
Overtime premium	Manual employees: below 50%				
Weekdays	35	23	2.674	0.10 ²	1
Saturday am	12	11	0.026	0.87 ²	1
Sunday	4	10	2.083	0.15 ²	1
	Non-manual employees: below 50%				
Weekdays	59	37	6.282	0.01	1
Saturday am	37	26	1.727	0.18 ²	1
Sunday	38	17	5.440	0.02	1
Overtime working patterns	Always work weekday evenings				
	33	33	1.886	0.60 ²	3
	Always work Saturday mornings				
	31	14	15.955	0.00	3
	Never work Sundays				
	23	34	4.860	0.18 ²	3

APPENDIX 7-3 (Continued 4 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME REASONS					
A major or secondary reason for overtime scheduling...					
Absenteeism	43	48	0.379	0.54 ²	1
Holiday cover	68	58	1.889	0.17 ²	1
Skill shortage	53	31	7.953	0.00	1
Unskilled labour shortage	28	15	4.028	0.04	1
Outlook uncertain	70	56	3.681	0.05	1
Regular maintenance	47	28	6.040	0.01	1
Overtime is more cost effective	58	42	3.981	0.05	1
Increase plant utilisation	44	16	15.039	0.00	1
Unexpected demand	86	77	2.366	0.12 ²	1
Emergency cover	76	52	11.226	0.00	1
Temporary or seasonal demand	69	66	0.238	0.63 ²	1
Normal demand	63	62	0.013	0.91 ²	1
Shift pattern support	25	23	0.068	0.79 ²	1
Custom and practice	38	34	0.197	0.66 ²	1
Increase low pay	28	26	0.075	0.78 ²	1

APPENDIX 7-3 (Continued 5 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
FACTORS INHIBITING OVERTIME REDUCTION					
A major or secondary factor inhibiting overtime scheduling...					
Impede productivity or service levels	76	60	6.380	0.01	1
Increased costs	44	24	9.401	0.00	1
Long term uncertainty	49	28	11.020	0.00	2
Low pay protection	30	28	1.172	0.68 ²	1

APPENDIX 7-3 (Continued 6 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
OVERTIME MANAGEMENT					
Overall control of overtime	No formal policy 51 60		1.259	0.26 ²	1
Union policy on overtime	Formal policy is perceived to exist 50 25		3.260	0.07 ²	1
Supervision level during overtime	No supervision or below normal level 38 42		0.292	0.59 ²	1
Limits on overtime hours are used	20	15	0.760	0.38 ²	1
Mandatory overtime is used	12	19	1.546	0.21 ²	1
Guaranteed overtime is used	3	10	3.680	0.05	1
Exclusion made on who receives paid overtime	52	48	0.271	0.60 ²	1
Forward scheduling used	35	23	2.910	0.08 ²	1
Authorisation system is used	74	63	2.589	0.11 ²	1
Notice to work overtime used	71	49	9.120	0.03	3
Periodic overtime embargoes are used	23	14	2.214	0.14 ²	3
Monitoring of overtime used	51	36	3.852	0.05	1

APPENDIX 7-3 (Continued 7 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING					
This alternative has been used in the following proportion of organisations...					
Payment policy change to increase productivity	23	20	0.273	0.60 ²	1
Capital investment	55	28	15.491	0.00	1
Hired new staff	76	60	5.712	0.02	1
New or changed shift patterns (incl. twilight)	5	21	5.361	0.02	1
Part-time workers	44	47	0.305	0.58 ²	1
Agency temps.	24	32	1.996	0.16 ²	1
Temporary/fixed-term employment contracts	40	18	11.809	0.00	1
Sub-contractors	53	30	12.103	0.00	1
Outworkers or homeworkers	21	11	4.192	0.04	1
Staggered working hours	21	29	2.148	0.14 ²	1
Preventative maintenance	36	16	10.924	0.00	1
Flexible working schemes	26	25	0.023	0.88 ²	1
Job splitting/sharing	6	4	0.428	0.51 ²	1

APPENDIX 7-3 (Continued 8 of 8)

Dependent Variable	Independent Variable		Statistic ¹		
	Non-service %	Service %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
SELECTED FINANCIAL IMPLICATIONS OF OVERTIME WORKING					
In the Respondent's opinion, the following factors make overtime a lower cost option than hiring new employees					
Training and Induction costs	68	63	7.779	0.10 ²	4
Fringe benefit costs (sick scheme, pensions, etc.)	55	57	3.246	0.51 ²	4
Employer's NIC	53	61	10.439	0.03	4
Lay-off costs or redundancy	52	36	8.481	0.07 ²	4

Notes

1 These statistics are drawn from joint distribution tables and give the test of correlation for the whole table, not just the key result which is intended to give the essence of the table.

2 No statistically significant difference was found.

General note: It is essential to refer to the exact terms of the question asked in interpreting the responses, the questionnaire is given as Appendix 5.2.

APPENDIX 7-4

CROSSTABULATION KEY RESULTS BY SIZE OF ORGANISATION

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
	<20 %	20-49 %	50-199 %	200+ %			
HUMAN RESOURCE MANAGEMENT INFORMATION							
Manpower plan	Plans exist						
	6	12	29	50	31.567	0.00	3
Current product demand	Demand increasing						
	63	70	57	48	8.836	0.18 ²	6
Employee numbers	Numbers increasing						
Past trend	53	70	66	55	9.276	0.16 ²	6
Future trend	43	58	42	33	19.979	0.00 ²	6
Labour turn-over	5% and above						
	67	86	84	74	11.935	0.22 ²	9
	Future trend: increasing						
	3	8	12	27	13.840	0.03	6
Absenteeism	Below 3%						
	48	27	30	16	28.832	0.00	9
Normal hours	Above 40 hours per week						
manual staff	49	41	32	7	36.470	0.00	6
non-manual	36	27	18	3	25.377	0.00	6
Unionisation	Unions present						
manual staff	20	25	58	71	39.423	0.00	3
non-manual	10	11	28	61	40.494	0.00	3
Employee attitude to overtime	Resistance to working overtime						
	8	10	4	4	6.105	0.41 ²	6
	Would like more overtime						
	18	21	30	37	6.105	0.41 ²	6
Effect of worksharing	Overtime would increase						
	41	73	64	45	11.998	0.06 ²	6
Effect of overtime reduction	Jobs would be created						
	24	41	44	59	10.036	0.02	3
	Jobs would not be created						
	76	59	56	41	10.036	0.02	3

APPENDIX 7-4 (Continued 2 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
OVERTIME DETAILS							
Level of overtime	Overtime per week per manual employee						
No overtime	40	20	7	7	47.384	0.00	9
Over 5 hours	39	64	66	56	47.384	0.00	9
	Overtime per week per non-manual employee						
No overtime	60	39	32	18	40.770	0.00	9
Over 5 hours	25	43	28	25	40.770	0.00	9
Level of overtime trends	Past 5 years trend: level increasing						
Manual staff	36	38	48	42	7.009	0.32 ²	6
Non-manual	19	18	23	40	9.402	0.15 ²	6
	Future 12 months trend: level increasing						
Manual staff	21	17	17	19	4.430	0.62 ²	6
Non-manual	9	11	10	8	6.941	0.33 ²	6
Overtime premium	Manual employees: above 50%						
Weekdays	57	80	70	69	5.377	0.15 ²	3
Saturday am	71	90	96	100	19.137	0.00 ²	3
Sunday	81	94	100	100	15.412	0.00 ²	3
Holidays	73	94	100	100	20.614	0.00 ²	3
	Non-manual employees: above 50%						
Weekdays	43	67	38	58	7.189	0.07 ²	3
Saturday am	55	67	63	88	7.532	0.05	3
Sunday	57	68	70	88	6.157	0.10 ²	3
Holidays	44	74	73	91	13.512	0.00	3
Overtime working patterns	Always work Saturday mornings						
	27	19	28	19	12.950	0.16 ²	9
	Often work Saturday mornings						
	35	56	44	37	12.950	0.16 ²	9
	Seldom or never work on Sundays						
	87	75	76	81	9.504	0.39 ²	9

APPENDIX 7-4 (Continued 3 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
OVERTIME REASONS							
A major or secondary reason...							
Absenteeism	20	40	56	77	28.630	0.00	6
Holiday cover	49	67	71	67	6.048	0.11 ²	3
Skill shortage	35	40	49	58	4.660	0.20 ²	3
Unskilled labour shortage	16	23	20	39	5.076	0.17 ²	3
Outlook uncertain	57	69	64	69	1.783	0.62 ²	3
Overtime is more cost effective	51	54	55	42	1.223	0.75 ²	3
Regular maintenance	25	40	44	58	8.625	0.03	3
Normal demand	43	69	67	77	11.690	0.01	3
Unexpected demand	80	77	87	85	8.291	0.22 ²	6
Low pay protection	16	31	29	39	5.040	0.17 ²	3
Temporary or seasonal demand	71	71	64	65	1.004	0.80 ²	3
Custom and practice	29	33	40	46	2.869	0.41 ²	3
Shift patterns	10	25	31	35	8.146	0.04	3
Increase plant utilisation	22	40	33	42	4.417	0.22 ²	3
Emergency cover	53	67	73	74	10.980	0.09 ²	6

APPENDIX 7-4 (Continued 4 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
FACTORS INHIBITING OVERTIME REDUCTION							
A major or secondary reason...							
Impede productivity or service levels	50	75	89	70	23.547	0.00	3
Increased costs	29	30	47	37	5.236	0.16 ²	3
Long term uncertainty	36	43	42	41	0.750	0.86 ²	3
Low pay protection	19	38	31	40	7.820	0.05	3

APPENDIX 7-4 (Continued 5 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
OVERTIME MANAGEMENT							
Overall control of overtime	No formal policy				12.613	0.18 ²	9
	62	51	46	63			
Supervision level during overtime	No supervision or below normal level				3.033	0.39 ²	9
	46	35	33	48			
The following controls were used by % of organisations:							
Overtime limits	27	13	20	11	19.111	0.21 ²	15
Mandatory overtime	12	27	13	4	8.673	0.03	3
Guaranteed overtime	6	6	7	nil	18.291	0.25 ²	15
Overtime budget	8	13	36	59	31.095	0.00	3
Overtime embargoes	17	6	26	33	10.290	0.02	3
Exclusions on those paid	29	45	56	85	32.545	0.00	9
Forward scheduling	16	25	42	41	10.041	0.02	3
Authorisation	45	65	89	85	35.590	0.00	9
Allocation	35	50	74	70	24.568	0.00	9
Forward notice to employees	57	69	89	78	16.842	0.05	9
Monitoring of overtime (other than for payment purposes)	18	48	56	59	19.315	0.00	3

APPENDIX 7-4 (Continued 6 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING							
This alternative has been used in the following proportion of organisations							
Payment policy change to increase productivity	12	18	29	37	9.446	0.02	3
Capital investment	26	35	62	55	19.391	0.00	3
Hired new staff	54	67	87	68	15.991	0.00	3
New or changed shift patterns (Incl. twilight)	13	31	38	42	14.023	0.00	3
Part-time workers	44	46	45	43	0.090	0.99 ²	3
Agency temps.	15	21	36	55	20.780	0.00	3
Temporary/fixed-term employment contracts	17	20	40	58	23.763	0.00	3
Sub-contractors	32	34	57	55	12.351	0.01	3
Outworkers or homeworkers	11	21	14	19	2.984	0.39 ²	3
Staggered working hours	26	31	23	16	2.448	0.48 ²	3
Preventative maintenance	10	25	40	43	19.730	0.00	3
Average hours scheme	4	10	0	0	8.604	0.04 ²	3
Annual hours scheme	3	4	0	7	3.341	0.34	3
Flexible working schemes	34	25	20	14	5.865	0.12 ²	3
Job splitting/sharing	6	12	2	0	6.594	0.09 ²	3

APPENDIX 7-4 (Continued 7 of 7)

Dependent Variable	Independent Variable				Statistic ¹		
	Size of Organisation				Chi-Square Pearson's r.	Significance	Degrees of Freedom
<20 %	20-49 %	50-199 %	200+ %				
SELECTED FINANCIAL IMPLICATIONS OF OVERTIME WORKING							
In the Respondent's opinion, the following factors make overtime a lower cost option than hiring new employees...							
Training and Induction costs	70	54	71	67	18.884	0.09	12
Fringe benefit costs (sick scheme, pensions, etc.)	55	48	60	68	16.635	0.16	12
Employer's NIC	57	55	54	64	20.192	0.06	12
Lay-off costs or redundancy	52	40	38	45	20.572	0.06	12

Notes

1 These statistics are drawn from joint distribution tables and give the test of correlation for the whole table, not just the key result which is intended to give the essence of the table.

2 No statistically significant difference was found.

General note: It is essential to refer to the exact terms of the question asked in interpreting the responses, the questionnaire is given as Appendix 5.2.

APPENDIX 7-5

**CROSSTABULATION KEY RESULTS BY AMOUNT OF OVERTIME WORKED
BY MANUAL AND NON-MANUAL EMPLOYEES**

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square Pearson's r.	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %			
HUMAN RESOURCE MANAGEMENT INFORMATION							
Current demand	Demand is increasing						
Manual	47	60	68	65	6.812	0.34 ²	6
Non-manual	57	60	64	69	5.226	0.51 ²	6
Employee numbers	Past trend: Numbers increasing						
Manual	37	64	65	69	15.885	0.01	6
Non-manual	53	60	72	65	6.342	0.39 ²	6
	Future trend: Numbers increasing						
Manual	30	46	48	50	6.955	0.33 ²	6
Non-manual	43	48	61	28	9.930	0.13 ²	6
Normal hours	Below 37 hours per week						
Manual	53	15	3	2	71.578	0.00	6
Non-manual	47	29	23	19	22.418	0.00	6
Labour turn-over	10% and above						
Manual	47	48	50	65	15.767	0.07 ²	9
Non-manual	45	54	62	62	23.577	0.01	9
Absenteeism	Above 5%						
Manual	44	54	53	52	16.975	0.05 ²	9
Non-manual	47	56	62	46	9.951	0.35 ²	9
Normal hours	Below 37 hours per week						
manual staff	53	15	3	2	71.578	0.00	6
non-manual	47	29	23	19	22.418	0.00	6

APPENDIX 7-5 (Continued 2 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime Nil %	<5 %	5-9.9 %	10+ %	Chi-Square Pearson's r.	Significance	Degrees of Freedom

HUMAN RESOURCE MANAGEMENT INFORMATION (Continued)

Unionisation

manual staff	18	33	48	37	10.650	0.01 ²	3
non-manual	11	31	18	19	8.663	0.03	3

Effect of worksharing

Overtime would increase

Manual	29	49	57	77	12.890	0.04 ²	6
Non-manual	58	58	70	58	1.855	0.93 ²	6

Effect of overtime reduction...**By Amount of Overtime Worked by Manual Employees**

Jobs would be created

25	39	45	45	3.992	0.26	3
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By Amount of Overtime Worked by Non-manual Employees

Jobs would be created

35	42	36	42	0.751	0.86	3
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APPENDIX 7-5 (Continued 3 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square Pearson's r.	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %			
OVERTIME DETAILS							
Level of overtime trends	Past 5 years trend: level decreasing						
Manual staff	20	20	19	14	10.347	0.11 ²	6
Non-manual	27	15	9	14	6.326	0.39 ²	6
	Future 12 months trend: level decreasing						
Manual staff	nil	13	14	14	10.527	0.10 ²	6
Non-manual	18	7	9	6	4.371	0.63 ²	6
Overtime premium paid	Manual employees: above 50% (manual overtime)						
Weekdays	50	77	59	77	6.234	0.10 ²	3
Saturday am	50	96	85	90	9.249	0.03	3
Sunday	100	98	89	96	3.731	0.29 ²	3
Holidays	100	94	88	93	1.590	0.66 ²	3
	Non-manual employees: above 50% (non-manual overtime)						
Weekdays	35	51	43	71	6.060	0.11 ²	3
Saturday am	56	76	50	76	8.216	0.04	3
Sunday	62	77	57	76	4.337	0.22 ²	3
Holidays	62	74	61	80	2.826	0.42 ²	3
Overtime working patterns	By Manual employee overtime Always or often work overtime						
Weekdays	70	67	81	84	34.310	0.00	9
Saturday am	40	49	76	90	33.512	0.00	9
Sunday	10	13	29	11	15.027	0.09 ²	9
	By Non-manual employee overtime Always or often work overtime						
Weekdays	77	80	79	80	7.435	0.59 ²	9
Saturday am	63	70	67	80	7.877	0.55 ²	9
Sunday	20	23	11	28	15.024	0.09 ²	9

APPENDIX 7-5 (Continued 4 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime Nil %	<5 %	5-9.9 %	10+ %	Chi-Square Pearson's r.	Significance	Degrees of Freedom

REASONS FOR THE USE OF OVERTIME

	A major or secondary reason						
Low pay protection	-	17	42	28	10.561	0.01	3
	A major or secondary reason (Non-manual overtime)						
Absenteeism	-	61	41	35	8.216	0.04	3
Temporary/seasonal demand	-	59	85	73	8.681	0.03	3
	A major or secondary reason (Manual overtime)						
Normal demand	-	50	64	73	6.092	0.11 ²	3
Overtime is more cost effective	-	41	56	62	4.341	0.18 ²	3

FACTORS INHIBITING OVERTIME REDUCTION

A major or secondary reason based on manual overtime...

Impede productivity service levels	34	77	83	79	31.239	0.00	3
Increased costs	21	46	40	40	5.980	0.11 ²	3
Long term uncertainty	16	47	50	48	13.470	0.00	3
Low pay protection	16	25	41	39	8.762	0.03	3

APPENDIX 7-5 (Continued 5 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %	Pearson's r.		

OVERTIME MANAGEMENT

The following controls were used by % of organisations Non-manual employee overtime...

Mandatory overtime	-	9	13	23	5.721	0.13 ²	3
Overtime budget	-	40	15	11	10.706	0.01	3
Mandatory overtime	-	9	3	23	5.721	0.12 ²	3
Overtime commitment scheme	-	10	18	27	4.374	0.22 ²	3
Overtime embargoes	-	24	21	19	3.116	0.37 ²	3
Exclusions on those paid	-	62	56	50	10.148	0.02	3
Forward scheduling	-	41	21	19	6.331	0.10 ²	3
Authorisation	-	81	69	61	5.405	0.14 ²	3
Limits per week	-	15	20	26	4.287	0.23 ²	3
Guaranteed overtime	-	4	3	12	4.745	0.19 ²	3

The following controls were used by % of organisations Manual employee overtime...

Overtime budget	-	42	24	22	7.708	0.05	3
Forward scheduling	-	40	40	18	10.163	0.02	3
Authorisation	-	73	78	61	11.425	0.01	3

APPENDIX 7-5 (Continued 6 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %	Pearson's r.		
IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING							
This alternative has been used in the following proportion of organisations based on manual overtime...							
Payment policy change to increase productivity	10	25	24	27	4.278	0.23	3
Capital investment	18	52	47	45	12.628	0.01	3
Hired new staff	37	78	78	76	25.293	0.00	3
New or changed shift patterns (Incl. twilight)	7	37	30	39	13.725	0.00	3
Part-time workers	42	52	38	42	2.286	0.52	3
Agency temps.	21	21	34	27	3.017	0.39	3
Temporary/fixed-term employment contracts	14	36	35	29	6.699	0.08	3
Sub-contractors	12	40	53	63	28.108	0.00	3
Outworkers/homeworkers	12	23	20	10	4.543	0.21	3
Staggered working hours	23	26	22	29	0.903	0.83	3
Preventative maintenance	8	36	35	28	10.704	0.01	3
Average hours schemes	0	2	7	4	3.518	0.32	3
Annual hours schemes	5	2	4	0	2.474	0.48	3
Flexible working schemes	36	24	17	25	4.532	0.21	3
Job splitting/sharing	7	4	7	6	0.441	0.93	3

APPENDIX 7-5 (Continued 7 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square Pearson's r.	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %			
IMPLEMENTATION OF ALTERNATIVES TO OVERTIME WORKING							
This alternative has been used in the following proportion of organisations based on Non-manual overtime...							
Payment policy change to Increase productivity	15	26	18	40	6.800	0.08	3
Capital Investment	32	48	42	42	3.750	0.29	3
Hired new staff	57	78	74	68	7.976	0.05	3
New or changed shift patterns (incl. twilight)	15	38	38	36	11.863	0.01	3
Part-time workers	39	46	51	50	2.045	0.56	3
Agency temps.	17	36	47	19	14.328	0.00	3
Temporary/fixed-term employment contracts	18	40	43	27	11.404	0.01	3
Sub-contractors	22	54	58	65	27.710	0.00	3
Outworkers/homeworkers	16	15	15	15	0.023	0.99	3
Staggered working hours	22	25	29	28	0.753	0.86	3
Preventative maintenance	19	37	27	20	5.727	0.13	3
Average hours schemes	4	4	5	4	0.211	0.98	3
Annual hours schemes	4	2	3	0	1.213	0.75	3
Flexible working schemes	27	16	31	38	5.570	0.13	3
Job splitting/sharing	7	2	3	16	17.162	0.07	3

APPENDIX 7-5 (Continued 8 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime Nil %	<5 %	5-9.9 %	10+ %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
PERCEPTIONS OF OVERTIME RELATED ISSUES							
BY AMOUNT OF OVERTIME WORKED BY MANUAL EMPLOYEES' OVERTIME							
The Respondent agreed or strongly agreed with the following proposition...							
Some employees are dependent on overtime pay	67	73	80	79	13.799	0.31	12
Unions would resist overtime reduction	79	42	46	49	24.956	0.02	12
Employees manipulate productivity or priorities to secure overtime	62	54	54	54	3.747	0.99	12
Overtime payments to supervisors promote overtime	71	57	49	53	15.142	0.23	12
Productivity in overtime is higher than in normal time	17	4	10	12	21.776	0.04	12
Overtime reduces productivity in normal time	38	34	22	25	27.319	0.01	12
Overtime promotes or maintains unemployment	50	33	34	38	12.119	0.44	12
Overtime is beneficial to the U.K. economy	16	19	27	28	7.622	0.81	12
Capital investment would reduce future overtime levels	33	38	42	31	17.631	0.13	12
New technology would reduce future overtime levels	56	54	51	40	17.847	0.12	12
Increasing productivity would reduce future overtime levels	56	67	58	46	10.514	0.57	12
Overtime helps recruitment, retention and motivation	40	44	56	69	19.092	0.09	12
Overtime causes industrial relations problems	47	32	27	29	21.625	0.04	12
Systematic overtime should be eliminated	76	65	62	42	29.579	0.00	12

APPENDIX 7-5 (Continued 9 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime Nil %	<5 %	5-9.9 %	10+ %	Chi-Square Pearson's r.	Significance	Degrees of Freedom
PERCEPTIONS OF OVERTIME RELATED ISSUES							
By Amount of Overtime Worked By Non-Manual Employees							
The Respondent agreed or strongly agreed with the following proposition...							
Some employees are dependent on overtime pay	74	85	74	73	6.688	0.88	12
Unions would resist overtime reduction	63	59	44	36	15.848	0.20	12
Employees manipulate productivity or priorities to secure overtime	64	53	49	62	15.236	0.23	12
Overtime payments to supervisors promote overtime	61	60	46	58	22.787	0.03	12
Productivity in overtime is higher than in normal time	15	5	13	12	13.986	0.30	12
Overtime reduces productivity in normal time	41	24	21	23	18.043	0.11	12
Overtime promotes or maintains unemployment	46	69	31	35	11.840	0.46	12
Overtime is beneficial to the U.K. economy	15	26	28	31	12.178	0.43	12
Capital investment would reduce future overtime levels	36	46	36	19	22.339	0.03	12
New technology would reduce future overtime levels	56	56	46	19	41.671	0.00	12
Increasing productivity would reduce future overtime levels	61	59	49	38	21.235	0.05	12
Overtime helps recruitment, retention and motivation	45	54	54	58	17.898	0.12	12
Overtime causes industrial relations problems	45	39	15	8	25.625	0.01	12
Systematic overtime should be eliminated	69	64	36	57	28.026	0.01	12

APPENDIX 7-5 (Continued 10 of 10)

Dependent Variable	Independent Variable				Statistic ¹		
	Amount Of Overtime				Chi-Square Pearson's r.	Significance	Degrees of Freedom
	Nil %	<5 %	5-9.9 %	10+ %			

SELECTED FINANCIAL IMPLICATIONS OF OVERTIME WORKING

Respondent's agreed or strongly agreed that the following factors make overtime a lower cost option than hiring new employees, based on Manual overtime...

Training and Induction costs	60	73	59	65	15.129	0.23 ²	12
Fringe benefit costs (sick scheme, pensions, etc.)	47	58	53	60	18.072	0.11 ²	12
Employer's NIC	56	50	56	67	18.294	0.11 ²	12
Lay-off costs or redundancy	38	49	39	55	19.440	0.08 ²	12

Notes

1 These statistics are drawn from joint distribution tables and give the test of correlation for the whole table, not just the key result which is intended to give the essence of the table.

2 No statistically significant difference was found.

General note: It is essential to refer to the exact terms of the question asked in interpreting the responses, the questionnaire is given as Appendix 5.2.

APPENDIX 8-1 **SCHEDULE OF CASE STUDIES**

		CASE DETAILS					
SIC CODE (1980)	CASE NO. & SECTOR	DESCRIPTION	NUMBER OF EMPLOYEES	MAIN UNIONS	DEGREE OF UNIONISATION	REGIONAL LOCATION	
913	CASE 1 Public Sector	Police Force 'A'	1060	Police Federation	100%	Midlands	
913	CASE 2 Public Sector	Police Force 'B'	2300	Police Federation	100%	North	
913	CASE 3 Public Sector	Police Force 'C'	3000	Police Federation	100%	South West	
648	CASE 4 Retail Distribn.	Chandler and Gas Bottler	5	Nil		South West	
653-656	CASE 5 Retail Distribn.	Mail Order Distribution	1277	SOGAT	30%	Sth East/ Midlands	
641	CASE 6 Retail Distribn.	Retail & Distribution Food and Drink	11	Nil		North	
641	CASE 7 Retail Distribn.	Butchers Shop	7	Nil		Wales	
66	CASE 8 Hotels & Catering	Hotels 'A'	660	T & G	20%	Greater London	
66	CASE 9 Hotels & Catering	Hotel 'B'	70	Nil		North	
915	CASE 10 Public Sector	Industrial Civilians	760	T & G	75%	Sth East	
915	CASE 11 Public Sector	Industrial Civilians	400	EETPU T & G	20% 50%	Wales	

APPENDIX 8-2**CASE NUMBER 1**

Type of Organisation	Police Force A
Location	South-East/Midlands
Number of Employees	1060 Police and 490 Civilians
Sector	Public Administration, Police Service (SIC 1980, 913)

OUTLINE:

An English Non-Metropolitan Police Force, which has reduced overtime by more than 50%, simply by the management decision to cut the overtime budget.

SUMMARY

The essence of this case was that the primary requirement for overtime reduction, may simply be senior management determination to achieve the reduction. Overtime in the Police Force is in many ways not relevant to overtime in other sectors. Nevertheless, there are a number of general lessons to be obtained from the police case studies.

This and the other Police Force studies were focused on serving Police Officers rather than civilians who work very little overtime. Force A has cut overtime from a level around 17% of basic salaries and NI in the early 1980s, to 7% last year. the overtime budget has been cut by 26.5% in real terms over the last three years. Detection rates have improved over the same period but there is no evidence to link corporate objective achievement with levels of overtime.

The cut in overtime was achieved through a specific management initiative, promulgated by the Chief Constable, with the objective of providing funds to employ more officers.

The mechanism used to cut overtime was simply the decision to cut the overtime budget and to control overtime tightly to that budget. No other substantive changes, (ie. working methods, training, working time structures, payment systems, etc.), were made to facilitate the overtime reduction.

Middle management and the workforce made efforts to resist the reduction of overtime, but have been unsuccessful in the face of senior management determination.

All officers accept overtime as part of their job. About two thirds of Police Officers would like more overtime to be available, the motivations for this being the extra pay and increased job satisfaction.

Many officers, however, find that their performance is denigrated by excessive hours. There is a problem of excessive sickness which is associated with increasing stress in the job and the unsocial hours, and is exacerbated by overtime working.

There was little general direct involvement in the use of overtime from the Police Federation, (in effect, the Police 'trade union'). There was, however, a major exception to this, the Superintendent's Association', (in effect, middle management), had attempted to resist any further reduction of overtime.

POINTS ARISING FROM THIS CASE

- A * The corporate strategy of a clear and determined decision to cut overtime and to maintain pressure on budgets to hold overtime at the lower level was remarkably successful.
- B * There is no evidence, either from the Force-level statistics, or at the level of the individual officer, that the reduction of overtime has in any way impeded the effectiveness of the organisation.
 - * There is no clear evidence of any fundamental link between overtime hours and staffing levels. Some officers believe that overtime should increase pro-rata with any manpower increases. It is argued that demand so outstrips the potential supply of man hours, and operational needs are so great, that each new officer would effectively bring with him his own overtime 'quota'. However, the Chief Constable does not entirely subscribe to this analysis and is continuing a policy of moving funds from the overtime budget to recruit more officers. Irrespective of the theoretical arguments, the clear pragmatic effect of this policy is 'less overtime, more employment'.
 - * Paid overtime in Force A, after the recent reductions, remains equivalent to 112 full time officers. Managers tend to consider paid overtime as the total overtime. However, total overtime is 43% higher than the paid overtime.
- C * The 'overtime decision' at the corporate level was carefully and professionally considered. However, at the operational level, there was little understanding or consideration of the cost and consequences of overtime working, it was seen simply as a convenient tool.
 - * There were sound and properly applied management systems in place for the control of that overtime which is worked. Without these controls it would have been more difficult to reduce overtime and to maintain the lower overtime levels.
 - * There is considerable evidence that the use of overtime is associated with poor management, for instance the tendency to mis-perceive the real reasons overtime is being used; the 'use all we can get' philosophy; an inability to schedule ahead sufficiently to cover anticipated events; the fact that overtime tends to be budget, rather than operationally driven, etc.
 - * A number of alternatives to overtime working have been considered at corporate level. However, there is no simple equation for the exchange of overtime hours with additional bought-in hours, in the particular circumstances of the Police Force.
- D * About 75% of the overtime was systematic, in that it was predictable and often pre-planned and avoidable, given the necessary resources.

- E *** Overtime was largely used to deal with work which could be anticipated and controlled within normal hours, given professional scheduling and control of the workload. Managers within the Force mis-perceived the real uses (reasons) for overtime.
- F *** About 25% of overtime was used to give operational flexibility. The major proportion of overtime, however, does not enhance operational flexibility.
- * Overtime had no impact on corporate flexibility in the context intended in hypothesis H7.
- G *** Lower and middle management resisted reductions in overtime levels and changes in practices such as the recent more rigorous formal control procedures.
- * It is difficult to generalise about officer attitudes to overtime working. About 50% would like more, 30% are happy with current levels and 20% resist overtime. These attitudes follow the commonly perceived norms of younger male officers, with family responsibilities, tending to actively seek more overtime; while older and female officers tend to avoid overtime. However, there are a wide number of exceptions to this rule. For instance, a middle aged CID officer, seeking long hours, but not for financial reasons; or an older, senior ranking officer, who 'puts in the hours' because he believes this will enable him to do a better job.
- H *** Overtime is correctly perceived by officers and management ranks as more cost effective than increasing police strength. The balance between the fundamental variables is: 52% to 64% of basic pay; premium cost of overtime hours to the non-wage labour cost of hiring new staff respectively.
- I *** Overtime often causes a fall in the effectiveness of individual officers, although this is not generally recognised by management.
- J *** TOIL accounts for about 25 % of overtime, equivalent to 28 full time jobs in the Force. TOIL was often used by officers as a means of avoiding capture by the 'excessive paid overtime' control system. Women officers and older officers have a greater tendency to use TOIL, without the ulterior motive described above.
- * There is a significant amount of unpaid overtime, generally worked by the higher ranking officers, but with some also worked by dedicated officers, particularly in CID.
 - * Police Officers are able to, and on occasions do, 'create' overtime.
 - * Overtime is claimed by individual officers to be a cause of casual absenteeism. However, the statistics show absenteeism to have increased as overtime has declined. There was no set pattern, at the individual level, with some high overtime workers exhibiting low absenteeism while others exhibit high absenteeism.
 - * Local Federation officials have not given any lead on the use of overtime, nor have the local officials received any guidance from their central organisation.
 - * The Superintendents' Association are actively resisting any further reduction of overtime.
 - * Overtime working, along with the unsocial hours of the shift system, adversely affect the quality of life for Police Officers, in some cases, to a very great degree. Welfare is an area of increasing concern in all Police Forces. It was clear that the less the notice to work overtime, the greater its disruptive effect on the individual's private life.
 - * Pay levels were excellent. It was clear that only a very few, generally younger male officers with family responsibilities, relied on their overtime earnings for their fixed financial commitments, and this was usually a transitory phase.

BRIEF METHODOLOGY

Twenty nine serving officers were interviewed, covering a representative range of: ranks, (from Chief Constable to probationer), both men and women officers, urban and rural posts and the key functional areas of patrol, CID, traffic, etc. In addition, 4 civilian staff were interviewed, covering the administration and welfare administration functions. A wide range of documentary evidence was collected and analysed, much of which was confidential in nature, and therefore is referred to only in general terms in this thesis.

ANALYSIS OF FINDINGS

ORGANISATIONAL STRUCTURE & STATISTICS

Force A employs about 1060 Police Officers within 5 divisions and 490 civilians and Traffic Wardens. Staff costs represent 83% of the total force expenditure. The establishment has increased by about 3% per year over recent years, but was static during the mid 1980s. The Chartered Institute of Public Finance and Accountancy, (CIPFA Police Statistics Estimates 1989), give the statistics below.

Interestingly, Force A had the lowest level of staffing, relative to authorised establishment, of all Forces, with a 97.9% actual strength. This is one of the factors which has led the Chief Constable to adopt a policy of reducing overtime, in order to release funds to employ more staff, and in future years, to obtain capital equipment and increase training.

The civilian staff, as in other forces, work very little overtime, amounting to only £8350 during the last year. It has been recognised that the relative cost of employing civilians is only about half that of employing a Police Officer for the same duties (Department of the Environment Audit Inspectorate 1983). It has been the policy of this force, therefore, to civilianise as many jobs as possible, in order to improve efficiency, recruit specialist skills, (for instance computer programming), and to release more officers for operational duties. Civilian staff over the three years to 1989 grew from 437 to 477.

Category	The Force	Non-Metropolitan Average	Force's Position Out Of 35
Overtime:			
(£ per Police Officer)	962	1006	19th
(£ per 1000 population)	1867	2048	20th
Training:			
(£ per Police Officer)	193	491	31st
(£ per 1000 population)	375	1026	31st

The basis of the statistics below is: per 1000 population

Net total expenditure	26,686	27,697	11th
Road accidents (injury)	4.6	4.2	Jnt 7th
Traffic offences	50.7	41.6	5th
Persons proceeded against (non-Indictable offences)	35.1	27.4	3rd
Fixed penalty tickets	103.6	70.1	3rd
Breath tests	2.2	5.2	Jnt 30th
Reported offences	75.3	59.8	4th

Police overtime has been reduced, over the last decade, from relatively high levels to average levels as shown in the time series analysis below (source: CIPFA Police Annual Statistics).

Year To	The Force		English Non-Met Ave.	
	Overtime Expenditure (£000)	% of Basic Pay	Overtime Expenditure (£000)	% of Basic Pay
1989	991	7.3	-	7.7
1988	1008	8.1	54649	7.7
1987	1047	8.5	50478	7.1
1986	1033	9.2	46745	7.1
1985	1285	12.0	45643	7.3
1984	1261	12.7	44114	7.6
1983	-	-	-	-
1982	1176	15.3	-	8.0
1981	1057	17.0	-	8.8
1980	802	17.3	25379	9.1

It is difficult to establish any viable measure of corporate success for the organisation. Recorded crime has been increasing at about 4% per year over the last decade. There is no correlation whatsoever between levels of overtime and either recorded crime rates, or detection rates. The detection rate for recorded crime has improved over the last three years, from 28.6% to 38.5%, but this is still historically low compared to the 47.3% achieved ten years ago.

In addition to the regular force, there is a small Special Constabulary which comprised 137 officers in 1988. The strength of the Specials has been falling over recent years. The Specials give support to the Regular Force by carrying out street patrols, duties at fetes and shows, shopping centre patrols and assisting with football match crowd control.

DEMAND PATTERNS

There is a steady weekly demand pattern which sees peaks of 'demand' for police cover at predictable times such as 10pm Fridays to 2am Saturday mornings. There are also fairly predictable event-driven peaks, such as fetes, football matches, VIP visits. In addition, there are planned police initiatives. Of course, there are unpredictable events which give peaks of demand. For instance, serious public order events such as acid-house parties, major incidents. It is difficult to estimate the 'size' of these various predictable and unpredictable events in relation to the underlying workload, but they are estimated to be in the region of 10% for the predictable peaks and 3% for the unpredictable peaks.

LABOUR MARKET

There are no current difficulties in recruiting suitable constables to Force A. It is anticipated, however, that the fall in school leavers up to 1995 (DOE 1988A) will make recruitment more difficult in the future.

HUMAN RESOURCE MANAGEMENT

Formal manpower plans exist and are used to drive the recruitment, training and development of Police Officers. A Force Welfare Officer is responsible for giving support and practical assistance to serving officers.

Officers up to the rank of Chief Inspector are represented by the Police Federation, who are actively involved in all aspects of conditions of service. A number of senior officers believe that the Federation pursue a policy of resisting police overtime, but this was not found to be the case. The Federation, from the centre, have over the last five years given no guidance regarding the use of overtime and, according to their full time officials, do not promote any particular policy regarding the use of overtime. The local Federation Secretary was not aware of any publication or notice relating to the use of overtime, emanating from the Federation. The Federation 'manual' gives only the Police Regulations regarding the use of overtime. Clearly the Federation were happy to leave the control of overtime to the Police Authority.

The age and service profiles, as at January 1989, are set out below and include supernumerary posts.

AGE PROFILE		SERVICE PROFILE	
Age (years)	Total Staff	Service (years)	Total Staff
18.5-25	177	0 - 2	126
26-30	236	2 - 5	109
31-35	189	5 - 10	256
36-40	158	10 - 15	235
41-45	165	15 - 20	123
46-50	85	20 - 25	114
over 50	39	25 - 30	80
		over 30	6

Days lost through sickness have been increasing over a number of years and at any one time, there are now, on average, 60 officers absent from duty through sickness; the statistics are set out below. Given the age profile, industrial comparisons and the high level of medical retirements, this level of sickness is rather high. There are incidents of injuries received during the course of duty, but these are insignificant in relation to the overall level of sickness. For instance, in 1988 only 408 days were lost due to assaults on Police, representing 2.7% of total sickness.

DAYS LOST THROUGH SICKNESS

Year	Establishment	Days lost	Days lost per officer
1980	917	7883	8.6
1981	957	7581	7.9
1982	969	9131	10.6
1983	980	11200	11.4
1984	1000	11369	11.4
1985	1000	13192	13.2
1986	1000	14507	14.5
1987	1000	12334	12.3
1988	1030	14814	14.4

Pay levels are very good compared to the labour market in general and this results to a great extent from the Edmund Davies Enquiry which improved conditions of service for Police Officers and effectively 'indexed' police pay. Gross weekly earnings were on average £297.40 (April 1988) for ranks below superintendent (NES 1989). Overtime pay, as a percentage of gross weekly earnings, for those officers who worked overtime during the pay period, was on average 16.1% of gross pay, for all UK Police Forces.

The Federation, at their 1979 conference, adopted a resolution to reduce the working week to 36 hours. No progress had been made and no action is currently being taken in Force A on this matter. The Federation do act, from time to time, to deal with overtime related matters, but these incidents are infrequent and most often relate to officers wanting to secure more overtime.

The Superintendent's Association, which essentially represents the 'middle management' of the Police Force, did not hold any formal views or policies regarding the use of overtime in the Force up to 1988, although some senior officers felt they would like a free hand to use more overtime in order to improve operational use this as a management tool to flexibility and make their job easier. Many middle and lower level managers also feel they need to motivate their officers and find it easier to 'give way' to pressures than to resist them, and the major pressure was still for more overtime. In August 1988 the Association wrote to the Chief Constable in the following terms: 'There was unanimous agreement that you be advised that the Association does not support any further increase in regular or civilian establishments at the cost of a reduction in the overtime budget.'

STRUCTURE OF WORKING TIME

Working hours and pay are strictly controlled by Police Regulations (1979) which govern all Forces. Police Officers normally work a standard 3 shift system: 6-2, 2-10 and 10-6am.

A number of regular events and demand peaks are, by design, covered by overtime. For instance, football crowd control and Friday and Saturday night Operational Support Units (OSUs), which comprise a sergeant and 3 or 4 PCs on overtime from 10pm to 2 or 3am.

OVERTIME LEVELS AND TOIL

The levels of overtime working discussed below are restricted to hours paid at premium rates only. Notwithstanding this, a substantial amount of hours are taken as time off in lieu, (TOIL), and also as unpaid overtime. Average paid overtime across Force A stood at about 5% of basic hours, representing about 7% of basic pay. This statistic, however, disguises the unequal distribution of overtime, with some sections and some officers working very long hours while others work little or no overtime. The distribution of overtime hours is given below for a number of typical months across the year.

HOURS OVERTIME WORKED

DIVISION	Mar'89	Feb'89	Oct'88	Sept'88	Aug'88	May'88
A	1627	1048	348	400	560	662
B	1800	1914	1531	1814	1776	2048
C	6846	4158	4630	3647	3759	4352
D	4461	3543	3283	2556	2110	3827
E	3044	2359	1109	1696	1905	2140
TOTALS	17778	13022	10901	10113	10110	13029

Analysis of the overtime records by individual officer within 'B' Division, covering the first half of 1989, revealed a number of interesting points which are covered below.

THE USE OF OVERTIME IN ONE DIVISION

Area	Average monthly overtime (hours)
CID	24.2
All uniformed officers	12.4
Women officers	8.3
'B' Division overall ave.	14.4

CID worked on average almost double the overtime worked by uniformed officers. It was also found that women Police Officers worked less overtime than their male counterparts.

These averages concealed a great degree of variability between individual officers. The same

Individuals, in the same departments, meeting the same operational requirements, tended to work consistently longer overtime hours each month. For instance, some officers averaged 45 hours per month, while others worked only 4 hours per month, over the period covered.

Records of levels of TOIL and unpaid overtime were not formally reported and analysed. Thus the following estimates are based on evidence gathered from interviews rather than documentary evidence. About a quarter of total overtime was taken as TOIL and about 5% of overtime is estimated to be unpaid, 'working late'. Thus 70% of overtime is remunerated premium rates of pay. Total overtime levels are therefore 43% above the total hours officially recorded as paid overtime in Force A.

Some groups tend to take TOIL more often, and some never take TOIL, preferring the money. Interestingly, the interviews revealed that WPCs and older officers tend to use TOIL more than the average, and younger married officers prefer to be paid for their overtime.

Typical examples included one PC in his late 40s, with a keen interest in the countryside, always took overtime as TOIL, in order to pursue his interests. While another PC, in his mid 20's, married with children, always took the money and actually sought overtime, in order to help with his mortgage. A WPC stated that she avoided overtime and always took TOIL, (apart from bank holiday overtime which attracts a double-time premium), because: 'the tax man gets most of the extra money' and her husband worries that she gets 'really tired and irritable after long hours of work'. A probationer WPC stated that she had joined Force A 'with her eyes open' regarding overtime, but had resolved to take it 'on the card' (*viz.* as TOIL) so that she could continue 'enjoy a social life'.

OVERTIME PREMIA AND FINANCIAL IMPLICATIONS

Overtime is governed by Police Regulations and must be remunerated by either premia or TOIL. All Police Officers up to the rank of chief inspector are entitled to overtime pay. The individual officer can, within certain limitations, elect for either pay or TOIL. There is some evidence that the regulations are 'interpreted' in that officers are sometimes 'required' by senior officers to take overtime as TOIL or not at all when, for instance, 'the budget is running tight'.

Overtime premia is time-and-a-third for extended duty overtime, time-and-a-half for rest day working and double-time for public holidays and holiday working. There are, however, exceptions to these rates. For instance, certain notice periods must be observed, and where these are not, additional premia; (and, possibly, TOIL as well) must be given.

Where TOIL is taken, the standard premium rates equate to the time off earned, i.e. TOIL taken for public holiday working would be at the rate of two days for each day worked.

OVERTIME MANAGEMENT SYSTEMS

Formal overtime management systems were in place and rigorously applied as is usually the case in public bodies. These were based on a structured budgeting system, covering not only divisions, but departments within divisions. Budgets are monitored on a weekly basis. Sub

divisions are expected to manage their overtime within their budget provisions. There was certainly a tendency for each area to 'use-up' their allocated overtime. If an area overspends its overtime budget, there is pressure for that area to claw-back the overspend in subsequent periods, in order to 'balance-the-books' for the end of year accounts. Indeed, the lack of overtime at the end of the year causes great frustration to officers, who cause dislike the unpredictability of the periodic withdrawal of overtime.

Many senior officers stated that if they could get more overtime, they would find a use for it. In other areas, where overtime has been well husbanded over the year, overtime hours are released in the final two months and special jobs can be undertaken to 'mop-up' the overtime before the new budget year. For instance, a car park surveillance exercise was funded in this way in 1988-9. The senior officer who gave this example went on to describe the problems he had in weaning his officers back off the higher levels of overtime in the new financial year. Thus there is ample evidence that overtime is, to some degree, 'budget driven' rather driven by operational need.

The overall overtime budgetary provision is decided annually and this is allocated to the divisions and an amount is retained at the centre for 'special incidents' at the start of the financial year. Each Division makes bids for the 'special incidents' overtime provision as needs arise. For instance, an acid house party, necessitating a large number of officers at short notice, qualified for 300 hours overtime from this provision.

Overtime is authorised at specified management levels and there are well developed formal overtime usage reporting procedures which culminate in a monthly report to the Chief Constable.

Overtime is allocated through a volunteer system and, if necessary, can be enforced by management. Mandatory overtime is, however, infrequently applied, but is a necessary management facility and is achieved generally by drawing names from a hat. All the Police Officers interviewed accepted this as part of their job. An officer who is asked to work overtime but wishes to avoid this can generally arrange for a colleague to take the duty.

Overtime records are regularly reviewed and high overtime claims are passed to a senior officer for investigation. This leads to high overtime levels being queried and investigated and 'offending' officers being subjected to 'extra supervisory attention in the immediate future'. This activity does not cover the incidence of TOIL. A review of the memos regarding this control revealed that the same names were regularly coming forward for 'excessive overtime claims'.

The single key element which has enabled overtime to be reduced from 17% to 7% of basic pay is recognised by the Chief constable and all officers as the simple management decision to cut it by cutting the overtime budget. There have been no fundamental changes in working time systems or methods of working.

UNPAID OVERTIME

There is a considerable amount of unpaid overtime among officers of the rank of superintendent and above. Indeed the lack of unpaid overtime would be quite unusual. There is little in the lower ranks, with the exception of the Drugs Squad which is said to be particularly dedicated and is estimated to claim only 60% of their extra hours. This results from the culture of long hours

which officers previously experienced and the pride which is taken in this particular job.

REASONS FOR OVERTIME

The reason given by interviewees for overtime was overwhelmingly that of operational necessity or flexibility. This assertion was, however, not supported by the evidence. There was a clear link between budget availability and overtime. It was clear that overtime would expand to absorb the budget provision available. That is not to say that the overtime did not enable a more work to be carried out. There was no evidence, based on the macro level statistics, that reducing overtime has reduced the effectiveness of Force A in any way.

The evidence of the same officers always working high overtime, while others always work little or no overtime, at best indicates that overtime was systematic.

There is a tendency for overtime to be used in a systematic manner, to provide cover for predictable events. For instance, bank holidays and the Friday and Saturday night OSUs are manned on an overtime basis as, to some extent, are prisoner escort duties, football matches and fetes. This is known as 'planned overtime'. Another arguably systematic use of overtime is to cover manpower shortages which are to a great degree, predictable. For instance, to provide cover for officers on training courses, sickness or leave, in which event overtime is used to maintain minimum manning levels. Some officers made reference to overtime resulting from 'very poor scheduling' of such events, which would associate overtime with poor management.

There is, of course, a proportion of overtime which is needed for unprogrammed operational requirements. There will always be incidents where, due to the nature of the job, overtime is unavoidable. The classic 'extended duty' or operational overtime requirement arises when an arrest is made near the end of the shift. (The officers' ability to 'control' this ostensibly 'operational' overtime is discussed later in this case report.) This gives rise to the need for the officer to process the suspect in overtime hours. Some officers believe that the Police and Criminal Evidence Act has increased the need for this kind of overtime, since suspects can not be left in the cells to be processed during the next shift. It would also often be a false economy to hand-over a suspect to another officer for processing. This might require two officers to attend court with the consequential 'knock-on' effects on overtime requirements for the court duty.

Indeed, overtime is frequently used to facilitate officer attendance at court, particularly the Crown Court, which, it was claimed, was less sensitive to the police's overtime budget than the Magistrates Court, in fixing times for officer's court appearances. It is interesting to note that, of the appearances analysed, the officers were, in the event, 'not required', on half the occasions they attended County Court and the notice given for officers to attend Crown Court was often only a few days, therefore incurring high overtime or TOIL payments. Over the period January to July 1989 the following statistics were recorded, for CID officers only, which clearly illustrates the significance of court appearances on overtime working:

OVERTIME HOURS

Type of overtime	Crown Court	Magistrates Court	Total
Extended duty	188.5	71.0	259.5
Rest day working	239.5	25.5	265.0
Total	428.0	96.5	524.5

Analysis showed that overtime was used in the following circumstances: 29% major 'special' incidents; 23% public holidays and 48% for normal operational flexibility. Overtime was greater among CID officers and they tended to work most overtime during Saturdays, since, as one said 'this is the time I am off work, but most often needed at work'.

Overtime budget overspending tends to be focused on the CID and perhaps the following example will explain the reasons for both this and the operational requirement for 'some' overtime in the Police Force. A Detective Inspector explained how he had worked '50 or 60' hours overtime per month over the last few months. On the 22 May 1989 he was called from his bed at 3am to attend a murder enquiry at the scene of an armed robbery. He 'put in 17 hours overtime on the first day alone'.

This raises questions about the effectiveness of the time spent on subsequent days when this middle-aged officer stated that he became 'very tired'. Particularly since most murders are solved in the initial three days of the investigation. This officer 'takes care to balance' his claims between paid overtime and TOIL, in order to avoid coming under scrutiny for excessive overtime; (records of TOIL are not monitored in the same way as paid overtime), TOIL was generally taken as 'golfing days'. Interestingly, this officer was used by some colleagues as an exemplar of the dedicated officer who had to be 'shoved out of the office and told to go home', and by other colleagues as the archetypal 'overtime glutton'. It was clear from the interview that this officer was totally dedicated to his job.

QUALITY OF LIFE AND WELFARE

Long hours are part of the culture of police life. As one senior officer put it: 'there are many officers who genuinely enjoy the work, it is their preferred way of life, and not just a job, particularly those working in CID'. Many officers, however, believed that this was becoming 'old fashioned' and that increased job stress was changing attitudes. Welfare is seen by many senior officers as an area of increasing importance in the Force.

Long hours of work were seen by most officers as destructive towards family life and personal relationships. Most were able to give specific examples of difficulties caused in this respect and three officers quoted overtime as the key cause of marriage break-ups, one senior officer stated that 'overtime' had been specifically cited in his wife's divorce petition. However, the most common irritant was simply that of unexpectedly missing prepared meals. All interviewees thought that the less the notice for overtime, the more disruptive its effect on their personal lives.

Overtime was also said by some officers to cause a fall-off in their performance, particular when the overtime followed a late shift, to be followed by early shifts, an event which often occurred due to the shift patterns. One officer, a WPC, stated how she was at a very 'low ebb' following a period of long hours over a weekend, and how she was aware that she achieved very little of value for a few days following such extended hours. Eight interviewees gave specific examples, for themselves and their colleagues, of how unsocial hours, long hours and uncertain hours, against the backdrop of increasing stress in the job, induce casual sickness. A number of accounts were heard of early retirement, induced by this syndrome.

Undoubtedly the key factor which depresses the quality of 'non-work' life for the Police Officer is the shift system. The Chief Constable is looking at ways to change this system for the benefit of his officers and also to improve the match between capacity to demand. The German system of 'contact policeman', established in a community to patrol and maintain contact, on a trust basis with no fixed hours, was also highlighted for possible consideration, as was the 'Ottawa' shift system.

ATTITUDES AND PERCEPTIONS

One senior officer referred graphically to 'overtime gluttons', another to 'overtime grabbers'. The former officer went on to describe such individuals as: 'cute, perfectly laudable and well managed, but strange how they always manage to make an arrest at the end of their shift', and to say it was: 'strange how its always the same officers who book the high levels of overtime'.

This was a theme which ran through many of the interviews. About 55% of officers want more overtime, 35% are happy with current levels and only 10% would prefer to curtail overtime. Most senior officers, and middle managers, want more overtime to enhance operational flexibility. Only 3 of the interviewees thought overtime should be further reduced, even though seven management interviewees had thought that overtime should not have been reduced previously, but had come to accept the efficacy of the reduction and now wanted overtime to remain at the new lower levels. Many senior officers were unaware that the Chief Constable intended to further reduce overtime over the next year. On the contrary, some were hopeful that overtime would be increased, (see also the Superintendent's Association letter, mentioned earlier in this case, calling 'unanimously' for overtime protection).

The Federation do not meet problems of complaint about too much overtime, but do from time to time meet difficulties of officers wanting more overtime. These incidents are, however, becoming less frequent, the Federation believe, for three reasons, viz:

- i) Because officers are becoming accustomed to the lower overtime levels;
- ii) Pay has continuously improved, due to the Edmund Davies Enquiry;
- iii) Increasing stress in the job is depressing the demand for additional hours.

Most staff, particularly at the lower levels, supported the simplistic link between more staff/less overtime and a shorter working week/more overtime. Most officers felt that the Federation would resist the reduction of overtime on their behalf, although management perceived the Federation as resisting overtime.

MORE OFFICERS, LESS OVERTIME?

The question of more overtime/less officers or more officers/less overtime, is not at all clear. Many senior officers believe that, with only about half of the total crime being reported, low clear-up rates and an apparent expansion of crime almost year on year, there is effectively an endless demand. The Chief Constable stated that overtime would not be eradicated, even if he had 'unlimited manpower'. As one senior officer theorised, if the establishment were to be increased by, for instance, 25% overnight, the new Police Officers would each bring with them their own overtime needs. Thus increasing the workforce would have the effect of increasing the overtime requirement, not reducing it. Indeed, senior managers in this force explained that they have in the past increased overtime budgetary allowances pro-rata with increasing staff.

The Chief Constable, however, does not subscribe to this analysis and has pursued a 3 year corporate plan to reduce the overtime budget, and tighten budgetary and overtime controls, in order to release funds to take on more recruits. The Chief Constable is indeed supported by the local Federation officials in this initiative. This is the reason why overtime has fallen in Force A over recent years. Many of the senior and middle ranking officers had been sceptical about this move, but all now agreed that overtime levels have been cut in half with no fundamental problems, if a few minor irritations.

There is a considerable risk that, without constant management pressure to secure the lower overtime levels, these would creep up again; indeed, divisions are often 'pushing the system' by overspending the monthly overtime budgetary limits.

Equivalent manpower is usually taken as 1522 hours per year for overtime conversion (Department of the Environment Audit Inspectorate 1983). Thus the current levels of paid overtime in this force equate to 112 full time officer equivalents and overtime taken as TOIL is equivalent to 28 full time officer equivalents. It would be inappropriate to attempt to totally eradicate overtime in the Police Force, in current circumstances. However, there is potential for further reductions in overtime in this force, judging from case studies conducted in other forces, where overtime has typically been only 50% of the level currently within this force. Such a reduction would release hours for 70 additional officers and funds for an increase of almost 80 officers.

The financial analysis of the overtime vs. additional officers is extremely complex. Factors such as: training; holiday, sickness and absenteeism and fringe benefit costs, all mitigate in favour of overtime. On the other hand, costs which fall against the use of overtime include: overtime premium rates; improved efficiency of working fewer hours, (including the avoidance of overtime manipulation by officers). Moreover, since society has to meet the cost of the Police Force, as well as social security, the net benefits of reduced unemployment must count in full against the decision to work overtime in this public service.

Many senior officers firmly believe that overtime is more cost effective than employing additional Police Officers. For instance, one comment has been 'it costs much less to employ Police Officers at overtime rates than at basic rates because rent allowance, pension costs, etc, relate only to basic pay'. Indeed, the hourly cost of police overtime is effectively lower than that indicated by the premium since the fringe benefits only relate to the basic pay element. The fringe

costs amount to 65% of total basic pay, while overtime premiums, on average, amount to 52.7% of basic pay. There is also the effect of TOIL which, in so far as it gives a positive impact on flexibility and efficiency, falls in favour of the use of overtime.

MANIPULATION OF WORKING HOURS

Most officers felt that, given the opportunity, some officers manipulate their work in order to generate overtime. It was thought, however, that the recent initiatives to reduce and tightly control overtime to budget were curtailing this manipulation. Most officers were able to relate various means by which 'an officer' could generate overtime, and some of the means were much more subtle than the 'classic' timing of an arrest.

A typical example of manipulation was given as a traffic crew which purposely sets out to make a breathalyser arrest just before the end of their shift, and thereby secure overtime, (incidentally, on pre-agreed times and days during the shift cycle). Nine of those interviewed admitted having generated overtime at some time during their careers in the police, six stated they had not, others declined to comment or were not asked.

LOW PAY DEPENDENCY

Police Officers now enjoy a relatively good salary and with the provision of police houses or rent allowance, few fall victim to the overtime pay dependency syndrome. During the study period, average gross weekly pay for Police Officers below the rank of superintendent was £276, against the average of £218 for all industries and services. Indeed, the Police were second only to the newspaper printing and electronic data processing trades in this respect (NES 1988).

Nevertheless, the overtime pay dependency syndrome is not unknown in the Police Force. For instance, one PC, 24 years old and married with a 6 month old baby, explained he had a mortgage of £480 per month and a flat rate take home pay of £780 per month. This take-home wage was normally boosted to £950 through overtime working. He did not take TOIL and he actively sought out overtime by volunteering for extra duties, for instance, Saturday football control and OSU duties on Friday and Saturday nights. There was an association between overtime and lower levels of pay in that younger officers, who need the extra money, tend to 'seek out' overtime.

It is not unknown for an officer to fall into financial difficulties and this is one of the major reasons for police welfare involvement. It was claimed that younger officers sometimes 'moonlight', (hold second jobs), in order to obtain more money. Jobs such as ice cream selling, bar work, taxi driving, driving instructing and lorry driving were quoted and specific examples were cited. However, although some interviewees had previously 'moonlighted', none of the interviewees were currently involved in moonlighting.

APPENDIX 8-3**CASE NUMBER 5**

Type of Organisation	Mail order books and computer software
Location	West Midlands
Number of Employees	1277
Sector	Retail distribution Service (SIC 1980, 653-656)

OUTLINE:

A progressive company successfully seeking to manage variable demand and, at the same time, to reduce and control overtime, in a tight local labour market.

SUMMARY

The Company has experienced turnover growth at 15% per year, annual seasonal demand peaks of 40% above average load. There is a high profile union presence at the operational level, and a rapid change in operational methods and technology. In order to improve response time and accuracy, and to reduce unit costs.

Overtime has been reduced in all areas, from high levels, to now stand well below the industry average. This has been achieved through a complex and wide ranging innovative management programme. The processes involved include: increasing productivity; new shift systems; temporary contracts; labour-displacing capital investment; industrial engineering; and a concerted effort to improve management controls.

There remain, however, a number of departments where senior management consider overtime is still excessive and systematic. Moreover, management believe that there are latent pressures for overtime to increase in the future, in response to a tightening local labour market.

The organisation continue to seek solutions for the problems of: demand variability; profit improvement and tight labour market. They particularly wish to further control and reduce overtime levels. In addition to their current initiatives, management intend to consider innovative alternatives for the more effective supply of capacity, without resort to overtime. These include: annual hours contracts; geographical relocation of some operations and new payment policies to secure improved recruitment, retention and motivation, and controlled unit costs.

The reduction of overtime has been achieved against a difficult backdrop of rapidly changing and increasing demand, significant and increasing skill shortages at all levels and a well organised workforce in which the predominant pressure was to resist any reduction in overtime levels.

The key to the success in reducing overtime lies in a management team, with a clear and well communicated objective, and the courage to seek out and implement innovative solutions. The main evidence from this case study regarding the research questions and hypotheses is summarised below.

POINTS ARISING FROM THIS CASE

- A * A complex and innovative strategy for the structuring of working time and capital and industrial engineering investment has achieved a successful reduction of overtime. The support of a clear, determined and well communicated management policy has facilitated this success.
- B * The achievement of corporate objectives does not appear to have been adversely affected by the reduction of overtime. Increasing demand has been met and unit labour cost, as a percentage of turnover, has fallen from 15% to 13.5%.
 - * The reduction of overtime has had a direct job creation impact, although it is not possible to accurately estimate the number of jobs created or the 'conversion rate'.
- C * No financial analysis of the overtime decision had been conducted and senior managers were unaware of the actual cost of overtime working.
 - * The management of that overtime which was worked was sound, with established and rigorously applied procedures. The decision between overtime and the potential alternatives was professionally driven from the most senior management level, and controlled tightly within formal and professional manpower plans.
 - * Many alternatives to overtime working, some of them innovative, have been considered, developed and implemented with some success.
- D * About half of the overtime was systematic. The same people tend to work overtime during the same time slots in the weekly cycle, although this cycle was interrupted during the annual seasons.
- E * The reasons for the use of that overtime which was worked were correctly perceived by management at all levels. The key reason being seasonality of demand, which accounts for about 50% of the total overtime. The balance was split equally between systematic overtime and overtime designed to meet specific targets or to deal demand pressure points or unexpected demand.
- F * Insofar as dependence on overtime working had previously exposed this company to damaging industrial action, overtime had reduced 'corporate flexibility'. Indeed, higher and more secure levels of 'corporate flexibility' have been achieved by use of temporary contracts and fixed term (seasonal) part-time shift working to replace overtime.
- G * Senior managers were keen to continue to reduce overtime, which they saw as costly, difficult to control and carrying risks from industrial action if production came to depend upon it, as in the past.
 - * The lower level management were concerned to get more overtime, which they perceived, would make their job easier by increasing their flexibility to deal with day to day pressures and meeting worker demand.
 - * Workers generally want more overtime, but there were exceptions. Manual, male and younger employees generally seek out overtime opportunities. Non-manual female and older staff, tend more often to accept what overtime is offered, or to avoid it. The same

ages, sex and general pay levels, exhibited different attitudes towards overtime, with manual staff seeking more overtime than their non-manual colleagues. The difference in attitude therefore, appeared to be partly cultural as well as structural.

- H * The cost of overtime premia averaged 41% of total pay, a low figure because bonus does not attract premia. The non-wage labour cost of employing additional staff represents 31% of total pay. Both middle and senior management believed, quite incorrectly, that overtime was the cheaper of these options.
- I * High and regular overtime, both in the past and in some circumstances currently, depresses productivity and quality across all working hours. It was not possible to quantify this phenomena, but it was clear that overtime, through this mechanism, increased unit costs.
- J * TOIL was not an option for the workforce, other than in some non-manual areas, where flexitime allowed some flexibility in timekeeping. Management grades can informally take TOIL by agreement with their own boss, but this does not happen to a significant degree.
 - * Unpaid overtime was only worked by management grades, and generally only the more senior grades. There was a strong 'management machismo' effect in this practice.
 - * There were strong feelings, and some direct evidence was found establishing that overtime payments to supervisors encourage overtime, or would if the opportunity were allowed to develop.
 - * Trade union influence at local level has, over the last five years, been minimal. There was no pressure to reduce overtime, but occasionally pressure to increase it. The unions receive little significant support or guidance regarding overtime, from their central organisation. The local union organisation, some time ago, used the supply of overtime, upon which the Company critically depended, as a very powerful weapon against the Company.
 - * There was no evidence that welfare was adversely affected by the current 'normal' levels of overtime, i.e. one or two evenings and Saturday morning on a number of occasions during the year. There was, however, evidence that high levels of overtime, regularly worked, cause workers to suffer from fatigue which affects both their normal hours work and their general welfare.
 - * Pay levels were relatively good at the lower end of earnings. There were few employees dependent on their overtime pay for fixed financial commitments. Those that were identified were younger male manual workers, with family commitments and the situation was likely to be temporary.

ANALYSIS OF FINDINGS

CORPORATE STRUCTURE

All establishments of the Company were visited over a period of three months and twenty four interviews were conducted, covering all levels of the management structure.

The turnover, which now stands at £100M, had been increasing at approximately 15% per annum, yielding a 10% net profit before tax and distribution. The wage bill represents 14% of turnover.

YEAR	TOTAL TURNOVER £000	WAGE BILL £000	WAGE BILL AS % OF TURNOVER	TEMPS INCLUDED IN WAGE BILL £000
1985	62502	9125.7	14.6	177.7
1986	71620	10840.5	15.1	256.7
1987	76771	11401.1	14.9	287.7
1988	87791	13321.8	15.2	430.4
1989	103229	13970.4	13.5	579.0

In early 1988, the Company was divested from a major U.K. retail group. Since that structural change there has been a high level of senior management turnover. Management structures were conventional, hierarchically based and essentially follow functional lines, although there was some product orientation at the lower levels and some matrix structuring at the highest level.

The Company employ 1277 staff of which 850 were full time, 217 were part time and 210 have temporary contracts which were frequently renewed or converted to permanent contracts at term. These staff divide into 1047 monthly paid and 230 weekly paid and approximately 307, (24%), were manual staff, being employed essentially in the warehouses. The operations were structured under the following three functions, employing 660, 290 and 327 staff respectively:

- i) Administration of Sales and Distribution,
(85.9% female and 5% manual staff);
- ii) Warehouse and Distribution,
(56.5% female and 5% manual staff);
- iii) Support Services,
(58.1% female and 5% manual staff).

There were 5 sites, one being the administrative centre employing 731 staff, one the strategy and marketing development centre employing 176 staff, the other three comprising the main warehouse and despatch depot, with 257 staff, and two satellite warehouse depots employing 74 and 39 staff. All the sites were based on the southern borders of the West Midlands, within the M4 basin, with the exception of the marketing centre which was based in central London.

DEMAND PATTERNS

One measure of corporate activity level was the number of packets or parcels despatched each month, (subject to average contents), and this is now approaching 1 million, 98% of which were destined for the U.K. Demand variability was to some extent controlled by marketing initiatives but typically sees peaks of 1.1 million parcels pre-Christmas, with around 700,000 in the spring and summer slumps.

Whilst there were times of the year when there was only very limited control of levels of demand, there were other times when considerable control, through the timing of marketing initiatives, was available to the organisation. There remains, however, an underlying seasonal pattern of

demand, linked to the pre Christmas period and the summer slump. The total number of parcels handled over recent years is set out below.

Total Output ('000 Parcels and Packets)

MONTH	1987	1988	1989
January	710	739	783
February	841	804	859
March	808	802	976
April	694	586	728
May	953	676	948
June	900	839	906
July	848	979	790
August	797	826	760
September	835	562	1073
October	914	898	928
November	1141	973	853
December	945	1057	E1000

LOCAL LABOUR MARKET

The local labour market was tight across all employee grades, but particularly so within the higher skilled, technical and professional grades. Salaries and wages within the Company were paid generally between the median and upper quartile of the local market, for the white collar and clerical grades and the unskilled and craft skills, including bonus (Reward 1989). The Company were therefore generally able to recruit and retain these grades. There is, however, some difficulty in lack of local competitiveness for the higher technical and professional grades. These were paid in the third quartile relative to local conditions (Reward 1989). Irrespective of the competitive position of the pay structures, there was a shortage of potential employees on the labour market, at all skill levels, but particularly so at the higher skill and professional levels. This was due to the economically and technologically buoyant nature of the M4 corridor.

The age-profile of the staff was biased towards younger employees, particularly in the administration sections, reflecting the rapid growth of the Company over the last decade and the nature of the work. There was concern among senior managers about the Company's ability to recruit, retain and motivate staff, at affordable salary levels, in the future context of: further growth of the Company; further tightening of the labour market and the falling number of young people entering the market up to 1995 (DOE 1988A). Management believe that these factors will affect the Company in the years leading up to and following 1995, when these people would have presented as potential or experienced clerical employees.

HUMAN RESOURCES MANAGEMENT

Formal written manpower plans exist and were professionally maintained. SOGAT were very active locally and represent 100% of the manual staff within their traditional 'chapel' union structure. The non-manual staff were less unionised with only about 4% membership, although there have been recent moves from the unions to increase membership in response to what were

seen as threatening changes in the Company pension scheme and the senior management turnover.

Staff turnover rate was running at a high level with non-manual employees at 21% (London 30%, support services 16% and warehouse 8%) and manual employees at an underlying rate of about 15% but much higher gross levels, as a result of temporary staff layoffs for capacity balancing. These high staff turnover rates reflect the competitive labour market where alternative jobs were readily available.

Pay levels were good relative to national averages. For instance, the unskilled warehouse operator can expect to earn £185.86 including approximately £50.00 bonus per 36.25 hour week. Absenteism levels were a little below the industry norm, standing at about 5%, reflecting the linkage of the substantial bonus payments to attendance. Working conditions were relatively good for both the warehouse and office environments. Separate rest areas were provided and workplaces were generally ergonomically sound. There has, however, been a history of tenosinovitis, (repetitive strain injury, arm tendons and wrists), within the manual packaging operation. There was no substantive evidence that overtime had any effect on this syndrome, although it was claimed, and it is reasonable to adduce, that longer hours would exacerbate the condition.

STRUCTURE OF WORKING TIME

Normal working hours had been reduced during the mid 1980s from about 40, to generally, 36.25, non-manual staff and 36.67, manual staff; the normal working week finishes at Friday lunchtime. Non-manual staff mostly operate within a flexitime system. There were local variations and controls but normal hours were generally 7.25 per day and core hours were 10-1200 and 14-1600 hours with limits of 0730 to 1830. Lunch was between 30 and 120 minutes and tea breaks were for 15 minutes with management control for capacity-cover management. Hours worked were calculated over a 4 week period and a maximum of 10 hours credit or debit can be carried forward.

Hours of work for manual staff were gradually reduced over the period 1980 to 1987 and during this evolutionary period, overtime increased. In 1987, management made a positive decision to reduce overtime and introduced a number of initiatives to achieve this. This organisation is relatively young and has enjoyed an energetic period of growth in a labour market where outside opportunities were available to staff. In these circumstances there tends to be less of the resistance to change which is often a function of tradition and culture.

Temporary staff, which the Company had used extensively, came to be considered 'expensive' due to the learning curve effects, recruitment difficulties and their inherent unreliability. Management considered the high levels of overtime, in 1987, to be ineffective in that productivity and quality levels were found to be poor for those individuals who worked excessive hours. Moreover, the Company had suffered a crippling overtime ban in the early 1980s and wished to avoid the adverse IR implications of over-dependence on overtime. The avoidance of this concrete risk mitigates against the use of overtime in the full costs equation and, also, on the 'corporate flexibility' argument, hypothesis H4.

Therefore a variety of shift systems were developed and introduced in order to reduce dependence on overtime. These systems have been successful in tapping the local tertiary workforce. In designing the various shift systems, the Company have targeted certain areas of the potential labour market which, due to family and other commitments, would find the more usual hours of work and length of working week inappropriate. Care was taken to keep the contractual hours for these various shifts below the threshold levels for pension fund membership which then existed. For instance, a split-shift for clerical workers was introduced in 1985 with 40 staff employed on each shift, 0800-1200 and 1200-1655.

These shifts therefore split 40 full-time jobs between 80 part-time employees and thus represent a job-sharing scheme. An agreement exists for each of these employees to provide cover for their 'partner' on the other shift and to work longer hours during the two or three months of peak demand each year. This 'obligation' was non-contractual but was within the offer of employment letter. In addition, a split-shift system, 0800-1200 and 1200-1655 hours, was implemented at the warehouse for manual staff, creating 12 jobs, (6 full time job equivalents). This split-shift has now been increased to 30 staff and it was planned to be further increased to 50-70 staff, depending on sales, by the end of the 1989.

An evening shift for clerical staff in the administration centre, 1715-2215 hours, Monday to Thursday, which had been introduced in the late 1970s, was extended in the mid 1980s. Also, key production areas at the warehouse, (*viz.* storage, picking and packing), established permanent twilight shifts operating 1655-2200, staffed by permanent part-time employees and a temporary twilight shift system, (1710-2110), is now operated during the times of peak demand. This shift is partly manned by existing employees, on a second job (moonlighting) basis and partly by temporary workers. Moonlighters were paid overtime rates for the whole of the extra shift while the temporary workers were paid flat day rates. This system satisfies the moonlighter's need for additional funds and the firm's need to recruit staff in a tight market and to avoid staff training and the learning curve phenomenon.

Supervisors and Human Resource Management are, however, now coming to the view that this can be unsatisfactory in that fatigue becomes apparent in the moonlighting employees and some of the advantages were lost due to the effects of this fatigue.

Clearly, a large number of jobs, albeit temporary, have been created by these measures which were designed to displace overtime. It is not possible to establish how many of the created jobs can be directly attributed to the overtime reduction, or at what overtime-hour for new-job-hour conversion rate any replacement took place. All managers, however, accept and the evidence strongly suggests, that the reduction of overtime has created some new jobs, as well as resulted in increased productivity levels.

OVERTIME WORKING NON-MANUAL WORKERS

Levels of overtime have fallen from 8 to below 2 hours per week over the last 5 years as a result of the shiftworking and job sharing initiatives, capital investment and, quite simply, the management determination to reduce it. Moreover, changes have been made over the late 1980s, by industrial engineering, to improve work methods, factory layout, materials handling and production equipment. Higher levels of productivity have been secured. These initiatives were considered

by management to have been largely successful in reducing overtime, although it is not possible to retrospectively attribute specific levels of overtime reduction to each initiative. In the clerical areas considerable capital investment has been made in order to improve accuracy and speed, to reduce costs and alleviate manpower resourcing problems such as recruitment and overtime working. For instance, in the Members' Correspondence section, the move from word processors to main frame computing, to deal with members' correspondence, enabled staff to be cut from 100 to 70 and a reduction of overtime by 75%.

A flexitime system was in operation in the clerical areas. Overtime was agreed with the departmental manager in advance, recorded on the clock and paid at the premium rates of 150% and 200% for Sundays and bank holidays. In these areas two thirds of overtime was taken as flexitime leave, reflecting the preponderance of women employees in these areas.

Overtime at the London site was remunerated in a novel manner. The departmental manager and individual employee negotiate a fixed sum for the overtime work required. This sum was often based on NUJ copy writing rates and will generally include the appropriate overtime premium rate. The employee carries out the work, often at home, and the cash sum was paid as an adjustment to the individual's monthly salary under the heading 'overtime'.

OVERTIME WORKING MANUAL WORKERS

Manual workers' overtime levels have fallen, on average, from 8 to 4 hours per week over the last five years as a result of management initiatives. Nevertheless, some manual staff still work regular overtime, with each depot and department having its own particular patterns. There are, however, many points of general applicability. For instance, a number of novel and interesting overtime practices had in the past endured under SOGAT systems agreements and practices and these have been largely removed, through management initiatives, over the early to middle 1980s. Examples of these include a 'Temporary Worker Agreement' where the employment of any temporary worker on a site gave an automatic right for all permanent employees on that site to be offered 4.5 hours minimum overtime, (representing a Saturday morning), irrespective of the demand for capacity during that week. Another such agreement was for all workers to be offered overtime, if one worker was called to work overtime, whether the capacity was needed or not. A number of overtime-associated agreements still apply, including one covering the 'notice to work overtime' which provides for workers to be advised before 1200 noon if they were required to work overtime. In the event of this overtime not subsequently being required, the worker was still paid in full for the unworked overtime, although this would be an exceptional occurrence. Also, Saturday morning overtime is still paid, at premium rate, for 5 hours even though only 4.5 hours were clocked. Agreements such as those mentioned above were generally viewed as regressive and restrictive.

SOGAT employ no overall policy for the control or restriction of overtime in this company. Indeed, the local union approach towards overtime was fragmented, in a climate where operational workers essentially would like more overtime and, in the opinion of management, would try to manipulate their working pace and priorities to achieve this. However, the bonus scheme effectively prevents the manipulation of productivity levels for overtime generation. The unions applied strict regulations to overtime working some 5 years ago, but this control was eroded by a dedicated management effort.

There was no record of industrial relations problems arising out of the use or regulation of overtime. However, overtime has been used by workers as an industrial action weapon. For instance, a damaging overtime ban was enforced in 1980 and again in 1982. The question of overtime availability was raised by local union representatives from time to time but only from the view point of increasing its supply.

In the early 1980s, SOGAT amalgamated with NATSOPA to become SOGAT 82 and the Company lost its resident Branch Secretary at about that time. These changes were thought by management to have facilitated the removal of the restrictive practices regarding overtime.

OVERTIME LEVELS

Recent levels of overtime are shown below as a percentage of basic salary.

MONTH	ADMINISTRATION			SUPPORT SERVICES			WAREHOUSES		
	BASIC	O/TIME	%	BASIC	O/TIME	%	BASIC	O/TIME	%
1988									
Sept	358155	22713	6.3	221167	2464	1.1	102414	15836	15.5
Oct	376777	18890	5.0	219424	2647	1.3	131592	22461	17.1
Nov	383371	50558	13.2	213514	2681	1.3	116948	25553	21.8
Dec	378913	24702	11.3	211556	2073	1.0	116295	21319	18.3
1989									
Jan	379056	21813	5.8	208081	950	0.5	113316	21366	18.9
Feb	382905	27179	7.1	216090	1073	0.5	117351	13690	11.7
Mar	388766	30076	7.7	218357	2937	1.3	117966	11596	9.8
Apr	394532	24362	6.2	220316	1653	0.8	116820	13608	11.6
May	395647	22510	5.7	264737	2562	1.0	183136	10308	5.6
Jun	396761	16341	4.1	240113	2420	1.0	133200	10957	8.2
Jul	429858	25370	5.9	246950	2248	0.9	149482	16028	10.7
Aug	431634	24700	5.7	241881	3741	1.5	165920	16816	10.1
Sept	423426	25618	6.1	236700	4173	1.8	158946	20975	13.2
Oct	426010	33625	7.9	243537	2988	1.2	160142	20406	12.7
Nov	452369	31651	7.0	237187	2400	1.0	157208	33697	21.4

These figures do not reflect the 'moonlighting' wages paid to dual job holders on the twilight shift. This schedule illustrates a number of well rehearsed points, viz:

- i) Overtime was much higher at the warehouses where employees tend to be manual and there were fewer female workers;
- ii) There was very little paid overtime among the London based non-manual staff;
- iii) Overtime does not appear to be falling over the period covered;

- iv) About 50% of the overtime in the warehouses reflects the seasonal swings in demand. The balance, which amounts to about 10% of the basic wages, appears to be fairly constant;
- v) The bulk of overtime in the administration and support functions does not vary with demand.

These observations suggest that overtime, even in this progressive organisation, is still institutionalised to a degree.

OVERTIME PREMIA

Premia were standardised throughout the organisation at 50% for all times except Sundays and holidays, which attract 100%. Premia were always paid on basic wages or salary and do not cover additions such as bonus. Weighted average analysis indicates that the premium paid throughout the organisation was equivalent to 41% of the hourly wage rate, including bonus. This figure was lower than would be expected due to the high levels of productivity bonus. The direct cost of working overtime, 41% of total pay, was one third more expensive than non-wage-labour-costs, NWLCs, which average 31% of total pay. Thus the overtime option was not as cost effective as that of hiring new staff, taking the comparison between the options' primary costs only.

It must be stressed, however, that there were many other considerations in the overtime decision which may or may not over-ride this primary cost comparison. For instance, in this particular case the following considerations would be relevant:

- Availability of suitable workers;
- Service levels (speed of response to customers' demands);
- Corporate flexibility of the organisation; (*viz.* the ability to reduce staff levels in line with demand in the future);
- Utilisation of expensive capital plant;
- Training costs and learning curve;
- Fatigue and quality implications, etc.

Nevertheless, both senior and middle management believed, quite incorrectly, that the overtime decision was cheaper than hiring more staff, (based on the perception of average overtime premium and NWLCs). Moreover, it was found that no financial analysis of the overtime decision had been formally conducted, either at the primary or more detailed level.

OVERTIME WORKING PATTERNS

Overtime was typically worked in 2 hour slots on one, two or three evenings per week, and usually the same evenings from week-to-week, and a 4.5 hour Saturday morning slot, (paid as 5 hours). In addition, overtime is now often scheduled for a 3 hour Friday afternoon slot.

UNPAID OVERTIME

It was quite usual, within the organisation, for managers and some professional staff, (although to a lesser degree), to work additional hours without any overtime pay, and often without TOIL. For instance, hours for the senior manager at the Warehouse were, generally, 8am to 7pm Monday to

Thursday and 8am to 5pm Friday, with no weekend working, giving 14 hours per week unpaid overtime. More typical examples of unpaid overtime at the warehouse, among the middle management, were from 2 to 6 unpaid extra hours per week with an average for those interviewed of approximately 3 hours per week. In addition, lunch breaks and tea breaks were often taken working. It was estimated that this organisation benefited, on average, by about 8% additional unpaid hours among middle managers, and 18% from the more senior managers.

The Company were sensitive to this phenomenon and allowed some flexibility in timekeeping and attendance in compensation. However, very little actual TOIL was in the event taken by these managers; a typical comment was: 'I'm always too busy to take time off'. There was a strong 'machismo' mechanism within the management hierarchy regarding the late working syndrome, with many of the middle managers feeling it necessary to stay late in order to demonstrate their commitment to the Company. This was reinforced by the obvious high level of visibility given by senior managers to their 'late hours'.

OVERTIME MANAGEMENT SYSTEMS

Overtime management systems were well developed within the Company. Overtime hours were generally supervised and overtime budgets were operated in all areas. Most management and professional grades were excluded from paid overtime, although some lower level 'managers' and supervisors, who benefit from overtime pay, can authorise overtime working within the budget and this was seen by some as a weakness.

The question of productivity during overtime hours, and the more interesting problem of productivity during normal hours within an overtime regime, were not of concern in this organisation since the bonus scheme was very effective in controlling productivity levels. Overtime is, in many areas, scheduled in advance by up to 2 weeks. The allocation of overtime in about 30% of areas was the responsibility of the supervisor, who takes account of employee wishes. In the remaining areas, allocation was achieved by a formal rota system. There was some evidence that the gift of overtime was used by supervisors, covertly, as a reward and punishment mechanism, particularly among white collar staff, reflecting the much weaker union representation in these areas.

Supervisors receive overtime premium pay for staying late. They often press for overtime for their staff, and hence for themselves, in order to meet day to day production targets. For instance, one supervisor stated he often had to 'battle for overtime to clear backlogs in work-flows caused by other managers' inadequate planning'. He said he was not 'adverse to earning a little extra by working overtime' himself. In addition, some lower management jobs carry guaranteed overtime fixed at, for instance, 2.5 hours per week, in order to provide cover for shift change-over. Supervisors' bonus was based to some degree on overtime levels in that it was geared to the cost per standard hour which was adversely affected by overtime. However, supervisors were paid for overtime at premium rates and this was felt to provide a weighty counterbalance in both 'directness' and financial impact to the relatively minor potential effect on bonus.

REASONS FOR OVERTIME

There was a clear and common understanding of the reasons for the use of overtime and these were, to a degree, consistent with the evidence found. The primary reason was the need to meet

'seasonal' demand peaks and about 50% of overtime fluctuated in sympathy with the number of parcels dispatched each week. Secondary reasons were found to be:

Increased utilisation of expensive capital plant such as the £1.0 million high-rise store investment;

Output boosting in certain key areas, (for instance 'New Members' where the highest service levels must be achieved);

Shortages of skilled personnel, (such as FLT operators);

Cleaning and maintenance outside normal working hours.

There was also a small amount of 'custom-and-practice' overtime geared more at the needs of the employee than the organisation, although this was at a lower level than was typical in the industry. The only overtime that was not in some way found to be systematic was that used in response to real emergencies such as those caused by shortages, breakdowns or external influences such as the postal strike. The bulk of overtime, more than 75%, could be classified as predictable and replaceable, in that the demand could be met by alternative means such as employing additional staff, training, new shifts, temporary contracts, etc.

ATTITUDES AND PERCEPTIONS

Manual employees would generally like more opportunity to work overtime, whilst their non-manual colleagues were generally happy with current levels of overtime. This reflects the structural difference found elsewhere *viz.* 80% of non-manual workers were female and found to be more often second wage earners. This does not, however, account for all the difference, there was certainly a traditional or cultural difference in expectations, with manual workers exhibiting a higher demand for overtime than workers who, in terms of sex, age profile and grade, were alike apart from being non-manual. Another interesting phenomenon was found to be the fall-off in demand for overtime as the employee passed the age of about 45 years. This was explained by one employee by reference to the changing balance between the need for cash, (mortgages were particularly mentioned), and the value of spare time (the family was particularly mentioned and some employees felt that they had lost the most valuable time when their children were young, because of overtime working).

On the question of the effect of cuts in working hours and other worksharing mechanisms, management opinion was split equally between those who felt that overtime would remain constant and those who felt it would increase pro-rata. Those who felt it would not increase were mostly of the opinion that the demand could be satisfied by further increases in productivity. A typical comment was: 'we have gone a long way over recent years but there is still more opportunity to maximise output from the current resource'.

Perceptions on general overtime issues were consistent across the organisation with only minor variations in the degree of agreement. On the question of employee manipulation to secure overtime it was stated that this had been common in the past and still would take place if it were possible, but management controls, and the bonus scheme, effectively prevented it. It was

strongly felt, even among some supervisors, that overtime payments to supervisors promoted overtime working. It was felt that overtime working promoted industrial relations irritation, but this was not a significant problem; one comment was: 'it is a source for much sabre-rattling, but no actual industrial action'. The existence of overtime opportunities was thought to be a good recruitment factor. Most interviewees felt that the best ways to reduce overtime were through management determination, (mentioned most often) and both capital investment and training. All the interviewees felt that there was some potential, within the economy as a whole, to increase employment through the reduction of overtime, some felt that this potential remained in their own area even now, after the considerable efforts of the last 5 years.

LOW PAY DEPENDENCY

The consensus was that employees will always want to increase their income, but that the Company's relatively good existing levels of pay make this a desirable option, rather than a matter of fundamental need, for all but a few of the primary wage earners with mortgages, usually men aged 25 to 40. Two or three examples of individuals who critically depend on their overtime pay were found at each site, but these were the exception rather than the rule.

THE LARGER SATELLITE DEPOT

Of the 74 staff at this depot 50 were female and 24 were male. Only eighteen months ago there was still considerable systematic overtime worked at this establishment. Typically 9 to 12 hours per week per employee was worked during one or two nightly 2 hour slots a Friday afternoon 3 hour slot and a 5 hour Saturday morning slot. The situation has since changed, with typical levels now standing at about 6 to 8 hours per week during the 3 or 4 months of peak demand. There was also a small but constant use of overtime all year round, covering housekeeping and cleaning which management claims needs to be conducted outside normal hours, in order to avoid interference and dust during operating time, although this was not an obvious problem and alternatives were available. This requirement was met by two men on overtime, on two 2 hour evening slots each week.

The reduction of overtime was achieved by the introduction of new labour-displacing capital plant, such as envelope insertion machinery, the introduction of new and novel shift systems and by a concerted management effort to improve scheduling and resist worker pressures for overtime. This initiative was stimulated by the crippling overtime ban in the early 1980s. There was some concern among managers that considerable pressure exists from the workforce to increase overtime and this would need careful management in the future.

THE SMALLER SATELLITE DEPOT

In the smaller of the satellite depots, overtime was little used, with an average of 1 hour per week during the non-peak months. This reflects to some extent the structure of employment therein, with 35 female and only 4 male workers. Overtime levels stood typically at 13 hours per week in 1987 and since that time there has been an increase in volume of work. This dramatic reduction in overtime has been achieved through industrial engineering improvements and an increase in building size where capital plant investment; plant layout and work flows were designed to improve materials handling. In addition, there has been a concerted management effort to improve scheduling and work-flows more and to resist worker pressure for overtime. The result has been an improvement in productivity and reduction of overtime within this small depot.

APPENDIX 8-4**CASE NUMBER 10**

Type of Organisation	Ministry of Defence A Civilian Industrial Employees
Locations	South East & South West
Number of Industrial Employees	760
Sector	Public Sector Service (SIC 1980, 915)

OUTLINE:

An organisation under pressure to improve effectiveness, operating with poor wage competitiveness for some grades. Substantial systematic and ineffective overtime was worked, with little management control. No particular initiatives were in hand to review the use of overtime.

SUMMARY

The key message of this case is quite obvious, but worth noting since it appears that it can still be missed by a 'defensive' management team operating under pressure, viz: unless overtime is actively and professionally managed, it becomes ineffective and damages the organisation.

Increasing pressures were being brought to bear on this organisation to improve productivity, although there were no plans to bring overtime into this general review.

Staff turnover had been running at between 10% and 18% depending upon the area. Vacancies were running at up to 20% in some areas and a lack of wage competitiveness was claimed to be the key problem, particularly for the more qualified craft and technician grades.

Overtime was worked by about 30% of employees, each averaging 8.4 hours per week, although some workers complete 20 hours overtime per week. Current levels of overtime had been static for a number of years.

It appeared that the employees, rather than the managers, often exercised the real control of overtime working, within the overall budgetary constraints. Managers generally were not aware of the costs and true reasons for the use of overtime within their areas. Indeed, overtime was found, during the ethnographic phases of the study, to be grossly ineffective and to depress the productivity of all hours.

POINTS ARISING FROM THIS STUDY

- A * There were no strategies for the management control or reduction of overtime.
- B * Overtime did not appear to assist in the achievement of corporate objectives and this added to the very real viability threat to the organisation.
 - * Cash was diverted within the organisation to fund overtime instead of additional employment, (ie. an overtime budget increase had been justified using skilled staff shortages). Therefore, in the negative sense, there was a clear relationship between overtime and potential new jobs. Notwithstanding that in many areas of this organisation, overtime could be largely abolished with no increase in staffing due to the potential to dramatically improve productivity. It was clear that overtime was adding to the structural problems which were seriously threatening the viability of the organisation and therefore the jobs sustained by it.
- C * There was no evidence of any formal or even informal analysis of the decision to work overtime and managers appeared not to have considered alternatives to using overtime. The decision to fix an annual budget for the level of overtime appeared to be the only effective management control. No financial analysis had been made of the overtime 'decision', nor had the impact of overtime on overall productivity been considered.
 - * The employees exercised a great degree of control of overtime working, within the overall budget constraints.
 - * Formal administration systems for plant-level overtime control were found to be sound both procedurally and in application. However, the actual control of overtime on the 'shop floor' was achieved through charge hands and supervisors and was found, on many occasions, to be ineffective. The lower levels of management were found to identify more with the needs of the employees than with those of the organisation.
 - * Managers were unaware of the true processes involved in overtime working in their organisation. They mis-perceived the real use to which overtime was being put and the impact of their use of overtime on unit costs.
- D * More than 80% of the organisation's overtime could be defined as systematic.
- E * Overtime was used generally for the normal workload, although managers did not perceive this to be so.
- F * Overtime had an inhibiting effect on operational flexibility in that it was systematic and therefore not available to deal with unexpected events. Overtime also caused the depression of productivity across normal hours due to 'pacing' and fatigue factors.
- G * Both managers and employees were generally found to want more overtime provision.
- H * The cost of overtime premia represented 52% of basic pay. The non-wage labour cost of employing an additional worker amounted to an average of 35% for those departments using overtime.
- I * Overtime was found to be often ineffective and unproductive.
- J * TOIL was not used and little or no unpaid overtime was worked other than by higher grade management staff, who worked on average about eight extra hours per week, without thought of extra remuneration.
 - * The local union officials pursued no particular policy on the use of overtime, nor had they received any direct guidance from their central organisation.

- * There was no evidence that normal levels of overtime caused employees any particular welfare problems or fatigue. However, where groups of employees worked very long hours, above 12 hours per week, problems of fatigue and stress were found. These became manifest primarily through sickness rates more than double the organisation's normal levels.
- * Pay levels were relatively poor, particularly for the skilled craft and technician grades. There was a degree of dependency at the lower pay levels, but these were not general and were limited to specific circumstances, such as younger male employees, with family responsibilities.

BRIEF METHODOLOGY

The organisation consisted of 4 separate establishments, three of which, employing 96% of the staff, were visited. Some 16 managers and supervisors and 29 employees were interviewed and working practices were observed. All time spent on site was accompanied due to the security requirements, although this did not significantly impede the study or affect the results.

BRIEF ANALYSIS OF FINDINGS

BACKGROUND

Increasing pressures were being brought to bear in order to improve productivity. A new post of Productivity Officer had been established during the previous year. The possibility of contractorisation was present for some of the less sensitive areas. There was a high level of union representation, predominantly through the AUE, EETPU and T & G. Work study and production engineering techniques were not used and output was measured only in terms of delivery performance, with no consideration of the resource or cost implications of the output.

The Activity was geared to providing a service to the essentially scientific objectives of the establishment. The staff were split almost equally between craft and non-craft employees. Among the non-craft employees, about 120 were non-manual, the rest being manual staff. An excellent forward work-load existed for most areas, the key problem being that of meeting the important delivery schedules. The employees were not generally aware of the healthy forward load situation and tended to be defensive in 'spreading' their current work-in-progress across their working time.

In short, the employees exercised an unhealthy degree of control over their pace of work. The exception to this was a group of about 120 employees in one department, essentially craftsmen, who were tightly controlled and were observed to achieve a rate equivalent to 94BS, (BS 0-100), well above the day-rate plus 12% pay they were receiving.

Staff turnover had been running at between 10% and 18% within the various areas. Vacancies during the last year had been running at up to 20% in some areas and a lack of wage competitiveness was claimed to be the key problem, particularly for the more qualified craft and technician grades. A special pay allowance of £25 had recently been granted to all

establishments in the organisation, in order to improve recruitment and retention. This allowance was made in response to the lack of wage competitiveness and was supported by anecdotal evidence, labour turnover analysis and local job advertisements, there was no formal analysis of pay statistics and the outer London and South coast areas were treated alike. However, a review of published statistics, undertaken as part of this project, generally supported the organisation's conclusions (Reward 1989). It was too early to determine if this increase in pay was having any effect on morale or staff turnover.

THE USE OF OVERTIME

Overtime was systematically worked on the same specific days and times, by essentially the same employees. For instance, in one area employing 73 craftsmen and 8 non-craft staff, 8 hours overtime was worked every alternative Sunday, in addition to systematic overtime at other times of the week. Overtime was worked by about 30% of employees, each averaging 8.4 hours per week, although some workers worked 20 hours overtime per week. This level of overtime had been static for a number of years. An estimate, based on observations during the study, revealed that over 80% of total overtime was systematic in that the demand could have been anticipated and met in alternative ways, or the overtime was, in fact, a function of 'employee demand' rather than operational need.

The remuneration for overtime was exclusively by premium payment and the average premium equated to 52% of basic pay. Non-wage labour costs, for those employee groups working overtime, equated to 34% of basic. Approximately £12 of the average pay was an unconsolidated 'productivity' payment, although there was no incentive element whatsoever in that now 'institutionalised' payment.

The management of overtime and the amount of overtime worked were governed primarily by the availability of departmental level budgetary provision. Indeed, most managers simply divided their overtime allocation into twelve equal monthly proportions and that was the extent of their control. There were no other systems for overtime corporate-level overtime control or attempts to measure the impact of overtime on unit productivity, either during overtime or in normal hours. Management were intending to budget, for the coming year, for the same amount of overtime as the previous year. There was no attempt to justify the macro-level overtime budget through the evaluation of manpower plans and forward load forecasts. If managers could secure more overtime provision, they said they would have 'gladly' used that provision.

Formal administrative systems of authorisation and recording overtime were found to be sound both procedurally and in application. However, the control of overtime on the 'shop floor' was achieved through charge hands and supervisors and was found, on some occasions, to be totally ineffective. Lower levels of management identified more with the needs of the employees than with those of the organisation. There had been no attempt to evaluate the cost of overtime working, or to investigate alternatives to overtime working. Although there were moves to review productivity in order to make the organisation more viable, overtime was not planned to be a specific part of that review.

Managers generally considered that overtime was cost-effective and thought overtime to be cheaper than hiring new staff. Indeed, one particular manager stated that overtime was worked on Sundays in order to 'spread the overhead costs', and on this basis was 'cost-effective', in spite of the double-time premium. Investigations revealed that Sunday overtime, as would be expected, added to, rather than diluted the overhead costs. In fact the Sunday overtime was found to be worked in response to employee preferences. Three reasons for this preference were given: i) travelling to work convenience, (employees were 'bussed' to the site from town and overtime required them to bring their own transport); ii) to achieve the higher premium rates; and iii) to retain Saturdays for family, shopping or sports activities..

There was general pressure from both managers and employees to increase the availability of overtime, although some staff, generally the older employees, said they would resist overtime, were they offered it. In fact, overtime was distributed on a purely voluntary basis. It was claimed by senior managers that overtime pay to supervisors, who schedule and control overtime, tends to 'institutionalise' the use of overtime. No abuse of this nature was found during the study periods.

Managers proclaimed three major uses for the use of overtime in their establishments, viz: i) to give operational flexibility, particularly to deal with peak work loads and to meet unforeseen demand; ii) to substitute for shortages of skilled employees; iii) to a lesser extent, increase wages of key staff. The evidence on the 'shop-floor' did not support these views. It was interesting to note that managers, when asked, claimed these reasons for the regular Sunday morning overtime.

There was no confirmation whatsoever that overtime was used to meet unforeseen or emergency demand to a significant degree. Overtime, in one area, was found to be used for ordinary scheduled work, when it had been claimed it was only used for emergency and unexpected demand. The manager, when interviewed a second time after the shop-floor study, claimed that overtime used for standard work would release his men, in normal hours, to undertake emergency work should this be necessary and that was why the overtime work was in fact geared to his 'standard' scheduled workload. There was no evidence that this process had operated and this explanation illustrates both the defensive attitudes taken by management and the mis-perception of the reasons for the use of overtime.

In one area it was found that long standing vacancies for skilled craftsmen had been used, successfully, as justification for an increase in overtime budget. In this respect overtime was displacing potential additional employment, although that presupposes that skilled workers were available at the wages offered. Indeed, overtime was used systematically as a staff retention mechanism and many employees have come to depend on the overtime element of their wages to meet their fixed financial commitments. This dependency was a function of two key factors: i) the relatively low levels of pay, and ii) the regular nature of the overtime.

Overtime was ineffectively used in many of the areas. For instance, overtime was used in the transport department, which employed 39 drivers, to enable drivers to prepare vehicles on a Saturday morning for the following week. The transport department manager spoke with pride about his effective use of overtime which he felt was his one way to secure a degree of value for

money from the workforce. He stated: 'when they are on overtime, that is the only time when they really earn their bread'. The drivers were observed to be less than 60% occupied during normal working hours, and the overtime work could easily have been scheduled in normal hours. A second example, in a craft trade area, a number of employees were observed to be working for less than 50% of their normal hours. They were observed on a second afternoon tea break 30 minutes before the end of normal time. They did this, they said, because they were working overtime that night. However, this tea break was still in progress, in the rest room, some 25 minutes after the start of the overtime period, at which point the study was curtailed by the embarrassed escort.

In some areas, overtime was used to carry out 'special' jobs. For instance, a stores area had come, by tradition, to use overtime every Saturday morning to burn redundant explosives and detonators, there was no operational reason for this system and there appeared to be considerable capacity available to organise this work in normal hours. Interestingly, the expression: 'this is how we've always done it', was used to explain why the work took place in overtime.

There was no evidence of long hours resulting in the undue fatigue of workers. One manager did observe that there was a catch 22 situation in that, in a systematic overtime regime, workers would either become fatigued, or would 'pace' themselves to avoid fatigue. In either event the 'regular' overtime would be ineffective from the organisation's viewpoint since overall productivity per hour would fall.

High levels of sickness, (16%), were found in an area which worked a 24 hour simple three shift system, on a basis of 39 conditioned hours per week, with a systematic shift-fill of 18.25 hours per week overtime plus additional overtime on occasions. The personnel department and local management claimed that the long hours of work were a major cause of the absenteeism problem. There were no plans to investigate new shift systems which would provide a more effective match of manning levels to demand and be more acceptable to the workforce. The workers generally claimed to like the shift system and some gave the high levels of overtime as a reason for this. This was, however, taken as a superficial response in that the workers were worried that change might affect them financially or impose more discipline on their activity during their long hours of overtime.

Within the overall budgetary constraints, it appeared that the employees, rather than the managers often were exercising the real control of overtime working. Certainly the employees claimed that this was so and the evidence supported their claim.