

**THE ECONOMIC EFFECTS OF SHORTER WORKING HOURS:
THE 1989/91 UNION CAMPAIGN
IN THE BRITISH ENGINEERING INDUSTRY**

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of the University of London

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ABSTRACT

This thesis analyses the impact on productivity, employment, overtime, earnings and costs of shorter working hours with particular reference to the 1989/91 campaign by the Confederation of Shipbuilding and Engineering Unions (CSEU). The events leading up to the CSEU campaign and the reasons for its success are investigated. One result of this union success was the end of national bargaining. The changing role of national bargaining, including why it became a casualty of reduced hours, is also examined.

Research on earlier reductions in hours has tended to suggest that productivity rises as a result of reduced hours. A review of this research concludes that the productivity effect of reduced hours has been overstated. It also raises some important methodological issues.

The thesis presents research on 20 engineering plants where the 37-hour week was introduced as a result of the CSEU campaign. A variety of managers and union representatives were interviewed. In addition there was a survey of engineering plants. This included plants with unchanged hours. Finally, the effect of unions on working hours in the whole economy is explored using a large data set.

The research finds that when engineering hours were reduced hourly earnings typically rose so that weekly pay was unaffected, at least in the short-term. While measures to increase productivity were a feature of collective agreements on reduced hours, there is little evidence that productivity has been permanently increased by reduced hours. The productivity-increasing measures would in general have been agreed without reduced hours, albeit somewhat later in many cases. There is even less evidence that reduced hours have affected output and overtime than there is of a productivity effect. So, increased employment is left as the major consequence of reduced hours. The recession, which was at its most serious when reduced hours were implemented, had a much larger effect on employment. This makes the employment effect of reduced hours hard to observe as it mainly took the form of job retention. Increased costs may well mean that the employment effect of reduced hours is a little less than it would otherwise have been.

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Ray Richardson has contributed enormously to this thesis, both as supervisor and as co-author. I heartily commend him as a supervisor. His valuable comments, astute advice and constant support and encouragement more than offset the ‘constructive tension’ which attended our co-authorship. The 1992/94 research, reported in Chapters Six and Seven, was joint work with Ray. We shared equally in the field research, the analysis of the results and the writing of a report for the Employment Department, Richardson and Rubin (1994). The material from this report included in the thesis is mainly drawn from sections in which I had the major share of the analysis and the writing up. The survey reported in Chapter Seven was also joint work which we shared equally. The use made of the results in the thesis is entirely my own.

Many of those who played a prominent part in the events described in Chapters Three and Four agreed to be interviewed. They are listed in the Appendix to Chapter Four. I am very grateful to all of them. Chapter Eight has benefitted from the detailed comments of Andrew Clark, Alan Manning, David Metcalf, Neil Millward and Andrew Oswald on an earlier version. Bob Simpson commented on the parts of Chapter Four dealing with the law. I should also like to thank Richard Jackman and Richard Layard for giving me employment in the Centre for Economic Performance, which provided an excellent environment for work on the thesis.

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1.1) Introduction

This thesis has been made possible by the 1989/91 campaign for shorter working hours by the Confederation of Shipbuilding and Engineering Unions (CSEU). The campaign has a strong claim to be the greatest union success since 1979, although cynics might point to a lack of competition for this accolade. The 1989/91 campaign provides an illuminating contrast with the previous national dispute in the engineering industry in 1979. The 1979 dispute, which was itself one of the greatest union successes of the 1970s, also concerned the length of the working week of manual workers.¹ In 1979 there was a series of one and two day national strikes. 1½ million workers took part in the strikes and 16 million working days were lost. In the entire history of British industrial relations only the General Strike of 1926 involved more workers and only the miners' strikes of 1926 and 1984/85 a greater loss of working days. In 1989/90 the unions adopted a strategy of selective, indefinite strike action. Just 15,000 workers took strike action lasting up to five months. 666,000 working days were lost. In 1979 there were only 13 days on which strikes took place, but virtually every union member in the entire industry was called out. The outcome of the 1989/91 campaign provides something of a corrective to some of the more extreme accounts of the decline in trade union power.

This Chapter considers the causes and consequences of reduced working hours. Chapter Two outlines the history of working hours as an industrial relations issue in the engineering industry and assesses the role of national negotiations. The next Chapter looks in more detail at the events of the 1980s leading up to the campaign. The difficulty of reaching a settlement over hours was such that a 90-year tradition of national bargaining was abandoned. Chapter Four deals with the 1989/91 campaign and shows how the unions, in the face of determined, but disunited, employer resistance, were able to secure reduced hours for the bulk of their members.

Research on the results of reduced hours is the heart of the thesis. Chapter Five reviews earlier British research and examines the basis for the general finding that reducing hours tends to increase productivity. The research carried out for the thesis in 1992/94 is the main

¹ The 1989/91 campaign and the 1979 dispute were successes in the sense that unions were able to impose their will on employers. The resort to industrial action might equally be seen as a failure.

subject of the next Chapter.² This Chapter also reexamine earlier research by the same authors (Richardson and Rubin, 1991) in view of its somewhat different results. Chapter Seven covers three issues crucial to the economic assessment of reduced hours, overtime, pay and non-working time within the basic working week. It also reaches some general conclusions on reduced hours. Chapter Eight analyses data from the British Household Panel Study and the Workplace Industrial Relations Survey to assess the union effect on working hours. The final Chapter looks at reductions in the working week in France, Belgium and Germany. This concluding Chapter advocates limited government measures to encourage reduced hours. Such measures could lessen the number of redundancies and could create some jobs, particularly where shift work is extended.

1.2) What has been happening to working hours?

Working hours in the UK have been falling for nearly two hundred years (Bienefeld, 1972). Figure 1.1 shows the weekly basic and overtime hours of male manual workers, classified as full-time. Basic hours are the hours which workers are required as terms of their contracts of employment to work.³ Actual hours include overtime, which is lightly shaded in the Figure. There is a discontinuity in the Figure. Actual hours before 1970 include workers who did not work a full week. So, the overtime figure which is obtained by subtracting basic hours for a full week from actual hours, is understated. After 1970 only workers who work a full week are included (see Table A1.1 in the Appendix for details). The fall in both actual working hours and the basic working week since 1943 has been fairly dramatic. Other than cyclical variations in actual working hours, reductions have been concentrated in a few years and are readily attributable to collective bargaining. The general pattern is of long periods of stable basic hours broken by shorter periods in which new, lower levels of standard basic hours are established. A high proportion of manual workers obtain reduced hours in these shorter periods. This is illustrated by Table 1.1, which also shows how quickly a general reduction from 40 to 39 hours took place.

² The research was joint work with Dr Ray Richardson for the Employment Department. The Department has published a version of the results (Richardson and Rubin, 1994).

³ There are exceptions. Some employees, particularly shift workers, are obliged to work overtime.

Table 1.1 Basic Hours of Full-time Male Manual Workers 1981-84

	1981	1982	1983	1984
Percentage on 41 or more hours	5	5	5	5
Percentage on 40 hours	71	46	31	62
Percentage on 39 hours	6	31	43	64
Percentage on 38 hours or less	18	18	21	32

Source: New Earnings Survey, Table 147 (Hours rounded up to the next whole number)

Paul Gregg suggests that there has been a showdown in the movement towards shorter basic hours of manual workers since 1968 (1994: 13).⁴ This is technically true, but may be misleading. Admittedly, Figure 1.1 indicates that the last general reduction was between 1981 and 1983. Table 1.2, which gives the distribution of basic hours from 1989 to 1994, reinforces the impression that the CSEU campaign in 1989/91 has not led to any general reduction. Indeed, the fall in the proportion of male manual workers on a 39-hour week and the rise in the proportion with a 37-hour week are rather less than might have been expected as a direct result of the campaign. Engineering workers are one fifth of the New Earnings Survey sample of male manual workers.

Table 1.2 Basic Hours of Full-time Male Manual Workers 1989-94

	1989	1991	1994
Percentage on 41 or more hours	6	7	9
Percentage on 40 hours	22	22	22
Percentage on 39 hours	44	41	36
Percentage on 38 hours	16	18	16
Percentage on 37 hours	8	9	12
Percentage on 36 hours or less	4	4	5

Source: New Earnings Survey, Table 147 (Hours rounded up to the next whole number)

⁴ Working hours reported by employees have risen in the 1980s (see Gregg for details). Male manual workers report a fall, but are now less than one quarter of all employees. The increase in working hours is mainly among professional and managerial employees. The trend towards longer professional and managerial hours appears to have started before the 1980s (Atkinson and Stiglitz, 1980: 49).

An analysis of collective agreements, however, suggests that there is a general movement towards reduced hours in the 1990s, albeit much slower than in the early 1980s. 1½ million employees outside engineering are covered by reduced basic hours negotiated since 1990, the ‘vast majority of whom are manual workers. Industrial Relations Services conclude: ‘The [1989/91] campaign in the engineering industry has clearly started the process of establishing the 37-hour week as the new UK norm for manual workers (*Employment Trends*, No. 572, November 1994).

It is still possible that the downward tendency in manual workers weekly hours is now weaker than in the recent past. The engineering reduction negotiated in 1989/91 is certainly being translated into a general reduction much more slowly than the engineering reduction agreed in 1979 and effective from 1981. Yet, national collective bargaining, which used to be the main means of determining basic hours, is now less important. So, movements in working hours may not follow the past pattern. In any event, the past pattern is so irregular that it will take several more years without any general reduction in working hours to establish that the downward tendency in manual workers basic hours has really slowed. It is still possible that the apparent slowing is merely a reflection of the irregularity of the trend.

1.3) Why working hours have been falling

Economists generally see shorter working hours as a result of rising living standards. The historical trend rather than economic theory provides the basis for the belief that employees choose shorter hours of work as their real wages rise. The dominant neoclassical approach to labour supply sees hours of work as the result of the choice by individual workers of how much labour they supply (see, for example, Layard and Walters, 1978).⁵ Workers decide between their earnings from work and leisure at a fixed hourly pay rate. Rising real income increases the demand for leisure and reduces the supply of hours. (In economic terms leisure is a normal good, the demand for which rises with income.) There is, however, an opposite effect. Higher hourly pay increases the cost of leisure in terms of foregone income. This

⁵ Chapter Eight develops the neo-classical approach further.

leads to the substitution of income for leisure, that is to an increase in working hours. To isolate the substitution effect, it is necessary to imagine that income for the same hours were somehow left unchanged by an increase in hourly pay. For example, the increase in hourly pay might coincide with an exactly offsetting decrease in a flat-rate income tax allowance. There would then be a substitution effect but no income effect and working hours would rise. Working hours have fallen as real incomes have risen. This indicates that the substitution effect is less important than the income effect.

The length of the working week is just one part of total labour supply. Labour supply depends also on age of retirement, time spent studying or unemployed, holidays and absenteeism. Effort is also often considered as part of labour supply. Some components of labour supply are more open to individual choice than others, but employees will often be most unwilling to exchange one element for another on an equal basis. For example, working for forty years without holidays in order to retire four years earlier or working seven days a week for 35 weeks in return for an additional 14 weeks' holiday would not be attractive propositions for most people. People may want to keep the various elements of labour supply in some kind of balance in the long-run. If so, the movements in weekly working hours and total labour supply are likely to be broadly similar over a long period (Nickell, 1983: 2). Certainly, economists have generally been happy to apply a theory which explains labour supply to weekly working hours without considering other elements of labour supply.⁶

Even over periods of decades weekly hours of work in isolation do not provide an adequate indication of changes in labour supply. It would, for example, be wrong to deduce from the limited evidence of a recent showdown in the movement towards reduced weekly hours of manual workers that total working hours are now falling less rapidly. The four-year settlement of the 1979 engineering dispute involved an increase in annual holiday entitlement from four to five weeks as well as a reduction in weekly basic hours from 40 to 39 hours. The additional week's holiday had almost the same implication for total labour supply as the hour's reduction. The extra holiday, however, had less immediate influence on negotiations in other industries. Income Data Services in their 1985 Study of Hours and Holidays

⁶ There are economic theories, notably the life cycle approach and Becker's theory of time allocation (1965), which take account of other elements of labour supply.

comment: 'Whereas most of the country's manual workers have long since caught up with the engineering industry on basic hours, their progress towards 25 days' basic holiday is occurring more slowly.'

The holiday entitlement of manual workers grew most rapidly in the 1960s. In 1960 97 per cent of those covered by national agreements had no more than two weeks' annual holiday. By 1970 the majority had three or more weeks' annual holiday. In addition two new public holidays were introduced during the 1960s. The upward trend in holiday entitlement continued in the early 1970s, but came to a halt in 1975 'probably due to the effects of successive incomes policies (*Employment Gazette*, May 1980: 520). The decline in the coverage of national bargaining and the absence of regular surveys make assessing subsequent trends difficult.⁷ Nonetheless, the *Employment Gazette* (April 1992: 152) in its annual analysis of national agreements reports a continuation in 1991 of 'a steady increase in holidays with pay which began in 1978/79'. So, relative to the 1970s the fall in the working time of manual workers in the 1980s is somewhat larger than Figure 1.1 suggests. Certainly, Figure 1.1 does not always provide a good indication of trends in total working hours.

The basis of the neoclassical approach is that individual employees freely choose their working hours. The approach of economists to this proposition is unscientific in Popper's sense. They have not attempted to show that it is false. Yet, it is far from obvious that employees are generally able to choose their hours of work. Many employers insist that their employees work a minimum number of hours each week, the standard basic hours for their employment. Paid overtime for work in excess of basic hours is not available to all workers. So, individual preferences about working hours cannot be inferred directly from their observed hours of work.⁸ Surveys offer the closest approach to the direct observation of preferences. They indicate a high level of satisfaction with working hours, as is described in more detail in the next Section. Yet, such survey evidence cannot establish that employee

⁷ From 1992 the Labour Force Survey has an annual question on holidays.

⁸ Changing jobs may give employees more choice of working hours. However, the distribution of working hours, particularly for men, is so concentrated that free choice can hardly be a complete explanation. Layard (1978) sees this as evidence that some employees would prefer to work less than their basic hours.

preferences decide working hours. It is quite possible that preferences adapt to the hours which are available.

Individual preferences do not determine working hours directly. Individual bargaining over working hours is rare. Working hours are decided by institutional forces.⁹ Of course institutions may merely reflect individual preferences. The two most important institutional forces are legislation and trade unions. The law was certainly important in the first half of the nineteenth century. Legislation lowered the working hours of women, children and textile workers. With few exceptions, such as lorry drivers, the law has played no subsequent role. Until near the end of the nineteenth century union membership was largely confined to a 'labour aristocracy' of craft workers. So, institutional forces in the form of legislation and trade unions do not readily explain the fall in working hours in the second half of nineteenth century. Yet, Bienefeld, in his authoritative 1972 study of the history of working hours in Britain, concludes: 'Although the part of the labour force that might be defined as the aristocracy of labour would not have accounted for more than about ten per cent of the total working population excluding agriculture and female domestic service, the change in normal hours brought about at their instigation affected a much larger proportion of the working population, since all the lower paid employees in the industries dominated by the "labour aristocrats" were equally affected by any change in hours (1972: 82/83). So, even in the nineteenth century when the coverage of collective bargaining was much lower than today, unions were responsible for general reductions in hours.

In the twentieth century unions have played a much more conspicuous role in reducing basic hours, particularly for manual workers and public sector employees. Whybrew, who carried out a detailed study of overtime for the Donovan Commission, attributed a decline in the variation of basic hours since 1906 to trade union influence (1968: 30, footnote 43). In the post-War period the variation of working hours has increased. This is most obvious in relation to part-time working which has risen dramatically as the proportion of women in paid employment has increased.

⁹ The term 'institutions' is used widely to include habitual or learned behaviour and attitudes, which social organisations promote (see Hodgson, 1988).

Since the early 1980s there is evidence of a greater diversity of weekly working hours among male manual workers. The proportion with basic hours less than 36 or more than 40 nearly doubled between 1983 and 1994. Yet, even in 1994 the basic hours of 85 per cent of male manual workers, excluding part-timers, were between 36 and 40. The increase in the variation of working hours cannot be explained by a move towards shorter hours. Most of the increase is due to workers whose basic weekly hours are more than 40 (see Tables 1.1 and 1.2). It is tempting to update Whybrew's observation and relate the increased diversity of basic hours to a decline in union power. There has certainly been a decline in the importance of national collective bargaining, traditionally the main way by which unions have influenced basic hours.

Yet, institutions may be no more than a passive mechanism translating preferences into working hours. Changes in working hours over time indicate a more active role for institutions. Reductions in basic hours are highly irregular. This is shown for male manual workers since 1943 in Figure 1.1. Rising real income, the main explanation of a growing preference for shorter working hours, is much more continuous. Michael White argues: 'Such a pattern appears more characteristic of institutional control than of the fluid workings of a free market (1987: 6). Yet, the past pattern of changes in hours cannot provide conclusive evidence. The demand for shorter hours may have to build up to a critical level before basic hours are changed. If so, institutions merely delay changes in hours in line with preferences and are not in any real sense a cause of reduced hours.

The data analysis in Chapter Eight indicates an important role for unions in bringing about reductions in working hours. How this result is interpreted depends on individual preferences. It is still plausible to argue that shorter hours are brought about by individual preferences, but with some delay, a delay which union influence lessens. This is very much in line with the view of Stephen Nickell. His conclusion on the cause of reduced basic hours is: 'Normal [basic] hours tend to fall at particular discrete points of time which are determined by many factors only some of which reflect the rising trend of real wages (1983: 10). Yet, he emphasizes the primacy of changing individual preferences due to rising real incomes. 'I would still maintain that past reductions in normal [basic] hours came about as a consequence of increasing real wages (*ibid*: 11). Nickell's belief is based on a strong long-

run tendency for actual hours to fall in line with basic hours. This suggests that reductions in actual hours and in basic hours have the same cause. Institutional influences on basic hours are stronger than on actual hours, where there is greater scope for the exercise of individual preferences. So, institutional influences, like actual hours, can be seen as subject to changes in individual preferences due to rising real incomes. It is, however, arguable that basic hours have a greater role in actual hours. Workers might be willing to replace reductions in basic hours with regular overtime, but increasing employment could be cheaper for employers. If employers respond to reduced basic hours by increasing employment rather than overtime, actual hours will fall irrespective of individual preferences.

Institutionalists, those who reject the neoclassical approach favoured by most economists, do not share a common view of the cause of reduced hours. Manfred Bienefeld concludes that rising real incomes led to an increased demand for leisure. However, he dissents from the neoclassical approach by arguing that this demand only becomes effective in the special circumstances of union strength and union fears of unemployment both being at a peak at the same time. McCormick also sees fear of unemployment as an important motivation for reduced hours (1959: 424). William Roche, writing in 1991 after the reduction of hours in the early 1980s, rejects the idea that changing employee preferences explain working hours in Britain in the post-War period. He argues that 'structural change and 'cyclical perturbation in the political economy determine working-time patterns in modern Britain. The main components of 'structural change are increasing employer demands for work outside the standard working day and major changes in technology affecting labour demand. Roche and Bienefeld seem close to agreement on the role of technological change. Indeed, Roche is sympathetic to Bienefeld's idea of fear of unemployment as a 'negative motivation for unions to press for reduced hours.¹⁰ Michael White, who explicitly advocates an institutionalist view, doubts whether fear of unemployment is a factor. Higher productivity following reduced hours is, he suggests, more a consequence of reduced hours than a motivation for union demands which lead to reduced hours (1987: 11). While White does not attempt to explain why hours have been reduced in the past, he clearly rejects the neoclassical explanation. His belief is that future reductions in hours depend on both employers and

¹⁰ Bienefeld attached importance to another factor as a cause of reduced hours, a rapid rise in money incomes. Roche argues that, even before the 1970s, the evidence does not support this.

unions adopting an approach which exploits the potential of reduced hours for increased productivity.

1.4) Causes or consequences?

Causes and consequences may be confused. This is a particular danger of the institutionalist approach. There is disagreement over the relationship between increased productivity and reduced hours. Bienefeld and Roche suggest increased productivity, which leads to a fear of unemployment, causes reduced hours while White sees increased productivity as a consequence. However, White and Ghobadian raise the possibility of employers conceding reduced hours when they anticipate that productivity increases will be facilitated as a result (1984: 189). If this surprising suggestion and the employers' anticipation are both correct, increased productivity is both a cause and a consequence of reduced hours. White and Ghobadian made their suggestion in the light of research into hours' reductions which were largely the result of the 1979 engineering dispute. The intensity of the conflict in 1979 is inconsistent with employers' having expected that reduced hours would facilitate productivity improvements. While there was a productivity clause in the agreement settling the dispute, employers could have negotiated this without a strike (see Section 2.7). However, a number of other writers have subsequently expressed similar opinions about the link between reduced hours and increased flexibility of working time. This view is examined further in Section 1.9.

Looking at consequences without considering causes can be misleading. It makes little sense to assess the consequences of an inevitable event. If living standards determine working hours, the consequences of changes to working hours are idle speculation. Hours could only be different if living standards were different.¹¹ An event has to be external to the system under consideration - in economists' terms exogenous - for it to be valid to assess the results of the event without considering the whole system.

¹¹ The example of living standards as a cause of reduced hours neglects the contribution of working hours to income. Reduced hours lower income and thus living standards. This does not, however, affect the point.

Chapters Three and Four look in detail at the events leading to shorter hours for engineering manual workers in 1989/92. The pressure for reduced hours was indeed an external event as far as managers at plant level were concerned. While the reduction depended on the exercise of union power at plant level, this power resulted from the strategy adopted by the unions nationally. Some sort of union campaign on hours may have been inevitable given the political tensions within and between unions. Yet, the link between the economics of the industry and union politics is far from clear. The success of the union campaign surprised most commentators. So, it is implausible to suppose that the economics of the industry determined the reduction in hours. The effects of reduced hours on the economics of the industry can be assessed without further consideration of whether the reduction was inevitable.

Another way in which causes and consequences are connected is probably of more practical importance. If shorter hours caused by, for instance, rising living standards had particular results, it might be wrong to expect the same results from legislation to reduce working hours. Certainly, overtime might well respond differently to reduced basic hours if the reduction were a consequence of legislation rather than rising living standards (Nickell, 1983: 11).

1.5) The working hours people want

Individual preferences are an obvious starting point when looking at the causes of shorter working hours. Surveys suggest that people are generally satisfied with their hours of work. When asked whether they would like to work the same, more or fewer hours between one half and three-quarters of employees express a preference for their current hours of work. Table 1.3 shows the results of five such surveys.

Table 1.3 Working Hours Preferences (percentages eliminating non-responses)

	BHPS	BSAS	EC	EOC	JCF
More hours	9	4	13	18	39
Same hours	60	65	53	73	54
Fewer hours	31	30	35	9	7
Sample size	5,164	1,432	‘1000 to 2000	1,312	482

Notes: BHPS, British Household Panel Survey, September 1990, data set;
 BSAS, British Social Attitudes Survey, Spring 1989, data set;
 EC, European Commission, Spring 1989, *European Economy*, No. 47, March 1991;
 EOC, Equal Opportunities Commission, Spring 1989, Marsh (1991);
 JCF, Jim Conway Foundation, 1988, Rathkey (1990).

See text for differences in coverage and the question asked.

Table 1.4 shows that in the majority of the surveys men are more likely than women to want reduced working hours. This no doubt reflects the greater availability of shorter working hours in low-paid occupations where most employees are female.

Table 1.4 Percentages of Men and Women Preferring Shorter Working Hours

	BHPS	BSAS	EC	EOC	JCF
Men	34	36	37	8	6
Women	26	23	27	9	7

The results of the EOC and JCF surveys are somewhat different from the other three surveys. The proportion expressing a desire for shorter hours is only one quarter that in the other surveys. The EOC survey covered employees between the ages of 20 and 55. They were asked whether, if looking for another job with their current hourly rate of pay, they would seek one with less hours and so less pay, about the same hours and pay or longer hours and

so more total pay (Marsh, 1991: 75). In answering a question about an alternative job, employees may have taken account of the hours likely to be available. For this reason the preference of a significant minority for shorter hours shown in three of the other surveys may not have been expressed. The EOC sample is more restricted in terms of age than the others. This probably has little effect on the results. Excluding the self-employed and younger and older employees from the BHPS sample to make it directly comparable with the EOC survey leaves the proportions choosing each of the three options unchanged.

The JCF survey supports the apparently anomalous EOC finding that longer working hours are more popular than shorter hours. This survey asked employees whether if free to decide their hours of work with their earnings changing in the same proportion they would choose more, the same or fewer hours. The demand for more hours is much greater than in the other surveys. The small scale of the JCF survey and its markedly different results from the other four larger scale surveys justify disregarding it on statistical grounds. However, the JCF question seems at least as likely to obtain an expression of preferences unconstrained by the working hours actually available as the questions asked in the other surveys.

The surveys taken together indicate a high level of satisfaction with working hours. Perhaps, as many as one third would prefer shorter hours. However, in some surveys this minority is considerably smaller. Arguably, those choosing the option of fewer hours in the BSAS survey did not think that this implied a corresponding reduction in weekly earnings.¹² Yet, the precise wording of the question does little to explain the variation in responses. Even the high level of satisfaction with working hours shown by all the surveys must be treated with some caution. The level of general job satisfaction is even higher, but what this means is unclear. For example, in 1988 81 per cent of a MORI sample of private sector employees reported that they were fairly or very satisfied with their jobs, but 76 per cent expressed

¹² BSAS interviewees choosing the option of fewer hours were asked the rather leading supplementary question: 'Would you still like to work fewer hours if it meant earning less money as a result?'. 69 per cent replied that they would not. The meaning of this answer is unclear. If the choice of hours assumed an unchanged hourly rate of pay, the supplementary question implies a lower hourly rate. The other surveys clearly asked about unchanged hourly pay. Yet, the proportion choosing fewer hours in the BSAS is lower than in the BHPS and EC surveys. This strongly suggests that the BSAS interviewees did indeed think that the choice of hours involved changes in weekly pay.

agreement with the statement that most British workers looked on Monday mornings with dread rather than enthusiasm for another week's work.

Employee preferences for working hours may depend on what they are used to. If employees have become accustomed to a particular level of income and working hours, they may not wish to work fewer hours for a lower income. Yet, if they had the opportunity to adapt to more leisure and a lower income, they might be unwilling to revert to their previous hours and income. This idea of inconsistent preferences or 'habit persistence' is familiar in the economics of consumption, which uses exactly the same approach as the simple neoclassical theory of labour supply. Duesenberry (1949) found that spending did not adjust quickly to changes in income, because people sought to maintain their customary level of spending. Rothschild (1982) argues that, where employees are working more hours than they would wish, their choice of goods as well as their level of spending becomes habitual. With less leisure the goods they buy take less time to consume. So, employees want less leisure as they become used to these less leisure-intensive goods.

Workers' real preferences in terms of the leisure-income trade off may be better captured by their willingness to forego future growth in real earnings in return for reduced hours rather than by their attitudes to an immediate trade off, such as those reported in Table 1.3. The demand for more leisure is often said to be stronger when the choice is presented in terms of higher pay or shorter hours (for example, Blyton (1985: 41) quoting a 1978 US study by Best). A European Commission survey in 1977 showed that the majority of the UK's working population would prefer shorter hours to a pay increase in the next pay round. Yet, the same question has subsequently produced markedly different results as Table 1.5 shows.

Table 1.5 UK Employees Preferences for Fewer Hours or More Pay

	Percentages eliminating non-responses		
	1977	1985	1989
Fewer hours (same pay)	53	20	29
More pay (same hours)	47	80	71

Sources: 1977: OECD (1982), 62; 1985: *European Economy*, No. 27, March 1986: 51; 1989: *European Economy*, No. 47, March 1991: 148.

European Economy suggests that the small rise in real incomes in the first half of the 1980s explains a similar, although slightly less dramatic, change in preferences in the Community as a whole between 1977 and 1985 (March 1986: 17). Yet, in the UK the preference for more pay in 1985 and 1989 is so very much stronger than in 1977 that this explanation does not seem applicable. Further, in 1977 inflation was much higher than in 1985 and 1989. So, a stronger demand for more pay might have been expected in 1977. In the 1989 survey only 29 per cent of UK employees preferred shorter hours to a pay increase whereas 35 per cent said that they would like to work fewer hours for the same hourly rate of pay (see Table 1.3). So, the demand for more leisure in the UK is weaker when employees are asked to make a choice between pay and leisure in the future as opposed to the present, at least in 1989. This is also true of the Community as a whole, but it is by no means true of every member state. The position in the UK may well have been different in 1977, but employees were not asked about current preferences. In any event the massive movement in preferences shown in Table 1.5 suggests that individuals do not have well-formed preferences about hypothetical combinations of work and leisure. Certainly, the Table indicates the unreliability of an 'overly hypothetical approach of surveying individual preferences towards some future combinations of higher earnings and lower hours (Blyton, Hassard, Hill and Starkey 1989: 136, who refer to Best's work).

Preferences may be affected by the working hours of others. This is an important point which has received little or no attention in the economics literature. There is considerable evidence that employees' satisfaction with their level of earnings is strongly influenced by

the earnings of other similar employees (Clark and Oswald, 1993). If the hours worked by others effect how individuals view their own working hours, individual preferences cannot explain working hours. Individual preferences which depend on the hours worked by others are a consequence rather than a cause of working hours.

The research carried out for this thesis suggests that changing employee time preferences do little to explain the success of the 1989/91 CSEU campaign. Union leaders themselves did not believe that there was any strong demand from their members for reduced hours (see Section 1.6). Employees do not even seem to have well-defined preferences about how many days they work over a period such as a fortnight (see Section 7.2).

1.6) Unions and working hours

The doubts about how much individual preferences explain changes in working hours make it natural to consider the institutional approach. All institutional accounts of working hours emphasize the role of trade unions. Chapter Two, which looks at how national negotiations have affected working hours in engineering through the twentieth century, confirms the importance of unions. The length of the working week has periodically been the central issue in industrial relations. At times, ranging from the ten-hour day campaign of the 1840s to the 35-hour week campaign of the engineering unions at the end of the 1980s, trade unions' main objective has been a shorter working week.

Union regulation of working hours is much less visible than their role in relation to pay. Unions expect to negotiate higher pay every year. Pay increases are nearly always the central concern of trade unions. Yet, union agreements with employers cover basic hours of work just as much as pay. There would be little sense in negotiating pay without at least an understanding on the hours to be worked in return for that pay. In theory unions might negotiate hourly pay and not basic hours of work. This is simply not observed in practice. Millward, Stevens, Smart and Hawes remark: 'Hours of work ... are inevitably either explicitly negotiated or implicitly agreed in each new pay settlement (1992: 249/53).

Economists tend to assume that union behaviour closely reflects the wishes of their members. Layard, Nickell and Jackman, for example, 'assume that union decisions are made at the behest of the median voter (1991: 90). This assumption is, perhaps, necessary for the credibility of the neoclassical view of the causes of reduced hours considered in Section 1.3. It cannot, however, plausibly be applied to union demands for reduced hours. In the last, major study of hours of work the National Board for Prices and Incomes used evidence of a growth of overtime after unions had negotiated reduced hours to suggest that workers 'have taken a different view [than unions] of the relative attraction of added leisure and added income (1970: 22).

Union leaders themselves are quite willing to admit that membership support for reduced hours is limited. Mr Jordan, who was Chairman of the CSEU's Engineering Committee during the 1989/91 campaign, described the union leadership as having had no illusions about the strength of the demand for shorter hours at the start of the campaign. 'People were not lying awake worrying about whether they would get a 37-hour week. Engineering union members in Britain and Germany probably did not differ much in their view of reduced hours. Research by the German union, IG Metall, showed shorter hours as only number 17 or 18 on a list of 20 possible negotiating objectives (interview, May 1992). Earlier a rather different union leader, Clive Jenkins of ASTMS, made the same point more guardedly. After highlighting the role of industrial disputes in achieving reduced hours, he commented: 'Obviously, people feel strongly that extra leisure is worth having. Certainly, their leaders do, as an ideological commitment (Jenkins and Sherman, 1979: 12).

Remarkably little interest has been shown by economists in union effects on hours. While union pay effects are a more obvious area for study, there has been much more economic research into what unions do to productivity and to employment than into what they do to working hours. Economic research into the effect of unions on working hours is limited and largely confined to the USA, as Pencavel observes (1991: 48). The neglect of union effects on hours is even more surprising in view of the 'vast outpouring of research on hours of work during the last 20 years or so (Earle and Pencavel 1990: S171).

Union effects on hours may not be amenable to investigation in the same way as union effects on pay. While basic hours are like pay in being negotiated, they are changed much less frequently. In the UK basic hours, at least for manual workers and public sector employees, have traditionally been determined through national negotiations. In the private sector pay (or, for manual workers, the elements which determine pay) has been increasingly decided at company or establishment level. So, unions as national organisations have retained a key role in reducing basic hours while pay has been decided at a more local level.¹³ This is reflected in a much greater uniformity of basic working hours than in earnings, which show considerable variation even for apparently similar employees. Indeed, most of the time unions are, perhaps, more concerned to secure the observance of standard basic hours than to negotiate reductions. It may be wrong for economists to model unions as minimising basic hours in the same way as they are modelled as maximising pay.

Another reason for the lack of economic research on union effects on hours of work is the paucity of data sets with an adequate combination of institutional and individual information. This is not a problem for the neoclassical theory of labour supply, which does not consider institutional influences. The theory is not without its critics among economists. Pencavel refers to a number of studies in which hours increase with wages when income is constant. ‘Under these circumstances, the scientific procedure is surely to regard the theory ... as having been refuted by the evidence (1986: 95). There is an alternative approach based on labour demand, which does allow a union role in bargaining over hours (for example, Hart, 1987). This thesis is centrally concerned with changes in average working hours over time. Labour demand contributes nothing to explaining these changes. Accordingly, the theory of working hours based on labour demand is neglected.

Until recently there was little development of standard economic models of trade unions to predict union effects on hours of work. The failure to develop theory on union effects on hours of work was probably more a consequence than a cause of lack of interest in the subject. Nonetheless, empirical work in economics does require a theoretical foundation. So,

¹³ As Chapter Four shows, the national influence of unions can survive the end of national bargaining.

the lack of theory must have contributed to the lack of empirical research. Economic theory on hours is discussed further in Chapter Eight.

There is, nonetheless, considerable evidence of the effect of unions on hours in the USA, albeit largely as a by-product of research on the union effect on earnings.¹⁴ Lewis (1986: 105/6) identifies 11 such studies, mainly using data from the 1970s and late 1960s. In eight studies the average effect of unions was to reduce weekly hours by 1.8 per cent. In the other three studies unions reduced annual hours by 3 per cent. More recently, Earle and Pencavel have estimated that in 1978 unions reduced the weekly hours of white men by 1.1 per cent, but increased annual hours by 1.8 per cent (Pencavel 1991: 47). A study using 1986 data covering male and female employees showed that unions significantly reduced the proportion of workers working more than 40 hours (Trejo, 1993: 269/71). So, the American evidence clearly shows that unions reduce weekly hours, but is less conclusive about their effect on annual hours.

UK evidence about the effect of unions on hours is sparse. There is just one published study (White, 1980). This consists of a 1979 survey of 401 manufacturing plants, a very different approach from the research in the USA which analyses large data-sets giving information on individual employees. A basic working week of less than 40 hours was much more common where no union was recognised (*ibid*: 16). Plants with shorter basic hours also generally had less overtime. So, non-unionism was associated with shorter actual hours as well as with shorter basic hours. Shorter basic hours were highly concentrated in tobacco, reflecting a national agreement on a 38-hour basic week, and in clothing and footwear. The small number of non-union plants, less than 10 per cent, makes it impossible to separate industry and union effects. Accordingly, the study gives no real indication of the union effect on working hours. Neil Millward (1993) reports that in the 1990 Workplace Industrial Relations Survey (WIRS) the average hours worked in the unionised sector work are 6 per cent more than in the non-unionised sector. If workers officially defined as part-time, that is those working 30 or fewer hours a week are excluded, the three manual worker categories in WIRS all have markedly lower weekly hours where unions are recognised (see Table 8.1

¹⁴ British research on the union effect on earnings has been criticized for not taking account of the union effect on hours of work (Millward, 1993: 12/4).

in Section 8.2). So, as far as manual workers are concerned, the union effect is distorted by the higher level of part-time work in the non-unionised sector.

Overtime further complicates the union effect on working hours. Unions influence total hours through premium rates for overtime, which are specified in British national agreements. The declining importance of national minimum rates has resulted in increasing scope for local negotiation. So, unions play a significant role both nationally and locally in relation to premium rates. The 1990 WIRS indicates that where unions are recognised the weekly overtime of skilled full-time manual workers is two hours less than where there is no union recognition. Union recognition makes little or no difference in the overtime worked by full-time semiskilled and unskilled workers (see Section 8.2).

The 'traditional view of overtime arrangements is 'that management decides when overtime is to be offered and the workpeople decide if they will accept this offer (Whybrew, 1968: 41). Whybrew himself did not entirely accept the traditional view. Yet, he merely suggested that workers became used to high levels of overtime and that employers used overtime for labour retention. So, he thought that overtime was voluntary. Yet, economists often prefer to suppose that employers decide hours of work. Recently, some economic analysis has assumed that employers negotiate actual hours with employers (Earle and Pencavel, 1990, Houpis, 1993, and Oswald and Walker, 1993). These approaches allow individual workers no say over their hours of work, although, where there is bargaining, unions may reflect workers' preferences in some unspecified way.

The idea that workers have no say in overtime reflects convenience rather than evidence. Deaton and Muellbauer argue that implicit and explicit contracts mean that variations in hours worked can be better explained in terms of employers' demand rather than workers' labour supply (1980: 286). If implicit contracts are important, the formal contractual situation will be misleading. There may be an understanding that employers can expect workers to comply with requests for 'reasonable overtime.'

There is no evidence of widespread involuntary overtime. In 1970 the National Board for Prices and Incomes surveyed a large number of both managers and employees. 82 per cent

of managers in establishments where overtime was worked described it as voluntary. 70 per cent of employees said they never had to work overtime if they did not want to. For most of the remaining 30 per cent compulsory overtime was rare. Less than 10 per cent of the sample worked compulsory overtime more than once a month (NBPI, 1970: 22/3). A more recent survey shows a similar picture. In the Equal Opportunities Commission survey, mentioned in Section 1.5, 10 per cent of all full-time workers working overtime reported that they were regularly required to work overtime (Marsh, 1991: 21). While the questions asked by the EOC and NBPI are somewhat different, the answers provided no evidence of a significant increase in compulsory overtime between 1970 and 1989.

Overtime means that unions generally have no direct role in actual working hours, at least for manual workers. In most cases unions only affect actual hours indirectly through wages, basic hours and overtime premia. Assuming unions raise premium rates for overtime, this may result in employers' offering less overtime, but workers will be more willing to accept whatever overtime is offered.

Unions may seek a direct influence on overtime. Union policy at national level is generally hostile to overtime and unions occasionally negotiate or impose limits on overtime. The national agreement between the Engineering Employers' Federation and the Confederation of Shipbuilding and Engineering Unions limited overtime to 24 hours' in any four-week period. There were a number of exemptions from this limit, which appear to have been interpreted flexibly at local level. Certainly, the Engineering Employers' Federation was prepared to concede tighter restrictions on overtime in the national negotiations over hours between 1983 and 1989. This suggests that, where there are union agreements restricting overtime, employers do not experience a serious constraint. So, union restrictions on overtime seem to be of little practical importance.¹⁵

¹⁵ Whybrew (1968: 36/37) concludes that 'the few restrictions on ... overtime ... imposed at a national level ... had little or no effect. A National Board for Prices and Incomes Report, still the most comprehensive study of working time in Britain, took the same view (1970: 12).

1.7) What shorter working hours do

Many of the potential results of shorter basic hours can be seen from the definition of labour productivity. Labour productivity is output divided by the total hours worked. Total hours worked are total employment multiplied by average hours, which in turn consist of basic hours and overtime. Thus, reduced basic hours must, as a matter of arithmetic, result in some combination of lower output, higher overtime, more employment and greater productivity. These changes can be seen as a direct result of shorter hours. (Note: throughout the thesis productivity is always hourly labour productivity as defined in this paragraph.)

In addition production costs per unit of output are nearly always increased by reduced hours. The main reason for this is that hours are generally reduced on the basis of no change in weekly pay. The same weekly pay for fewer basic hours means higher hourly pay. In addition unit production costs are likely to rise because of lower capital utilisation. Increased costs will in their turn have consequences. For example, in most circumstances employment will be less than if costs had not increased. The consequences of increased costs are indirect results of shorter hours. Whether employment is increased or reduced by shorter basic hours depends on the relative size of the direct and indirect effects. The direct effect can only increase employment, while the indirect effect can only reduce it.

Chapters Six and Seven look in detail at the consequences of a reduction in the basic hours of manual engineering workers from 39 to 37 in 1989/92. So, it is natural to use this reduction to illustrate the possible effects of shorter hours on employment, overtime, productivity, output and costs. If shorter hours have no immediate, direct effect on output, there must be some combination of increases in productivity, employment and overtime.¹⁶ Otherwise, there would be less output. Increased employment and overtime both act to maintain the total number of hours worked despite the reduction in basic hours. If shorter basic hours do not increase productivity or reduce output, the direct effect is that total working hours are maintained through increased employment and/or overtime. If there is an

¹⁶ Increases are increases relative to the levels in the absence of shorter hours. Similarly, 'maintaining output' means maintaining it at the level it would have been in the absence of shorter hours. The research reported in Chapters Four and Five indicates that output is maintained when hours are reduced.

increase in productivity which offsets some of the potential loss of output, working hours are partially maintained through increased employment and/or overtime.

Where a reduction in weekly basic hours from 39 to 37 does not raise productivity, maintaining output requires an extra two working hours for each worker employed before the reduction. These extra hours can be any combination of increased employment and more overtime. The increase, as a percentage of basic working hours after the reduction, is 5.4 $[(39/37 - 37) \times 100]$. So, the maximum possible direct effect of reduced basic hours on employment is an increase of 5.4 per cent. Similarly, overtime may be raised by up to 5.4 per cent of basic hours.

Reductions in hours are generally introduced on the basis of no loss of weekly pay (see Section 7.4). So, the reduction from 39 to 37 hours implies a rise in hourly earnings during basic hours of 5.4 per cent. With overtime paid at time-and-a-third of average earnings during basic hours, this rise in hourly earnings results in an increase in the total pay bill for manual workers of between 5.4 and 7.6 per cent if total working hours are maintained at the level before the reduction. 5.4 per cent is the increase where working hours are maintained through more employment and 7.6 per cent where overtime rises.¹⁷ Unlike increased overtime more employment affects costs other than the pay bill. There are fixed costs of employment, such as recruitment and training. Further, capital utilisation may fall, which spreads other fixed costs over fewer working hours. However, a rise in shift-working might limit the fall in capital utilisation. Taking account of fixed costs, raising employment may well be more expensive than increasing overtime. Yet, employment would probably not be increased if the same output could be achieved at less cost by more overtime. If overtime is worked before the reduction, increasing overtime has a smaller effect on the total pay bill in percentage terms. So, to obtain the effect of reduced hours on hourly labour costs, the range of 5.4 to 7.6 per cent should be extended at both ends. Yet, the aim of the calculations is merely to obtain a rough estimate of the cost of the reduction. For this purpose the range can be left as it is.

¹⁷ The figure of 7.6 per cent assumes workers are paid an additional 2.8 hours at their old hourly rate to continue working 39 hours. (The two hours' overtime is paid at time-and-a-third of the new hourly rate which is 5.4 per cent more than the old hourly rate.)

The manual wage bill of the engineering industry is 13 per cent of total sales (calculated from Report on the Census of Production, PA 1002). So, using 7.6 per cent for the rise in hourly labour costs due to the 37-hour week, the cost of shorter hours is equivalent to one per cent of the value of sales. Even if the cost of shorter hours were more precisely defined, it would be impossible to translate it into an exact effect on the volume of sales. Managers are unable to specify the effect of higher prices on sales with 'sufficient precision for the price elasticity of demand to be used in plant-level research (see Section 5.7). Price elasticity depends very much on the time scale involved. Where there is a lot of domestic competition and little intra-industry trade, price elasticity at plant level is very much more than at industry level. Yet, for a plant which has no domestic competitors and relies on the domestic industry as a supplier, sales will be affected more by an increase which applies to the entire industry. The plant's costs will increase both directly and indirectly through the higher costs of its suppliers. In the 1990 Workplace Industrial Relations Survey the majority of engineering managers said that a five per cent price increase would reduce their sales by less than 5 per cent. This provides some basis for supposing that when the prices of an average engineering plant rise by one per cent sales fall by a little less than one per cent. Assuming also that a fall in sales of one per cent will result in a corresponding fall in working hours, the cost of shorter hours, one per cent of the value of sales, reduces working hours by no more than one per cent through lower sales. This negative indirect effect is very much smaller than the 5.4 per cent increase due to the direct effect.

The higher labour costs caused by shorter hours, may, however, have a possible further effect on working hours. Employers may react to increased labour costs by using more capital relative to labour. Such substitution of capital for labour makes the negative indirect effect on working hours larger. Yet, in the advanced industrial countries very much the same technology is used in the engineering industry, although some countries have much higher labour costs than Britain. So, it is hard to see that a relatively small increase in British labour costs would lead to much substitution of capital for labour. One study has estimated the effect of higher wages on employment in mechanical engineering (Nissim, 1984). This study, which takes account of the substitution of capital for labour, shows that higher hourly wages reduce employment by much less than the crude estimate which considers only the effect on sales. The effect found by the study is probably less because it considers increased

wages affecting the whole industry. The crude estimate uses information on increases at plant level. The study supports the conclusion that the negative indirect effect of reduced hours throughout the industry on employment and/or overtime is less than one fifth of the positive direct effect.

The maximum possible effects of the 37-hour week for manual workers in engineering are now clear. The total cost of producing the same output may rise by up to one per cent. Output could fall by as much as 6 per cent, with the indirect effect of increased costs reinforcing the direct effect. Productivity can rise by up to 5.4 per cent.¹⁸ The greatest possible rise in employment is also 5.4 per cent. Overtime may rise by up to two hours for each worker.

These maximum possible effects are very much final or long-term effects of reduced hours. The changes which take place at the time hours are reduced may give little indication of the long-term effects. Short-term effects depend on the circumstances surrounding reduced hours. For example, if recruitment and training costs are high, short-term employment effects will tend to be less.¹⁹ Yet, if employment is being reduced for other reasons shortly after a cut in hours, shorter working hours could affect employment quickly, particularly where the reduction in employment takes the expensive form of redundancies.

Indirect effects are likely to be much smaller in the short term than in the long term. The relationship between costs, prices and output is rather more complex than suggested in economics textbooks. In the short term profits are the residual between income from the sale of goods and costs. So, profits are not a fixed return to capital. This means that for some time output is quite insensitive to fluctuations in production costs, particularly in an industry such as engineering. With heavy capital investment, unit costs rise sharply if output falls. In the long term the textbook picture is much more accurate. Capital will not be invested where the

¹⁸ The productivity response largely depends on reactions to shorter hours (see Section 1.9). In principle these reactions could increase productivity by more than 5.4 per cent.

¹⁹ A large increase in recruitment is an unlikely immediate response to shorter hours because the costs involved rise more than proportionately if large numbers are recruited in a short period.

expected return is less than elsewhere. Investment which would otherwise have been profitable will no longer take place, resulting in an eventual loss of output and employment.

Productivity increases do not affect the relative size of the direct and indirect effects on employment and overtime. As an example, consider a productivity effect which means that output with the 37-hour week equals 38 hours' output with a basic working week of 39 hours. For each employee one hour's production is lost instead of two hours'. So, to maintain output through increased employment or overtime requires one extra hour's work for each employee instead of two extra hours'. The number and thus the cost of the extra hours required are halved. So, increased productivity reduces the hours required and the cost involved by the same proportion. The indirect effect is proportional to the cost while the direct effect is simply the hours required to maintain output. So, the indirect effect is the same proportion of the direct effect irrespective of the productivity effect.

Earlier, the possibility of increased investment was mentioned. Capital may be substituted for labour as a reaction to increased labour costs caused by reduced hours. Although this is likely to be of limited practical importance for the British engineering industry, it is still worth looking at both the theoretical investment effects together. The substitution effect tends to increase investment while the cost effect reduces it. Yet, they both reduce employment. There is a loss of output and thus employment if investment is no longer profitable. In addition the investment which does take place may involve a rise in the capital-labour ratio and thus less employment.

1.8) Working hours and effort

Karl Marx placed great emphasis on the productivity effects of shorter working hours. Reducing working hours 'gives an immense impetus to the development of productivity ... It imposes on the worker an increased expenditure of labour ... and a closer filling-up of the pores of the working day ... which can only be attained within the limits of the shortened working day. ... The denser hour of the ten-hour working day contains more labour, i.e. expended labour power, than the more porous hour of the twelve-hour working day' (1976: 534). More recently Michael White has argued that there is overwhelming evidence that the

intensity of work, or effort, measured on an hourly basis, falls as longer hours are worked, provided hours exceed a certain threshold. There are physiological limits to the time for which high levels of work performance can be maintained (White, 1987: 40/45).

The relationship between working hours and hourly productivity is of great importance, at least historically. In 1816 Robert Owen sought to persuade a Parliamentary Committee of the merits of his reduction of the working day in New Lanark by two hours to 12 hours, including meal breaks. He argued that, applied elsewhere, such a reduction would 'hardly make a perceptible difference in the prime cost of any article' (Podmore, 1906: 162/3). The Committee was not convinced, but the reduction seems to have been more popular with the New Lanark workforce. Although piece rates were not changed, 'piece workers were soon able to avoid loss of earnings by increased output' (Cole, 1925: 156). Factory legislation restricting hours of work later in the nineteenth century suggests that long working hours can be reduced without affecting output. Factory inspectors reported that output was not reduced.

The evidence from more systematic investigation of efforts to maximise output in the First World War is much stronger.²⁰ 'Examples were obtained, where hours were substantially reduced, yet total production increased (White: 1987, 42). The working hours required to maximise production are very long by modern standards. For example, fuse output would have been maximised with a working week of between 50 and 70 hours. Different occupations had different optimum hours, depending largely on the physical demands involved. Yet, Vernon, who worked during the War for the Industrial Fatigue Research Board, emphasized that 'the hours mentioned are those suitable for workers determined to exert the maximum energy of which they are capable, and for employers who are determined to obtain a maximum output regardless of the cost. They are by no means the most suitable hours for ordinary times and conditions. ... Under ordinary conditions, we cannot expect for a moment that the workers should utilise all their available "units of energy" in the prosecution of their work. They ought to have quite a considerable margin left over which they can apply to other purposes if they wish (Vernon, 1921: 51).

²⁰ Both Pigou and Hicks, writing in 1932, were concerned to explain the 'apparent paradox (Pigou, 1929: 465-7) of hours 'in excess of those that promote the largest production (Hicks, 1963: 106-9).

Today, the question is not whether reducing hours increases total output, but whether it raises hourly productivity by reducing fatigue. Research in the USA during the Second World War and in the immediate post-War period is relevant to this question. The results 'are so consistent as to be close to compelling in terms of showing that five days of eight hours was generally optimal in terms of output per hour relative to longer hours of work. According to 'perhaps the most comprehensive study, which covered changes in hours between war and peace conditions, the extra production achieved for each hour the working week was extended beyond six days of eight hours was less than one half of average hourly production for heavy work and about two-thirds for light work (Alluisi and Morgan 1982: 170). The apparent tendency for optimal hours to decline may have continued in the post-War period. 'There is really little reason to expect that the standard ... 40-hour workweek should represent the optimal schedule today, even if it is assumed it was optimum then [40 years ago] (ibid: 190).

Yet, it is far from obvious that the results of studies carried out fifty or more years ago are applicable now. The less heavy the work, the more reduced hours lowered output. The physical demands of manual work are in general much less than in the past. This is reflected in the decline in the number of labourers. Increasing mechanisation of the movement of goods and materials has probably also reduced the physical demands made of more skilled factory workers.

Physical demands can be measured through the energy used at work. Yet, physical energy is just one of several incommensurable elements of effort. Effort cannot readily be quantified. Certainly, the purely physical demands of a job are a very inadequate measure of effort. This distinction between effort and physical demands is crucial to the argument that, even today, reduced hours can have a significant productivity effect by lessening fatigue (Nyland, 1989: 60).²¹ Nyland argues that where the physical content of a task is lowered

²¹ Even such a perceptive commentator as Pencavel apparently took no account of the distinction in suggesting that effort had declined (1986: 7). Other economists have held the opposite view. Hicks stated in 1932: 'As industry develops, the strain to which workpeople are exposed probably increases (1963: 106). In 1954 Rothschild argued that one reason for reducing the working day was that 'under modern conditions of production ... production with a 12 hours' day [would be] too obviously below what it could be with a shorter working day (1965: 51).

while its wearying or boring aspects are increased, the effort required does not necessarily fall.

In the 1950s and 1960s unions forcefully advanced the argument that reduced hours increased productivity by reducing fatigue. Sir William Carron, the President of the Amalgamated Engineering Union, wrote in 1963: 'The acceptance of the challenge of speed and concentration needed to cope with increased technological [progress] tends to limit the optimum period during which an operative can be economically active. He even went as far as denying 'any adverse repercussion from any negotiated reduction in working hours (*Financial Times Review of Industry*, 1963: 12).

Half of male manual workers are working 42 or more hours a week, because of overtime (Table A27, *New Earnings Survey*, 1994). So, reducing the standard working week from 39 to 37 hours with no increase in overtime would bring hours actually worked closer to the optimal schedule even of 40 hours or less. Further, intensification of work in the 1980s may have reduced the optimal hours of work.²² Significant improvements in productivity through a fatigue effect cannot lightly be ruled out.

Among economists there is general scepticism about the contemporary relevance of a fatigue effect.²³ John Owen, who has made the greatest contribution to the study of working hours in the USA, argues that a fatigue effect when hours are reduced is now improbable (1989: 58/59). He acknowledges that ergonomic research is consistent with greater effort per hour when hours are reduced, although he notes some disagreement when hours fall below eight a day. He discounts a fatigue effect on the basis of observations of work intensity. These suggest to him that the maximum effort which is physically possible is of no relevance. The maximum possible effort only matters, he maintains, where a firm can demand it from its workers.

²² Many commentators feel that effort had increased in the 1980s (Edwards and Whitston, 1991, Nolan, 1989), although this has been disputed (Guest, 1990).

²³ Exceptions are Barzel (1973) and Booth and Ravallion (1988) whose theoretical work assumes hourly output falls once optimum daily or weekly hours have been worked. Denison's international comparison of productivity took account of the negative effect of working more than optimum hours (1967).

John Owen makes no mention of elements of effort other than physical demands. The mental demands of work, such as concentration, are a major component of effort. This is why psychological aspects are so important. Also, if effort is in some way related to the maximum possible, it will, at least in the long run, rise with the maximum. So, reduced hours can increase effort which is well below the maximum possible. Nonetheless, the increase in effort through a fatigue effect could be too small to be of any practical significance when hours are reduced.²⁴ Certainly, it is difficult to imagine how a fatigue effect could be observed independently of the other ways in which it has been suggested reduced hours increase productivity. So, a fatigue effect is of more theoretical than practical interest when the relationship between working hours and productivity is considered in a broader context. This is the task of the next section.

1.9) Reduced hours and productivity

Many commentators have linked reductions in working hours with increased flexibility of working time. Treu (1989: 154) argues: 'In the bargaining rounds of nations as different as the Federal Republic of Germany, the Netherlands, the Scandinavian and the Mediterranean countries, flexibility has been the major quid pro quo required and obtained by employers for working time reduction. Hinrichs, Roche and Sirianni (1991: 7) also take the view that employers in a number of West European countries have successfully insisted on working time flexibility as a prerequisite for reductions in working time. In Britain Evans and Bell (1986: 18) conclude from an Institute of Personnel Management study of 92 organisations: 'Pressure for reduced hours has been a major catalyst for change.'

In general the nature of the link between reduced hours and increased flexibility has not been examined in any detail. The connection consists simply of a coincidence between union demands for reduced hours and employers' demands for increased flexibility and the observation that collective agreements reducing hours also increase flexibility. To secure agreement on flexibility from unions, employers may well have to make some concessions. If unions had not been demanding reduced hours, employers would presumably have made

²⁴ Owen's view in an earlier article (1982) was similar. 'It seems likely that there would be some - but not very much - diminution of fatigue as hours of work decreased.'

other concessions. The most obvious possibility is that pay increases would have been greater. It is possible that unions have been more willing to concede flexibility when hours are reduced than when pay is increased. Certainly, a connection between reduced hours and working time flexibility seems more plausible than a connection between reduced hours and flexibility generally. This remains a possibility unsupported by any evidence.

Yet, employers generally do not seem to depend on union demands for shorter hours to seek increased working time flexibility or other changes to working time arrangements. Admittedly, the 1983/89 national engineering negotiations are an exception (see Chapter Three). However, the CSEU leadership felt that this was a red herring (interview with Mr Ferry, CSEU general secretary, July 1992). Certainly, the shorter working agreements do not indicate any widespread wish by engineering employers to introduce flexible working time. Yet, a small minority of employers saw flexible working time as an important issue. If they had not been a small minority, the employers nationally would not have waited for a union demand for shorter hours before seeking working time flexibility.

Reviews of productivity developments in the 1980s often emphasize working time flexibility without reference to reduced hours. Elger, for example, argues that 'moves towards "flexibility" had some bias towards 'the paring down of pauses, resting and waiting time (1990: 69). Changes in working time arrangements have not required reduced hours. British Rail's introduction of flexible rostering for train drivers in 1982 and P & O Ferries' imposition of longer shifts in 1988 are the best-known examples because of unsuccessful union resistance through strikes.²⁵ Working time changes without reductions in hours were also a feature of productivity agreements during the 1967/69 pay policy. 'Rest periods were shortened, tea breaks were abolished, employees agreed to take refreshments on the job, and meal times and starting and finishing times were more strictly enforced (Roche, 1991: 109).

²⁵ British Rail delayed a pay increase and the introduction of a shorter working week, agreed in 1980, until the unions accepted various productivity improvements. This is why Anthony Ferner suggests that 'flexible rostering had become inextricably linked with the shorter working week (1985: 55). However, the title of his article, 'Political Constraints and Management Strategies indicates more accurately his view of the reason British Rail's demand for flexible rostering became so intense in 1982. Flexible rostering became an imperative for management for political reasons totally unrelated to the 1980 agreement.

McKersie and Hunter show that 945 out of 4,091 productivity agreements involved a 'rearrangement of working hours (1973: 76).

Increased flexibility is so much more widespread than reduced hours that reductions in hours cannot normally be a significant factor in the extension of flexibility. The introduction to a recent OECD study, *Flexible Working Time*, observes: 'While the trend for a reduction of the standard working week ... has come to a halt or slowed down in most countries, the diversification of working time patterns has been a growing phenomenon throughout the OECD area (1995: 9). The trends towards reduced hours and increased flexibility of working time are essentially independent, however intimately intertwined they may sometimes become as bargaining issues.

Only Michael White of the Policy Studies Institute has made a real attempt to show that shorter working hours are linked with increased flexibility or productivity in more than this superficial way. In a report for the International Labour Organisation he argues that reductions in working hours provide a 'motivational opportunity for managers to improve productivity (1987: 46). That may be correct, but it begs the question whether other events provide equal or greater 'motivational opportunities. In his PSI research in the early 1980s Michael White admits that other factors have had a greater influence on productivity than reduced hours. 'Much of the change in productivity during the period under consideration is likely to have resulted from the business cycle, or from the response of firms to increasingly severe competition (White and Ghobadian, 1984: 189). This suggests that events other than reduced hours provided ample 'motivational opportunity.

1.10) The policy debate on reduced hours

Reduced hours, like higher real earnings, are a natural consequence of improved productivity. Yet, the merits of reduced hours have been subject to much debate while the rise in living standards has been largely taken for granted. This probably reflects the periodic nature of changes in basic hours and the possible implications for employment and competitiveness.

The nature of the policy debate has changed over the past two centuries. The case for the first British legislation, a 1802 law imposing a 12-hour maximum on the daily hours of youths serving apprenticeships under the Poor Law, was argued in terms of health (Cross, 1989: 25).²⁶ Health concerns are still of some relevance to today's policy debate with the Draft European Directive on Working Time being proposed under health and safety provisions. There seems to be no strong medical evidence one way or the other in relation to the proposed maximum 48-hour week, although a study of Californian men links working more than 56 hours a week with a significantly higher level of heart disease (Harrington, 1994). Recent policy debate has focused much more on the question of worksharing, whether reduced hours will lower unemployment.

1.11) Reduced hours and worksharing

Increased employment appears centre-stage in the results of the research carried out for this thesis. A shorter basic working week is, however, most unlikely to result in the same number of total hours being worked by correspondingly more workers. Such a 'pure employment effect requires a number of conditions. Overtime, productivity and hourly labour costs should not be increased and capital utilisation should not be reduced. Avoiding an increase in hourly labour costs requires some fall in hourly pay because of fixed costs such as training and recruitment. It is theoretically possible for all these conditions to be met. For example, capital utilisation can be maintained through increased shift-working.

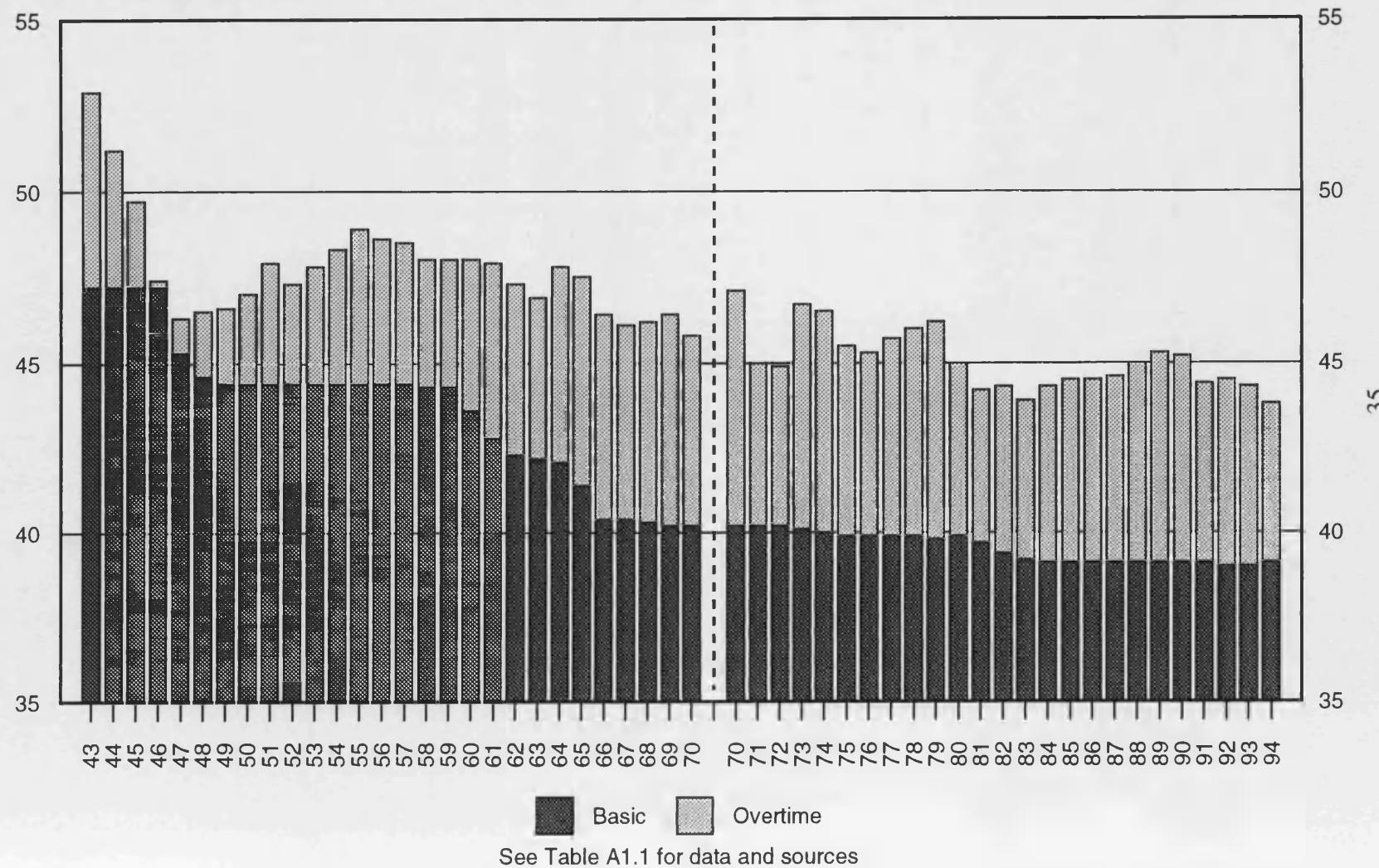
The thesis is concerned with the effects of reduced hours at workplace level. It does not consider the macroeconomic of reduced hours. The effects on an individual workplace of a general reduction in hours throughout the whole economy may be very different than if the workplace alone had reduced hours (see Section 9.3). So, the results of the research cannot establish that a general reduction of working hours would increase employment. The research only supports worksharing at establishment level.

²⁶ There was earlier legislation covering working hours, for example, in 1495 in response to a shortage of agricultural labour and the Statute of Artificers of 1563 which attempted to shore up the guild system. See Bienefeld (1972) for details of the pre-industrial regulation of working time.

Even for a reduction introduced at one workplace, there is most unlikely to be a ‘pure’ employment effect. Perhaps, the main reason for this is that unions traditionally demand reduced hours without loss of pay. However, the prospect of job losses makes cuts in weekly pay more acceptable. Union agreement to explicit pay cuts is more common outside Britain. If weekly pay is maintained, hourly labour costs must rise. The consequences for competitiveness could conceivably be so serious that the net effect of reduced hours is lower employment. Chapter Nine looks at other European countries where there has been a closer link than in Britain between reduced hours and worksharing. The evidence of favourable employment effects is particularly strong in Germany. The Government may have a role to play in encouraging the adoption of reduced hours at establishment level in circumstances where this is most likely to increase employment.

FIGURE 1.1

BASIC AND OVERTIME HOURS OF MALE MANUAL WORKERS



Appendix to Chapter One

Table A1.1

Basic and Total Weekly Hours of Male Manual Workers

1) Including absences for part of week				2) Excluding absences for part of work			
Year	Basic	Total	Overtime	Year	Basic	Total	Overtime
1943	47.2	52.9	5.7	1970	40.2	47.1	6.9
1944	47.2	51.2	4	1971	40.2	45	4.8
1945	47.2	49.7	2.5	1972	40.2	44.9	4.7
1946	47.2	47.4	0.2	1973	40.1	46.7	6.6
1947	45.3	46.3	1	1974	40	46.5	6.5
1948	44.6	46.5	1.9	1975	39.9	45.5	5.6
1949	44.4	46.6	2.2	1976	39.9	45.3	5.4
1950	44.4	47	2.6	1977	39.9	45.7	5.8
1951	44.4	47.9	3.5	1978	39.9	46	6.1
1952	44.4	47.3	2.9	1979	39.8	46.2	6.4
1953	44.4	47.8	3.4	1980	39.9	45	5.1
1954	44.4	48.3	3.9	1981	39.7	44.2	4.5
1955	44.4	48.9	4.5	1982	39.4	44.3	4.9
1956	44.4	48.6	4.2	1983	39.2	43.9	4.7
1957	44.4	48.5	4.1	1984	39.1	44.3	5.2
1958	44.3	48	3.7	1985	39.1	44.5	5.4
1959	44.3	48	3.7	1986	39.1	44.5	5.4
1960	43.6	48	4.4	1987	39.1	44.6	5.5
1961	42.8	47.9	5.1	1988	39.1	45	5.9
1962	42.3	47.3	5	1989	39.1	45.3	6.2
1963	42.2	46.9	4.7	1990	39.1	45.2	6.1
1964	42.1	47.8	5.7	1991	39.1	44.4	5.3
1965	41.4	47.5	6.1	1992	39	44.5	5.5
1966	40.4	46.4	6	1993	39	44.3	5.3
1967	40.4	46.1	5.7	1994	39.1	43.8	4.7
1968	40.3	46.2	5.9				
1969	40.2	46.4	6.2				
1970	40.2	45.8	5.6				

Sources: 1943/46 Ministry of Labour Gazette;
 1947/69 British Labour Statistics Historical Abstract;
 1970/94 New Earnings Survey.

Note: Data are for July 1943, 1944 and 1945 and for January 1946.
 Thereafter they are for April

2) CONFLICT OVER TIME: NATIONAL INDUSTRIAL RELATIONS 1897/1987

2.1) Introduction

The first national agreement in engineering arose from industrial conflict over working time in 1897/98. For most of this century the industry's agreement covered more workers than any other and influenced the working hours of manual workers in other industries. The last national agreement was in 1987. Subsequent negotiations foundered over working hours. So, conflict over time both launched and sank national bargaining in engineering.

The engineering unions first claimed a reduction in the 39-hour basic working week of manual workers in 1983. Despite intensive negotiations over a period of six years the unions and employers failed to reach any agreement at national level. This led to local claims for reduced hours and the abandonment of national negotiations on all substantive issues. Both unions and employers preferred the sacrifice of national negotiations to compromise on hours. This raises two closely related questions. First, why did trade unions and employers, who had ninety years' experience of national negotiations, find the length of the working week so difficult to agree? Secondly, why did national negotiations end? An answer to the second question requires an assessment of the importance of national negotiations to the industry and how this had changed over time. Earlier conflicts over working time, including that in 1979, had been much more intense, but national negotiations had survived.

This Chapter aims to provide a basis for assessing why national negotiations ended. It examines the origins of national industrial relations, the start of national bargaining in 1914 and the changing role of national negotiations over the subsequent seventy years. In the period after the Second World War plant bargaining undermined the central function of national negotiations in determining pay increases. The Chapter also looks at working hours which were a central issue in all the industry's major disputes, in 1897/98, 1922, 1979 and 1989/91. Reduced hours were agreed with little difficulty in 1946, 1959 and 1964, but this reflected agreements in other industries as Section 2.10 shows. An explanation of the end of national negotiations is deferred until Section 3.9 after an analysis in Chapter Three of the prolonged national negotiations over hours between 1983 and 1989.

2.2) The genesis of national industrial relations in engineering

Nationally agreed rules regulating the relationship between employers and unions in the engineering industry originated with the settlement of the 1897/98 lockout. The settlement largely reflected the employers' terms following their victory in what was described at the time as 'the greatest struggle between Labour and Capital that this country has ever seen' (Clarke, 1957: 126).

Trade union tactics in the 'great struggle' of 1897/98 were remarkably similar to those employed with rather more success almost a century later. The Amalgamated Society of Engineers (ASE),¹ supported by some smaller unions, made claims to three London employers for an eight-hour day, which would have reduced the basic working week from 54 to 48 hours. These claims were backed by a threat of strike action. Some London employers had already conceded the demand for a 48-hour week. The three employers responded by forming a London Employers' Association which then joined the Glasgow-based Employers' Federation of Engineering Associations. The Federation supported its new London members with a threat to lockout all the members of the unions involved in batches of one quarter a week (Jefferys, 1945: 144). The unions called their members working for the three London employers out on strike. When the federated firms locked out the first members, the remaining union members walked out. The lockout lasted for six months. 'The real issue was [not hours but] the limit of union interference with managerial decisions' (Clarke, 1957: 126).

The 1898 terms for ending the lockout meant 'the eight-hour day had been lost and the employer had secured for himself a wide range of freedoms, particularly in the control of new machinery' (Jefferys, 1945: 149). For the first time a national disputes procedure

¹ The ASE joined with nine smaller craft unions in 1920 to form the Amalgamated Engineering Union (AEU). In 1967 a merger with the Amalgamated Union of Foundry Workers created the Amalgamated Union of Engineering and Foundry Workers (AEF). In 1971 the AEF became the engineering and foundry sections of the Amalgamated Union of Engineering Workers, but reverted to the name, AEU, in 1986. In 1992 the AEU and the Electrical, Electronic, Technical and Plumbing Union (EETPU) combined as the Amalgamated Engineering and Electrical Union (AEEU). This Chapter mainly deals with events before the formation of the AEEU and neglects the AEU's earlier changes of name.

regulated the relationship between unions and employers.² The disputes procedure 'was widely copied'. This and the 'clarification of management prerogatives' form the basis of the claim for the 1897/98 lockout's 'enduring significance' through 'its effect on the structure of industrial relations'. It 'marks the end of one era in British industrial relations, and the beginning of another' (Clarke, 1957: 137).³

2.3) The enduring legacy of 1898

The industry inherited more than a disputes procedure from 1898. The role of trade unions in negotiating 'general alterations in the rates of wages in any district or districts' with local employers' associations was nationally recognised (Marsh, 1965: 263). Hours were the first substantive issue dealt with at national level. Negotiations started in 1914, but were suspended during the First World War. An agreement on basic hours was signed eight days after the Armistice (Jefferys, 1945: 158, 187). Nationally agreed basic hours existed in the engineering industry from 1918 to 1989, when the unions reverted to making claims directly to individual employers.

The legacy of 1898 has proved more enduring than national negotiations. There is still a national disputes procedure. This has been seen as the cornerstone of the industry's industrial relations system. '[The engineering system of industrial relations] consists primarily of a machinery for handling grievances from the shop floor of federated firms' (Marsh, 1965: 13). The Engineering Employers' Federation (EEF) in its written evidence to the 1968 Donovan Commission also attached importance to the terms of settlement of the 'great "managerial rights" dispute' of 1897/98 as the foundation of trade union recognition in the industry (Royal Commission on Trade Unions and Employers' Associations, Selected Written Evidence, Number 20: 406).⁴

² Phelps Brown is a little more cautious. He judges the membership of the employers' federation such that the agreement only 'came near' to being industry wide. He also refers to slightly earlier agreements in cotton spinning and footwear (1959: 163). These were both industries so geographically concentrated that any distinction between an industrial and a regional agreement is tenuous.

³ The lock-out, by making union activists look to political rather than further industrial action, has also been seen as 'the main immediate factor' in the formation in 1900 of the Labour Representation Committee, which became the Labour Party in 1906 (Crowley, quoted by Clarke, 1957, 137).

⁴ The EEF, founded in 1896 as the Employers' Federation of Engineering Associations, has, like the AEU, undergone several changes of name. In 1961 it readopted its present title.

2.4) A new system superimposed on an old system

The 1898 settlement established a new system of industrial relations, a system based on district and national regulation. At the workplace the terms of the settlement substituted managerial prerogative for an older system of craft control, ‘the nexus of practices which skilled engineers sought to impose unilaterally as a condition of their employment’ (McKinley and Zeitlin, 1989: 36). In practice the new system did not replace the old, but was superimposed on it.

‘The general principle of freedom for employers in the management of their works’ was broadly defined, extending even to the right ‘to employ workmen at rates of wages mutually satisfactory’ while ‘the unions will not interfere in any way with the wages of workmen outside their own union’. The ‘employers will admit no interference with the management of their business, and reserve to themselves the right to introduce into any federated workshop ... any condition of labour under which any members of the Trade Unions ... were working at the commencement of the dispute in any of the workshops of the Federated employers’. This principle was applied specifically to piecework, one of the main underlying issues in the lockout. ‘The right to work piecework ... shall be extended to all members of the Federation’. Managerial prerogatives were only limited in relation to ‘the normal hours of work, or to general rises and falls of wages, or to rates of remuneration’.⁵ These three areas were reserved for negotiation between the unions and district employers’ associations.

The terms of settlement confined union activity and collective bargaining to the district level. The disputes procedure even denied unions any role in relation to individual employers. The settlement provided that ‘deputations of workmen will be received by their employers, by appointment, for mutual discussion of questions, in the settlement of which both parties are directly concerned’. Until 1907 union representatives (paid officials) did not even have the right to initiate the disputes procedure by notifying employers or district employers’ associations of grievances. In practice union activity was less circumscribed than the settlement terms suggest. An important part of the job of paid union officials remained dealing with individual employers over grievances (Jefferys, 1945: 165).

⁵ The quotations are from the full text of the 1898 terms of settlement in Marsh, 1965: 250-5.

What actually happened at plant level undoubtedly depended more on union strength or employer acquiescence than on the terms of the 1898 settlement. As Keith Sisson observes: 'In theory, unions were to be excluded from the establishment and individual managements were to determine most of the substantive terms and conditions unilaterally. In practice, everything depended on the balance of power' (1983: 127). Employers remained dependent on 'the inventiveness of skilled labour to cope with product variability'. This 'enabled the ASE quickly to rebuild its organisation'. The 'guerrilla struggle over job controls', a major motivation for the lockout, continued with 'the slow emergence of the shop steward as a central figure' (McKinley and Zeitlin, 1989: 37).

The Amalgamated Society of Engineers took the opportunity given by unprecedeted union power and militancy immediately before the First World War to repudiate the 1898 settlement and to demand a 48-hour week. The Engineering Employers' Federation, under government pressure, conceded a new procedure agreement in 1914 (Zeitlin, 1991: 61/2). While individual employers were no longer shielded from direct contact with union officials, this was balanced by an enhanced role for officials of district employers' associations. An official from the district association was to be present when union officials exercised their new right to accompany 'delegations of workmen' under the disputes procedure (Marsh, 1965: 260). 'On the eve of the Great War the edifice of managerial and procedural hegemony constructed in 1897/98 had crumbled' (McKinley and Zeitlin, 1989: 39).

Shop steward organisation developed rapidly immediately before and, in particular, during the First World War when 'they achieved national importance' (Wigham, 1976: 39). The negotiating role of shop stewards was formally recognised through a national agreement in 1917 following a general strike in Coventry (Jefferys, 1945: 185/6).

Craft controls were widespread, at least in the munitions industry, at the beginning of the War. Within four months of the outbreak of War the EEF 'was applying unsuccessfully to the unions for freedom from craft restrictions on the employment of less skilled labour, freedom to increase the number of machines per man, and freedom from demarcation and overtime restrictions' (Fox, 1985: 285). Three months later union agreement on the suspension of traditional practices was embodied in the Treasury Agreement, which the Government in the person of the Chancellor of the Exchequer, Lloyd George, also signed. The Government guaranteed the full restoration of the suspended practices after the War.

The Treasury Agreement also introduced compulsory arbitration through the Committee of Production, which had been set up to ensure an adequate supply of labour to the war industries.

‘Those whose consent really mattered, namely, the craftsmen at the workplace’ showed a greater attachment to traditional practices than the union leadership (*ibid*). The Treasury Agreement proved ineffective and was followed by the Munitions of War Act, 1915. This banned strikes and provided for the suspension for the duration of the War of practices which restricted production. However, strikes could not be so easily legislated out of existence. The suspension of restrictive practices often required detailed negotiations, particularly over dilution, the employment of non-craft workers, including women, on work previously done by craftsmen. This frustrated ‘one of the main objectives’ of the Act, introducing dilution rapidly ‘by providing statutory sanctions to enforce it upon skilled men’ (Clegg, 1985: 140/1). There were thirty to forty thousand recorded cases of the suspension of customary practices. The comprehensive nature of the Restoration of Pre-War Practices Act, 1919, meant that these widespread changes in working practices, which seem akin to productivity bargaining, proved of no long-term significance (Fox, 1985: 292).

Violations of ‘the general principle of freedom for employers in the management of their works’ enshrined in the 1898 settlement were clearly not confined to the munitions industry. ‘The widespread engineering strikes in 1917 arose chiefly from the government’s proposal to extend the dilution of skilled labour from munitions work to private contractors’ (Clegg and Adams, 1957: 5). Disputes over wage rates also caused strikes, particularly towards the end of the War. According to the official cost of living index wage rates fell by nearly 15 per cent in real terms during the War (*ibid*: 14). The draconian penalties available for dealing with strikes often proved ineffective. The Government even resorted to the cruel and unusual punishment of deporting Glasgow strike leaders to Edinburgh for fourteen months (Jefferys, 1945: 180).

The strictures of the Donovan Commission in 1968 certainly seem applicable to the engineering industry of 1914, and perhaps even to the industry in 1898. ‘Britain has two systems of industrial relations. The one is the formal system embodied in the official institutions. The other is the informal system created by the actual behaviour of trade unions and employers’ associations, of managers, shop stewards and workers’ (Report of the Royal

Commission on Trade Unions and Employers' Associations, 1968: 12). 'The two systems conflict. ... The informal system cannot be forced to comply with the formal system' (ibid: 37).

2.5) The start of national bargaining and the first hours agreement

National wage bargaining was a much longer lasting Wartime innovation than the suspension of customary practices. By the beginning of 1917 the Committee on Production was swamped by the multitude of district pay claims which it had to arbitrate. This led the EEF and the unions to suspend district bargaining and start national wage negotiations (Jefferys, 1945: 182). The resulting wage agreement was 'the most far-extending which has ever been made or obtained by force between employers and employed in this or any other country', according to the government's Chief Industrial Conciliator (Askwith, quoted by Wigham, 1976: 39).

A national agreement on basic hours had been delayed for the duration of the War. In 1918 the EEF conceded the 47-hour week in return for 'general promises by trade union leaders to promote maximum output' and to accept payment by results. However, 'these promises proved virtually unenforceable' (Zeitlin, 1991: 67). Indeed, employers had great difficulty in holding the line at 47 hours. There was a series of unofficial strikes for 44 or 40 hours in the major heavy engineering and shipbuilding centres (Clegg, 1962: 5). More than four million working days were lost in these disputes, more than in all the strikes in each year between 1945 and 1957 and in every year since the end of the miners' strike in 1985. In Glasgow passions over the 40-hour week were so inflamed that martial law was declared. Tanks and troops armed with machine guns patrolled the streets of the city. The strike only collapsed after the arrest of the strike leaders and the suspension by the ASE of its district committees in Glasgow, Belfast and London (Jefferys, 1945: 188).

2.6) Industrial relations between the Wars

The unions pursued the 44-hour week in national negotiations. The employers refused to negotiate, but, in return for the withdrawal of the claim for reduced hours, reached an agreement on piece work prices. The 1918 agreement on the 47-hour week had specified that weekly time rates would not be changed, but had been silent on piece rates. The agreement

in April 1919 required piece prices which would enable a worker 'of average ability' to earn at least one third above the district time rates, excluding war bonus (Clegg, 1985: 263/4; Jefferys, 1945: 188).

Shop steward organisation largely collapsed at the beginning of 1919 following the failure of the strikes for a shorter working week. The munitions industry, the fulcrum of shop steward power, became much smaller. Employers were able to deny shop stewards employment, sometimes with the assistance of local union officials (Clegg, 1985: 310). Victimation of shop stewards was particularly severe in Glasgow where 'the employers took savage reprisals and many stewards found it impossible to find a job' (Jefferys, 1945: 188).

In 1920 the role of national negotiations was further enhanced by an agreement on overtime and shift rates. Wages rather than hours had become the prime concern of the AEU. However, the Industrial Court, which had replaced the Committee on Production as the industry's arbitrator, refused an application for a second wage increase in 1920. In response the AEU terminated the 1917 agreement, which provided for arbitration, and pursued its claim directly with the EEF. 'Economic collapse from late 1920 through to 1923' meant that the unions were forced to negotiate over employer demands for wage cuts rather than pursue wage claims (Fox, 1985: 305). The official cost of living index in the last three months of 1921 was 25 per cent less than a year earlier and continued to fall until the middle of 1923 (Table 89, British Labour Statistics, Historical Abstract). The unions could only delay and not moderate the wage cut sought by the employers. In 1921 weekly wage rates for skilled workers were cut in two stages by 80p a week, a 18 per cent cut on average rates of £4.45 a week (Jefferys, 1945: 218/20).

The employers were conducting a 'simultaneous offensive on working conditions'. The three main issues were the right of employers to select workers to operate machines, when overtime should be worked and whether apprentices could be put on piece work (Jefferys, 1945: 220). The AEU executive was most reluctant to make concessions on overtime, 'the most illogical of the employers' demands' (Jefferys, 1945: 222).

The EEF was insistent on an end to union restrictions on overtime. After the end of the War a number of ASE districts, including those in London, Manchester and Glasgow, had

imposed bans on overtime (Clegg, 1985: 337). The reason for the bans was fear of unemployment caused by demobilisation and the rundown of the munitions industry. The 1920 agreement tightened the existing restrictions on overtime. In 1898 it had been agreed that 'no man would be required to work more than 40 hours overtime in any four weeks'. This had been one of the ASE's major concessions. A lower limit of 32 hours in any four weeks was introduced in 1907 when it was also 'agreed that systematic overtime as a method of production is to be deprecated' (Marsh, 1965: 257). The 1920 agreement repeated this depreciation and further tightened the overtime limit: 'When overtime is necessary ... no union workman shall be required to work more than 30 hours overtime in any four weeks' (Clegg, 1985: 337). The overtime limits, however, were all subject to a number of exemptions, which were not significantly changed. The exemptions 'appear to provide employers with an almost complete justification [for compulsory overtime] in any circumstances' (Marsh, 1965: 157).

The 1920 agreement, like the earlier agreements, was silent on how the necessity for overtime was to be decided. The AEU took the view that this enabled its district committees to continue their bans on overtime. Employers were free to apply to AEU district committees for permission to work overtime. Yet, as employers felt that 'it was for them to decide when overtime was necessary, they did not apply' (Clegg, 1985: 337). In 1920 the AEU general secretary had informed district committees in a circular letter that 'overtime was to be considered necessary by both parties'. The circular further advised district committees to 'have due regard to the numbers of men unemployed and whether such overtime will tend to absorb members who are unemployed' (Mackenzie Report, page 7, para. 6). The EEF challenged the AEU's interpretation of the agreement. There were further negotiations, but the overtime restrictions appear not to have been of any great importance or urgency (EEF survey of districts quoted in Clegg, 1985: 339). 'Union restrictions ... had largely evaporated as the recession deepened and even the AEU's overtime embargoes had become more symbolic than real' (McKinley and Zeitlin, 1989: 41). There was an interval of seven months in the negotiations 'during which other matters appear to have occupied the attention of the parties' (Mackenzie Report, page 9 para. 13). Overtime was no longer the main issue for the employers. 'The employers, as I was told by their representatives at the hearing, from the discussions with the union representatives ..., came to the conclusion that the motive power behind the discussions was not so much a question of overtime or no overtime, but ...

whether or not the employers were to have the right to exercise their functions without prior consultation with and prior consent of the workpeople and their representatives' (ibid).

The EEF insisted that AEU members accept the employers' right to decide when overtime was necessary. The AEU could refer overtime instructions through the agreed procedure, but 'meantime, the overtime required shall be proceeded with' (Clegg, 1985: 338). The AEU had almost one quarter of its members unemployed when the overtime issue came to a head early in 1922. After lengthy negotiations, the AEU executive saw no alternative but to concede the employers' demands. The membership, however, rejected the executive's advice in a ballot.

The members' decision led to the industry's major dispute of the inter-War period. 260,000 AEU members were locked out for more than 13 weeks with the loss of nearly 14 million working days (Jefferys, 1945: 226). This second national lockout enabled the employers to impose essentially the same terms on the unions as in 1898 (Marsh, 1965: 118).⁶ On the issue in dispute the agreement provided that 'employers have the right to decide when overtime is necessary' (Jefferys, 1945: 227). The agreement did nothing to restrict shop steward activity, which had first been nationally recognised in 1917. Indeed, in making Works Committees, consisting of managers and shop stewards, the first stage of the disputes procedure, the 1922 terms may well have enhanced the role of shop stewards (Phelps Brown, 1982: 141).

In 1923 some union district committees made pay claims, but all were refused. The EEF had decided that there should be no more district bargaining. This did not, however, mean any concession to the unions when they made national pay claims. In 1924 a national pay claim was rejected. In 1925 the EEF responded to a renewed national pay claim in very much the same way as they would to the hours claim in 1983. They sought concessions on working conditions, specifically an increase in the working week from 47 to 50 hours at unchanged hourly rates, the end of all restrictions on output and the 'relaxation of the claim of any class of workpeople to an exclusive right to any operations or any particular job' (Clegg, 1985: 432). This suggests that employers had been no more successful in 1922 in securing

⁶ Arguably, this was the third national lock-out. There was a 'widespread' lock-out in 1852, but this did not have lasting consequences (Marsh, 1965: 15). However, the national status of the 1897/98 lock-out might also be questioned. At most 47,500 workers and 702 firms were involved (Jefferys, 1945: 147).

‘freedom ... in the management of their works’ than in 1898. Changes in working conditions did not, however, prove crucial. The employers agreed a pay increase, albeit for timeworkers only, in 1927 without any union concessions on working conditions (Clegg, 1985: 433). Employers may have been satisfied with working conditions or they may simply have concluded that national declarations on working conditions were of little value.

The Great Depression of 1929/31 led to further employer demands for longer hours and wage cuts. In national negotiations in 1931 the employers sought to increase the 47-hour week to 48 hours, but did not force the issue. The unions were also able to avoid a general wage cut, but had to concede reductions in overtime and shift rates and in the minimum percentage for piecework prices from one third above the basic rate, agreed in 1919, to one quarter. The AEU executive, perhaps mindful of 1922, reached agreement without the customary ballot of members (Jefferys, 1945: 240).

Union membership started to recover from the Depression in 1933. The demand for a 40-hour week was immediately renewed. There were ‘meetings and propaganda in all the engineering towns’. The campaign for the 40-hour week ‘gained wide support ... and was responsible for widespread recruitment to the unions’ (Jefferys, 1945: 244). However, this support made no impression on the employers in the national negotiations.

The unions were strong enough to negotiate national pay increases in 1935, 1937 and 1939. These increases took the skilled provincial time worker’s average basic weekly rate to £3.40, still over £1 less than in 1920 (Jefferys, 1945: 255). The fall in the minimum rate since 1920 disguises a real increase. Between 1920 and 1939 the official cost of living fell by 36 per cent (British Labour Statistics Historical Abstract, Table 89). Earnings rose by more than the minimum rates, largely because overtime increased (Hart and Mackay, 1975: 39). A fall in short-time working and an increase in piece work seem also to have contributed to the growth in real earnings from 1920 (Jeffreys, 1945: 210/11). The Donovan Commission described the gap between earnings and minimum rates in 1938 as ‘modest’ (Report of the Royal Commission on Trade Unions and Employers’ Associations: 14). The 1938 earnings survey by the EEF supports this description. For fitters the standard weekly rate set by the national agreement for average hours worked, including overtime, was 83 per cent of average weekly earnings and for labourers 90 per cent.

Standard weekly rates for the hours worked as a proportion of earnings are remarkably consistent from 1926, when the EEF started collecting regular information on hours worked, until the outbreak of War. Until 1938 increases in earnings can be explained by the standard weekly rates, that is by the district weekly rates, national increases, national overtime rates and hours worked. This is shown for fitters and labourers in Figures 2.1 and 2.2. The lightly shaded areas in the Figures are the difference between actual earnings and the standard weekly rates, which may represent wage drift. Tables A2.1 and A2.2 give the data on which the Figures are based. The national negotiations clearly retained effective control of earnings increases between 1926 and 1938.

Zeitlin takes a different view, claiming 'Wage drift had already began to appear in the upturn of 1924-28, but with the onset of recovery from 1935 it soon reached epidemic proportions' (1991: 72). Hart and MacKay, who compiled the data used in Figures 2.1 and 2.2 from the EEF surveys, make no such sweeping statement. Yet, they do report 'substantial earnings drift' from 1925 to 1939 (1971: 43). Earnings drift, a faster growth in weekly earnings than in national weekly minimum rates, may be due to overtime. Indeed, they note that wage drift, which excludes the effect of overtime, was less than earnings drift and that the post-War acceleration in wage drift was more marked than in earnings drift (*ibid*: 39). Their choice of dates for the comparison is unfortunate. There is no information on hours worked in 1925 and so wage drift cannot be calculated. The 1939 EEF survey was in October after the outbreak of War when overtime had soared. In addition Hart and MacKay exclude overtime from weekly earnings by assuming that it is paid at time-and-a-half of hourly earnings during basic hours. They are able to justify this assumption from 1954, Yet, there is no reason to ignore the overtime provisions of the national agreement in the inter-War period. The national agreement set an overtime rate of time-and-a-third of the minimum time rates except from 1932 to 1937 when the rate was time-and-a-quarter. These are the overtime rates which are used to calculate standard weekly earnings in the Figures and the Tables.

The success of national negotiations in controlling earnings until 1938 is surprising in view of the changes in the industry, such as the growth in the numbers of semiskilled workers and piece workers. For piece workers the national agreement merely specified a minimum which piece prices should enable an 'average' worker to earn. There is some evidence of wage drift. 'Lieu rates' - in lieu of piece work earnings - and merit rates were used particularly for skilled time workers to maintain their earnings in relation to those of piece workers (Jefferys,

1945: 210). Yet, the Figures suggests that wage drift had little impact on average earnings before 1938. The national negotiations always gave all workers the same money increases. So, nationally negotiated wage differentials fell considerably from 1925, although they remained larger than before the wage cuts of 1920. The Figures show that the national negotiations affected fitters' earnings in very much the same way as labourers' earnings. This indicates that national negotiations rather than periodic skill shortages determined pay increases between the Wars.

National control of wage increases made the industry's pay structure rigid. Relative earnings depended on district rates which were generally the same as in 1917. Differentials between different parts of the country persisted long after any reason for them had disappeared (Jefferys, 1945: 209). The growth of the motor and aerospace industries caused particular problems. These problems were superimposed on anomalies, which originated before 1917. For example, the weekly rate for fitters in Yeovil was 15p less than in Bristol, while the labourer's rate was 5p more in Yeovil. This made it hard for employers in Yeovil to recruit skilled workers (Wigham, 1973: 142). District negotiations continued to provide an element of local flexibility. Flexibility was necessary as technical change had markedly changed the occupations and skills of the industry's workforce. The proportion of the workforce who were semiskilled rose from 20 to 57 per cent between 1914 and 1933 (EEF surveys, quoted in Jefferys, 1945: 207). Semiskilled workers were mainly employed as machine operatives or as assembly line workers. The rates paid to semiskilled workers depended on 'a patchwork of local agreements and customs. In these agreements ... uniformity was conspicuous by its absence' (Jefferys, 1945: 210).

From 1935 onwards district pay negotiations caused considerable concern to the EEF. Since 1917 district claims for general pay increases had always been rejected. In the second half of the 1930s district pay claims became the subject of 'prolonged and complex discussions' within the EEF (Wigham, 1973: 142). In 1935 the EEF's governing body, the management board, 'saw very great difficulty in making adjustments in district rates without starting a movement towards a general levelling-up ... a movement which the Trade Unions have been aiming at for years' (management board minutes quoted in Clegg, 1985: 9). However, the management board did occasionally approve general increases. For example, in 1935 the Derby district association was faced with a union claim for parity with the district rates in Coventry, the centre of the expanding motor industry, where rates were the highest in the

Midlands.⁷ Their refusal of the claim led to a strike ballot. The management board consented to parity with Birmingham, which involved a general increase of 5p a week, even though the rate for moulders in Derby was already more than in Birmingham (Wigham, 1973: 143).

The highest district rates in the Midlands did not exempt the Coventry employers from wage pressures. In 1934 the management board considered a report from the Coventry association on a claim by the AEU for a rate of £4 a week for skilled toolroom workers. The workers were earning no less than £3.50 a week 'in one form or another', but there was 'considerable lack of uniformity ... as regards ... base rates, method of make-up, by way of "lieu rate" [in lieu of piece work], merit [pay], or as the case may be, generally'. The association had encouraged the use of piece work to increase earnings, but members still wanted 'some recognised basis of payment' where piece work was not practicable. The management board was asked to approve a basic rate of £2.40, which with a lieu rate of 25 per cent and the 50p national bonus would give £3.50. In addition merit rates would continue and, although 'purely a domestic matter', would require the association's approval. The management board was obviously concerned that an agreement would encourage similar claims in other districts. It did not approve the proposals, but suggested that they be implemented without negotiation. In the event an offer of £3.50 was eventually made only to be rejected by the AEU which was 'confident no doubt that their Coventry members could increase their pay by themselves by continued pressure'. In 1939 the management board took a different view of a claim for a Coventry toolroom rate of £5.50 a week. The district association reported that some tool room workers 'were earning £8 and £9 a week'. The management board authorised local negotiations (Clegg, 1985: 11). A Coventry toolroom agreement was reached in 1941, but only after the War had so exacerbated shortages of skilled toolroom workers that a national toolroom agreement had been negotiated.

From 1933 union organisation was growing in depth as well as in numbers. Between 1935 and 1938 the AEU paid out nearly three times as much in commission to shop stewards as in the previous four-year period (Jefferys: 1945, 241/2). The starting point for the growth in shop steward numbers was greater than might have been expected. In general employers had not taken advantage of the Depression to attack shop steward organisation as they had

⁷ Rolls Royce employed 85 per cent of the workers in the Derby district (Clegg, 1985: 10). So, this might be seen as an early example of single-employer bargaining.

after the 1922 lockout. Shop steward activity enabled employers 'to avoid every issue going to the district office' (see Clegg, 1985: 532). The role of shop stewards seems to have been, as the Donovan Commission suggested, 'more of a lubricant than an irritant' (Report of the Royal Commission on Trade Unions and Employers' Associations, 1968: 29).

2.7) War and 'mild restraint'

During the Second World War the government banned strikes and lockouts, limited the right of employees to change employers, took the power to fix wages and introduced compulsory arbitration. As in the First World War legislation was used to suspend workplace custom and practice. Labour shortage 'provided powerful stimulus to a brisk revival of the shop-steward system' (Fox, 1985: 361). Yet, in contrast to the First World War, when the Government had taken similar measures, wage rates did not become a major issue. The trade unions 'made relatively modest and infrequent claims for pay increases at national level' in return for the illusion of price stability. An 'extremely old-fashioned cost of living index was carefully manipulated [by government subsidy] to hide the price rises which did occur'. 'Settlements ... did not do much more than compensate for the considerable increase in the cost of living which had occurred in the early months of the war'. Wartime policies were largely maintained for the rest of the 1940s. Certainly, unions continued to exercise restraint in national wage claims. The period of 'mild restraint' of wage rates between 1948 and 1950 was 'perhaps the most successful of all the attempts at incomes policy in Britain' (Clegg, 1971: 1).

In engineering, however, Wartime increases were not particularly infrequent. There was a negotiated increase of 25p a week in February 1940, 7 per cent of the skilled worker's average minimum rate. This was followed in the period from January 1941 to May 1944 by five increases, all the results of arbitration, totalling £1.15 for time workers (Forster Committee, pages 8/9). The total Wartime increase was 41 per cent for skilled workers and 54 per cent for labourers. Between October 1938 and July 1945 average hourly earnings of male manual workers in engineering rose by 76 per cent.⁸ This is much more than the rise in the cost of living in the same period. The official index rose by 35 per cent, but the

⁸ This figure is calculated from Tables 40 and 43 of British Labour Statistics Historical Abstract. The only information available for 1939 is from EEF surveys. Regular official surveys of manual workers' earning started in 1940, but did not cover hours until 1943.

London and Cambridge Economic Service's index increased by 48 per cent. The latter is 'generally recognised to give a much more accurate picture' (Clegg and Adams, 1957: 14). Over the same period the increase in minimum rates was 45 per cent for skilled workers and 60 per cent for labourers.

As in the inter-War period, the Wartime national wage settlements included general increases in earnings equal to the rise in the minimum rates of time workers.⁹ The general increases in earnings were responsible for less than two-thirds of the Wartime rise in the hourly pay of skilled workers. Piece work earnings largely explain why hourly earnings grew faster than minimum rates during the War (Clegg, 1971: 1). Piece workers largely escaped the wage controls which, on paper, were still exercised at national level.

The growth of piece work earnings led to a serious shortage of skilled workers in toolrooms, where piece rates were largely impracticable. Ernest Bevin, the Minister of Labour, intervened in 1940 because production was being affected. He wrote to the director of the EEF and the general secretary of the AEU. 'I regard it as essential that this problem should be dealt with immediately' (Wigham, 1973: 147). His letters led to an agreement within days 'for the purpose of ensuring, during wartime emergency, the necessary complement of men and production from toolrooms' (Clegg, 1985: 199). The minimum hourly earnings of skilled tool room workers were to be no less than the average for skilled production workers in the same establishment. Any increase required by the agreement was not to affect individual merit payments.

Employers in Coventry, who even before the War had faced shortages of toolroom workers, reacted strongly against the agreement. The government had built five, large factories in Coventry for war production. These factories recruited labour by setting easy piece work prices (Wigham, 1973: 147). The Coventry employers now faced the prospect that the government factories would, under the agreement, also pay their toolroom workers more. The result was the Coventry toolroom agreement. This guaranteed toolroom workers the

⁹ There are two minor exceptions. The 1943 wage increase consolidated £1 from the national bonus into the district rates. This meant that £1 more was used to calculate the piece work premium which was itself increased from 25 per cent above the district rates to 27½ per cent. The minimum piece work standard for skilled workers rose by 33.3p a week, a little more than the 30p rise in time rates. In 1945 the wage increase was applied to the district rates rather than to the national bonus. This raised the piece work standard by 5.7 per cent and time rates by 4.9 per cent. These were the only increases in district rates in 27 years of national wage regulation.

average for all skilled workers in Coventry, rather than the establishment average as in the national agreement. Unfortunately for the employers, circulating details of average earnings of skilled production workers led to continuous increases in average earnings. ‘Workers of all kinds were using the return made under the toolroom agreement to force up their own pay and earnings in the town, already high, soared far beyond those elsewhere’ (Wigham, 1973: 148).

Peace saw only the gradual abandonment of Wartime policies. From 1947 prices were no longer stabilised by increasing subsidy (Clegg and Adams, 1957: 18). Restraining pay increases, however, remained a key element of the government's economic strategy. In 1948 a voluntary pay freeze was introduced. The Government argued that there was ‘no justification for any general increase of money incomes’. The engineering industry was, however, exempt from the freeze as a result of a Court of Inquiry under Sir John Forster. The Court recommended a general increase of 25p a week because negotiations had started before the beginning of wage restraint.

The 1950 TUC Conference rejected even a limited commitment to further wage restraint. ‘The government's pay policy, successful as a temporary shelter, was now in ruins’ (Clegg and Adams, 1957: 20). In 1951 the Wartime ban on strikes and lockouts and the provisions for compulsory arbitration were finally repealed. The ban on strikes had become a dead letter in the absence of union acquiescence. The previous year the engineering unions balloted their members on a national strike despite advice from the Ministry of Labour that a strike would have been illegal (Wigham, 1973: 164).

2.8) Conflict and decline

From the late 1940s to the early 1960s there was intense conflict. National wage agreements were often only reached only after some form of industrial conflict or as a result of Government intervention to avert strikes or overtime bans. Of eight wage increases between 1948 and 1957 three were decided by a Court of Inquiry and one by the National Arbitration Board (Clegg and Adams, 1957: 163). Of the four freely negotiated settlements one, in 1952, was reached only after an overtime and piecework ban made Government intervention almost certain (Wigham, 1973: 170). After 1957 three successive claims were settled without

industrial conflict or intervention, but the negotiations in 1962 and 1963 again led to industrial action (*ibid*, 209/10).

The CSEU leadership was prepared repeatedly to initiate industrial action in support of national pay claims, but the influence of national agreements on earnings continued to decline. Admittedly, the fall in the minimum rates relative to earnings was less rapid than during the Second World War. Figure 2.3 shows minimum rates as a proportion of earnings between 1943 and 1988. Table A2.3 gives the data on which the Figure is based. Between 1948 and 1961 national minimum rates rose on average by 4.6 per cent a year while average earnings went up by 7 per cent a year (Marsh, 1965: 185). When union members voted down a strike call in 1962, the relative decline in minimum rates was held responsible (*ibid*: 186).

The 1950 national agreement sought to restore the role of national bargaining in the industry. It gave increases only to lower paid workers. The wage structure was also drastically simplified. New national minimum rates were created by merging the district time rates increased by 55p for fitters and 40p for labourers with the national bonus of £2.05 to give consolidated time rates of £5.90 for fitters and £5 for labourers. Some district rates were further increased so that there was for the first time a national minimum. Piece workers received a higher minimum standard with the premium up from 27½ per cent to 45 per cent, but this was still based on the old district rates (Wigham, 1973: 165). The wage agreement raised the minimum level of earnings for all workers by some 10 per cent. Further, there were tapering pay increases for fitters paid up to £6.41 a week and for labourers paid up to £5.30 a week (Clegg, 1985: 395). This still left the majority of union members with little or no pay increase.

Union members expected rather more from the national negotiations, particularly as it was more than two years since the last increase. The result was a series of go-slows and overtime bans affecting all areas of Britain except the Midlands and the West of England.¹⁰ ‘The workers themselves were enjoying the new enhanced time rates throughout, so that the employer was paying them for taking part in a partial strike against him.’ Some employers successfully countered the go-slow by giving notice of dismissals, but ‘others met with

¹⁰ The Midlands and the West of England were exceptions because ‘pieceworkers looked after themselves in the usual way’ (Wigham, 1973: 200). Plant, or company, bargaining was already well established in the motor and aerospace industries which dominated these regions.

disastrous failure'. Employers had to concede local settlements. 'Financial losses [through limited industrial action] had been enormous and by the end of [1951], many employers said the old differentials had been restored everywhere'. 'Partly because of pressure from the Government, preoccupied by the needs of the rearmament programme, the Federation had failed to enforce a national agreement, even with the half-hearted support of the unions, and had dissuaded individual employers from doing so. The men in the workshops had demonstrated their power irrespective of union action.' The dispute over the implementation of the 1950 agreement had 'repercussions [which] continued for years'. 'The experience had left the employers with a determination never again to attempt to restrict increases to the lower paid' (Wigham, 1973: 165/8). This determination only affected employers and managers who had endured the tribulations of 1950. The 1964 and 1968 national agreements again attempted to raise minimum rates relative to earnings. The most significant and completely unintended consequence of the 1950 agreement was the acceptance by most employers of a two-tier bargaining system. Until 1964 most workers covered by the national negotiations increasingly enjoyed pay increases from two sources. Plant bargaining, as well as the national agreements, gave workers pay increases.

The CSEU's acquiescence in the declining role of national bargaining was, to say the least, reluctant. In 1951, when rearmament for the Korean War made manpower shortages particularly acute, the national agreement set the pace for earnings increases in the industry. Rates and earnings rose by 55p a week, just more than 9 per cent of the fitter's rate. In addition a second week's holiday was introduced. The next year the EEF refused to offer any wage increase. The CSEU responded by banning overtime and piece work. The union leadership was adopting officially the tactics which had proved so effective when used without their approval following the 1950 agreement. The resulting loss of production and the near certainty of Government intervention persuaded the EEF to open negotiations. The result was a 37p general pay increase, just less than 6 per cent of the fitter's rate. The EEF reverted to refusing any pay increase in 1953. The CSEU unions called a one-day strike and then announced an overtime and piecework ban. Government intervention, in the form of a Committee of Inquiry under Lord Justice Morris, secured the postponement of the ban. An increase of 5 per cent recommended by the Court rates was accepted.

In 1957 the engineering and shipbuilding employers were united in making no offer in response to the unions' pay claims. The result was a national strike in shipbuilding and

escalating regional strikes in engineering leading to a national strike. At a secret meeting Harold Macmillan, the Prime Minister, who was due to go to the Caribbean to see President Eisenhower, told the Presidents of the EEF and the Shipbuilding Employers' Federation, that he felt unable to leave the country 'in its present state of chaos'. Yet, he needed to repair relations with America in the wake of the Suez debacle. Ian Macleod, the Minister of Labour, was also present. His contribution was "great histrionics" about the danger of the country going bankrupt, the pound collapsing, and the Government falling' (Wigham, 1973: 185).

The Government's persuasion was successful. Both Federations made pay offers. The Government then set up Courts of Inquiry into the disputes, which resulted in the strikes being called off. The shipbuilders' offer of a 5 per cent pay increase was conditional on union undertakings on restrictive practices, demarcation disputes and unconstitutional strikes. The EEF had attached no conditions to its offer of 3½ per cent. Both Courts, however, put forward the same two alternative settlements. There should either be an unconditional 5 per cent increase or 6½ per cent subject to conditions. The conditions included a standstill on all wage claims (local as well as national) for twelve months; a condemnation by the unions of restrictions in output; a commitment to 'using their full influence' to end such restrictions and 'to facilitate the introduction' of new practices and methods; and to issue a statement drawing their members' attention to the importance of observing starting and finishing times (Clegg and Adams, 1957: 93, 129, 135). The EEF was willing to accept either of the Court's proposals, but expressed a preference for 6½ per cent with conditions (ibid: 134). The unions only voted narrowly for the larger settlement. The standstill on wage claims, which affected local negotiations, was seen as the most important of the conditions (ibid: 140). Neither the employers nor the unions seem to have attached much significance to the provisions on working conditions.

Concerned about its public image, the EEF issued a booklet in 1958. This, for the first time, gave a public airing to its grievances over Government intervention. 'Like the Czechs in 1938, their complaint was that they were not allowed to resist in 1954 and 1957 after they had received every encouragement to have a firm purpose and to dare to make it known to the unions' (quoted in Wigham, 1973: 197).

Shop steward organisation, which had grown in the Second World War, continued to expand in the subsequent period of full employment (Marsh and Coker, 1963). Plant-level bargaining increasingly became the dominant feature of the industrial relations system in engineering. This was a fundamental reshaping of the legacy of 1898. Yet, until well into the 1960s change was so gradual and unplanned that the status of the national institutions seems to have survived largely unscathed. Still, by the early 1960s the EEF had 'managed largely to come to terms with the phenomenon of plant bargaining' (Middlemas, 1990: 182). The EEF acknowledged in 1964 that 'a group of workpeople or the whole labour force employed within a federated establishment is entitled, in accordance with the Procedure Agreement, to raise ... domestic claims for improved wages' (Submissions to the National Incomes Commission: 4, paragraph 9).

2.9) Attempts to reform the system

The evolution of the engineering system of industrial relations had exposed employers to claims for earnings increases at two levels, plant and national. The EEF was naturally concerned to establish some control over pay. This was its main objective in making a long-term 'package deal' agreement in December 1964 (National Board for Prices and Incomes: 1967, 14). The agreement established 'a limit to the concessions which the employers shall be required to make up to 1st January 1968' The concessions were staged increases for workers on the minimum rates of up to 22 per cent while workers already earning above the new national minimum rates received general pay increases of only 3 per cent. In addition basic hours were reduced from 41 to 40 (see Section 2.10). The 'package deal' was a very ambitious attempt to 'regain central control over earnings in the interests of the low paid and the country as a whole', as the CSEU expressed one of its objectives to the National Board for Prices and Incomes (NBPI). The EEF similarly told the NBPI that the advantages it sought through the 'package deal' included 'a step towards the resolution of the embarrassing problem of low minimum rates' and 'the reduction of some of the pressure for higher wages' (ibid, 17).

Both the EEF and the CSEU were disappointed in their hopes of the 'package deal' agreement. The NBPI carried out a large scale survey to assess the agreement's effects. The responses covered 40 per cent of the industry's manual labour force. In the first two years covered by the agreement, the general rise in earnings, which should have been limited to

three per cent, actually exceeded the increase in minimum earnings levels, ‘the opposite to what the agreement intended’ (NBPI, 1967: 23). Later earnings figures showed that over the entire three years of the agreement earnings and minima rose by almost exactly the same percentages (NBPI, 1969: 12). The Board’s judgement on the effects of the agreement is that ‘what actually took place at plant level frequently bore little relationship to the letter and spirit of the Agreement’ (*ibid*: 27). Certainly, ‘the limit to the concessions’ which the agreement sought to establish seems to have been ineffective. More detailed studies carried out by the NBPI at 23 plants found that even in the seven cases where managers conceded general pay increases there ‘seems to have been little concern about rising labour costs’ (*ibid*: 6). Managers were more worried by labour shortages and maintaining differentials within their plants. This may, however reflect the fact that 18 of the plants were selected from a ‘small minority’ in the survey which said that they were significantly affected by the higher minimum rates. In the majority of the 23 plants trade unionism was weak ‘which may help to explain the substantial numbers of low paid male workers’ (*ibid*: 5). So, the NBPI’s investigations cast little light on why earnings rose in plants where union strength was more typical of the industry. These plants would have been less affected by labour shortages because of higher earnings. Similarly, the agreement would have had little effect on internal differentials in plants where few if any workers were affected by the higher minimum rates.

The 1964 agreement effectively ended the role of national agreements in setting general increases for the industry. So, plant-level bargaining is the obvious explanation of earnings increases from 1964 onwards. Pay agreements covering a whole plant or entire company were rare. Plant bargaining was highly fragmented, with shop stewards pursuing pay issues on behalf of small groups of members, particularly over piece work earnings and differentials. Even in 1969 a survey of workplace industrial relations in EEF-member firms included no question on negotiations over pay increases for the entire manual workforce (Marsh, Evans and Garcia, 1971). Half of the 432 plants in the survey did not even have a written agreement on pay or conditions. Managers who claimed to have written agreements were asked for copies. Little more than one half complied, although the plants had been selected by the EEF on the basis of managers’ willingness to cooperate in the survey. 25 of the 122 documents provided by the managers were not agreements. Of the remainder ‘many were partial or sectional in their coverage’. In some cases plant-wide agreements were not a regular feature, but the result of productivity bargaining which the 1964 and 1968 national agreements and incomes policy in the late 1960s encouraged (*ibid*, 46). Clearly, plant-wide

bargaining was far from the main means of settling pay increases in the industry in the 1960s.

Indeed, the 1969 survey provides some grounds for doubting the importance of plant-level negotiations. The survey asked managers to answer the question 'Do you think your level of payment [of manual workers] has mainly resulted from:' by numbering reasons in order of importance. Unfortunately, their responses are reported without reference to the order which managers gave them. This, combined with the choice of reasons managers were offered, makes interpretation difficult. Exactly one half gave 'negotiating pressure by shop stewards' as a reason. A little more than one half reported 'the effect of piecework negotiations'. If the same managers gave both reasons, then nearly one half did not think that negotiations played much part in the earnings of manual workers. Alternatively, if there were little or no overlap between the answers, virtually all managers must have thought that plant negotiations largely determined earnings. Since managers on average chose 2½ of the five reasons offered, the former interpretation seems more plausible. Indeed, the report on the survey, which presumably takes account of unpublished information, states that the 'results gave somewhat more emphasis to market forces and deliberate management policy than to pressures from shop stewards and problems of domestic differentials' (*ibid*: 22). Nonetheless, plant bargaining was clearly of far greater importance for earnings than national negotiations.

Hugh Scanlon's success in the 1967 elections to succeed Lord Carron as President of the AEU led to a further futile attempt to restore the importance of the national negotiations. He 'sought to reinforce the AEU's national authority from the top ... and to recover ground lost in national rates of pay since 1965. His direction brought the AEU into a comprehensive set of disputes with the EEF' (Middlemas, 1980: 221). The EEF was still content to see substantial increases in minimum rates, but remained opposed to any general increase. The CSEU, however, continued to seek a general pay increase. This and the question of an increase in holidays were the main issues which led to a national one-day strike in May 1968. When negotiations resumed the EEF offered increased minimum rates and three additional days' holiday spread over three years. The CSEU was happy with this part of the offer (apart from its timing which the EEF was willing to negotiate) and with a three-year agreement. However, the CSEU rejected the EEF proposals because of the size of the general increase in pay, under 5 per cent of the minimum rates, and the failure to give women minimum rates

equal to those of unskilled males. The AEU National Committee voted by only 31 to 30 votes for a further one-day strike (IDS Report 54, October 1968). Table 2.1 gives details of the EEF offer and of a later offer.

Table 2.1 Percentage increases in pay offered over three years in 1968 negotiations

	First Offer	Second Offer
Skilled male rate	36	47
Unskilled male rate	23	38
Female rate	24	31
General increase	5	5

Note: The general increase, which varied by category, is expressed as a percentage of the minimum rates.

The prospect of further industrial conflict led to Government intervention. This produced a resumption of talks presided over by a Deputy Secretary at the Ministry of Employment and Productivity, with the Minister, Barbara Castle, actively involved. The talks, which started exactly one week before the date set for the strike, led to an improved pay offer from the EEF. As Table 2.1 shows, this involved considerable concessions on the male minimum rates, but relatively modest movement on the female minimum rate, despite the pressure for equal pay, and no change in the general pay increase. So, on the pay issues in dispute, equal pay and the general pay increase, the EEF's position proved immutable. In these circumstances its willingness to make such large further concessions on male minimum rates, which the CSEU had been prepared to accept, is eloquent testimony to the irrelevance of the old male rates to earnings. Incomes Data Services commented: 'Many engineering companies could introduce the new minimum rates proposed for men at very little extra cost, since virtually all their employees already earn more than the minimum levels proposed for 1971' (Report 55, November 1968). Yet, the EEF's offer did have some implications for male earnings. Incomes Data Services estimated the cost of the entire package, apparently including the three extra days of holiday, as 11 per cent of the wage bill (Report 58, December 1968). Women were only 15 per cent of the industry's full-time manual workforce.¹¹ Their earnings would not have risen by as much as their minimum rates, but,

¹¹ This figure is calculated from the numbers covered by the engineering agreement in the first survey based on national insurance contribution card numbers in September 1968 (*Employment and Productivity Gazette*, June 1969). There is little other information on manual women who were often excluded from surveys.

if they had done so, the wage bill would have risen by 4½ per cent. Allowing a further 1½ per cent for the increased holidays, the proposals must have been expected to add more than 5 per cent to male earnings.

In fact the skilled male rate was critical in the week of negotiations which took place at the Ministry of Labour. The CSEU made concessions on the productivity provisions which would provide the basis for local bargaining in return for concessions on the minimum rates. The CSEU had endeavoured to make the skilled workers' rate the first item in the negotiations, while the EEF wished the negotiations to focus first on productivity provisions (Castle, 1984: 528/29). In their second offer the EEF made little change to their proposed productivity provisions. Pay increases at plant level were subject to measured increases in labour productivity or efficiency to which the efforts of the workers concerned had contributed (IDS Report, November 1968). The CSEU negotiators, led by Hugh Scanlon, wished to reject the offer because it widened male-female pay differentials and 'most unreasonably' demanded a meeting with Barbara Castle. She records in her diary that 'I well and truly blew my top' with the union leaders and that 'a ding-dong row ensued'. The 'union leaders knew that the employers only had a limited amount of money to offer and it wasn't my fault that they had preempted it all by pushing up the skilled rate' (ibid: 533). Barbara Castle 'harangued [the EEF negotiators] for an hour' in an effort to persuade them to withdraw the general pay increase and offer higher rates for women, assuring the President of the EEF that 'he was on a safe bet because the unions would turn it down'. The result was that the EEF offered, as part of a settlement, a joint working party on job evaluation for women. 'Hughie [Scanlon] cheated of his manoeuvre was furious' (ibid: 534). The offer was made late on Friday night and, shortly after, the talks adjourned without agreement at midnight. 'Hughie ... stumped off, threatening a strike' is how Mrs Castle records the adjournment in her memoirs (1993: 412). The AEU's National Council was meeting the next day and the strike would take place on the Monday, unless they called it off.

Hugh Scanlon was able to secure the support of the AEU Executive Council to reject the proposed female rates, while accepting the rest of the EEF offer, and to go ahead with the strike unless the dispute over the rates was resolved before Monday. The National Council defeated the Executive's recommendation by two votes and then voted to suspend the strike (IDS Report 55, November 1968). This decision was endorsed by the CSEU Executive Council, but its failure to decide a new date was seen as an abandonment of the strike threat

(Castle, 1984: 535). At its next meeting the AEU National Council decided not to strike. This was followed by the acceptance by the CSEU Executive Council of the EEF offer. Income Data Services' verdict on the agreements was 'Exit national bargaining, enter local bargaining' (Report 56, November 1968). This was because there was no possibility of national pay bargaining, apart from over the female rates, for three years.

2.10) Reduced hours

For sixty years until 1979 the engineering unions were not among the pacesetters in securing reductions in the working week. Indeed, from 1920 until the outbreak of War demands from engineering employers for increased hours were much more prominent an issue than reduced hours, as Section 2.6 shows. The printing unions assumed the leading role. In 1935 they negotiated a 44-hour week shift system in provincial newspapers and in 1937 a 45-hour week in general printing. This achievement was, however, at the expense of earnings. The printing unions made no national demand for general pay increases. While there was workplace bargaining over piecework and allowances, this did not prevent a fall in the real earnings of printing workers between 1933 and 1939 (Clegg, 1994: 47/8). So, the printing unions, while on paper faithful to the general trade union line that reduced hours should not involve a loss of pay, clearly accepted lower weekly earnings as a consequence of reduced hours.

The TUC, rather than the unions in any industry, took the lead in securing reductions in the working week following the end of the Second World War. In 1944 the General Council took unprecedented steps to implement the TUC's longstanding policy on the 40-hour week. Previously, the only practical result of this policy had been pressure for a Convention by the International Labour Organisation. The TUC now called for legislation forcing industry negotiators to agree the 40-hour week or have it imposed by the Minister of Labour. It also coordinated claims by individual unions for the introduction of the 40-hour week 'immediately on the conclusion of hostilities' (Clegg, 1994: 329). The CSEU made a claim in line with TUC policy, which was firmly rejected by the EEF. The EEF management board hoped this would 'reinforce the Employers in certain other industries who give the impression of being rather less emphatic in their views' (ibid: 330).

The EEF's ambitions to reinforce other employers were not fulfilled. In 1946 a five-day week of 43½ to 45 hours was agreed in several industries employing mainly women. High

absenteeism on Saturdays meant that a five-day week posed few problems for employers in these industries (ibid: 331). In provincial newspapers, where the working week had been 44 hours from 1935, the employers conceded a 42½-hour week. The employers in general printing rejected the 42½-hour week leading to an overtime ban and a Court of Inquiry. The Court recommended a reduction from 45 to 43½ hours. The printing unions rejected the Court's recommendation, reimposed the overtime ban and began a strike ballot. A threat of 'drastic action' by the Government to ensure the printing of electoral registers for municipal elections secured the lifting of the ban and the abandonment of the ballot. In return the employers conceded the union demand for a 42½-hour week, to be introduced when the industry's recruitment problems were resolved (Child, 1967: 34). There was no further reduction for thirteen years. So, agreement on the principle of the 42½-hour week proved no more than a face-saving formula for the unions.

In November 1946, a month after the general printing settlement, the EEF finally reached an agreement with the CSEU on its claim for reduced hours. The working week was reduced from 47 to 44 hours. Hourly time rates and piece rates were not adjusted, but the national bonus was increased so that workers on the minimum rates were paid the same for 44 hours as they had been for 47 hours 'with possible variations of a few coppers' (*The Times* 27 November). Workers earning more than the minimum rates suffered a small loss of pay (Clegg, 1994: 334). The agreement established the five-day week as a norm.¹² This made it 'more than ever probable that [the five-day week] will spread throughout productive industry' (*The Times* 27 November 1946).

Hours were not an issue in national negotiations until 1956 when the CSEU submitted a claim for a 40-hour week. The EEF rejected this claim 'without even taking it away for serious consideration' (Mr Carron, Chairman of the CSEU Engineering Committee, Special Conference of the EEF and CSEU, 18 July 1957: 3). The EEF's response reflected an accurate appreciation of the priority the CSEU attached to reduced hours. A shorter working week was not even part of the 1957 pay claim which was considered by the Court of Inquiry (see Section 2.8). The agreement, reached on the Court's recommendation, provided that 'no further applications for ... increases in wages ... shall be submitted for at least one year'. The

¹² Saturday mornings remained part of the basic working week in shipyards where most workers were covered by the separate shipbuilding national agreement.

CSEU, however, felt free to renew its claim for reduced hours a month later. This led to more than a year's negotiations and a referral to the Industrial Disputes Tribunal. The Tribunal felt it inappropriate to make an award which would have such far-reaching implications (Wigham, 1973: 209).

The next round of reductions in hours, which lasted from 1959 to 1964, was again initiated by the printing unions. Once more battle was joined in general printing. This time the provincial newspapers played an equal part in the conflict. The employers in both industries united to resist the 40-hour week, which, along with shorter hours for shift workers, had been conceded by the London newspaper proprietors as long ago as 1947. The printing unions took escalating industrial action, culminating in an indefinite strike throughout the industry. After the strike had lasted six weeks, the employers conceded a 42-hour week. This was part of a three-year settlement under which a reduction in hours and/or a wage increase were to be negotiated and come into effect in September 1961. While the strike was still in progress, *The Times* reported that union leaders from the mining and electricity supply industries would be unofficial guests at the CSEU Conference in order to discuss a concerted policy on the 40-hour week. 'A break through by [the printing unions] would not necessarily spread throughout industry as would a break through by the confederation. ... It seems clear that the confederation are being picked to volunteer for the duty of battering ram, but it is less clear whether they will respond' (12 June 1959). The leadership of the AEU and of the Amalgamated Society of Boilermakers had failed to persuade their Conferences that reduced hours should be a priority.

Indeed, when negotiations started in engineering and shipbuilding in September, the CSEU was happy to wait and watch others batter the barriers which employers were putting in the way of reduced hours. In November the engineering employers offered a 42½-hour week from January 1960 and no pay increase. The CSEU's rejection of this offer was seen as a way of awaiting the outcome of other negotiations, particularly in electricity supply (*The Times* 25 November 1959). The significance of electricity supply was that it was nationalised. So, its settlement indicated the Government's attitude to reduced hours. The Government was virtually a third party in the engineering negotiations, intervening regularly in disputes, often to the extreme exasperation of the EEF, as related in Section 2.7. When talks resumed in the New Year, the CSEU made 'repeated references' to other industries, including electricity supply, which had just agreed the 42-hour week (*ibid* 6 January 1960).

The engineering agreement, accepted by the CSEU in February, reduced the working week from 44 to 42 hours in March 1960. There was no pay increase, although the last national increase had been in October 1958. So, as with the 1930s reductions in printing the unions had upheld the principle of reduced hours ‘with no loss of pay’ by foregoing pay increases which they would otherwise have negotiated. Engineering piece workers were, however, much more securely protected against loss of earnings than they had been in the 1947 reduction (Marsh, 1965: 153). The EEF was apparently happy to reduce hours provided minimum rates were frozen. They were believed to have offered to concede the full claim for 40 hours after two years if there were no pay increases in the meantime (*The Times* February 12 1960). The agreement included the elimination or reduction of tea-breaks and washing periods. This seems, however, seems little more than a restatement of terms which had been included in the 1957 wage agreement at the suggestion of the Court of Inquiry. The Director of the EEF in his evidence to the Court had made it clear that he regarded these terms as ‘little more than a face-saver’ (Wigham, 1963: 188).

The momentum towards a 40-hour week was sustained by the agreement in general printing and provincial newspapers on a 41-hour week from September 1961 and a 40-hour week a year later (Gennard, 1990: 388). In engineering pay rather than hours was the union leadership's priority. In 1962 the membership were willing to support one-day strikes, but in a ballot rejected an indefinite strike. The ballot seems to have undermined CSEU's negotiating position. Working hours only became a serious issue in 1964 after an agreement in shipbuilding to introduce the 40-hour week. The CSEU then renewed its claim for a 40-hour week (Wigham, 1973: 214). The EEF responded by seeking a long-term agreement covering pay as well as hours. Negotiations on what became known as the ‘package deal’ (see Section 2.9) lasted nearly twelve months. There was a separate agreement on the 41-hour week so that it could be introduced in December 1964, at the same time as in shipbuilding. Mr Brown, who was President of the Engineering Employers' Federation in 1964, used these events to defend national bargaining in his evidence to the Donovan Commission. He saw them as an ‘illustration of the kind of leapfrogging which can take place’ in the absence of comprehensive national bargaining (Royal Commission on Trade Unions and Employers' Associations, Selected Written Evidence, Number 20, paragraph 712).

The 1964 'package deal' agreement reduced the basic working week from 41 to 40 hours and covered the period up to the end of 1967. The parties undertook 'to give their full support to efforts made to remove [restrictions on the economic utilization and transfer of labour which are not based on considerations of skill or ability]' and the unions agreed 'to emphasize to their members that the Agreement provides for a normal week of 40 hours' work', 'to support the full utilization of working hours with particular reference to starting and finishing times' and 'that the introduction or extension of ... shift systems may become necessary' (Marsh, 1965: 307, 314). The National Board for Prices and Incomes asked employers' associations which negotiated terms for manual workers in industries outside engineering about the effect of the 'package deal'. One third of the associations replied that they had followed the agreement while only one quarter said that it had had no influence. On this basis the NBPI estimated that some 60 per cent of manual workers in manufacturing had been affected by the agreement (NBPI, 1969: 18). The Board also investigated the effect of the agreement on productivity through its large-scale survey of plants. Its conclusion from the survey was that 'it is questionable whether the general declaration of intent had any significant effect'. Nonetheless, 30 per cent of the plants responding to the survey reported that they had revised or eliminated paid breaks. These were mainly smaller plants as they employed one fifth of the workforce (NBPI, 1967: 21).

1964 was the last occasion on which a reduction in the basic working week in engineering was agreed without a major dispute. Even then the potential for industrial conflict over hours was apparent when the 40-hour week was implemented in July 1965. Night shift workers in the Midlands car industry refused to work what, following a similar dispute in 1961, was a short shift on Fridays. The result was agreement to work four shifts a week (Wigham, 1973: 205).

From 1964 the EEF succeeded in ensuring that national negotiations no longer gave meaningful general increases in pay (see Section 2.9). In addition the 1964 and 1968 pay agreements failed dismally in their objective of raising minimum rates relative to earnings, as Figure A2.1 and Table A2.1 show. This left hours and, to a lesser extent, holidays as the only terms regulated nationally which had significant cost implications. It is hardly surprising that the EEF should be reluctant to concede reduced hours when its members no longer expected national agreements to have a serious impact on their costs.

2.11) The 1971/2 dispute

Although the pay provisions of the 1968 three-year agreement had 'collapsed in the pay panic of 1970', the agreement did have the effect of delaying national conflict until 1971 (Middlemas, 1980: 233). As soon as the 1968 agreement allowed the CSEU tabled a comprehensive pay claim. The most expensive items were a 'substantial increase' for all workers, increases in male minimum rates of 34 and 37 per cent, equal pay, an additional week's holiday and a 35-hour week with no loss of earnings. The pay increases were to come into effect in January 1972, less than a month after the last increase under the 1968 agreement. Despite the CSEU's failure to specify the size of the general increase in earnings, the EEF was able to cost the claim, excluding equal pay, at 35 to 40 per cent of the pay bill (IDS Report 120 September 1971). The EEF offered a little under 9 per cent on the minimum rates, but refused to discuss the other items in the claim. This led to a breakdown in negotiations.

The CSEU Executive Council decided that 'in view of the insulting offer made by the EEF, ... no useful purpose can be served by continuing discussions with that body' (IDS Report 129 February 1972). The CSEU then embarked on a campaign of plant bargaining. The aim was that in each of the CSEU districts all employers would be presented with the full national claim at the same time. If settlements acceptable to the district committees were not forthcoming, there would be official strike action. Outside the Manchester and Sheffield areas 'the local response to the call from the CSEU national executive was less than enthusiastic'. The EEF advised its members not to go beyond its national offer and offered them support from its Indemnity Fund (see Section 4.2). Extensive use was made of the Fund to subsidise strike-hit firms (Wigham, 1973: 270).

In practice the EEF was unconcerned about general increases in pay, the level of the minimum rates and the concession of a day or two's additional holiday, but would not countenance reduced hours. Six members in Manchester and two in London were asked to resign because they had conceded shorter hours (Industrial Relations Review and Report No 36, July 1972). The CSEU in Manchester claimed 43 settlements reducing hours, but was unable to substantiate this because most firms had insisted on no publicity (IDS Report 138 June 1972). Reduced hours were not, however, a major issue for the AEU leadership. District officials were advised 'not to pursue the more extreme elements of the claim (including the

demand for the shorter working week)' (Industrial Relations Review and Report No 36, July 1972).

National negotiations resumed in August 1972 and an agreement was reached with unusual rapidity. The EEF made no concession on hours or a general increase in pay, but did agree two additional holidays. The agreement gave the CSEU the increase in minimum rates it had sought, with the same money increase on the female rate as on the unskilled male rate as a step towards equal pay. Yet, instead of an increase in January 1972, as the CSEU had demanded, the increase was introduced in two equal stages with the second stage in August 1973. As in 1964 and 1968 apparently large increases failed to raise the minimum rate relative to earnings because the increases were phased over a period in which wage inflation exceeded expectations. Yet, even without wage inflation the impact of the increased minimum rates would have been limited. Income Data Services reported that less than one per cent of the labour force would be directly affected (Report 143 September 1972). This presumably relates to the male labour force. The EEF welcomed the fact that the agreement provided that 'national standard conditions should remain standard and be regulated nationally'. This had been a 'major factor in the Management Board's policy throughout 1972' (EEF Annual Review 1972/73).

The 1972 national agreement also ended any attempt at national regulation of piecework earnings and made it clear that the rates negotiated nationally should only apply as minimum pay levels. In its 1972/73 Annual Review the EEF commented with some satisfaction: 'The Agreement upholds the Federation's long-term policy that the proper place for the determination of earnings levels is at domestic level'. So, in terms of the distinction made by Brown and Terry (1978a), the minimum rates were a safety net for the low-paid rather than a floor which when raised pushed up the whole edifice of earnings.

2.12) National bargaining under incomes policy

The 1973 CSEU Conference decided to claim a 40 per cent rise in minimum rates and a 35-hour week as soon as the 1972 agreement expired in August 1973. The minimum rate claim was arguably within Stage II of the Conservative Government's pay policy, which followed a five-month pay freeze introduced in November 1972. It would, however, have largely precluded increases for workers earning above the new minimum rates. Further, there was

a rule that there should be twelve months between pay increases and the second stage of the increase agreed in 1972 had been in August 1973. So, a further increase could probably not have been implemented until August 1974 when it would be covered by Stage III. In any event, as Income Data Services observed 'Stage II or no Stage II, it is unlikely the EEF would entertain a claim so soon after an increase' (Report 164 July 1973).

Indeed, a settlement was only reached in April 1974 after a two-week overtime ban. The EEF conceded the largest absolute pay increase in its history, a £7 increase for skilled workers and £5.50 for unskilled workers and women. There were also three extra days' holiday. The minimum rates were increased by 28 per cent in two equal stages in April 1974 and March 1975. However, the twelve-month rule meant that these increases could not come into effect until domestic settlement dates, a point which the agreement fully recognised. Income Data Services commented: 'The new agreement is in the form of a framework within which domestic bargaining can be carried out' (Report No. 184, May 1974).

The next year's settlement was even bigger and provided for a further increase in minimum rates within three months of the second stage of the 1974 agreement. Yet, 'the impact of the largest national settlement in the industry's history may in fact be smaller than ever' (IDS Report 206 April 1975). This paradox was because the increases of £10 in the skilled rate and £7.20 in the unskilled rate had to compensate for the absence of a threshold agreement at national level. Stage III of the incomes policy had provided for index-linked pay increases of 40p a week for each percentage point by which inflation crossed a threshold of 7 per cent. The threshold was triggered 11 times, producing a pay increase of £4.40 a week for most engineering workers under local agreements. The national agreement was lagging behind rather than leading earnings in a period of high wage inflation. The minimum rate increases took place in three stages with the skilled workers' rate rising by £4 in May and November 1975 and by £2 in February 1976.

The 1975 negotiations were remarkable for their low-key character (IDS Report 206 April 1975). There had been 'hullabaloo' in November 1974 when the AEU National Council voted down proposals for specific pay targets, which had become a feature of the negotiations. Since then 'both sides ... conducted negotiations in a subdued manner, with no public argument over the possible effects of the deal'. Indeed, after the negotiations Mr Scanlon and the EEF President publicly agreed that the cost implications of the agreement

could not be assessed. The attempt to prove that the ‘national leadership could gain more than more decentralised bargaining’ which had marked the first years of Mr Scanlon’s Presidency had been abandoned (Middlemas, 1990: 223). No-one now supposed that national negotiations had much impact on earnings.

The agreement made in April 1975 remained unchanged until October 1978. The reason for the hiatus in national negotiations was the incomes policy which came into effect in August 1975. Unlike earlier policies there was a limit on individual pay increases, initially £6 a week, rather than on pay settlements. Also, low pay was not a criterion justifying increases in excess of the policy. While higher minimum rates could have been negotiated within the policy, this would have been an empty exercise. The Labour Government, elected in February 1974, had continued the twelve-month rule from the incomes policy of its Conservative predecessor as part of its ‘Social Contract’ with the TUC. So, new minimum rates could only have been implemented as part of local negotiations, as with the 1974 national agreement. However, unlike 1974 workers affected by the new minimum rates could not have been paid them without a breach of the policy.

A ruling of the Central Arbitration Committee (CAC, Award No. 236) in 1977 suggested that the engineering minimum rates were unimportant even as a safety net.¹³ As the relevant minimum rate had not been increased in at least one wage round, the CAC could not regard it as a ‘realistic, recognised term’. The ‘present minimum’ was the rate plus an indeterminant supplement. The CAC took the view that, as a result of government pay policy, the parties had left plant bargaining to decide the minimum rate. ‘Anyone with industrial experience must recognise that it is most unlikely that any worker has not received a wage increase ... as a result of the wage rounds possibly in 1976 and certainly 1977’. The High Court did not share the CAC’s disdain for ‘formalistic legalism’ and reversed its decision (IDS Report 269). Legally, the minimum rates remained a safety net, but the CAC certainly had grounds for doubting how effectively they fulfilled this role.

The resumption of national negotiations in December 1977 resulted in the reestablishment of the minimum rates as a safety net. The CSEU pursued its claim, which sought to raise the skilled minimum rate from £42 to £70 ‘in a fairly relaxed manner’ (IDS Report 270 December 1977). When the talks became deadlocked with an EEF offer of £52, the CSEU

¹³ The original title of Brown and Terry’s article (1978a) was ‘The Unimportance of National Agreements’.

did not threaten industrial action, but simply to leave all pay issues to be settled locally (IDS Report 275 February 1978). Agreement was eventually reached on a rate of £57 from April and £60 from October 1978. Incomes policy complicated the introduction of these minimum rates, leading the CSEU to call a stoppage. The issue was whether the minimum rates should apply immediately as minimum earnings levels and so affect premium rates for overtime and shiftwork (IDS Report 278 March 1978). The EEF believed that this would involve a breach of the twelve-month rule. Yet, to avert the stoppage they agreed not to insist on a delay in the minimum rates becoming minimum earnings levels, subject to government approval of the whole deal. The EEF would have required government approval in any event to protect their members from government sanctions. Income Data Services thought the agreement remarkable for its complexity in dealing with the twelve-month problem (IDS Report 279 April 1978).

Incomes policy had a lasting effect on the national agreement. The twelve-month rule meant that the 1978 agreement provided that the increase in minimum rates did not take effect until domestic settlement dates. The EEF in its 1978 Annual Review noted: 'Considerable advantages were seen by member firms in implementation at the same time as domestic settlements and this is likely to be a factor in future negotiations'. Indeed, the EEF claimed that the issue of domestic implementation dates, along with increased differentials, was the reason next year's national negotiations broke down.

2.13) The 1979 dispute

National negotiations were very important in 1979. The issue, however, was hours not wages. There was an industrial dispute which in the entire history of British industrial relations ranks behind only the miners' strikes of 1926 and 1984/5 in terms of working days lost. In one important sense the dispute was fortuitous. It can be directly attributed to a change in the delicate balance which then prevailed on the AEU National Committee. In June 1979 a vote of 27-25 ensured that hours were pursued in the national negotiations. A leading member of the Committee, Mr Simpson, had won an election to become a full-time officer. His Division, Number 24, covering Kent and the South-East coast, was very finely balanced in factional terms. Unusually, Mr Simpson's replacement, a substitute delegate elected earlier, took a different view on the issues confronting the union. So, 'right-wing

success in elections to full-time office meant that they lost control of the National Committee at this crucial juncture' (Rice, 1980: 67).

To say whether a dispute over hours in 1979 was inevitable requires a view on what would have happened without the change in the factional balance on the AEU National Committee. Would the leadership of the CSEU have been prepared to pursue the issue if the employers refused concessions in national negotiations? Mr Duffy, the President of the AEU, had a strong personal commitment to shorter hours. Certainly, this was the view of John Boyd, his successor, who restated the union's commitment in his address at Mr Duffy's funeral, a commitment which was again reaffirmed at Sir John's funeral by his successor, Mr Jordan (Mr Jones, Smiths Industries, March 1993). So, it is reasonable to believe that, if the employers did not make concessions, there would, sooner or later, have been a national dispute over hours. The timing of the dispute can readily be regarded as a result of the fortuitous change in the balance of power on the AEU National Council. Yet, 1979 may have been the last occasion for some time when the CSEU would have launched a national dispute over hours. If the 1979 dispute had been avoided, the recession and trade union legislation of the early 1980s might well have dissuaded the CSEU from a vigorous pursuit of reduced hours. A reduction in hours in the early 1980s seems unlikely even if the working week had remained at 40 hours and the 1979 agreement had not precluded a claim for four years. Subsequent events might not then have been very different with hours remaining unchanged until 1989. Indeed, the experience of 1979 arguably increased expectations that the union leadership would successfully pursue reduced hours. So, if Mr Simpson had not been elected to full-time office, a national agreement in 1989 without any reduction in the 40-hour week is conceivable.

There is a different view of the issues behind the 1979 dispute. The Director General of the EEF, Mr Frodsham, attributed the breakdown of negotiations in June 1979 to the EEF's demand for minimum rate increases to be implemented on domestic settlement dates and increased differentials. In the EEF's 1979 Annual Review Mr Frodsham states: 'The shorter working week only became a real issue later in the dispute when industrial action had been called and the unions realised that this was the one tangible benefit which many of their members could hope to achieve at the end of a long and costly dispute'. Mr Frodsham was claiming that, faced with a dispute unconnected with hours, the CSEU leadership had had to elevate hours into the central issue. The other issues, including increased minimum rates,

would bring no benefit to most union members. This version of the dispute might be dismissed as an attempt to do two things: firstly, to excuse the EEF's failure to anticipate events; and, secondly, to recast the key issue as implementation dates, where the EEF had succeeded in its bargaining objectives, rather than as hours and holidays, where it had failed. In fact the shorter working week became a real issue somewhat earlier than Mr Frodsham claims. Yet, implementation dates were the principal issue in the earlier stages of the negotiations (Macintyre, 1989). So, again the dispute over hours in 1979 can be seen as accidental. If the EEF had abandoned its position on implementation dates, there might well have been a speedy settlement with no change in hours. Of course, the EEF had no reason to abandon its position. The consequences of Mr Simpson's election success were entirely unpredictable.

After the 1971 breakdown in national negotiations the CSEU had failed to exert pressure of more than purely local significance. So, the EEF was probably not unduly disturbed by the prospect of a breakdown in 1979. Robert Taylor's verdict on the 1971/72 dispute, which cost the AEU some £2½ m in strike benefit, is 'Militancy went down to humiliating defeat' (1978: 215). An AEU shop steward, who completed an M A thesis on the subject of the 1979 dispute, similarly concluded that the industrial action in 1972 'had been a disaster and the EEF had won handsomely' (Rice, 1980: 30).

While national officials, particularly those of the AEU, may not have wanted a dispute, they wanted an unsuccessful dispute even less. When negotiations broke down in July, they did not repeat the failed tactics of 1972. Instead, they called on all their members to take industrial action with an immediate overtime ban and in August weekly one-day stoppages, escalating to weekly two-day stoppages from September. The tactic of reaching local settlements, which was to be so important in 1989/91, was used, but it was not a central feature of the dispute. In contrast to 1989/91 the union leadership sought to involve all employers in the dispute in the same way.

Industry production figures and a case study (Edwards and Scullion, 1981) suggest widespread union cooperation to minimise the effects of the overtime ban and strikes on output. Unfortunately, monthly output figures are not available, but quarterly sales figures

show very much the same movements as quarterly output figures.¹⁴ So, monthly sales figures should give a good indication of output. There were strikes on 8 out of 20 week days in September 1989 which, together with the overtime ban, should have limited production to 12 days in the month. Yet, seasonally adjusted sales in September were only 2 per cent lower than in August and October which had only three or four days of strikes. The impact of the strike may be better seen by a comparison with November, although this was a peak month as the industry sought to recover lost output. Sales in September were 10 per cent lower than in November (*Economic Trends*, November 1980, Table 30).

The dispute was settled in October 1979 by an agreement which covered hours and holidays over four years. The basic working week was reduced from 40 to 39 hours in November 1981, two more days' holiday were introduced immediately and annual holiday entitlement was further increased to five weeks by an additional day's holiday in each of the next three years. The EEF negotiators were widely condemned by their membership for meeting the CSEU without approval and for increasing holidays without a mandate. Mr Jones, the corporate director of human resources at Smiths Industries, who was part of the EEF's inquiry into the dispute, described both the agreement and the way it had been reached as a 'disaster' (interview March 1993). Dr McFarlane, who was one of the EEF negotiators, referred to a 'collapse' by the negotiators. He acknowledged that the negotiating team by meeting frequently with each other had got of touch with their members. They had thought they had done a good job in the circumstances, but this was not the view of their members (interview December 1992). Mr Reding of NEI, who in 1979 was involved in the EEF at district but not national level, had changed his view of the 1979 settlement. With more experience he now felt that what the EEF negotiators had been absolutely right. At grass roots level there was no perception of the problems facing national negotiators and the factors they had to balance. Factory managers did not know the implications for the business as a whole of a strike, just as negotiators would only have a feel for the consequences of their decisions at factory level. Union members would have continued their support for strike action in 1979 despite the claims of many managers to the contrary (interview February 1993).

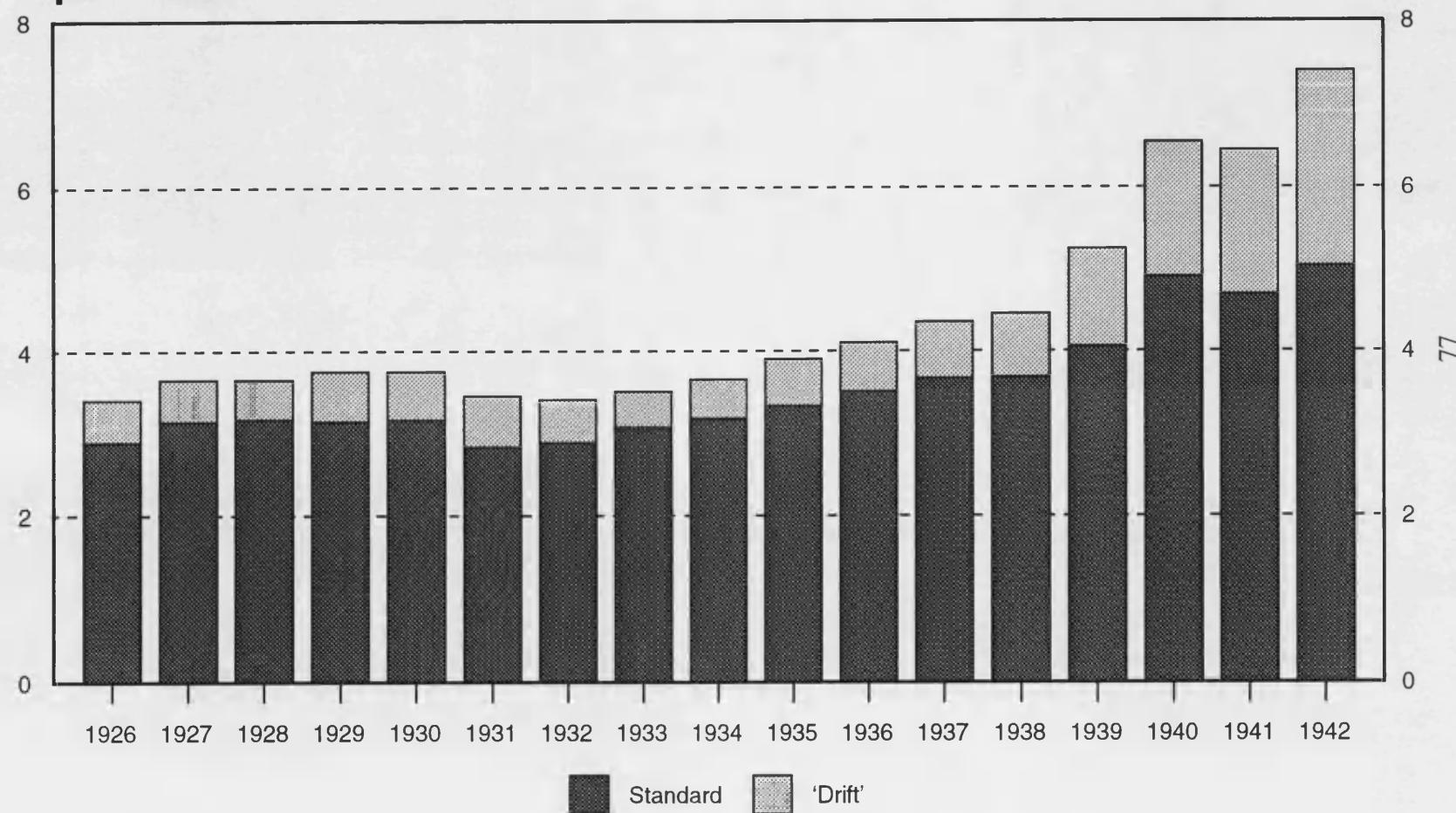
¹⁴ Sales are no more volatile than output. Between the second and third quarters of 1989 sales fell by 8 per cent while output was 7 per cent down. Sales rose by 5 per cent in the fourth quarter, a little less than output which grew by 6 per cent (*British Business* 3 October 1980).

In return for concessions on hours and holidays and also on minimum rates, the EEF negotiators had successfully upheld their position on other issues. The implementation of all the concessions was delayed. Minimum rates were only increased on domestic settlement dates, a point which Mr Frodsham highlighted in his defence of the agreement. The EEF also succeeded in its demand that the national agreement specify a single date for the introduction of the 39-hour week. The CSEU had sought implementation on domestic settlement dates (White, 1982: 6; McKinley and McNulty, 1991, 219). By keeping the reduction in hours separate from domestic wage negotiations the EEF hoped to ensure that the changes linked with reduced hours did not lead to higher pay increases. Ironically, both parties reversed their positions in the 1980s and this was probably the main reason why national negotiations failed. A clause in the 1979 agreement committed the parties and their members 'to ensure that productivity is increased so that there are no increases in manufacturing costs as a result of the reduction in working hours'. Employers had the right, subject to consultation, to decide how the productivity would be increased. The EEF stated that management would have two full years to prepare for the reduction in working hours so as to minimise any cost increase and that the cost effects should be negligible in view of the productivity clause.

The evidence on the effect of the productivity clause is somewhat conflicting (see Section 6.2B). Certainly, management efforts to implement the clause through measures such as cutting back on paid breaks met strong shop-floor resistance. During 1981 41,000 engineering workers went on strike over working hours (*Employment Gazette*, July 1982: 290). In mechanical, electrical and instrument engineering, though not in other sectors of the industry, more workers went on strike over working hours than over pay. Four disputes related to the shorter working week caused the loss of over 5,000 working days. One of these concerned pay rates for the 39-hour week and so is classified as a pay dispute. So, rather more than 41,000 workers must have been gone on strike over the implementation of the reduced hours. The most serious and notorious dispute was at British Leyland, the Longbridge 'tea break strike'. 5,000 workers were on strike for four weeks, caused the lay-off of 7,000 other workers and a total loss of 150,000 working days. Management had sought to impose a reduction of 'about 11 minutes a day' in relaxation allowances and eventually settled for a five-minute reduction and a speeding up of the production line (Edwardes, 1983: 158/59). Income Data Services suggest that many other companies avoided confrontation by simply reducing the working week without offsetting the cost (IDS Report No. 366, December 1981)

The attempt to influence working practices through national negotiations proved rather ineffective in 1981. This is very much in line with earlier experience, going back to 1898. Even in the First World War, with its potent cocktail of patriotic fervour and draconian legislation, the suspension of traditional working practices was far from smooth. The next Chapter shows the crucial role of the relationship between working practices decided locally and terms determined nationally in the negotiations over hours in the 1980s.

FIGURE 2.1
EARNINGS AND STANDARD RATES OF FITTERS 1926-42
£ per week



See Table A2.1 for data and sources

FIGURE 2.2

EARNINGS AND STANDARD RATES OF LABOURERS 1926-42

£ per week

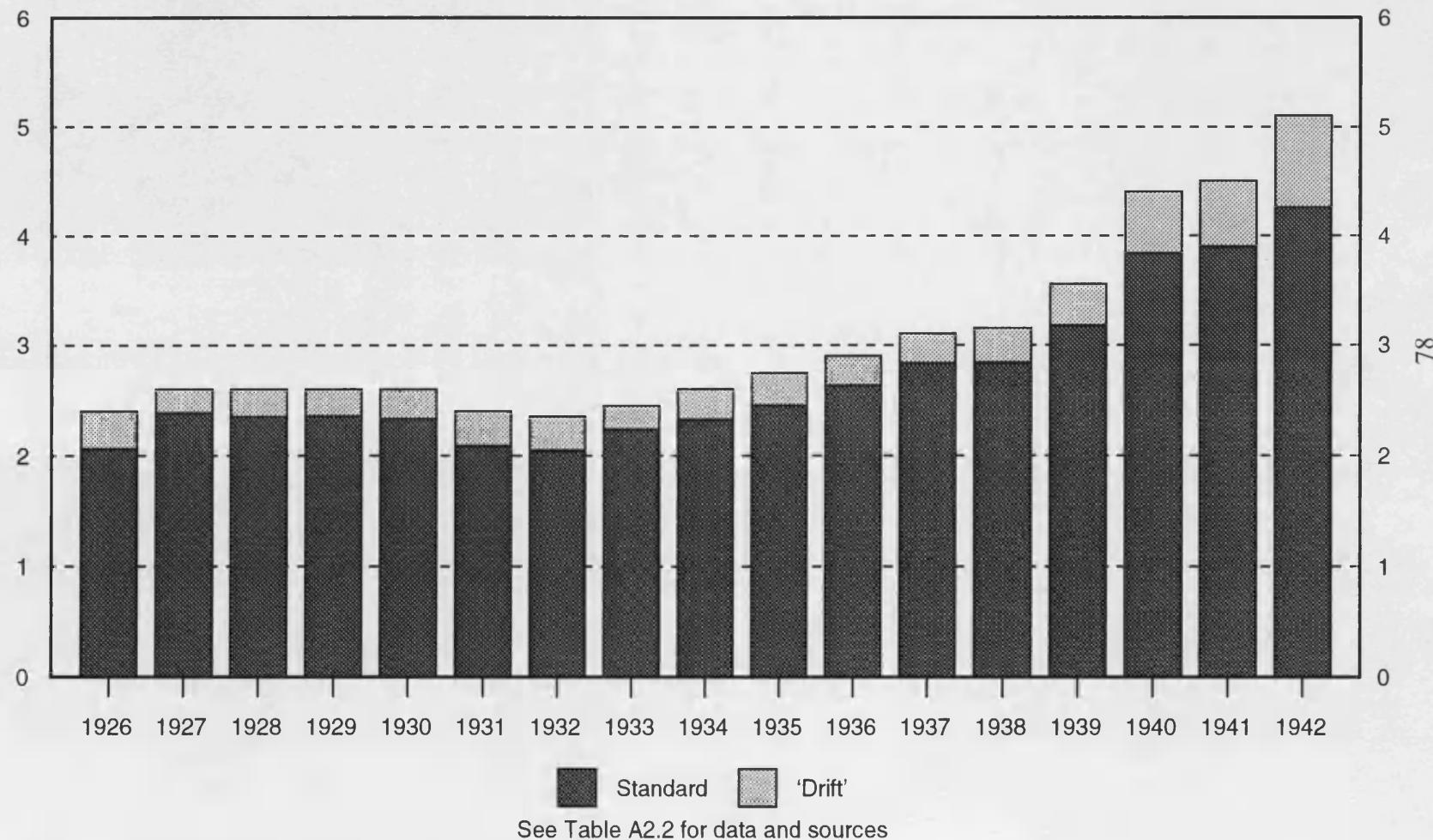
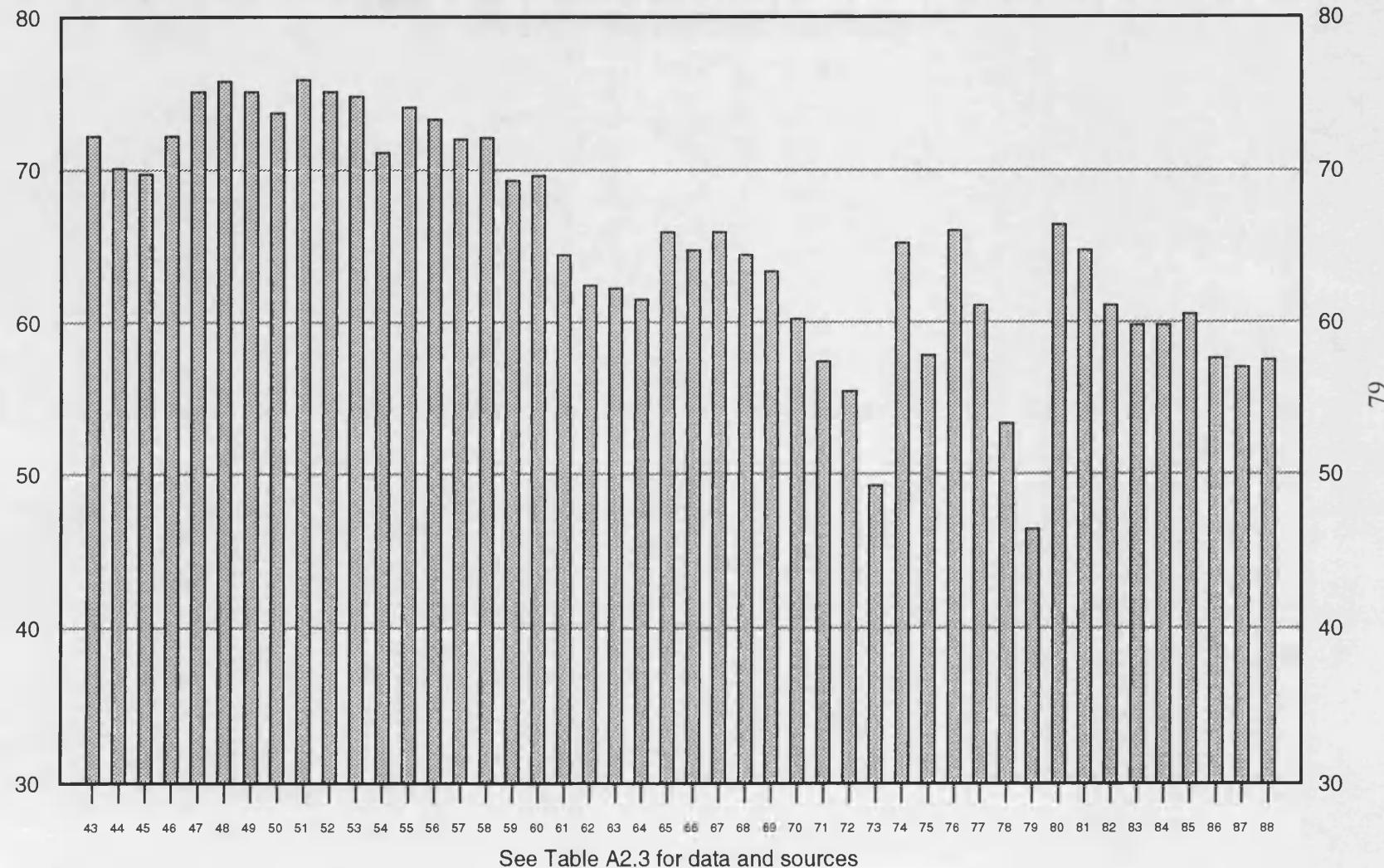


FIGURE 2.3
STANDARD RATES AS PERCENTAGE OF EARNINGS 1943-88



See Table A2.3 for data and sources

Appendix to Chapter Two

Table A2.1

Weekly Earnings and Standard Rates of Fitters 1926-42

	Hours	Basic Rate (£)	Standard Rate (£)	Earnings (£)	Standard as Per Cent of Earnings
1926	47.7	2.83	2.89	3.4	84.9
1927	49.5	2.90	3.14	3.65	85.9
1928	49.4	2.94	3.16	3.65	86.6
1929	49.1	2.94	3.13	3.75	83.6
1930	49.3	2.94	3.15	3.75	84.1
1931	45.7	2.95	2.83	3.45	82.1
1932	46.1	2.95	2.88	3.4	84.8
1933	48.5	2.95	3.07	3.5	87.8
1934	49.7	2.95	3.17	3.65	86.7
1935	50.5	3.04	3.32	3.9	85.1
1936	50.5	3.20	3.50	4.1	85.4
1937	50.4	3.36	3.66	4.35	84.2
1938	50.3	3.36	3.67	4.45	82.5
1939	53.0	3.46	4.05	5.25	77.1
1940	58.4	3.71	4.91	6.55	74.9
1941	54.3	3.88	4.69	6.45	72.7
1942	54.7	4.13	5.04	7.4	68.1

Sources: Column 1, Hart and Mackay (1975), Table A.3;
 Column 2, British Labour Statistics Historical Abstract, Tables 9 and 10;
 Column 3, Own calculation;
 Column 4, Hart and Mackay (1975), Table A.1.

Note: The calculation of the standard rate for hours worked estimates overtime by subtracting the basic hours in the national agreement from Column 1, which is affected by absence. Accordingly, overtime is underestimated and the calculation understates the standard rate by, perhaps, one per cent.

Table A2.2**Weekly Earnings and Standard Rates of Labourers 1926-42**

	Hours	Basic Rate (£)	Standard Rate (£)	Earnings (£)	Standard as Per Cent of Earnings
1926	48	2.00	2.07	2.4	86.2
1927	51.6	2.08	2.39	2.6	91.9
1928	50.8	2.10	2.35	2.6	90.4
1929	50.9	2.10	2.36	2.6	90.6
1930	50.4	2.10	2.33	2.6	89.7
1931	46.8	2.10	2.09	2.4	87.1
1932	46	2.10	2.05	2.35	87.2
1933	49.5	2.10	2.24	2.45	86.3
1934	51	2.10	2.33	2.6	84.7
1935	51.6	2.19	2.46	2.75	89.3
1936	52.4	2.30	2.64	2.9	90.9
1937	52.2	2.49	2.84	3.1	91.5
1938	51.5	2.52	2.84	3.15	90.1
1939	54.5	2.62	3.17	3.55	89.4
1940	58.9	2.87	3.83	4.4	87.1
1941	56.9	3.04	3.90	4.5	86.6
1942	48	2.00	2.07	2.4	86.2

Sources: Column 1, Hart and Mackay (1975), Table A.4;
 Column 2, British Labour Statistics Historical Abstract, Tables 9 and 10;
 Column 3, Own calculation;
 Column 4, Hart and Mackay (1975), Table A.2.

Note: The calculation of the standard rate for hours worked estimates overtime by subtracting the basic hours in the national agreement from Column 1, which is affected by absence. Accordingly, overtime is underestimated and the calculation understates the standard rate by, perhaps, one per cent.

Table A2.3**Weekly Earnings and Standard Rates of Male Engineering Workers 1943-88**

	Hours	Basic Rate (£)	Standard Rate (£)	Earnings (£)	Standard as Per Cent of Earnings
1943	54.1	4.15	4.99	6.91	72.2
1944	51.3	4.35	4.88	6.96	70.1
1945	49.3	4.35	4.64	6.65	69.7
1946	47.6	4.35	4.43	6.13	72.2
1947	45.7	4.80	5.05	6.73	75.1
1948	46.3	5.10	5.46	7.20	75.8
1949	46.5	5.10	5.49	7.30	75.1
1950	47	5.10	5.56	7.55	73.7
1951	48.1	5.60	6.30	8.30	75.9
1952	48.2	6.15	6.93	9.23	75.1
1953	48.2	6.52	7.35	9.82	74.8
1954	48.9	6.51	7.48	10.53	71.1
1955	49.3	7.41	8.60	11.60	74.1
1956	49.2	7.98	9.24	12.60	73.3
1957	48.7	7.98	9.12	12.67	72
1958	48.1	8.50	9.56	13.25	72.1
1959	47.8	8.84	9.48	13.68	69.3
1960	47	8.84	10.24	14.71	69.6
1961	47.7	9.25	10.29	15.98	64.4
1962	47	9.25	10.09	16.18	62.4
1963	46	9.54	10.11	16.27	62.2
1964	47.2	10.04	11.02	17.92	61.5
1965	46.6	10.33	12.60	19.11	65.9
1966	45.9	10.89	13.04	20.57	63.4
1967	45.1	11.46	13.46	20.76	64.6
1968	45.1	12.21	14.29	22.18	64.4
1969	44.7	14.00	16.19	25.59	63.3
1970	44.2	15.14	17.26	28.67	60.2
1971	42.8	16.28	17.80	31.00	57.4
1972	42.5	17.67	19.14	34.53	55.4
1973	43.3	17.67	19.61	39.86	49.2
1974	43.3	26.58	29.51	45.23	65.2
1975	41.6	29.83	31.42	54.33	57.8
1976	42.1	39.20	41.94	63.55	66
1977	42.6	39.20	42.60	69.67	61.1
1978	42.1	39.20	41.94	78.63	53.3
1979	42.4	39.20	42.34	91.27	46.4
1980	41.5	66.17	69.48	104.85	66.3

	Hours	Basic Rate (£)	Standard Rate (£)	Earnings (£)	Standard as Per Cent of Earnings
1980	44.5	66.17	76.03	114.25	66.5
1981	42.9	71.60	78.52	121.40	64.7
1982	43.2	75.23	83.26	136.30	61.1
1983	43.1	78.87	87.02	145.50	59.8
1984	44	82.95	94.01	157.30	59.8
1985	44.5	87.22	100.30	165.80	60.5
1986	44.3	92.03	105.22	182.70	57.6
1987	44.4	96.57	110.73	194.40	57
1988	45.2	101.40	118.98	207.00	57.5

Sources: 1943-80 data

Column 1, British Historical Abstract, Ministry of Labour Gazette;

Column 2, British Historical Abstract, Ministry of Labour Gazette;

Column 3, Own calculation;

Column 4, British Historical Abstract, Ministry of Labour Gazette.

1980-88 data

Column 1, New Earnings Survey;

Column 2, Time Rates of Wages and Hours of Work;

Column 3, Own calculation;

Column 4, New Earnings Survey.

Notes:

The basic rate in Column 2 is two-thirds of the skilled workers' rate and one-third of the labourer's rate.

The 1943-80 calculation of the standard rate for hours worked estimates overtime by subtracting the basic hours in the national agreement from Column 1, which is affected by absence. Accordingly, overtime is underestimated and the calculation understates the standard rate by, perhaps, one per cent.

3) TALKING TAKES TIME: NATIONAL HOURS NEGOTIATIONS IN THE 1980s

3.1) The renewal of the 35-hour week claim

The 1983 wage negotiations were the first at which the 1979 agreement allowed a claim on hours. The 1983 CSEU Annual Conference adopted a composite motion, reflecting a consensus among its affiliated unions. The motion, moved by Mr Duffy, President of the AEU, called for a claim for a 35-hour week without loss of earnings. The unions clearly did not expect the EEF to concede a shorter working week unconditionally. The motion required 'any associated conditions in the agreement be specifically vetted and approved by affiliated unions prior to settlement'. The conditions linked to a reduction were to prove very divisive for the unions over the subsequent six years of national negotiations.

The motion also raised another issue which caused great difficulty in the negotiations, whether the working week would be reduced below 37½ hours. It specified that shift workers should receive a reduction. Shift workers had had no reduction since 1947 when a working week of 37½ hours had been introduced for double day workers. The 37½-hour week of workers on second and third shifts went back to the days of the 47-hour week.

National negotiations on the CSEU claim started in September 1983. Dr McFarlane, the EEF Director-General, responded to the claim with what he later described in the EEF Annual Review as a 'significant departure from past practice'. He sought detailed discussions on eliminating restrictions on manning and training, more flexible working, the extension of shift-work and a review of procedural agreements. Dr McFarlane also proposed that changes in working conditions should only be implemented after local agreement on concessions to offset their cost. The EEF adopted this radically different approach to the national negotiations because the claim for reduced hours had far greater cost implications than one confined to minimum rates. Their approach was very much to pursue all the issues where employers thought change desirable, rather than limiting themselves to proposals likely to be acceptable to the CSEU (interview with Dr McFarlane, December 1992). Dr McFarlane suggested a joint working party 'to discuss your claim further alongside our own proposals, with nothing agreed in advance, but with nothing barred either' (National Conference Proceedings, 11 November 1983: 11/2).

3.2) Failure to agree in the 1983/84 negotiations

The CSEU Executive Council meeting in February 1984 agreed to a joint working party on the terms suggested by the EEF. It nominated eight members, including Mr Duffy and other senior officials of its major affiliates. The EEF members were also senior officials. The nature of the CSEU representation on the working party made reports to the Executive Council superfluous. There was no report until June 1984 by when the EEF had tabled no less than nine papers. Later the same month Mr Ferry, the CSEU General Secretary, reported the discussions to the Annual Conference. Mr Duffy, the Chairman of the Engineering Committee, was absent through illness. Mr Ferry said: 'These papers clearly indicated that the employers were endeavouring to use the Joint Working Party to get very far-reaching and revolutionary changes established'. The Executive Council thought that no progress would be made unless the employers' proposals were substantially changed. Consultation with affiliates had produced a 'general consensus' that discussions should continue to seek a 'much more affirmative and positive response' on the shorter working week from the EEF.

The unions clearly saw the working party as more significant than the regular negotiations between the CSEU and the EEF. In July 1984 the Transport and General Workers' Union, the EEF's second largest affiliate, established an Ad Hoc Engineering Subcommittee representing its members in EEF-member firms. This decided at its first meeting that any agreement would be put to a Conference of shop stewards in EEF-member firms (Transport and General Workers' Union, 1984 Report and Accounts: 236).

In September 1984 the CSEU gave the EEF a detailed response at the eighth and final meeting of the Joint Working Party. There was clearly no basis for an agreement. The EEF replied by letter and the CSEU Executive Council decided to end the discussions and make a claim based on the Conference resolution. The EEF took a more positive view of the ending of discussions, informing its members that 'it was agreed that ... the point had arrived at which any further discussions were likely to turn into negotiations - outside the mandate of both parties - and that no more meetings should be held' (Director General's Report, EEF Review of 1984).

3.3) From Working Party to Negotiating Subcommittee

The annual wage negotiations did not start until November 1984, although an increase in national minimum rates had been due at the beginning of the month. Mr Duffy, in presenting the CSEU claim for reduced hours emphasized the employment effect of reduced hours and comparability both internationally and with non-manual employees. Anticipating employers' concerns about the cost of a reduction, he argued: 'Management, predictably, have consistently overestimated the costs of reducing hours. NEDO, however, has shown that a reduction in the working week by one hour increases unit labour costs by less than two per cent. A radical and imaginative approach to patterns of work could easily reduce the costs of a 35-hour week to a very modest amount indeed' (National Conference Proceedings, 12 November 1984: 6).

There was no room to doubt that the EEF would end national negotiations rather than agree reduced hours without concessions of the kind they had sought in the Joint Working Party. The EEF Director of External Relations said: '.. we ought to be able to negotiate a deal [on hours subject to conditions], but, if we can't, then it's the death knell for national negotiations' (*Financial Times*, 3 January 1985). Dr McFarlane gave a more emollient formal response on behalf of the EEF. He told the unions that, subject to appropriate concessions on the proposals the EEF had presented in detail to the working party, he envisaged an unspecified reduction in working time at no cost to employers over two years from April 1987 on domestic settlement dates. He suggested continuing the Joint Working Party in the form of a Subcommittee, 'a small team actually to negotiate on these proposals in a committing way'. The CSEU accepted this as part of an agreement reached in January 1985.

In February the CSEU Executive Council nominated eleven of its members to the Negotiating Subcommittee, including all eight who had served on the working party. At its first meeting the next month the Negotiating Subcommittee agreed terms of reference. These included the negotiation of a draft agreement 'that will facilitate a reduction in working hours coupled with compensating changes in working practices and flexibility in working hours, together with other matters related to the cost of production'.

These terms did not command universal support on the Executive Council of the CSEU. Some Council members argued the need for caution in the discussions in the Subcommittee. Their position was supported by a number of CSEU Divisional Committees which wrote to the Executive expressing the belief that the EEF demands were extremely dangerous and should not be discussed let alone conceded (Report to the 1985 CSEU Conference).

The EEF submitted a draft long-term agreement to the Subcommittee. The concessions they required from the unions were clear, but the extent to which hours would be reduced was still left open. The EEF 'continued to stress, both to the unions and the media that there could be no question of an agreement that would impose additional costs' (Director General's Report, EEF Review of 1985).¹

The Executive Council of the CSEU kept the details of the EEF proposals to itself. This ensured unity at the 1985 CSEU Conference. In the absence of Mr Duffy through illness. Mr Cure of the AEU moved the motion on the shorter working week. As well as calling for continued vigorous pursuit of the claim for a 35-hour week without loss of earnings or conditions, the motion instructed the Executive Council to launch a vigorous campaign amongst the membership similar to that by IG Metall and to give this the widest publicity. Mr Cure set out the tactics which the CSEU would successfully emulate four years later: 'Our German brothers and sisters did not just call for a strike on the issue and expect the grass roots to follow. A mass publicity and education campaign produced the solid backing to sustain such a prolonged campaign. The publicity was bright, imaginative and above all modern. Everything from stickers to tee-shirts and polythene carrier bags carrying eye-catching, specially designed logos, slogans, cartoons. Thus, the message went out to the public at large. All this was backed up by more in-depth, informative propaganda.' This speech indicates some serious thinking within the AEU about what to do if reduced hours were not achieved through national negotiations. The strategy envisaged was very different from that of 1979. Then, the solid response of members when called out on strike had enabled the CSEU to achieve a shorter week agreement within weeks of the breakdown of national negotiations.

¹ Dr McFarlane had already mentioned the stress given to this point in the 1984 Review.

3.4) Negotiators nearly agree

By the time of the CSEU Conference in June 1986 Mr Jordan had been elected President of the AEU, following Mr Duffy's death. He also succeeded Mr Duffy as Chairman of the CSEU Engineering Committee. Mr Jordan explained to the Conference why details of the EEF's draft long-term agreement, submitted to the Subcommittee over a year before, had not been circulated. It was a 'full shopping basket - there were items which even they knew they had no hope on - and to have circulated it would have been merely providing meat for mischief'. Mr Jordan gave three reasons for the subsequent delay in the progress of the negotiations: the illness of Mr Duffy, 'the way we do our business, but more specifically the rigidity of the employers' position'. The Subcommittee had met earlier in June when the CSEU had made 'a detailed response' to the EEF draft national agreement. 'The whole tenor of the discussions [was] positive and constructive. ... In the view of your Subcommittee we're near the point where a final draft will be produced'.

A written report circulated at the Conference stated that the CSEU members of the Subcommittee were 'prepared to go a substantive way towards meeting the EEF's aims provided that the EEF in turn are prepared to do the same towards the CSEU'. The aims of the EEF were not specified. However, the CSEU members stated their willingness, in return for shorter hours, to 'agree in broad terms' to five principles: the efficient use of human resources, including the optimum use of working hours; cashless pay; labour flexibility; flexible hours; and the fullest use of plant and machinery. Detailed negotiations on these issues and on the EEF proposals to change the Procedure Agreement would continue at the next meeting due in July.

Only limited opportunity for debate was allowed at the Conference. This did not prevent the forceful expression of serious misgivings about the way the negotiations were going. The misgivings extended well beyond the 'left'. Mr Sanderson of the EETPU criticised the conduct of the negotiations, saying, 'There's been certain feedback from management that's alarmed a lot of our shop stewards'. He warned of the danger of the CSEU being partially committed to any final document, which 'would be a grave mistake and put us seriously at odds with our members'. He argued that any agreement should be purely consultative 'without any of us in a sense trying to push something - something that we discover is quite unacceptable to the members we represent'. Replying to the debate, Mr Jordan suggested that

the danger was of members agreeing to the terms which would be required for a shorter week without obtaining it: 'Our members, to save the companies they work in, are giving away the very things they ought to be receiving a shorter working week for'. The composite motion on the EEF negotiations was again moved by the senior AEU official present, who was, of course, Mr Jordan. It contained no reference to any concessions which might be involved in a reduced working week.

Immediately after the Conference the press carried more details of the document submitted by the CSEU to the Subcommittee in June. The CSEU had listed 'possible' concessions, including complete flexibility and an end to demarcation. In return hours would be reduced, but only after local agreement on the implementation of the concessions. Mr Jordan was quoted as being optimistic about a successful conclusion to the talks by the year's end. One journalist summed out the position of the talks: 'Negotiations written off by many as a lost cause are within sight of one of the most dramatic industrial relations deals of the decade' (John Taylor, *Financial Times*, 28 June 1986). The EEF's continuing pressure for changes in bargaining procedures (through amendments to the Procedure Agreement) was seen as a 'striking point' about the state of industrial relations. The CSEU had to concede many of the EEF's demands because 'they are in no position to force an hours cut through industrial action'.

The CSEU submitted more detailed proposals in August 1986, involving an end to demarcation, flexible working and seasonal changes in working hours. These proposals, were, however, very far from commanding the support of all CSEU affiliates. Indeed, it was suggested that their only firm supporter was the AEU (*The Engineer*, 7/14 August 1986). Even within the AEU there was significant opposition. An internal report by Mr Jordan admitted a 'definite resentment building up at shop floor level on the manner in which the negotiations were being conducted and the areas of possible concessions which were being discussed' (*The Financial Times*, 9 September 1986). In October 1986 national negotiations on the unions' annual claim started. The claim included reduced hours, which had been omitted in 1985 in view of the Subcommittee discussions. Mr Jordan, presenting the CSEU's claim to the EEF, said that hours had been included 'to rehearse the justification of the claim and to remind you of our stated determination to make progress on our aim to achieve a reduction in the basic working week to 35 hours without loss of pay' (Mr Jordan, National Conference Proceedings, 17 October 1986: 7). He made the threat to pursue the claim even

if the Subcommittee failed to reach agreement more explicit in a press interview: 'If the employers are not looking for an agreement our claim still stands and we will progress it anyway' (*The Engineer*, 23 October 1986).

At the end of October 1986 the Subcommittee met for a fifth time since the CSEU Conference in June. It agreed a joint report, which suggested that an agreement was possible despite a 'number of critical unresolved issues'. The report set out the position the negotiations had reached in detail. Only a little flesh was put on the bones of four of the five 'possible concessions' in the Subcommittee's June report. The CSEU undertook to recommend its affiliates to cooperate in eliminating demarcations and other restrictive practices. There were also general commitments on harmonisation, employee involvement, training and domestic discussions on the best use of working time, including the reduction of non-productive paid time, such as tea breaks and washing time. There was no requirement for either side at plant level to do more than talk about these issues.

The joint report dealt in much more detail with flexible hours, the other of the CSEU's 'possible concessions'. Flexible hours to meet seasonal and other predictable fluctuations in demand were to be subject to plant bargaining. If agreement was not possible, the employer was empowered, after due notice, to vary scheduled hours provided at least four shifts of eight hours were worked each week. The CSEU wanted a maximum of 39 scheduled hours in any week. Over a year the scheduled hours would have to equal the normal hours specified in the national agreement. Overtime would be payable for hours worked outside the scheduled hours. Working hours would 'eventually' be reduced to 37½ subject to the implementation conditions. Those already working 37½ or fewer hours would receive no reduction. The working week would be reduced without loss of pay on domestic settlement dates. If the cost-saving and efficiency-improving measures specified in the report had not been endorsed and accepted at domestic level, there would be no reduction.

The EEF was insistent on a 'significant pause' between the signing of an agreement and the date from which local implementation on domestic settlement dates would begin. The EEF was also seeking phased implementation of the 37½-hour week. By not stating its opposition to the EEF's position on a pause and on staging, the CSEU indicated a willingness to compromise on these points. In addition, the report signalled the revision of the procedure and recognition agreement 'to promote simpler and more coherent bargaining arrangements'.

The conclusion of the report was that, if both parties wished the negotiations to proceed, a draft agreement would be prepared.

Dr McFarlane expressed justified satisfaction with the outcome of the Subcommittee in his annual report for 1986: 'The Federation's negotiators did not move from their insistence that cost saving measures should be agreed domestically before hours were reduced. They achieved virtually all the conditions that member companies approved as their objectives at the outset of negotiations in 1984'.

3.5) Union divisions lead to rejection of draft agreement

Agreement between the CSEU and the EEF in the Subcommittee caused serious dissension within the CSEU. The Executive Council only agreed to issue the Subcommittee's report to affiliates in November 1986 after what was reported to the 1987 conference as 'an extremely lengthy debate'. The Executive considered the responses of affiliated unions to the joint report in February. There was substantial opposition to the procedural proposals (which included changes to the recognition agreement), but most unions supported continued discussions to seek amendments to the substantive proposals. A number of unions wished to terminate all discussions. An attempt to end the negotiations was defeated by only 13 votes to 12. The AEU, EETPU and APEX had sufficient votes to ensure that negotiations would continue 'until a final position was reached' (Executive Council minutes, 5 February 1987).

Following this close vote, the CSEU could not compromise further. 'Three non-negotiable positions' were put to the Subcommittee: variable hours would not be a condition for a reduction on hours; the existing recognition and bargaining rights of any trade union would not be diminished; and the industry would have a common implementation date for reduced hours. Mr Jordan was able to report considerable progress on two of these 'non-negotiable demands' to the CSEU Conference in June 1987. There was no longer the least justification for concern that the new procedure agreement envisaged in the October joint report would eventually lead to the smaller unions being squeezed out. Employers, he assured the Conference, would not be allowed to withdraw recognition rights from any union. Employers would no longer have the right to alter working hours even on the temporary

basis and with the considerable notice which the joint report would have permitted (1987 CSEU Annual Meeting Report of Proceedings).

There were still two outstanding issues: the common implementation date, a 'non-negotiable demand'; and whether the 37½-hour week should be introduced in two or three annual stages. The EEF had offered to introduce a 30-minute reduction on the domestic settlement date between a year and two years after the signing of the national agreement followed by two further 30-minute reductions on the next settlement dates. The CSEU was seeking a 45-minute reduction in November 1988, when the next annual wage increase was due, with the remaining 45 minutes a year later. The gap over the first stage of the reduction was between one and two years and, on the final stage, between two and three years, the exact difference depending on settlement dates. By insisting on common implementation dates throughout the industry, the CSEU was in direct conflict with the EEF's requirement that local agreement on concessions should precede the introduction of reduced hours. This was a considerable chasm besides which much the gap between the CSEU and EEF on the timing of the reduction paled into insignificance. Adopting the tactics of the EEF, the CSEU used the media to signal the rigidity of its position on implementation. Just before its Annual Conference the CSEU held its first press conference on the shorter working week. Mr Laird of the AEU, the incoming CSEU President, said that the unified introduction of the 37½-hour week was 'absolutely fundamental'. He added: 'If the employers do not agree, ... there will be no deal'. Mr Ferry expressed confidence that the other outstanding issues could be resolved (*Financial Times*, 23 June 1987).

The progress in the negotiations and the Executive Council's firm position on the main outstanding issues ensured unity at the CSEU Conference in June 1987. The Conference accepted a detailed position statement without dissent. The Executive Council was to decide whether to consult affiliates and District Committees after the Subcommittee had received the EEF's response to the CSEU proposals on the outstanding issues. The Conference also saw no dissent from a declaratory motion proposed by the metal mechanics section of TASS. The motion stated that the shorter working week would not be 'at the expense of hard won conditions and practices long established. Conference instructs the Executive Council to campaign for a significant reduction in the working week for all grades with no loss of earnings and no loss of other conditions and rights'. Nonetheless, tensions between the unions were publicly aired. Mr Jordan criticised the 'organised opposition and

misrepresentation of the deliberations' of the Subcommittee. He came close to a direct attack on TASS, speaking scathingly of one union journal's claim that the Subcommittee had engaged in secret talks. The union concerned had a member of its Executive on the Subcommittee, but he refrained from naming it.

The Subcommittee published its final detailed proposals in July 1987. The recognition and flexibility provisions had been amended as Mr Jordan had reported to the CSEU Conference the previous month. Even TASS in its critique of the proposals acknowledged the removal of 'the more outrageous' proposals. Yet, the continued requirement for the reduction in hours to involve no added costs and the ways in which this was to be achieved meant that opposition to the proposed agreement was not weakened. TASS concluded that 'massive concessions are given which look like the notorious "survival" agreements that some (fortunately few) have been forced to sign. Now they are to apply to all' (*TASS News and Journal*, September 1987). The commitment to flexibility and the ultimate right of employers to determine the pattern of the new working hours were vigorously criticised. Under the 1979 agreement employers also had the final say over starting and stopping times, but they were not allowed the flexibility envisaged in the 1987 proposals.

The EEF had also made some movement on the timing of reduced hours. The proposed 37½-hour week would now be introduced in two equal annual stages, as the CSEU had demanded, with final implementation between November 1989 and May 1990. Yet, on the key issue of implementation it was the CSEU which had given ground. Implementation dates were to be agreed locally subject to efficiency improvements acceptable to the employer. If local agreement on efficiency improvements were not reached, the 39-hour week would continue. So, the EEF was still sticking steadfastly to the position set out by Dr McFarlane four years earlier. Local agreement on concessions had to precede any reduction in hours. This was the issue which would lead to the end of national negotiations two years later.

In November 1987 the CSEU Executive met to decide its view of the Subcommittee's proposals. The AEU tabled a resolution to continue negotiations. Mr Howell of the TGWU moved an amendment rejecting the final draft proposals, and calling on the Executive 'to pursue a claim for a shorter working week without strings'. Both Mr Howell and the seconder of the amendment, Mr McGinness of the GMB, said their members had overwhelmingly rejected the proposals. The amendment was carried by 16 votes to 13 and

the amended motion by 17 votes to 13. The difference from the vote in February reflects a higher level of attendance by the 33 members of the executive.

The annual wage national negotiations between the CSEU and the EEF had started in September. The status of these negotiations as a side show to the main performance was shown by a two-month adjournment. This meant that they resumed after the date the new wage agreement had been due to come into effect. As a result of the long break the CSEU was able to introduce a claim for reduced hours into the wage negotiations. Unsurprisingly, the EEF was not prepared 'to enter into a national agreement involving any reduction in working time except on the basis of proposals like those you [the CSEU] have rejected' (Dr McFarlane, National Conference Proceedings, 23 November 1987: 8). In response the CSEU warned: 'Whatever the outcome of these negotiations, unless we get satisfaction on the question of the shorter working week in what we see as the immediate or near future, we will press this matter further' (Mr Jordan, National Conference Proceedings, 9 December 1987: 7). The CSEU was far from ready for a break-down in national negotiations. Accordingly, an agreement was reached in December 1987 with no reduction in hours. This proved to be the last national agreement.

3.6) Unions united on a harder line

In the next year's wage negotiations the only real issue was reduced hours, 'the main part of this year's claim', 'our centre-piece'. 'We have to have a settlement not only at an acceptable level but in an acceptable form, and perhaps the latter is as important as the former in this particular instance' (Mr Jordan, National Conference Proceedings, 28 November, 1988: 18). The Executive's decision in November 1987 rejecting the EEF proposals made a common implementation date essential for the CSEU.

In response to the claim the EEF suggested that minimum rates be negotiated separately. The CSEU refused to do so: 'We envisage no separation in the parts of our claim: and that perhaps emphasizes the importance which we place on the shorter working week part of our claim' (Mr Jordan, National Conference Proceedings, 14 December 1988: 5). For the first time the CSEU was making reduced hours a priority over minimum rate increases. Up till then reduced hours had been pursued through the Joint Working Party and the Negotiating Subcommittee, leaving the annual negotiations over minimum rates largely unaffected.

Setting minimum rates was the main function of the national negotiations. So, the harder line adopted by the CSEU threatened the future of national negotiations. Yet, at this stage and, indeed, for some time afterwards, the CSEU leadership still thought reduced hours would not permanently end national bargaining.

The EEF was not about to reverse its position and reach an agreement in a form acceptable to the CSEU. They reiterated their requirement for local agreement on concessions before hours were reduced: 'There had to be a delivery mechanism not only for the shorter working week but a delivery mechanism for improved working practices, or flexibility of working time, or whatever may be agreed at local level' (Dr McFarlane, National Conference Proceedings, 14 December 1988: 8). The EEF did, however, indicate its willingness to negotiate the delivery mechanism for reduced hours. Dr McFarlane expressed understanding of the CSEU's concern that the Subcommittee's proposals would have allowed an employer to refuse to reduce hours no matter what the workforce agreed.

The EEF was willing to put forward fresh proposals, but first sought a detailed explanation of the CSEU's rejection of the Subcommittee's proposals. The CSEU chose instead to table its own draft national agreement. The draft, presented in February 1989, proposed two one-hour reductions in November 1989 and 1990 in return for commitments at national level on efficiency, employee involvement, harmonisation, training for change, the use of working hours and shift-working. Single table bargaining was strongly recommended. Mr Jordan, argued on behalf of the CSEU, that the draft agreement was 'a radical departure from the stereotyped approach that failed to tackle the underlying problem of change in our industry' and that 'training through training agreements should spearhead the process of change' (National Conference Proceedings, 2 February 1989: 2). While the CSEU draft differed vastly in emphasis from the Subcommittee's proposals, its substance was broadly similar. It involved changes such as an end to unnecessary demarcation and flexibility both in work done and the pattern of working hours.

The EEF described the draft agreement as 'constructive' and 'encouraging'. Yet, there was little discussion of the differences between the draft and the Subcommittee's proposals. The draft, for example, took away the employer's ultimate right to decide when work started and stopped. In April 1989 the EEF tabled its own 'proposals for a national framework agreement'. These proposals included the CSEU's 'sensible, practical suggestions [on the use

of working time and shift working] which go a long way to meeting our needs'. The EEF also accepted the CSEU's wording on single-table bargaining, but sought separate negotiations on a new procedure agreement. There were two principal changes from the CSEU draft. First, the working week was to be reduced to 37½ hours in three annual half-hour stages. Secondly, the implementation of reduced hours would be on dates negotiated locally as part of agreements which would also ensure no loss of production or increase in cost. Dr McFarlane, on behalf of the CSEU, said that both these points were equally important (National Conference Proceedings, 12 April 1989: 4). This indicated that the EEF had little scope for negotiation on either point.

The disagreements between the CSEU and EEF on what had been highly contentious, but subsidiary, issues were now largely resolved. This, however, only served to highlight the central conflict over implementation. Mr Jordan's response to the EEF proposals was blunt: 'There can be no negotiation on an agreement that lays down preconditions of self-financing that withhold the shorter working week from any of our members. Remove those preconditions and these talks can continue on the basis of the mutual trust that we have worked so hard to establish. If not, you must consider these talks as at an end ... and you will send out a message that confrontation is preferable to reasonableness' (ibid: 5). Mr Jordan demanded a guarantee of delivery of the shorter working week at a specific time, while Dr McFarlane restated that 'promoting and encouraging [the changes that are needed] from our point of view is not enough; we have to have a guarantee of delivery also' (ibid: 8/9). The clash of guarantees confirmed the chasm between the parties. The CSEU broke off the negotiations, withdrew its own proposals and formally reinstated its original claim, which included a 35-hour week without loss of earnings or conditions.

3.7) Why the hours negotiations lasted so long

The EEF's initial response in 1983 to the CSEU's claim for reduced hours raised very many issues. Dealing with these issues undoubtedly prolonged the negotiations. The issues took time to negotiate and the negotiating process was cumbersome. Mr Jordan mentioned the 'way we do our business' as a reason for delay (see Section 3.4). Also, the fact that so much was being negotiated served to obscure the fundamental differences over hours between the unions and the employers. The CSEU's rejection of the Negotiating Subcommittee proposals

in 1987 further prolonged the negotiations. This was the result of divisions between the AEU and other CSEU unions.

The EEF's efforts to change the procedure and recognition agreement had exacerbated the divisions between the unions. The EEF did not seek to withdraw recognition from any union, but there was a strong suspicion they were working with the AEU, the dominant union in the industry, towards single-union recognition, particularly on green-field sites and in take-over situations. Single-union deals did not emerge as an explicit issue within the CSEU. They were, however, the cause of continuous controversy within the TUC, culminating in the expulsion of the EETPU, a CSEU affiliate, in 1988. The tensions between the AEU and other CSEU unions had come to a head earlier the same year. The AEU and Ford had agreed that the AEU should have sole negotiating rights at a factory Ford was proposing to open in Dundee. Ford was outside the national negotiations. So, this dispute did not affect the CSEU directly. Yet, Ford recognised all the major affiliates of the CSEU. So, other unions had some basis for fearing that the EEF and the AEU might seek to give EEF members the freedom to do as Ford was doing.

National negotiations over reduced hours lasted as long as the unions thought that the employers might agree terms acceptable to them. What was acceptable to the unions, or rather what was unacceptable, only became clear in 1987 with the rejection of the Subcommittee proposals. This occurred after the national negotiations on the 1987 pay settlement had started. It is not surprising that the CSEU was at this point uncertain how to pursue reduced hours. Raising reduced hours in the national negotiations would not reverse the EEF's position. If the CSEU had insisted on its terms for reduced hours, negotiations would have broken down. This would have required some response by the CSEU. The CSEU, like other federations, can only act on the basis of consensus among its members. Yet, at the beginning of 1988 relations between its members were hardly harmonious. The CSEU was able to continue its routine activities, such as negotiating a national agreement on minimum rates with the EEF, but it could not coordinate the response of its affiliates to a break-down in the negotiations.

By the 1988 negotiations the CSEU had achieved a consensus on the immediate issue which it had to confront. For the first time reduced hours were a higher priority than negotiating an increase in minimum rates. The employers maintained the position they had consistently

upheld throughout the negotiations. A cut in hours would only be implemented after agreement at plant level to offset the costs involved. The CSEU was insistent on a common implementation date throughout the industry. This would have rendered employers unable to make reduced hours conditional on local agreement. The CSEU was as firm on a common implementation date as the employers were on local agreements before implementation. In view of the position of the parties the breakdown of negotiations was inevitable.

Divisions between employers, although harder to document, are probably contributed as much as those between unions to the length of the negotiations over hours. British Aerospace (BAe), by far the largest employer in the industry, appears to have had no consistent policy. BAe declined representation on the employers' negotiating committee until near the end of the negotiations, but still expected to have the dominant say in the employers' position on the negotiations. BAe did not deliberately adopt a spoiling role in the negotiations, but its successive personnel directors held different views. One of the EEF members of the Negotiating Subcommittee complained that the ground was consistently shifting under their feet (Mr Jones, March 1993).

If the national leadership had been able to exercise more authority over their membership, internal differences on both sides of the negotiating table would have been less important. So, the difficulty of the negotiations might be seen as a reflection of a loss of authority by the national leadership. This, however, is less an explanation than a symptom of the long decline in the role of national bargaining. The irrelevance of national negotiations to earnings made it harder for both the CSEU and EEF to maintain a united and consistent position. If either side had really wanted national bargaining to continue, they might well have resolved their internal differences rather than jeopardise national negotiations.

3.8) The formal and acrimonious end of national negotiations

After the breakdown of national negotiations in April 1989, there was just one further meeting, which took place in November 1989. (Chapter Three describes events between April and November 1989.) 10,000 manual workers were on strike at five factories belonging to three major federated companies. Another large company, NEI Parsons, had avoided a strike by agreeing a 37-hour week on terms which the company claimed fully

offset the costs involved. The smallest of the three strike-hit companies, Smiths Industries, was also close to a local settlement.

The EEF sought to discuss just one substantive issue. Clause 24 of the proposals, which they had presented at the previous meeting in April, allowed the 37½-hour week without local agreement, but only two years after it would have been due under a local agreement and on the harshest terms. Employers could offset the cost against wage increases, introduce flexible working hours and require overtime to maintain production. Clause 24 had been something of a propaganda gift for the CSEU. As Dr McFarlane acknowledged during the negotiations it had become 'quite famous - or infamous as you might say'. Mr Brighton, his successor as EEF Director-General, described union 'misrepresentation' of Clause 24 as 'incredibly effective' (interview, November 1993). Dr McFarlane argued that 'an automatic, unconditional entitlement to reduce hours on a certain date' gave no incentive for local agreements. He reiterated that: 'No national agreement is possible if you want us to accept an unconditional reduction of working hours on some specific date' (National Conference Proceedings, 16 November 1989: 4). In place of Clause 24 the EEF offered arbitration, perhaps pendulum arbitration, where there was no local agreement.

The response by Mr Jordan, on behalf of the CSEU, was restrained. He was merely 'somewhat disappointed'. For one spokesman in national negotiations to express such a positive view of his opposite number's opening statement would normally indicate imminent agreement. Mr Jordan, however, was genuinely disappointed. He made clear that he had been expecting a specific proposal. 'You have known for a considerable time the bottom line for any potential agreement. A prerequisite for any sensible discussion would have been a further proposal from you covering the main elements of our claim'. Dr McFarlane expressed willingness to negotiate on the claim, but 'if we cannot reach agreement about how a dispute at domestic level is to be resolved then I am afraid that we are not willing to talk about the other matters'. After an adjournment to consult the rest of the CSEU negotiating team Mr Jordan welcomed the withdrawal of the 'offensive' Clause 24 and said that the CSEU would talk about 'a mechanism for delivering change' as 'part of a document containing a guaranteed reduction in hours of an order that we could accept'. Dr McFarlane made an immediate response, arguing 'surely you recognise that whatever is in the rest of the package there has to be a satisfactory means of resolving disagreements at local level. Without that means we frankly see little point in making an agreement at a national level and

we might just as well say let the disagreements occur at local level and let them be resolved as best they can at local level'. Following a further adjournment he made the EEF's final statement in 75 years of substantive national negotiations. The EEF required 'agreement to two substantial principles before being able to continue negotiations. The first was an acceptance that cost offsets and the means of maintaining production capacity would have to be agreed at local level at the same time as the programme for reducing hours. The second ... was that ... the reduction in hours would not be automatic but would be subject to an effective appeals procedure [if local agreement proved impossible]'. The discussions showed that 'neither of these essentials is acceptable to you'. Accordingly, the EEF 'is not willing to continue national bargaining on substantive issues'.

Mr Jordan was now more direct in showing his irritation. He was 'to say the least ... surprised'. It was 'irresponsible' that 'you have called us here today and not made any offer to us at all'. He expressed 'extreme disappointment that you have not seized this opportunity to conclude an agreement that ... would have been beneficial to both sides'.

The EEF told its members that it had ended national bargaining because the CSEU did not accept the 'essential principle' that no company should be obliged to reduce working time without first reaching agreement on offsetting the cost and maintaining output (Director General's circular, 20 November 1989). The CSEU argued that the EEF had engaged in 'an irresponsible public relations exercise', calling a meeting and then refusing to make any offer (*CSEU Weekly Update*, 17 November 1989).

3.9) A postmortem on national negotiations

National negotiations in engineering were, as William Brown and Janet Walsh observe, 'an incidental victim of the unions' successful campaign for a shorter working week' (1991: 49). Yet, a postmortem should explain why union success in 1989/91 sounded the death knell. Until 1979 previous union successes had left national bargaining unscathed. Death was the culmination of a process. Substantive collective bargaining moved away from the national level over a period of some 40 years (see Sections 2.8 and 2.12 for details). Plant bargaining replaced national bargaining as the primary influence on earnings. 1950 is a key date in this process. The national agreement that year attempted to limit pay increases to workers whose earnings were close to the minimum rates. The agreement did not do much to raise the

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relative earnings of lower paid workers. Instead, it greatly enhanced the role of plant bargaining. The very limited influence of national bargaining on earnings was clear by the late 1970s. National negotiations were in effect suspended with pay increases being negotiated only at plant or company level.² National negotiations resumed with the end of the incomes policy responsible for their suspension. Yet, the CSEU's willingness to rely solely on local negotiations for pay increases strongly suggests that very few union members depended on national bargaining. This had a permanent effect on national negotiations. All subsequent pay increases due under national agreements came into effect as part of domestic settlements and not as a separate, national pay increase.

Figure 2.3 shows how the national negotiated rates declined as a proportion of the earnings of male manual workers from the early 1950s. The minimum rates, two-thirds of the fitters' rate plus one third of the labourers' rate, can explain three-quarters of average earnings in the late 1940s. The last nationally negotiated rates established from November 1987 represented little more than half of average earnings. The fluctuations in the minimum rate as a percentage of earnings in the 1960s and 1970s show that changes to the minimum rate had little impact on earnings. By the 1980s national bargaining in engineering could be dismissed as 'a ritualised irrelevancy, for all save the lowest paid in the industry' (McKinlay and McNulty, 1992: 206). So, the end of national pay negotiations in engineering was a logical development of previous trends.

Despite the declining influence of the national agreement over earnings, the percentage increase negotiated continued to have some influence on local settlements, particularly in smaller firms (interviews with EEF officials). Unions tended to treat the percentage increase negotiated nationally as a starting point for local negotiations (Mr Jones, March 1993). Thus, to a limited extent the minimum rates continued to be a floor even when their level in relation to average earnings had fallen so much that they hardly acted as a safety net.

² John Purcell sees the 1968 national agreement's provision for local productivity bargaining as the formal beginning of the process which culminated in the end of national bargaining (1991: 35). Hugh Clegg, in contrast, was concerned that the 1968 agreement 'will prove to have been a colossal breach of the [incomes] policy' (1970: 420). Guy Routh identifies a marked divergence between movements in earnings in the whole economy and national rates from 1958. He raises, but does not answer, the question: 'Was it then that the break-up of the traditional system began?' (1980: 217). When the process began is a matter of judgement, but for engineering it was clearly well before the 1980s.

National negotiations continued for so long because they suited employers. As Marsh observes: 'It is certainly true that engineering employers could, if they wished, make changes in the position [of the industry's industrial relations system] which engineering unions would have little alternative but to accept. They could develop policies leading to almost any objective they wished. ... The problem is one of incentive. In their own current interests, engineering employers see no obvious reasons why they should do such things.' (1965: 217) The outcome of 1979 dispute, unlike that in 1972, gave employers an incentive to change the industry's industrial relations system. The EEF set up a committee of inquiry into the 1979 dispute. Its recommendations included the ending of national negotiations at an opportune time. While this recommendation was adopted by the EEF's management board as policy, it was forgotten and played no part in the EEF's conduct of the negotiations on hours from 1983 (Mr Jones, March 1993). Still, the adoption of such a policy, even if only on paper, is a clear indication of the EEF's intentions. It would not continue national negotiations if the price of doing so was an outcome like that in 1979.

National bargaining has declined in significance in the post-War period in other industries as well as in engineering. By the end of the 1960s national and other multi-employer agreements 'might have become ramshackle and inadequate, but they were the foundation of the formal bargaining structure'. By 1978 the situation had been 'transformed' with single-employer bargaining the most important level of pay determination for the large majority of manual workers (Brown, 1981: 118). Single-employer bargaining was particularly common in engineering where it was the most important level of pay determination for around 80 per cent of workers (estimated from Brown (1981), Table 2.1). In the late 1970s the 'transformation' of the bargaining structure was disputed. Yet, the importance of plant bargaining in engineering was almost incontrovertible.³ Indeed, the argument of a 'fundamental' change in bargaining structure was accused of a 'marked tendency ... to generalise from developments within specific sectors of industry, notably engineering' (Elliott and Steele, 1976: 43).

Deaton and Beaumont (1980) and Booth (1989) have analysed establishment data in attempt to explain which level of bargaining has the greatest influence on pay increases. As far as

³ Elliott (1981) is an exception, but his case rests on the 1970s when both national bargaining and earnings reflected incomes policy.

engineering is concerned these studies do little more than confirm that plant bargaining is much more common than elsewhere. A dummy variable for engineering is more important than any other variable in explaining whether national bargaining is the most important level of pay determination.⁴ So, as far as engineering is concerned the studies explain the lack of influence of national bargaining by the fact that it is engineering.

The decline of national collective bargaining is far from confined to Britain. There are three main explanations, or 'leading hypotheses', for the decentralization of collective bargaining in Britain and other countries (Katz, 1993). These are, first, an increase in management power relative to that of unions, secondly, new forms of work organization requiring flexibility and employee participation which are hard to combine with nationally agreed rules, and, thirdly, a decentralization of power within companies to lower levels of management. These explanations may not be true of the British engineering industry. Decentralization occurred earlier in engineering than in most other industries. In 1976 plant bargaining was the most important level of negotiations affecting manual workers' earnings in 72 per cent of engineering plants, but in only 33 per cent of plants in other manufacturing industries (Daniel: 1976, 28). Nonetheless, Katz's explanations provide a valuable means of placing developments in engineering in the context of broader movements in industrial relations. An analysis of the relevance of his explanations to engineering may also serve to indicate or question their importance for other industries.

In some countries the balance of power between management and unions may be an important influence on bargaining levels. It seems relatively unimportant in the UK. In 1965, Marsh thought that the bargaining structure in the British engineering industry could readily be changed by the employers. A similar view of the level of bargaining in other industries in Britain is widely held. 'The British literature tends to view the basic decision regarding the appropriate bargaining structure as very much a management dominated one' (Deaton and Beaumont, 1980: 206). As far as the engineering industry is concerned, changes in the balance of power within unions seem a more plausible explanation of the gradual

⁴ In Deaton and Beaumont the engineering dummy has the highest standardised coefficient in the discriminant analysis (p. 211). Booth reports company and establishment regressions in the form of predicted probabilities (p. 230). This allows the predicted probabilities for national bargaining to be obtained by simple arithmetic. An establishment for which the explanatory variables, all dummy variables, each take the value zero, has a predicted probability that national bargaining is the main influence on pay increases of 52 per cent. This probability falls to nine per cent for an engineering plant.

displacement of national negotiations by plant bargaining than the balance of power between employers and unions.

The balance of power between employers and unions certainly contributed to the failure of the national negotiations over hours between 1983 and 1989. The EEF made a 'radical departure from past practice' in putting forward a 'full shopping basket' of 'very revolutionary and far-reaching changes'. In 1986 the CSEU leadership accepted many of these changes, but the EEF still insisted on more. This clearly reflected a major shift in the balance of power. As one industrial correspondent commented: 'Perhaps, the most striking point these talks make about the state of industrial relations is that what the unions have conceded is not enough for the employers' (John Taylor, *Financial Times*, 28 October 1986). If the unions in 1983/89 had been able to mobilise the power nationally which they had done in 1979 and the EEF had survived the experience, national negotiations might have continued. So, the end of national bargaining can to some extent be linked with the changing balance of power between unions and employers at national level. Unions had certainly lost power at the national level. Yet, the alternative interpretation in terms of the changing internal balance of power is more appealing. It also explains the long decline in the influence of national bargaining over earnings.

Flexibility was a crucial issue in the national negotiations. The national agreement limited the flexibility of working time, that is the times at which work was done, but it did not inhibit flexibility in terms of how work was done or who did particular types of work. So, the end of national negotiations clearly created greater scope for local agreements on the flexibility of working time. Yet, very few of the local agreements reducing hours provided for fluctuations in the length of the basic working day or week. These agreements seem to reflect seasonal demand, such as that faced by manufacturers of heating equipment, rather than new forms of work organisation, as suggested in the second of the 'leading hypotheses'. Paul Blyton finds 'the widespread absence of direct references to working time flexibility' 'striking' (1992a: 32). So, the second of Katz's 'leading hypotheses', seems no more irrelevant than the first to the end of national bargaining in engineering. Comparing the campaigns by British and German unions for reduced hours reinforces this conclusion. The 'issue of temporal flexibility has figured more prominently in German agreements than in their British counterparts' (Blyton, 1992b: 418). Yet, in contrast to the UK, there has been no change in the structure of collective bargaining in Germany, as Katz himself notes (1993:

8). So, working time flexibility does not require the end of multi-employer bargaining, whether through British national agreements or German regional agreements.

The third 'leading hypothesis', 'corporate structural decentralization', is more promising. At least it offers some hope of explaining the decline in national collective bargaining before the 1980s. Many of the UK's largest companies have removed themselves from national collective bargaining, as documented in recent case studies (Jackson, Leopold and Tuck, 1993, Purcell and Ahlstrand, 1989, and Walsh, 1993). The withdrawal of large companies from national bargaining is a trend which has started many years ago. In 1978 Brown and Terry noted 'many instances of this type of behaviour in recent years' (1978a: 130). Earlier studies show large companies undermining, rather than abandoning, national collective bargaining. In 1972 the 'growth of "multi-plantism"' was described as the second important factor, after full employment, promoting plant-level bargaining (Whittingham and Towers, 64). Deaton and Beaumont stress the rise in the number of plants owned by the median manufacturing company in terms of output from six in 1958 to 20 in 1968 (1980: 214). Purcell gives more comprehensive, but less dramatic, statistics indicating that the average number of plants owned by the largest manufacturing companies rose by about one half between 1958 and 1987 (1991: 38). Companies, with more than 20,000 employees, owned an average of 44 plants in 1958, 56 in 1978 and 68 in 1987.⁵

A few giant companies owning masses of plants does not by itself undermine national collective bargaining. 'Corporate structural decentralization' is also required. Lower levels of management must acquire the authority and expertise to negotiate wage increases previously determined nationally. This was happening in large companies well before the 1980s. In 1970 Roberts and Gennard observed: 'The development of a specialised industrial relations function means that the larger companies are no longer dependent upon employers' organisations for expert service in this field [negotiations]' (p. 154). The tension between 'multi-plantism' and national bargaining was noted by the Commission on Industrial Relations (1972: 14). 'The post-war growth of large multi-plant companies has introduced a complication in the relationship between industry-wide and plant bargaining. Levels of

⁵ Purcell attributes the rise in the number of very large companies between 1978 and 1987 to the merger wave of the mid-1980s. The average number of plants owned by the largest companies may also have been increased by the decline in manufacturing employment. Companies whose employment fell below 20,000 could have a 'batting average' effect on the average number of plants.

decision-making and bargaining above that of the plant and below that of the industry have been introduced in many companies at group and/or division level'.

In engineering in the 1980s the authority and expertise of plant managers were not in question. The issue was the continuation of a higher and very much subsidiary tier of bargaining. Until 1989 this subsidiary tier protected companies from local claims for reduced hours and increased holidays.⁶ Any successful national claim would threaten the survival of the EEF as a negotiating body. A number of companies, including GEC, left the EEF as a result of its handling of the 1979 dispute. 'Corporate structural decentralisation' was hardly relevant to the change in the level at which hours were negotiated in engineering in 1989. Nonetheless, it may have been a factor in the declining influence of national negotiations over engineering.

'Corporate structural decentralisation' refers primarily to the devolution of power to the level of managers at plant or 'profit centre' level from the 1980s. Yet, the importance of earlier changes in corporate structure suggests that the balance of power within management, like the balance of power within unions, may be an important factor in the decentralisation of bargaining.

Accounts of the decline in national collective bargaining in the 1960s and 1970s attach primary importance to full employment (Lerner, 1964: 5, Roberts and Gennard, 1970: 152, Whittingham and Towers, 1972: 64). Labour shortages had similar effects during both World Wars. Writing of the First World War, Henry Phelps Brown comments: '[Universal and pervasive labour shortages] carried bargaining power down to the shop floor, and gave initiative and independence to groups whose dependence used to be on national leadership' (1982: 77). This is very much in line with Alan Fox's observations on the revival of the shop steward organisation in the Second World War (see Section 2.7).

Research on wage drift, the tendency for earnings to grow faster than national minimum rates, supports the view that low unemployment undermined national bargaining in the

⁶ Macintyre points to another protection. The national minimum rates prevented unions asking the Central Arbitration Committee to award the 'going rate' (1979: 29). Indeed, in the late 1970s the suspension of national bargaining made such claims a possibility (see Section 2.11). The 1980 Employment Act gave companies complete protection by abolishing the CAC's power to make awards.

1950s. The most comprehensive study of wage drift in engineering is by Shirley Lerner and Judith Marquand. They place great emphasis on institutional factors. Nonetheless, they conclude that 'a high level of demand for labour is a prerequisite for most forms of wage drift' (1962: 48). Using 1952-60 data, they find that 'there was a certain degree of association' between unemployment and wage drift. In a later paper, which looked at regional data, they were more specific about the role of excess demand. 'Only where excess demand for labour is particularly strong - perhaps above a certain threshold level - does it exert a direct upward pressure on earnings. Where the excess demand for labour is less great, the effect of institutional factors upon earnings is predominant'. They saw institutional factors as 'adjusting earnings [in different regions and industry groups] to ensure comparability' (1963: 290). So, without excess demand in some regions or industry groups, there would have been no need to restore comparability and no adjustment of earnings in the whole engineering industry.

Excess demand may explain wage drift, but the rise of local bargaining is not an inescapable consequence of wage drift. Managers would hardly start local bargaining in order to respond better to labour market pressures. Earnings can be increased in many other ways. For example, employers might pay for overtime whether it was needed or not.⁷ 25 per cent of engineering managers surveyed in 1970 gave increasing pay as a reason for working overtime (National Board for Prices and Incomes, 1970: S161). When interviewed, as part of the research for this thesis, a retired personnel director confessed that as a personnel manager in the 1960s he had given recruits guarantees of several hours' overtime (Mr Jones, March 1993). Such informal guarantees of overtime or of overtime pay, of course, affect the labour market, but they do so through market rather than institutional forces. Pay comparability is a more credible demand in local negotiations than overtime comparability. Of course, guaranteeing overtime is not conducive to the productive use of working time, as Whybrew argued. Yet, guaranteed overtime has limited implications beyond the local labour market, whereas local bargaining over piece work prices or wage rates may have wider ramifications.

⁷ This is one of several examples of 'inducements' listed in a 1952 circular to members of the Scottish Engineering Employers' Association (Wigham: 1973, 301).

The interaction of labour market pressures and ‘multi-plantism’ appears crucial. Single-plant and multi-plant firms are likely to respond differently to local pay pressure. Multi-plant firms in general have more market power and are more capital-intensive. So, higher labour costs are less of a problem for them than for single-plant firms. Institutional factors may also be important. Plant-level managers receive advice or instructions from a higher level of management less concerned by effects on the local labour market.⁸ In single-plant firms advice could only come from other managers in the area and EEF officials, who would certainly be concerned about local labour market implications. Where the EEF was in charge of the conduct of industrial relations or where its advice was seen as authoritative, the adverse effect of higher pay rates given by one employer on other employers in the locality would be taken into account. This externality would be much less important for managers responsible for many plants in different localities.

The growth of plant-level wage bargaining put increasing pressure on the national negotiations. The national agreements, until prevented by incomes policy in the late 1970s, included general increases in earnings as well as higher minimum rates (with the exception of 1950). To firms with highly developed plant bargaining these general increases were ‘gratuitous and unnecessary additions to their labour costs’ (Wigham: 1973, 200). The growth of local bargaining increased employer resistance to national wage increases. Lower national wage increases made the national minimum rates increasingly unrealistic, leading to greater pressures on employers to agree higher earnings through plant bargaining. So, the national negotiations were locked into a vicious cycle which steadily eroded their influence over earnings.

The studies by Deaton and Beaumont (1980) and Booth (1989) do not, as shown earlier, explain the level of bargaining in engineering. They do, however, point to factors affecting the level of bargaining in other industries. These factors may also be relevant to engineering. Deaton and Beaumont had a direct measure of ‘multi-plantism’, which was significant at the

⁸ Effects on the firm's other plants would concern higher levels of management, but in the early post-War period there does not appear to have been any general demand for comparability of wages between different plants of the same firm. Even at the height of shop steward power in the late 1970s demands for comparability of wages across plants do not seem to have been unduly troubled management. An article in 1978 advocating company-wide shop steward organisation conceded ‘Bargaining comparisons on wage levels often make little impression on management’ (Brown and Terry, 1978b: 660). However, an earlier article, which concentrated on the motor and aviation industries, saw ‘coercive comparisons’ between different plants of the same firm as rather more efficacious (Lerner and Marquand, 1963).

5 per cent level in discriminant analysis both with and without industry controls. Booth did not include any measure of 'multi-plantism' in her regressions. Employer size is probably a reasonable proxy for 'multi-plantism' as establishment size is not highly correlated with employer size (1989: 233). Where an employer has more than 50,000 employees, national bargaining is much less likely to be the main influence on pay increases.⁹ So, both statistical studies support the view that 'multi-plantism' was a factor in the general decline of national bargaining.

The change of bargaining levels in other industries in the 1980s is of limited relevance to engineering. Thus, Katz's 'leading hypotheses' are largely inapplicable. British case studies in the 1980s show large firms adopting a strategic approach and deliberately taking complete responsibility for their own industrial relations. The only sign of such a strategic approach in engineering is by foreign-owned firms.¹⁰ Ford, which started production in Manchester in 1911, is an early example. In general engineering firms have only withdrawn from national bargaining in response to events such as the 1979 dispute.

For the larger employers and the vast majority of union members the national negotiations had, by the 1980s, become little more than a historical relic as far as wages were concerned. This does not mean that the national agreement was of no value to the larger employers. Bargaining through the CSEU was an integral part of British Aerospace's personnel strategy from its formation in 1978. Management was concerned that, without national bargaining, claims for parity between its many plants would become stronger and that there would be pressure for company-level bargaining (Mr Richards, December 1993). Other large employers, such as NEI, found the disputes procedure of the national agreement advantageous. The alternative of a company-wide disputes procedure would have made it harder to resist union claims based on parity between different plants (Mr Reding, March 1993). The national disputes procedure has survived the end of national bargaining. So,

⁹ The predicted probability falls from 52 to 21 per cent. Interpreting these probabilities is an uncertain exercise. Membership of an employers' association which negotiates with a trade union is treated as an explanatory variable. It has an effect which is second only to that of the engineering dummy. Treating employer association membership as an explanation of bargaining level is akin to treating membership of an automobile association as an explanation of the method by which people travel to work.

¹⁰ Foreign ownership is associated with local bargaining. However, this, like some other important influences on bargaining levels, cannot plausibly explain the decline of national bargaining.

employers to whom this is important have no reason to seek the resumption of national negotiations.

The continuation of the national negotiations in engineering construction provides an illuminating contrast to their demise in engineering. The Engineering Construction Industry Association, the main employer body, is part of the EEF while, as in engineering, the unions negotiate through a committee of the CSEU. National bargaining in engineering construction was established in 1981 to overcome problems of fragmented bargaining. In the 1970s industrial relations problems were such as to jeopardise major engineering construction projects in the UK (Garfit, 1989). Neither unions nor employers saw the working week as a more important issue than the survival of national negotiations in engineering construction. They were able to compromise on working hours, agreeing a 38-hour week from January 1992. This suggests that the dispute over the working week ended the engineering national negotiations because they had become so unimportant.

By the 1980s the engineering national negotiations retained only a relic of their pre-War role as the main factor in manual workers' earnings. Combining two of the three reasons Katz offers for the decentralisation of bargaining may contribute to an explanation of developments in the British engineering industry before the 1980s. 'Corporate structural decentralisation', a devolution of power within management, has implications for the balance of power between unions and managers. The same is true of internal union changes. For the British engineering industry focusing directly on changes in internal power balances seems more fruitful than the reasons Katz puts forward as an explanation of the decentralisation of bargaining. Changes in internal power balances may also form part of the reason for the wider decentralisation of bargaining.

In some ways the survival of national negotiations until 1989 is as much in need of explanation as their demise. There are two reasons why national negotiations could have continued into the 1990s. They might have protected employers against local claims on hours and holidays. In addition they gave a role to the national union leadership and to the EEF's

senior national officials.¹¹ The ending of national negotiations suggests that the first reason for their survival was more important than the second.

3.10) The industrial relations system after the 1989/91 campaign

The industrial relations system in 1989 was, of course, very different from that imposed on the unions in the wake of their defeat in 1898. The national system had changed much less than the local system. Arthur Marsh must have had the national wage negotiations and national procedure agreement in mind when he wrote that 'the system devised in 1898 still formally survives [in 1965]'. Even so his statement is heavily qualified. He acknowledges that 'the development of shop steward organisation has formalized and extended the working of domestic grievance procedure into domestic negotiations' (1965: 18). There is still a national disputes procedure for dealing with domestic grievances. So, in a very formal sense the system devised in 1898 survives to this day. Yet, the dominant feature of the local system is not a battle between craft control and managerial prerogative as in 1898. Comprehensive factory level collective agreements have replaced the two-tier system, very much in line with the Donovan prescription (1968: 262/63).

Union claims to individual employers threatened the two-tier industrial relations system in 1972 as well as in 1989. The outcome in 1972 left the unions no alternative but a return to national negotiations. The employers had successfully refused to negotiate local demands, but were prepared to negotiate at national level. The very different outcome in 1989/91 gave employers no incentive to return to national negotiations. To do so would be giving the unions carte blanche to make local claims on hours whenever they were dissatisfied with progress in national negotiations. In addition the unions would have required a national agreement specifying a 37-hour week. This would have been very unwelcome, to say the least, to the considerable number of EEF members who had not conceded the 37-hour week.

As in 1979 confrontation with the CSEU caused lasting damage to the Engineering Employers' Federation. British Aerospace resigned in 1994. This was more directly linked to the failure of merger negotiations between the EEF and the CBI than to the shorter

¹¹ The EEF, however, attached relatively little importance to this role when appointing a new Director-General at the beginning of 1989 (Mr Brighton, December 1993).

working week. Still, British Aerospace makes no secret of its disillusionment with the EEF's ability to deal with the trade unions on its behalf (Mr Dixon, British Aerospace, August 1995). There is now no nationally agreed disputes procedure covering British Aerospace plants. These are now settled at local level and generally retain a role for the CSEU.

The 1989/91 campaign has had a major effect on the formal structure of industrial relations, as did the 1897/98 lockout. National negotiations have ended. In particular the attempt, first made in 1898, to specify nationally how working practices at local level might be changed has been abandoned. So, like the 1898 settlement, the 1989/91 campaign can be said to have marked the end of an era. There are no longer two systems of industrial relations. The national system inaugurated in 1898 is no more, except for issues of procedure. The 1989/91 campaign cannot, however, be seen as the beginning of another era. It is true that hours have become an issue for plant level rather than national negotiations. Yet, unlike 1898, no new institutions or procedures have been created. All that has happened is that the institution of national bargaining, whose importance had been decreasing for half a century, has been laid to rest.

The CSEU, of course, retains a key role in relation to the basic working hours throughout the engineering industry. In June 1995 the AEEU national conference gave rise to considerable press coverage about a 'mopping-up operation' aimed at companies which had not conceded the 37-hour week. This coverage is more relevant to campaigns for election to office within the AEEU than to any campaign for reduced hours. The CSEU currently has no plans to take any decision on the next stage of its campaign for a 35-hour week (Mr Atkins, CSEU, July 1995). Without the CSEU's coordination of the various engineering unions, a further general reduction in hours would be a distant and remote possibility. The success of the 1989/91 campaign, described in the next Chapter, suggests that hours will again be reduced when the AEEU leadership, which has inherited the AEU's traditional dominance within the CSEU, decides to devote the necessary time and resources.

4) THE CSEU CAMPAIGN

4.1) Introduction

In May 1989 the CSEU announced a strategy of indefinite strikes at selected factories. An unusual and imaginative feature of this strategy was that the CSEU collected a levy from members of its affiliated unions to finance strike pay. The CSEU strike pay, at first £125 a week, was in addition to the usual strike pay of up to £25 a week from individual unions.

4.2) Selective strikes, lockouts and other employer responses

Selective strikes have a longer history in the engineering industry than national bargaining. Indeed, selective strikes for the 48-hour week led to the employers' lockout in 1897 and the first national agreement in 1898 (see Section 2.2). Lockouts are one of several possible responses by employers to selective strikes.

Lockouts may also be used to impose terms on unions as in the engineering industry in 1922 (see Section 2.6). The last significant use of lockouts in engineering was in the early 1970s. In the Coventry tool-room dispute of 1971 employers locked their workers out for one day a week in response to a strike of one day a week. This was not a typical lockout as it did not affect employees who were not striking. The 1967 draughtsmen's dispute in shipbuilding is more comparable to the engineering dispute in 1989. Draughtsmen at Swan Hunter went on strike for higher wages. Their union, DATA, paid dispute benefit of 80 per cent of basic pay, financed by a levy of members still working in other industries. The Shipbuilding Employers Federation retaliated with a national lockout. This required employers unaffected by the original strike to join the dispute. Such a tactic is harder in engineering which is so much bigger and more diverse than shipbuilding. Yet, support can be more easily mobilized over hours which are standard at least among EEF-member firms than over wages (Wigham: 1973, 271). Within engineering a large majority of EEF members in a ballot in 1966 expressed willingness to support a national lockout to resist local pay claims by draughtsmen. The EEF decided that the opposition of 22 per cent was too large for a national lockout to succeed (*ibid*, 254/5).

Perhaps, the closest precedent for the 1989/91 dispute is the draughtsmen's nationally-coordinated campaign of local wage claims in 1970/71 in which levies were also used to finance strike action. Rolls Royce forced a 13-week strike in Coventry (ibid, 257). The cost of this strike, combined with a rise in unemployment, defeated the campaign (ibid, 259). DATA paid unemployment benefit, but this had not been a major cost before 1971. No doubt many engineering employers expected the large employers initially targeted by the CSEU in 1989 to hold out long enough to exhaust the funds available to support strikes for reduced hours.

Lockouts were actually more important in the 1979 engineering dispute than in the 1989/91 campaign. Rolls Royce responded to the two-day strikes by locking out its workforce for the remaining three days of each week (Edwards and Scullion, 1981: 61). Producing on three days a week was said not to be profitable. Possibly, the two-day strikes had more effect on Rolls Royce's production than at the factory in the Edwards and Scullion case study or for the industry generally (see Section 2.13 for an analysis of industry output).

There is a more cynical interpretation of the Rolls Royce lockout. Rolls Royce may have been adopting a hard line to influence the EEF against concessions. This, indeed, was the view of the shop stewards in the Edwards and Scullion study. The lockout may have been more a political than a commercial decision. The Government, which then owned Rolls Royce, was effectively bankrolling the lockout. Donald Macintyre, *The Times* labour reporter, found it 'difficult to believe that industry secretary Sir Keith Joseph did not take an active interest in the dispute' (1979: 27). Indeed, Sir Keith, himself, soon after the dispute had ended, commented on the relationship between the Government and Rolls Royce: 'It is a company with which, inescapably, the Government have exceptionally close connections and where important decisions lie directly with the Government' (Hansard, 21 November 1979, Col. 388). While this remark did not relate to the dispute, it indicates, at the least, government consent to the lock out.

Employers other than Rolls Royce who wanted to counter the dispute responded more naturally. They kept their factories open on strike days rather than closing them on non-

strike days. Keeping factories open was much more in line with the EEF's position.¹ The management of British Leyland, which, like Rolls Royce, was publicly owned through the National Enterprise Board, were preoccupied with securing approval from their workforce for their recovery plan. This involved extensive negotiations with the CSEU. From the account given by Michael Edwardes, the Chairman of British Leyland, the dispute was a relatively minor issue.²

Subsidies for strike-hit firms are an alternative collective response to selective strikes. For many years the Engineering Employers' Federation had an Indemnity Fund to support employers who were resisting strikes with implications for other members. So, EEF membership included strike insurance. The Indemnity Fund was last extensively used in 1972 to support employers who faced strikes following the break-down of national negotiations (see Section 2.11). When the EEF constitution was revised in 1973 the strike insurance functions of the Indemnity Fund were retained with a Reserve Fund which 'was to be used for payment to members only when they were subject to union action which the Federation considered involved a point of principle and which, if conceded, would prejudice the interests of federated employers generally' (EEF Annual Review 1974). However, the Reserve Fund was totally inadequate to counter the 1989/91 CSEU campaign and it was abolished in 1992.³

Employers, of course, do not need to rely on collective action in response to selective strikes. They can, for example, try and get other workers to do the work normally done by strikers. This may involve transferring workers to strike-hit sites, as British Aerospace did during the 1989/90 dispute.

¹ Meredeen (1988) takes a different view of the EEF's position. Unless the employers ...imposed a collective lockout, which the EEF's rhetoric urged them to do, the [CSEU] had adopted a winning strategy' (p. 157). Yet, as he reports himself, the EEF advised its members to keep factories open (p. 148).

² The dispute was 'totally beyond our control but devastating in its financial effect' (Edwardes, 1983: 101). Unfortunately, the company's finances were already such that no specific response to this further devastation was necessary.

³ The EEF Review of 1992 states that £6.5m was transferred to a new fund and the remainder to general funds. The accounts show a transfer of £6.7m to the Amalgamated Fund. So, the Reserve Fund seems to have been less than £14m. The 1989/90 dispute is estimated to have cost British Aerospace over £100m (*The Engineer* 22 February, 1990).

4.3) German lessons

The history of selective industrial action in the engineering industry played little or no part in the strategy adopted by the CSEU in 1989. The 1984 campaign by IG Metall, the German engineering union, of selective strike action financed by a levy of members was of much more significance. There were seven weeks of strikes, in which 5.4 million working days were lost, the largest number in any dispute in the history of the Federal Republic (Blyton, 1992b: 420). This was followed by regional agreements reducing the basic working week from 40 to 38½ hours (see Section 9.5).

The success of IG Metall made an immediate impression on the CSEU leadership. The 1985 CSEU Conference approved a motion, proposed by the AEU, which called for a campaign similar to that of IG Metall (see Section 4.3). The EEF naturally took an interest in the CSEU Conference as an early indication of the content of the annual pay claim. However, the significance of the IG Metall campaign for the CSEU was not appreciated. After the CSEU campaign, senior managers attached considerable importance to the German example, as did union officials.⁴ Indeed, Mr Jordan, the AEU President wrote of the 1989/91 CSEU campaign 'It was inevitable that we could learn from the West German experience' (1990: 2).

4.4) The trade union leadership unites

The Executive Council of the CSEU was split almost down the middle in November 1987 when it rejected the EEF's proposals for a shorter working week (see Section 3.5). The split was potentially very serious as the AEU, traditionally the dominant union, was in the minority.

In February 1988 the CSEU Executive referred the issue of shorter hours to the General Council to decide on campaign strategy. The 51-member General Council, with representation from all the smaller unions, was generally a dignified rather than an effective part of the CSEU constitution. The minutes of the General Council meeting are more

⁴ In their interviews both Dr McFarlane and Mr Brighton mentioned advice from IG Metall as a factor in the CSEU campaign. Although this point was not included in the interview notes which were sent to them, Mr Brighton thought it of sufficient importance to request that it be added.

conspicuous for recriminations than for decisions. Mr Jordan complained that the 'question of confidentiality in EEF/CSEU negotiations had been unanimously approved by everyone but inspired leaks had created considerable problems'. A number of more constructive points were made. The meeting was reminded of the CSEU campaign against the privatisation of Rolls Royce which had, for the first time, involved a public relations agency, Union Communications, and which was generally seen as effective. The General Council was also informed that 'It had been made clear to the employers that we were very serious in our intent to obtain a reduction in working hours during our 1988 negotiations. In order to achieve this it was absolutely essential to get our message across to the two million employees in the engineering industry. We had to convince our members. The campaign would have to be planned and coordinated to be effective'. The unnamed conveyor of this information was presumably the able but self-effacing general secretary of the CSEU, Mr Ferry.⁵

In April 1988 the Executive instructed Mr Ferry to draw up a report on a campaign strategy for the General Purposes Committee (EC minutes 7 April 1988). A number of decisions were subsequently made, no doubt reflecting Mr Ferry's recommendations. In May the General Purposes Committee decided to engage Union Communications. In June the Executive considered proposals for a publicity campaign. A basic programme of rallies, booklets, car stickers and the like would cost £75,000. A supplementary programme with media advertising would double the cost. It was decided to consult affiliated unions on the publicity campaign. The Executive set up a strategy committee made up of one representative from each major affiliate to run the campaign on a day-to-day basis (EC minutes 2 June 1988).⁶ This indicates that there was now consensus on a serious pursuit of shorter hours if, as seemed probable, there was no national agreement.

As in 1979 trade union unity ceased to be a problem once the 'right-wing' leadership of the AEU had decided on a 'left-wing' policy. The policy could command the backing of all factions within the unions: from the 'left wing' because it was a variation on the policy they advocated and from the 'right-wing' because they supported the leadership. There was,

⁵ Donald Macintyre in his account of the 1979 dispute also notes Mr Ferry's ability (1979: 25).

⁶ This decision, though no doubt crucial for speedy and effective decision-making during the campaign, is unfortunate. Generally, the only record of the strategy committee's meetings is in the minutes of the EC.

however, no guarantee of support from the EETPU, then enjoying a period of splendid isolation from the rest of the trade union movement. It was about to be expelled from the TUC. The EETPU was refusing to repudiate single union agreements withdrawing negotiating rights from other CSEU affiliates. By the time of the Executive's July meeting all other member unions had written pledging support for the campaign, but the EETPU's reply was still awaited (EC minutes 25 July 1988). The EETPU's support was reported to the August meeting (EC minutes 4 August 1988).

The first booklet of the campaign was launched in September 1988 in the week before the annual wage negotiations started (EC minutes 22 September 1988). There were regional rallies, preceded by activist meetings (EC minutes 3 November 1988). In total four million leaflets were printed, two booklets produced, press conferences held and numerous meetings organised. Yet, the 'level of response ... was disappointing' (Report by Mr Jordan, Chairman of the Engineering Committee, CSEU Annual Meeting, July 1989).

In April 1989 the national negotiations broke down over reduced hours (see Section 3.6). Three alternative ways of pursuing the claim for reduced hours were proposed at the Executive meeting in May (Executive Council minutes, 4 May 1989). APEX proposed that the issue be moved to factory level, the strategy adopted by Hugh Scanlon in similar circumstances in 1972. He had believed 'our members on the shop floor can get more in ten minutes than we get in ten months of [national] negotiations' (*The Sunday Times*, 8 September 1968 quoted in Smith: 1969, 166). Events had proved him wrong. In 1989 the proposal can hardly have been based on faith in shop floor power. A desire by national officials to wash their hands of the issue of reduced hours provides a more likely motivation. The GMB advocated a national ballot, but, acknowledging the unwillingness of members to strike, withdrew in favour of the APEX proposal. The AEU proposal was for 'all-out industrial action of an indefinite period at selected federation companies'. This commanded a large majority over the APEX proposal. In the final vote only the two EETPU representatives opposed the adoption of selective strike action as CSEU policy.

4.5) Campaign fortissimo

The campaign's tempo was now stepped up. Regular meetings of the strategy committee orchestrated full-time officer meetings, a meeting of the General Council in June attended by members of CSEU district committees and meetings within districts. The committee also appointed Michael Short of Rowley Ashworth, who had attended the May EC meeting, as CSEU legal advisor (EC minutes 1 June 1989). The details of the strategy to be adopted were now being decided. The CSEU was advised that industrial action would only be legal if taken at company or plant level (*The Financial Times* 8 May 1989). The CSEU aimed to involve every member in the campaign through a levy of at least one hour's pay a week (report of strategy committee meeting of 9 June 1989). The form of industrial action was, however, still not finally decided. The strategy committee discussed the possibility of an overtime ban and of the imposition of a 35-hour week (*ibid*).

Further momentum was given to the campaign by the annual conference of the CSEU early in July. This was normally a low-key gathering of full-time trade union officials, approving reports and resolutions reflecting a cosy consensus. The 1989 conference was an exception. The highlight was Mr Jordan's speech as chairman of the engineering committee. He announced the names of twelve target companies chosen as candidates for industrial action. The speech attracted an 'unprecedented' standing ovation and was seen as a turning point in the campaign (Mr Jordan, May 1992). Even the EETPU was unrestrained in its enthusiasm: 'EETPU and EESA [EETPU's white-collar section] stand four square behind this necessary and very just campaign' (Mr Egan, EETPU, Report of Proceedings of 1989 Annual Meeting). There were, however, still some tensions between the unions. At the executive council meeting immediately before the conference Mr Airlie of the AEU complained of the lack of commitment of some unions to the campaign: 'Every union had to make the issue a top priority and there was some criticism at local level that some unions were not participating to the full extent' (EC minutes, 3 July 1989).

The levy with a target of one hour's pay a week was launched in August with a minimum of £4 for craft workers, technicians and supervisors and £2 for all others. There was a series of consultative meetings with shop stewards from the target companies (EC minutes, 3 August 1989).

Mass meetings played a considerable part in the mobilisation of membership support for the CSEU campaign. In August 1989, the month the levy started, the CSEU held eleven rallies throughout Britain (*The Financial Times* 9 August 1989). This apparently anachronistic means of communicating with the membership proved surprisingly effective. 'No one who passed through the Preston North End turnstiles last week to hear engineering union leaders rally British Aerospace workers to the cause was left in much doubt that the union campaign has gathered considerable momentum' (*The Engineer* 17/24 August 1989). The attendance, put by *The Engineer* at between 3,000 and 5,000, was sufficient to prompt the manager of the football club to ask Mr Jordan to prolong the meeting so that he could fetch his players and show them what a real crowd looked like (Mr Jordan, May 1992). The rallies seem to have attained the objective of gaining support for the campaign. 'From the reaction to the speeches ... there is little need to push for more support' (*The Engineer* 17/24 August 1989).

Other rallies took place in less auspicious surroundings than football grounds. The rally outside the Bristol factory of Rolls Royce was staged in an 'unlikely venue to rally up to 3,000 people behind a cause. Divided by a busy road, it [the venue] consisted of two long, but narrow, strips of grass. The platform was an eight by four feet contraption normally used to clean and maintain cranes' (*The Financial Times* 18 August 1989). Cars driving through the middle of the rally created considerable problems. 'One car driver blared his horn disapprovingly as he passed through the meeting. Another wound down his window and shouted: "You lazy bastards"'. Nonetheless, an 'impassioned speech' from Mr Jordan produced the desired results. *The Financial Times* journalist drew exactly the same conclusions from the Bristol rally as his colleague on *The Engineer* did from the Preston rally. The campaign was gathering momentum. 'An obscure claim... has become an emotive issue around which workers and unions can unite' (*The Engineer*). Yet, 'voting in favour of the campaign falls a long way short of agreeing to industrial action' (*The Financial Times*). 'It is one thing to stand on the terraces urging your team on: a different thing entirely to be expected to lead the forward line into attack' (*The Engineer*).

In Preston the campaign clearly had considerable impetus. The chant from the terraces was 'We want 35 Bill, not 36 or 37'. The expectations of some of the members who would be called upon to spearhead the campaign were being raised beyond what the union leadership expected to deliver. AEU publicity material issued in support of the campaign strongly stressed 'The European Time Lag', contrasting the 39-hour basic week of UK engineering

workers with 37-hour weeks in Germany and Belgium and 38-hour weeks in Holland and France.

Rolls Royce and British Aerospace workers appeared, from the mass meetings, to be the most enthusiastic supporters of the campaign. Shop stewards from these companies were summoned to Blackpool for further meetings with union leaders attending the TUC Conference. Mr Jordan said that the early indications were that the levy, 'was being strongly supported where it had been formally introduced'. He was, however, resisting pressure to name the targets at least until the week after the Conference when details of the amount raised would be available (*The Financial Times* 4 September 1989). At this stage the response to the levy seems to have been patchy. The first public indication of how much was in the fund came five weeks after the levy had started. Mr Jordan said that £1m was in the fund with £500,000 being collected every week (*The Financial Times* 22 September 1989). This is consistent with information given later in the first CSEU weekly *Update*, issued on 5 October 1989. 'There is now just over £2 million in the Fighting Fund. Because of holidays and other problems, the levy was slow to start in some areas, but it has picked up week by week and money is coming in at a rate of £600,000 a week. The rate is still accelerating.' The levy was raising on average £200,000 a week in its first five weeks and probably much less than this in the first two weeks. So, Mr Jordan's caution two weeks after the start of the levy is understandable.

In the middle of September the EEF advised its members to discourage the collection of the levy (*The Independent* 7 October 1989). There was little other response from employers to the campaign at this stage. The EEF brought the 12 target firms together for the first of what proved to be a series of meetings. The firms decided not to try and influence their employees until the unions had disclosed which plants would be balloted. The meetings of what the unions dubbed the 'dirty dozen' seem merely to have provided a platform for competitive posturing by the personnel directors of British Aerospace and Rolls Royce (Mr Reding). Certainly, the meetings failed to ensure unity among the twelve.

Mr Ferry described the employers as 'sitting back with anxiety' (*The Engineer* 17/24 August 1989), but they seem to have been more complacent than concerned. They were not deaf to the sound and fury of the campaign, but seem to have viewed it as Macbeth saw life, a tale told by an idiot, signifying nothing. Certainly, union reports of the response to the levy were regarded with considerable scepticism (Mr Richards, December 1993). Interviewed some

years later Dr McFarlane readily confessed to underrating the efficiency with which the CSEU would organise the campaign (December 1992).

4.6) Target selection and strike ballots

In mid-September the CSEU's strategy committee selected four of the original 12 target companies for strike action.⁷ Then, a week later a decision was made on seven sites where union members would be asked to strike. Consultations with shop stewards at four other companies were continued (EC minutes 21 September 1989). The six factories finally selected were mainly companies, such as aircraft manufacturers, where work could not easily be transferred to other sites and customers were unlikely to find alternative suppliers. Mr Brighton was very impressed with the selection, saying that, in the unions' position, he would have made exactly the same choice. There were not many factories where workers could go on strike for months and still have jobs to go back to (December 1993). However, political factors, particularly the need for regional balance, played a part in the choice of plants. The final selection was not exactly as Mr Jordan would have liked. He was opposed to calling the Kingston factory of British Aerospace out on strike. Politics would override commercial considerations and foreign governments could easily be persuaded to wait for military aircraft. The strategy committee decided to call the factory out on strike in his absence when a member on whose support he could normally rely took the view that the South of England should contribute more to the campaign (Mr Jordan, May 1992).

The level of dispute benefit likely to be paid by the CSEU became public at the same time as the target sites were announced. *The Financial Times* calculated that, if all 24,000 workers at the target sites were called out and paid about £100 a week the levy fund and the £7m which individual unions had pledged for the campaign would be exhausted in four to five weeks (22 September 1989). The amount to be paid to strikers came as a considerable surprise to British Aerospace management (Mr Richards December 1993). BAe, through the CSEU's choice of three of its sites among the seven to be balloted and through its own public pronouncements, was already the linchpin of the campaign.

⁷ The take over by Rolls Royce of NEI following an offer made in April 1989 meant that strictly speaking there were three companies, but NEI continued to conduct its industrial relations as a separate company.

Differences between the employers were already apparent. BAe restated its opposition to reduced hours in principle while NEI Parsons was happy to broadcast its willingness to concede a 37½-hour week in return for productivity improvements as the EEF had proposed in the national negotiations (*The Financial Times* 22 September 1989). Smiths Industries also indicated its willingness to negotiate a 37½-hour week, provided the CSEU abandoned the ballot of its Chelmsford workforce (*The Engineer* 19 October 1989). BAe was, perhaps, taking a rather harder line than the EEF. Mr Brighton personally had no objection to local discussions provided these were within the terms the EEF had proposed nationally (*The Engineer* 11 May 1989). The EEF, however, seems to have decided against local bargaining until the national negotiations had come to a clear end.⁸

A propaganda battle between unions and management raged for four weeks at each of the seven sites. Rallies, generally held outside the plants, again played an important part in the union campaign. 'It was like a scene from a 1950s black-and-white movie on trade unions. Outside a Victorian-built factory in Coventry yesterday, more than a thousand Rolls Royce employees were peering through the fog at a group of union leaders who were exhorting them, through a faulty public address system, to stage an indefinite strike' (*The Financial Times* 19 October 1989). Both the unions and management used leaflets and letters to get their messages across. A common theme of the management leaflets was 'Why us?'. BAe at Kingston was particularly graphic: 'In the UK, there are 4,500 engineering companies, occupying over 6,000 sites ... SO WHY ON EARTH DID THE CSEU PICK KINGSTON, WHEN THEY KNOW THAT WE ARE FIGHTING FOR OUR SURVIVAL'. This was a message repeated on posters around the factory. In terms of presentation, the CSEU leaflets seem to have outgunned anything launched by the EEF, individual employers and management at the target sites. The CSEU leaflets were simply smarter and, presumably, more expensively produced. The main message was the 4½-day week. 'The long weekend will give us: - more time for leisure - more time for being with our families - more time for helping others'. Union members responded well to the emphasis in the CSEU campaign on the long weekend, which reflected advice from Union Communications (Mr Ferry, April 1992).

⁸ The evidence for this statement is that Mr Brighton in a circular of 20 November 1989 to EEF members authorised strike-hit firms to negotiate locally.

The CSEU strategy committee gave a boost to the 'yes' campaign a week before the ballots by deciding to raise its dispute benefit from £100 to £125 a week (*Update* 13 October 1989). In addition members on strike would receive dispute benefit of up to £25 a week from their own unions. Some workers would actually receive an income while on strike in excess of their take-home pay when at work. Mr Brighton visited Preston while workers at the BAe factory there were on strike. His driver informed him that his wife was one of the strikers and that, as a result, her income had risen. Mr Brighton could only reassure the driver that, in his wife's situation, he would also have gone on strike (December 1993). Of course, most workers faced the prospect of a significant loss of income. In addition a prolonged dispute could well result in a loss of employment, a point which, as at BAe, Kingston, management naturally highlighted.

The majority of manual workers voted for strike action at all seven factories. Almost two-thirds of the manual workers who voted were in favour, but in two factories, Rolls Royce at Coventry and Smiths Industries at Cheltenham almost half the manual workforce voted against strike action. The GMB members in Cheltenham and the EETPU members at British Aerospace in Kingston voted not to strike. From the union perspective the most serious setback was at Coventry where members of the biggest union, the AEU, decided by 530 votes to 521 against striking (*The Financial Times* 25 October 1989). The non-manual vote was very strongly against striking. Over three quarters were against. It was only at British Aerospace, Chester that the strike call came close to commanding a majority of non-manual union members.

The strategy committee took three immediate decisions in the light of the ballot results (*Update* 24 October 1989). The EEF was invited to resume negotiations on the pay and hours claim. Consultations were started about possible strike ballots at the next four target companies. Most important, manual workers were called out on strike from 30 October at three factories, the British Aerospace factories in Preston and Chester and the Rolls Royce factory in Hillington, Glasgow. These were the factories where manual workers had voted most strongly in favour of strikes. In all three the vote had been over 70 per cent in favour and at Hillington and Chester the majority was just over three to one.

The strategy committee later decided to call out members of unions which had voted for strike action at Smiths Industries, NEI Parsons, BAe, Kingston, and Rolls Royce, Coventry

by 17 November unless there were satisfactory local agreements (*Update* 1 November 1989). This decision gave some time for talking before more factories joined the strike.

4.7) A time for talking

The CSEU's approach to the EEF led to immediate informal discussions. The CSEU position, later made public by Mr Jordan, was that there should be a 37-hour week with no strings other than bargaining reform and training improvements (*The Sunday Times* 29 October 1989, *The Financial Times* 31 October 1989). Mr Jordan's willingness to go on record with the CSEU position perhaps indicates some concern about membership expectations. Peter Ball, a senior EEF official, restated the EEF's position: 'On the key principle of giving something for nothing, we have no room for manoeuvre' (*The Independent* 24 October 1989). The CSEU was in no position to be flexible at national level. The unions, having persuaded their members to vote for a strike for a 35-hour week without strings, could not credibly accept much less as part of a national agreement.

The EEF, after consulting the strike-threatened companies, issued a statement rejecting the 'irreducible minimum' demands made by the CSEU: 'It is clear, therefore, that a new national agreement cannot be negotiated at present' (*The Financial Times* 27 October 1989). Many employers saw this as heralding plant agreements and the end of national bargaining (*The Sunday Times* 29 October 1989).

Serious talking could now only be about hours and conditions at the factories facing strikes. Local agreements were seen by the CSEU as a way of forcing the EEF to accept its terms for a national agreement. NEI Parsons and Smiths Industries were already on record as being willing to negotiate 'self-financing' reductions in hours with local union officials (*The Financial Times* 25 October 1989). Rolls Royce was willing to negotiate at plant level on the basis of the EEF's proposals (*ibid* 27 October 1989).

The CSEU leadership was clearly not expecting prolonged strikes at this stage. The three strikes, which had started at the end of October, were costing the Fighting Fund created by the levy an estimated £800,000 a week. When the CSEU decided on these strikes, Mr Ferry put the levy income at £700,000 a week and the Fund at £4m. He was, however, confident that the levy income would rise once the strikes began (*The Financial Times* 25 October

1989). The income subsequently reported by the CSEU was never more than £750,000 a week.⁹ Yet, at the beginning of November the Strategy Committee named nine factories from the next four target companies as candidates for the second wave of strike ballots (*Update* 7 November 1989). The Committee's earlier decision on four more strikes by 17 November meant that, without local settlements, nearly £1.4m would have to be found every week to pay 11,000 strikers £125 a week. The Committee appears to have been confident that the negotiations at NEI and Smiths would succeed. It decided that strikes should not start at NEI or Smiths until 15 November, four weeks after the strike ballots, to allow 'the maximum time to reach an agreement' (*ibid*). The Trade Union Act 1984 allows unions four weeks after a ballot to start a strike without being liable to legal action from employers.

Both NEI Parsons and Smiths conceded the 37-hour week once it was clear that there would be strike action. Smiths did not actually reach an agreement until the Cheltenham strike had lasted three weeks, but the company had offered a 37-hour week before the strike began. The company's offer of a 37-hour week had been approved by the CSEU, only to be rejected by the workforce (Mr Brighton's circular to EEF members of 20 November 1989).¹⁰ So, the strike was about the terms associated with reduced hours and not over reduced hours as such. When interviewed Mr Jones, corporate human resources director at Smiths, said that negotiations with the shop stewards at Cheltenham on a 37½-hour week agreement were at a very advanced stage when news reached the shop stewards of the 37-hour settlement at NEI. The EEF had been kept fully informed of the agreement being negotiated and saw it as a model for the industry, which would have enabled a national agreement on the 37½-hour week. Mr Jones had met Mr Jordan, Mr Laird and Mr Ferry to inform them of this. Once the stewards had heard of the NEI agreement, they changed their position and insisted on a 37-hour week. Mr Jones felt that, but for the NEI agreement, the stewards would have accepted a 37½-hour week (interview March 1993). He did not, however, suggest that the CSEU leadership had ever approved a 37½-hour week agreement. The union leaders whom he had informed of the negotiations might well have been unwilling or unable to persuade the CSEU

⁹ The *Financial Times*, 18 November 1989, did refer to £800,000-plus a week being attracted by the levy, but did not give a source. The maximum weekly income reported by *Update* was £750,000. While *Update* did not report income regularly, it would be surprising if the maximum income received was not mentioned. The CSEU was keen to report success towards its target of £1m a week.

¹⁰ The circular actually refers to approval by the Executive Council, but the EC minutes make no mention of the offer. Approval by the Strategy Committee may not have been reported to the EC or the report may not have been minuted. The members' rejection of the offer made its approval irrelevant.

executive council to endorse such an agreement. The basis of the CSEU campaign was that once one company had conceded 37 hours, the others would follow. Getting a company to offer terms for a 37½-hour week was a significant step towards agreement on 37 hours. The Cheltenham shop stewards were presumably informed of the NEI settlement through union channels. In this way the union leadership was able to play one company off against another.

Indeed, the process of playing companies off against each other seems to have started some time earlier. Mr Jones said that some of the CSEU's initial twelve target companies had removed themselves from the firing line by coming to secret understandings with union leaders on the 37-hour week (interview March 1993). Mr Reding, NEI's group personnel director, also took the view that the twelve target companies were not capable of holding the line at 37½ hours (interview March 1993).

The shop stewards and managers at NEI Parsons were probably under more pressure to reach an early settlement than their counterparts at any of the other five factories where strike action was called. It is true that the threat of closure was probably more immediate for the BAe factory at Kingston. Indeed, the factory's future had been almost continuously in doubt throughout its 35-year existence (Mr Smith, Kingston personnel manager, April 1991). Yet, the long time scales involved in aircraft production meant that a break in production was not so damaging as at NEI Parsons which made generators for the electricity industry. The convenor of shop stewards at NEI Parsons, Mr McGill, had been very concerned when the factory was chosen as a target site (interview February 1993). However, he did not confirm the suggestion, made by the NEI group personnel director, Mr Reding, that the shop stewards had pleaded with the CSEU not to be a target. Other target factories were probably under greater pressure to meet orders than NEI Parsons, but they were starting from a position of strong demand and, so, faced less immediate threat of redundancies or closure as a result of strike action.

The urgency of the situation facing NEI Parsons meant that there were very intensive negotiations. Local management approached the stewards as soon as the ballot result was announced (Mr McGill). The decision to concede the 37-hour week was made by the NEI Board. Some members of the Board felt that the Parsons stewards would eventually accept a 37½-hour week. Ironically, the takeover by Rolls Royce, which had taken a harder line than NEI, provided the decisive argument for conceding the 37-hour week. Mr Reding

informed the Board that the stewards would certainly not accept any 37½-hour week settlement because they were aware that Hillington would hold out for 37 hours. His judgement was that, irrespective of Hillington, the Parsons stewards would have rejected any 37½-hour week settlement, but he doubted whether he could have convinced his colleagues of this (Mr Reding). Rolls Royce had no hesitation in endorsing the concession of the 37-hour week. Mr Reding felt that they had decided on a 37-hour week independently, but found it convenient for NEI to take the blame for a decision which would be unpopular with other EEF members. The convenor of shop stewards at Rolls Royce's Hillington factory, Mr Keown, expected local management to open negotiations immediately after the NEI Parsons agreement (*The Financial Times* 13 November 1989). This expectation proved well founded.

Intensive negotiations between the shop stewards and management at NEI Parsons continued right up to the statutory deadline for the strike to start. Indeed, talks continued after the deadline so that technically there was a strike (Mr Reding). When an agreement was close, Mr Jordan, at Mr McGill's invitation, flew to Newcastle from Brussels where he had been due to chair a meeting of the International Metalworkers' Federation. Mr McGill was naturally concerned that an agreement with national implications should have national approval. Mr Reding did not want Mr Jordan to put the factory management under greater pressure. He vetoed even indirect contact between the factory management and Mr Jordan unless he was fully involved. The result was a meeting of the management negotiators, the managing director of NEI Parsons and Mr Reding with the stewards and Mr Jordan. The position in the negotiations was gone through in detail. Mr Jordan said that the details were a matter for the local negotiators. The only requirement imposed by the CSEU was that there should be a 37-hour week by the beginning of 1992. The final details were agreed between the factory management and the shop stewards in a hotel with Mr Reding in an adjoining room (Mr Reding).

The NEI Parsons agreement provided for an hour's reduction in January 1990 and two half-hour reductions in January 1991 and January 1992. There were extensive cost-offsetting provisions. The meaning of many of the offsetting provisions was unclear to outsiders. Mr Reding said 'safeguards, dressed up in gobbleygook, would have driven some people nationally spare if they had known [what the gobbleygook meant]'. Nonetheless, he was confident that the management negotiators had achieved their brief of negotiating a reduced working week with no increase in costs. There were a number of changes, such as multi-

machine manning, without which there would have been no agreement. Assessing the effects of an agreement from its text is, to say the least, always an imprecise science. This is especially true when negotiators are under strong pressures such as those generated by the CSEU campaign and the demand from senior managers that reduced hours be self-financing (see Section 6.4a). Mr Brighton was well aware of this, but it was something he had to point out to EEF staff and to others (December 1993).

Like the CSEU the EEF knew of the agreement in advance. Mr Reding had a meeting with the EEF President, Mr Brighton and Dr McFarlane to inform them that NEI would concede the 37-hour week. He described the atmosphere as 'icy'. While Mr McGill sought CSEU approval for the agreement, Mr Reding deemed it sufficient merely to inform the EEF. Mr Reding had not felt welcome at the next meeting of the EEF Management Board, but the Chairman of the Northern Association had diffused the situation by saying that she would have done exactly the same in his position.

Mr Reding was not alone in finding himself unpopular as a result of the NEI Parsons agreement. Mr McGill faced 'an awful lot of criticism' at the next local CSEU meeting of convenors, which drew a record attendance.

4.8) A time for litigation

BAe sought to stop the strikes through litigation rather than by negotiation. The company's immediate response to the failure of the national discussions was to seek interim injunctions against individual unions on the grounds that the CSEU was in breach of its own rules. The rules required a two-thirds majority in a ballot of members before the CSEU could call strike action. The company argued that at the seven target factories the overall vote to strike by members of the CSEU unions, including non-manual members, was only 54 per cent. A breach by the CSEU of its constitution would not normally provide grounds for legal action other than by its affiliates. Elgar and Simpson (1993b: 111) comment that BAe's 'locus standi is clearly open to question'. Mr Justice Schiemann, who heard the applications, described BAe's argument as 'ingenious in the extreme' (*The Guardian* 28 October 1989). The unions argued that the CSEU merely had a coordinating role. The strikes and the ballots were the responsibility of individual unions and complied with the legislation. Further, the

CSEU's rule about a strike ballot was defunct because it had no individual members.¹¹ The judge, much to the surprise of BAe management, enabled the union leaders attending the hearing to protect their unions from the consequences of any breach of the CSEU constitution. He let them waive the CSEU's obligation to its affiliates to observe its rules (Mr Richards, December 1993). The hearing was in chambers and is not reported. So, the judgement on the issues in dispute is not entirely clear. Yet, Mr Justice Schiemann seems to have been decided comprehensively against BAe, which did not appeal against his dismissal of their applications or initiate proceedings for damages against the unions.

BAe was more successful, at least initially, in another application made at the same time against MSF. This application related to the Preston factory, where MSF had both manual and non-manual members. MSF had called out its manual members, who had voted 175 to 43 to strike. However, the vote of all MSF members was 549 to 305 against striking. The judge granted an interim injunction against MSF, but at the main hearing BAe did not pursue its argument and the claim was dismissed with costs (*The Financial Times* 31 October 1989, *Update* 1 November 1989). BAe did not think it worthwhile to persist in attempting to deny a small group of workers who had voted to strike the right to do so when the failure of their other applications meant that other workers could strike (Mr Richards). Yet, while the application only related to Preston, it had implications for both Kingston and Chester. Adding together the votes of manual and non-manual members at Kingston, where MSF was the largest manual union, the majority of MSF members had voted against. At Chester the majority of MSF members had voted in favour, and, if the company had succeeded in its application, MSF would have had either to call out non-manual members who had voted not to strike or instruct manual members who had voted to strike not to do so (*The Financial Times* 31 October 1989).

The possibility of legal action was considered by the other target companies. NEI and its parent company, Rolls Royce, took joint legal advice. Mr Reding said that their lawyers had advised them of a way in which a case based on the CSEU rule-book's requirement of a two-thirds majority might have been won. This advice was not communicated to BAe. The lack of communication between the two companies principally involved in the dispute plainly

¹¹ A 1979 proposal by the EETPU that the CSEU hold a strike ballot was dismissed as 'mischievous'. The constitution was silent on how a ballot should be carried out and it was impossible to identify who would be entitled to vote (Rice, 1980: 70).

indicates that common adversity had not ameliorated the hostility which had been apparent during the meetings of the 'dirty dozen'. Rolls Royce had publicly indicated its lack of sympathy for BAe's legal action even before its outcome was known. A company spokesman said: 'We don't believe that legal action will resolve this dispute' (*The Daily Telegraph* 27 October 1989).

Smiths Industries also obtained legal advice which indicated that a successful action against the unions was possible. However, this would have jeopardized the speedy settlement which they expected to be able to secure (Mr Jones). The same consideration applied to NEI. Rolls Royce possibly had less scope for legal action over the Hillington strike because the vote of manual union members called out on strike was 77 per cent in favour. Even including non-manual members not called out, the vote was 63 per cent in favour. Also, Rolls Royce management presumably anticipated that a settlement at Hillington would rapidly follow that at NEI Parsons.

Unless they were as 'ingenious' as BAe had been in their exploitation of the CSEU rule-book, the union conduct of the campaign left employers little scope for litigation. Elgar and Simpson (1993a) in a study covering three of the EEF's 14 regional associations found only two cases where managers had used or threatened to use the law. This was despite close scrutiny by the associations of strike ballots. In one case a writ was issued leading to a negotiated settlement. The other case involved the same issue as BAe's claim against MSF. Two sections of the AEU in the same factory were balloted. When the votes were added together the result was tied. The employer's threat of legal proceedings was successful in preventing the section which had voted to strike from doing so.

4.9) The EEF retreats and regroups

The EEF reacted quickly to the situation created by the NEI Parsons agreement. Of the initial four target companies only British Aerospace was showing any inclination to hold a line against a settlement on terms acceptable to the CSEU. Smiths Industries, like NEI Parsons, had made concessions beyond those which the EEF had offered nationally. It had offered a 37-hour week, but this had been rejected by the unions locally because of the conditions involved (*The Financial Times* 13 November 1989). Rolls Royce, NEI's parent company, was obviously ready to do as its subsidiary had done. Even the status of the national offer made in 1987 was uncertain. The CSEU's rejection of the offer had led the EEF to abandon a planned ballot of members. So, the offer the EEF representatives on the Subcommittee had made was never formally approved. This enabled British Aerospace to argue within the EEF against any local agreement on a 37½-hour week along the lines of the offer (non-attributable interview information). The EEF needed to retreat from its national offer and regroup its forces to defend a new line. If it did not retreat and regroup, there could be a rout. The CSEU's strategy left negotiations very much in the hands of shop stewards. They would not necessarily accept 37-hour week agreements. If each company was left in isolation to deal with claims for a 35-hour week with no 'strings', anything could happen. Two of the first three agreements with non-target companies reported by the CSEU involved a working week of less than 37 hours. One was a phased reduction to 35 hours and the other an immediate reduction to 36 hours 20 minutes (*Update* 13 December 1989).

The EEF had, in one sense, wanted the same outcome from the strikes as the CSEU. They were both seeking a local agreement or agreements which could serve as a basis for a national agreement. The CSEU was the more explicit in its objective. Mr Brighton, in a circular to EEF members, baldly but accurately described the CSEU as 'picking off selected member companies a few at a time in an attempt to force the Federation into a national agreement on terms which would not be acceptable to the bulk of member firms' (20 November 1989). The EEF had similarly aimed to force the CSEU into a national agreement on terms not acceptable to a majority of its Executive Council through an agreement on a 37½-hour week at Smiths Industries. After the NEI Parsons agreement the EEF needed to get its three member firms off the hook on which they were impaled. As Mr Brighton put it they 'were caught in a void with no apparent means of bringing [the strikes] to an end'. The only way out was for the EEF formally to authorise local agreements, which Smiths

Industries and Rolls Royce would negotiate in any event. Until the NEI Parsons agreement, the uncertain status of the national negotiations, following the union walkout in April, had suited the EEF (interview with Mr Jones). Member companies, such as Smiths Industries, which were under union pressure could behave as if the EEF's 37½-hour offer had been accepted. Other members could refuse to negotiate on hours on the grounds that the national agreement still specified a 39-hour week.

NEI had done its own thing. It had reached an agreement of which the vast majority of EEF members disapproved. The EEF could hardly respond by advising other members to do as NEI Parsons had done. This would destroy its credibility with its members. Yet, to do nothing would be even more humiliating with Smiths Industries and Rolls Royce about to reach similar agreements and strike ballots expected at nine more factories before Christmas. The way out of this dilemma was to resolve the status of national negotiations. A breakdown of national negotiation would justify a new policy of local negotiations on hours.

So, the EEF invited the CSEU to resume national negotiations. The EEF explained to their members that this was done at the request of the three companies 'in the firing line' who 'needed to know whether the dispute would be terminated by a national settlement or whether they would be left to resolve it by domestic agreement. If such a national agreement was not going to be possible, then they asked that the Federation should withdraw from dealing with this claim at national level, take the proposals off the table and leave members to deal with the claim at domestic level' (Mr Brighton's circular, 20 November 1989). The real reason for resuming national negotiations was to cover the EEF's retreat from its formal position of resisting local agreements to an acceptance of local shorter working week agreements on a self-financing basis. The EEF and, in particular, British Aerospace would have found life much easier had they adopted this position earlier, as Mr Brighton had advocated (see Section 4.6).

The national negotiations resumed on 16 November, as the Kingston and Cheltenham strikes began, only to end the same day in some acrimony (see Section 2.20). Management interviewees were uniformly unforthcoming about the basis on which the CSEU had been invited to talk. They refused to go beyond the formal EEF position that the status of the national negotiations needed to be resolved before there could be local negotiations. However, the EEF seems to have done nothing to dispel union expectations that there would

be substantive talks. Twenty-one CSEU representatives attended the negotiations. This was the highest turnout by the CSEU in any of the 13 negotiating sessions since 1985. The number of CSEU representatives normally reflected the importance of the session. The high turnout is particularly noteworthy as the meeting had been called at very short notice.

Resolving the status of the national agreement did not lead to immediate settlements at Smiths Industries, Cheltenham and Rolls Royce, Hillington. The 37-hour week had effectively been conceded before the brief resumption of national negotiations, but the other terms of the agreements still had to be negotiated. This took three more weeks. On 11 December a mass meeting of Cheltenham members approved an agreement, but the Hillington members turned down a proposed settlement (*Update* 13 December 1989).

The Cheltenham agreement essentially left the financing of the reduction open. There were four six-monthly half-hour reductions until November 1991, but specific measures only to offset the cost of the first stage. The cost of the remaining stages was to 'be offset by changes in working practices, the details of which have not yet been agreed'. Even the specific measures, 'the abolition of washing time, changed tea-break arrangements and other alterations to working time', linked to the first stage were obscure. For example, the clause abolishing washing-up time reads: 'No official washing-up time is allowed (but reasonable washing-up time will be permitted depending on the conditions and environment)' (IDS *Study* 461, July 1990). The effect of the changes to tea-breaks is also unclear, but it does appear that a 15-minute Friday afternoon tea-break was abolished (*IRS Pay and Benefits Bulletin* No. 248, 23 January 1990).

The Hillington settlement was rejected because it involved a nine-day fortnight rather than a four-and-a-half-day week. The meeting had also been infiltrated by outsiders, but the stewards did not feel that this had affected the outcome. The stewards ensured that entry to a recall meeting five days later was properly policed. National speakers pointed out that the CSEU dispute benefit was about to be reduced. The members voted to accept the agreement (interview with Mr Gaffney, Hillington convenor, deputy convenor in 1989, September 1992).

Like Mr McGill the Hillington convenor, Mr Keown, received few accolades from his fellow-convenors for the reduced hours agreement which he had negotiated. A meeting of

Rolls Royce convenors almost degenerated into a trial, at which Mr Keown faced the particular charge of selling out tea-breaks. He secured acquittal by adopting the unusual defence of asking for several identical offences to be taken into consideration (interview with Mr Jordan).

4.10) British Aerospace flies solo

The strikes at the British Aerospace factories did not end until February or March 1989. Industrial relations at each of the three factories were poor. This doubtless prolonged the disputes. Yet, the main reason for the delay was the position adopted by management. Strangely, negotiations were delayed until January not over a question of substance but over a purely procedural issue, whether talks should start while the strikes continued.

British Aerospace was quick to change its position on the 37-hour week following the formal end of national negotiations. The company authorised local negotiations on the 37-hour week, but maintained a hard line in insisting that the strikes end first. Management at Kingston wrote to the shop stewards on 24 November seeking talks on these terms. The shop stewards replied that local talks would only take place if there were no preconditions (British Aerospace Kingston *Weekly News*, 1 December 1989). This was in line with the position adopted nationally by the CSEU strategy committee which publicly welcomed British Aerospace's change of conditions and offered unconditional talks at national level (*Update* 29 November 1989).

The prolonged BAe dispute was placing the Fighting Fund under considerable strain. At the end of November the CSEU reported levy income of £750,000 a week and weekly expenditure of almost £1,250,000 with nearly 10,000 workers on strike, including those at Rolls Royce (*Update* 29 November 1989). The amount in the levy fund was not reported, but there was £4m when the first strikes started at the end of October. So, the fund could not have had more than £2m. Even assuming the number of strikers were reduced to 7,200 by the expected settlement at Rolls Royce, the CSEU faced the prospect that the Fund would be exhausted before the end of the January. *The Engineer* calculated that 'If new sources of finance fail to materialise then the CSEU will reach the bottom of its pockets soon after Christmas' (30 November 1989). Efforts were naturally made to increase the income to the fund, with appeals to unions and their branches throughout Britain and to engineering unions

overseas (*Update* 29 November 1989). The CSEU provided some indication of who responded to these appeals, but was extremely reticent about how much was raised. One exception is a donation from the Dutch unions of £36,000, described as 'magnificent' (*Update* 2 January 1990). This suggests donations from overseas did not add much to the regular income from the levy of engineering workers. Still, the dispute had a European dimension. Unions in other European countries, whose campaigns for a 35-hour week were, to some extent, coordinated through the International Metalworkers' Federation, had an obvious interest in the success of the CSEU campaign. *The Engineer* warned employers: 'It may not be wise to gamble against IMF unions coughing up the cash to see the dispute through' (30 November 1990).

The CSEU was forced to postpone strike ballots at the next group of eight factories, which had been selected and named at the beginning of November, 'till early in the New Year' (*Update* 29 November 1989). On 11 December the Strategy Committee decided to cut the dispute benefit by more than one half from £125 to £60. 'The numbers on strike were considerably more than the numbers anticipated' (EC minutes 1 February 1980). The convenors at the three BAE factories and at Rolls Royce, Hillington were consulted about this decision (*Update* 13 December 1989). Mass meetings were organised to secure the membership's continued support for the strikes. Mr Jordan addressed the meeting in Chester. He promised that the £60 benefit could be maintained indefinitely. There was an overwhelming vote in favour with only a dozen hands raised in opposition to continuing the strike. Mr Ferry had a much rougher ride in Preston. There was vociferous opposition and perhaps one third voted against continuing the strike. Mr Jordan saw the continued support for strikes at these mass meetings as decisive in the success of the campaign (interview May 1992).

With the reduction in benefit the unions were at least as prepared as BAe management for a prolonged dispute. Mr Jordan told *The Engineer*: 'No matter how long they sit it out, we will too' (14-28 December 1989). Perhaps inevitably, the dispute was becoming increasingly bitter. BAe had laid off over 700 workers. These workers received no benefit from the CSEU. If they had done, the numbers laid off would no doubt have been considerably higher. Attempts were made to bus workers to the Preston and Kingston factories. Management saw this as a way of putting pressure on the unions and had been mildly surprised by the positive response of workers asked to transfer to the strike-hit factories (Mr

Richards November 1992). Management also sought to transfer work from the Chester factory, which was making wings for the European Airbus, to BAe's partners in the Airbus consortium. In addition management decided to end tinsmith work at Preston with 50 redundancies (*Update* 13 December 1989). The unions saw this decision as an attack on trade union organisation as the Preston convenor was a tinsmith (*Update* 2 January 1990). The chairman and secretary of the shops stewards committee at Kingston faced disciplinary action following picket line violence at the start of the strike.

There was some danger that the dispute would escalate. Mr Jordan spoke of this publicly, telling *The Engineer* that 'BAe appears to be challenging the existence of trade unions'. He warned that 'the dispute is almost certain to widen' (14-28 December 1989). As a prediction, this statement is impressive in its inaccuracy. It should perhaps be seen as a warning to BAe against further measures to provoke the unions. Certainly, there is no evidence that the strategy committee seriously considered asking workers at other BAe factories to join the strike as *The Engineer* suggests.¹² Nonetheless, Mr Jordan's remarks clearly show his concern about a much broader dispute both in terms of the issues and the number of workers involved.

In the New Year BAe moved from its entrenched position of not talking without a cease fire in the form of an end to strike action. The reduction in strike benefit from the CSEU fund meant that BAe had to concentrate on promoting a return to work, rather than seeking to exhaust the fund. Despite circulating leaflets, setting up telephone help lines and running buses through picket lines, there was no sign of any general return to work.

Pressure from its partners in the Airbus consortium was a major factor in the decision to talk while the strikes continued (*The Engineer* 25 January 1990, interview with Mr Richards November 1992). The German partner, MBB, was the first to be affected with Airbus production at its Bremen plant halved from the beginning of December and stopped altogether in January (*The Engineer* 7 December 1989). The French partner, Aerospatiale, had less opportunity to transfer its workers at Toulouse to other work. Faced with the prospect of layoffs early in February its managing director, Mr Jean Pierson, did not confine

¹² The only indication of any discussion by the strategy committee is in *Update* of 26 January 1990, which reported the committee's decision the previous day not to extend the BAe strikes 'at this stage'.

himself to private pressure. He was publicly critical of BAe's handling of the dispute. The extent of the exasperation of the Airbus partners was such that at a meeting of Airbus's supervisory board they sought to make BAe liable for the losses they were suffering (*The Engineer* 25 January 1990). BAe claimed force majeure and avoided liability for Airbus's losses which finally reached an estimated \$300m (McIntyre, 1992: 263). The international ramifications of the dispute were also felt in America as McDonnell Douglas relied on BAe parts (*The Engineer* 18 January 1990). *Update* claimed BAe management was also under pressure from McDonnell Douglas 'with top managers scurrying to and fro across the Atlantic for crisis meetings' (17 January 1990).

The Chairman of Airbus France, Mr Loidi, complained directly to Mrs Thatcher. In a reply of 26 February Mrs Thatcher assured him that 'she was keeping a close watch on developments' (copy of letter provided courtesy of Mr Jordan). She argued that BAe were doing the Airbus consortium a service by holding the line and that 'any unjustified settlement' would merely move the union pressure to its partners. Mr Jordan used Mrs Thatcher's letter to Mr Loidi as evidence of political interference. It, however, merely indicates that the Prime Minister was aware of the situation. The Prime Minister was probably not responsible for BAe management's insistence on continued digging when they had got themselves into a hole. Conservative Ministers had appointed the BAe directors over a period of six years until the Government ceased to be a shareholder in May 1985. The line the directors took accorded with the Government's approach to industrial relations, but it is unlikely to reflect direct political influence.

Traditionally, BAe and the CSEU had no relationship. BAe only dealt with the CSEU indirectly, through the EEF national negotiations. Otherwise, there would probably have been more contact between BAe and the CSEU in 1989. However, once BAe had decided to negotiate without preconditions, ACAS was able to arrange an exploratory meeting without BAe having to make a direct request of the CSEU (Mr Richards, November 1992). A meeting took place on 15 January (*The Engineer* 18 January 1990). Mr Jordan offered Mr Saundry, BAe's personnel director, and Mr Richards three alternatives. There could be a national framework agreement, local negotiations or 'we can go on bashing hell out of one another' (Mr Richards). A national framework agreement would have been completely against the industrial relations strategy adopted by BAe since its creation in 1977. Any form of company negotiations was seen as opening the door for local claims based on parity with

other plants. So, while the meeting remained purely exploratory, local negotiations emerged as the only way forward. Negotiations started six days later on Sunday, 21st at Preston followed later in the week by talks covering the Chester and Brough factories, which formed one negotiating group. The suspensions at Kingston delayed talks there. Full-time officers first had to negotiate the lifting of the suspensions of the chairman and secretary of the shop stewards' committee (*Update* 26 January and 6 February 1990). However, Kingston was unlikely ever to have been the first to reach agreement. There had not even been local wage agreements for several years. The stewards negotiated with management and acquiesced in settlements, but refused to endorse them, leaving management to impose terms which members, on the advice of the stewards, had rejected (interview with Mr Smith, April 1991).

The CSEU campaign was sufficiently sophisticated to seek support from the City. A special briefing was circulated to analysts, stockbrokers and journalists, highlighting the damage being done to BAe by the strikes. Losses were put at £1.2m a day (*Update* 16 February 1990).

Progress in the Preston talks was remarkably rapid, at least relative to the snail's pace which characterised other negotiations involving BAe. By the end of January the shop stewards 'felt it necessary to report to the Confed [CSEU] executive'. While the stewards would have accepted the offer of a two-hours' reduction spread over a year, there were two obstacles to an agreement. Some of the union members on strike, members of APEX, the white-collar section of the GMB, would not benefit from the offer as they already had a 37-hour week. The 'stringent conditions' which managers wanted to attach to manual workers were also unacceptable. The strategy committee assured the stewards of the CSEU's continued support, subject to approval by members of the stewards' recommendation that the offer be rejected (*Update* 6 February 1990). A mass meeting 'resoundingly' rejected the 'final, final offer' (*Update* 16 February 1990).

Mass meetings at Preston and Chester finally accepted agreements on a 37-hour week in March. The agreements were for an immediate one-hour 's reduction and a further one-hour cut a year later and the introduction of a four-and-a-half-day week. The voting was close (*Update* 12 March 1990). Work resumed on 5 March, after strikes lasting 15 weeks. Staff already on 37 hours had no reduction, but received a payment of £650. The strike at Kingston continued until 25 April. It had lasted for just over 23 weeks.

4.11) Rover steers clear of conflict

The introduction of the shorter working week at Rover, then owned by British Aerospace, provides a remarkable contrast with the industrial relations fiasco in the company's military and civil aviation divisions. Rover was not a member of the EEF, British Leyland having resigned in 1980. Management had a long tradition of direct dealings with the national union leadership. It is true that contact with the CSEU, which traditionally was limited to dealing with EEF members, had ended in 1980. Yet, Mr Adams, then the TGWU national official for the motor industry and the leader of the union side of the Rover pay negotiators, was also a member of the CSEU strategy committee. In contrast to the aircraft divisions management was used to dealing with the unions at the level on which decisions about the shorter working week campaign were being made.

Of course Rover management were hardly likely to adopt the same initial position on the shorter working week as their colleagues in BAe's aircraft divisions had done. Yet, their approach was very similar to that of the EEF when it was negotiating seriously between 1986 and 1988. Rover management had precisely the same negotiating objectives as the EEF. The difference was that they achieved their objectives. The Rover agreement set a national framework under which hours were only reduced once agreement on cost-offsetting measures had been reached at plant level.¹³

4.12) Other companies

Not all other companies took advantage of the prolonged disputes at British Aerospace to delay agreements on reduced hours. It is not entirely clear why some managers outside the target factories negotiated reduced hours towards the end of 1989 or during the early months of 1990. The CSEU was hardly in a position to finance strike action until March 1990. Managers interviewed in 1991 nearly all felt that a reduction in hours had become inevitable during 1989 (Richardson and Rubin, 1993: 209). Some said that making an early concession rather than waiting to be forced to reduce hours had given them maximum control of the

¹³ When interviewed Mr Adams did not seek to deny the similarity between the Rover agreement and the EEF proposals for a national framework agreement. He, however, emphasized that different circumstances meant that the workforce in one company would agree terms which workers elsewhere would reject.

terms on which hours were reduced.¹⁴ There was also some feeling that unions would seek to delay agreement on changes so as to be able to give a quid pro quo when reduced hours were agreed (interviews with Mr Littlejohn, Scottish Engineering Employers' Association, August 1992, and Dr McFarlane, December 1992, although neither suggested that this was widespread). In some cases managers were strongly influenced by reductions agreed at other plants in the same group (see report on Window Dressing in Appendix to Chapter Six). The end of national negotiations and the permissive attitude of the EEF were doubtless also significant factors. Many managers had previously resisted local pressure for reduced hours by reference to the national negotiations.

Following the Rolls Royce settlement at Hillington the CSEU was able to list 25 factories where the 37-hour week had been agreed for manual workers (*Update* 17 January 1990). These were generally large factories and included one of the eight, GKN Sankey at Telford, selected for the second round of ballots. With income from the levy reportedly back to its pre-Christmas level the CSEU was able to 'begin work on the second tier of companies selected for industrial action'. As well as consultations with shop stewards at the four companies already named, the strategy committee decided that a number of other companies should be added to the list so that union members in all regions of the country and in smaller plants should know 'that they are not being forgotten and that a shorter working week will be won for them' (*Update* 26 January 1990).

The agreement at Rolls Royce Motors was perhaps the most important reached in January. It was certainly the largest, covering 3,000 manual workers at Crewe. Vickers, the parent company, was not one of the CSEU's targets for its second round of ballots. As well as reducing the working week by one hour in July 1990 and a further hour in January 1991 to give a 37-hour week, the agreement provided for a general pay increase of 10.3 per cent. The agreement was unusual in providing for an immediate increase in output from 60 to 64 cars a week. This increase in output was to be implemented in January six months before the first stage of the reductions in hours. It was further agreed that this first stage was not to involve

¹⁴ Rover's management seem to have taken this view. Few other managers, however, reached an agreement on reduced hours outside the annual pay negotiations.

any increase in unit labour costs and that the second and final stage would only increase unit labour costs by the equivalent of half-an-hour's reduction.¹⁵

What the CSEU claimed as a 'cascade of agreements' (*Update* 17 January 1990) was still well short of a flood. In early February the CSEU was reporting 32 agreements, only seven more than three weeks earlier. The strategy committee announced that it would decide which plants to ballot at the second round targets, Lucas, William Cook and the Weir Group on 14 February (*Update* 6 February). GKN, three of whose factories had been among the eight selected in November 1989 for ballots, had subsequently concluded two plant-level agreements on the 37-hour week (*Update* 12 March). This was clearly sufficient to remove the company from the firing line. Lucas responded with a declaration that it 'had absolutely no plans to countenance a reduction in hours' (*ibid*). While deciding to 'extend the action', the strategy committee was cautious in its decisions on 14 February. Only the three Weir Pump factories, originally selected in November, and one at the new target, William Cook, were named. The committee decided on further consultations with stewards before selecting Lucas factories (*Update* 16 February). Lucas took a harder line than the other companies which started plant negotiations. It said it would not look at the issue before notice of a strike ballot (*The Engineer* 22 February).

The final selection of plants to be balloted only took place in mid-March after two of the three strike-hit BAe factories had returned to work. In general employers required strong persuasion to concede the 37-hour week in their annual pay negotiations. The agreements with BAe at Preston and Chester only brought the total number claimed by the CSEU to 57 (*Update* 12 March 1990). Negotiations had started at all William Cook plants, although only one had been named as a target. So, as with GKN, the CSEU decided not to ballot 'as yet' (*Update* 12 March 1990). Weir had conceded the 37-hour week in principle (*The Engineer* 22 February 1990), but the conditions it wished to attach were not acceptable. So, the CSEU decided to ballot the three Weir factories previously named and eight Lucas factories. Voting, involving 10,500 manual workers, was due to start on April 10 (*Update* 19 March 1990). Shortly before the ballots the CSEU raised its dispute benefit from £60 to £70 a week.

¹⁵ The significance of such provisions and their relationship with the shorter working week cannot be assessed solely by textual analysis. Chapter Six presents case studies of the effects of 20 shorter working week agreements. None of these involves an increase in production 'at a stroke'. However, an agreement on no loss of production when hours are reduced is similar to one for production to be increased with unchanged hours. Both involve an increase in productivity. So, the Rolls Royce agreement is not so unusual in terms of its intended effects.

The strategy committee was also confident enough to name 34 more companies spread all over Britain as 'targets in the forthcoming wave of ballots for industrial action' (*Update* 9 April 1990). It was soon apparent that neither Lucas nor Weir had any appetite for prolonged disputes. Both authorised plant-level agreements before the ballots took place (*Update* 24 April 1990).

In eight factories ballots did take place with results *Update* felt could 'only be described as sensational'. At five factories the vote in favour of strikes was more than three-to-one, in one case as much as nine-to-one. Another factory voted 71 per cent in favour, but there was one narrow vote against striking. The eighth ballot was delayed because of holidays. Strikes were called from 14 May at the six factories which had voted for them. In addition a further 24 target companies were named so that each of the CSEU's 49 districts was directly involved in the campaign. These included some companies which were not members of the EEF in a further significant extension of the campaign (*Update* 4 May 1990).

Agreements were reached in time to avert four of the six strikes which the CSEU had called. Lucas had originally only authorised its plant managers to negotiate on hours as part of the annual pay negotiations, which would have involved considerable delay. The agreements which were negotiated, however, covered hours and conditions only (*The Independent* 15 April 1990). However, 1,200 workers took strike action at the two Lucas Aerospace factories in Wolverhampton and Willesden. This again posed a threat to Airbus production in Toulouse which depended on Wolverhampton for control systems. The strategy committee decided to ballot a further 4,000 workers at 25 selected plants belonging to 40 companies previously named as targets. The other ten companies originally named had already concluded agreements (*Update* 17 May 1990).

After three weeks' strike agreement was reached at Lucas Aerospace at Wolverhampton (*Update* 15 June 1990). As well as a 37-hour week, introduced in two stages over 18 months, the agreement involved multi-machine manning, working other employees' machines and monthly cashless pay. David Bowen in *The Independent* commented on the usual company claims that the measures agreed with the shorter working week offset the cost of the reduction. 'It will be virtually impossible to measure the improvement generated by such changes, which are geared to increasing flexibility' (3 June 1990). There was little prospect of prolonged industrial action at any of 25 plants due to be balloted. After the first of the

ballots 'the company capitulated before action was needed' (*Update* 15 June 1990). This left the CSEU free to concentrate on a new target, the country's largest engineering employer, GEC. Since GEC was not part of the EEF, following the 1979 dispute, it had not previously been affected by the campaign. There had, however, been talks at GPT, which GEC and Siemens owned jointly, and which was a member of the EEF. GPT had held plant-level negotiations, but was not prepared to reduce hours below 37½ a week (*The Engineer* 7 June 1990).

The campaign was now reaching its final stages. The CSEU was able to claim over 500 agreements at its Annual Conference at the beginning of July.¹⁶ The levy was relaunched at the reduced rate of £1 a week. Mr Ferry, in justifying the continuation of the levy, sought to temper the triumphalism of the Conference. 'To discontinue the levy at this stage would be nothing short of arrogance ... and would lead to complacency which is the only threat to total victory' (*Update* 4 July 1990).

The number of agreements on the shorter working week, most of which had at least on paper extensive cost-offsetting provisions, was far more than the number of strike ballots. Management seems generally to have preferred to concede the 37-hour week as part of the annual wage negotiations. The alternative was to risk being targeted and being forced to reduce hours without being able to negotiate substantive conditions.

662,000 working days were lost in 1989 and 1990 as a result of 13 strikes over hours of work involving 15,000 engineering workers according to official statistics. The number of strikes is most misleading. Disputes with a common cause are treated as a single strike. Thus, the five initial strikes are counted as one. 611,000 working days were lost through strike action by 9,400 workers at the five factories where strikes had taken place following ballots in October 1989. The vast majority of working days lost were at British Aerospace. The extent

¹⁶ From April CSEU reports of the number of agreements were somewhat misleading. A national agreement with the British Scrap Association to introduce the 37-hour week in 1992 for at most 20,000 workers added 200 to the number of locations with a shorter working week agreement.

of strike action was very much less than in 1979 when official figures suggest that 16 million working days were lost and 1.5 million workers were involved.¹⁷

In December 1990 the CSEU discontinued the levy, which had been reduced to £1 a week in July. £12m had been paid out in dispute benefit and nearly £7m remained in the fund created from the levy to support strike action where unions could not reach acceptable local agreements on reduced working hours.

4.13) The end of the campaign

The CSEU announced in April 1991 the successful end of 'Stage One of the 35 Hour Week Campaign', claiming agreements on a 37-hour week by early 1992 affecting 1,666 companies or company sites covering 600,000 workers. However, lists of factories supplied by the CSEU in support of its claims about the number of agreements included companies with which CSEU unions negotiated but which were outside the engineering industry. The EEF reported, also in April 1991, that 595 of its 5,000 members had conceded a shorter working week, not necessarily of 37 hours, for 135,000 manual workers, around 30 per cent of manual workers employed by member firms. Whatever the exact number of engineering factories with the shorter working week agreements, 'Stage One' of the CSEU campaign clearly achieved a major reduction in working hours.

This is confirmed by the New Earnings Survey which shows a fall in the average basic weekly hours of full-time manual males in engineering from 38.9 in April 1989 and 1990 to 38.6 in April 1991. If we assume that where hours were reduced, there was a cut of one hour before April 1991, the decrease of 0.3 hours seems consistent with the EEF's figures. Yet, some agreements had introduced just half-an-hour's reduction by April 1991 and a number did not reduce the hours of shift workers until after April 1991. Also, the national reduction of one hour in November 1981 produced a reduction of 0.6 hours between the New Earnings Surveys of April 1980 and April 1982. However, in April 1992, when the 37-hour week should have been introduced according to the CSEU guidelines for approving agreements, average basic hours were still 38.4. So, the statistics suggest that employers who

¹⁷ These figures may be somewhat exaggerated. They suggest that on average the thirteen days of official action were supported by 1,250,000 workers. The EEF put the number of strikers during the final two-day strike at 750,000, while claiming no more than a slow erosion of support for the strikes (Meredeen, 1988).

do not face strong union pressure have retained a 39-hour week for their manual workers. These are mainly smaller employers but include important companies as the major car manufacturers, other than Rover and Honda, and a number of Japanese-owned companies.

The distribution of basic hours in engineering shows a fall of almost one half in the proportion of male manual workers with a 39-hour basic week and a corresponding rise in the proportion on 37 hours (see Richardson and Rubin, 1994: 2). For further details of the actual and basic hours of engineering see Figure 7.1 and Table A7.1.

4.14) The role of the law

The trade union legislation of the 1980s did not play a conspicuous part in the dispute. Yet, as Jane Elgar and Robert Simpson point out: 'The way in which the unions conducted their campaign was structured by legal advice' (1993a: 15). The presence of Mr Short of Rowley Ashworth at the crucial CSEU Executive Council meetings in May and June 1989 shows the importance of legal considerations in the key decisions on the campaign (see Section 4.4). The Trade Union Act 1984, as amended in 1988, complicates a multi-plant dispute, particularly where several unions are involved. A majority of members of a union at a plant must vote to strike before the union can call them out.¹⁸ At three of the seven factories chosen by the CSEU as the initial targets of their campaign some manual unions failed to secure a majority (see Section 4.6). These factories were chosen by the CSEU in the light of the likely outcome of the ballots. So, the members of individual unions would probably have rejected any attempt to organise some form of national industrial action. The lack of membership support was the reason why a proposal for a national ballot was withdrawn at the CSEU Executive Council in May 1989 (see Section 4.4). Even with much stronger membership support a national ballot covering thousands of factories would probably have produced a patchwork of majorities and a plethora of legal challenges. As Elgar and Simpson note 'the complexity of the law ... gives considerable opportunity to employers who are so inclined to challenge the validity of ballots held in labour injunction proceedings' (1993b: 105). The unions would simply not have had the resources to ensure the legality of the ballots and to deal with the labour injunction proceedings. So, irrespective of membership

¹⁸ A 'complex and near incomprehensible exception' allows a national ballot instead of workplace ballots (Elgar and Simpson, 1993b: 76). Clearly, unions could not rely on this exception in advance of litigation to clarify its meaning.

support, the law effectively ruled out national action in support of a national claim, the strategy adopted in 1979.

The legal restrictions on industrial action almost certainly worked to the advantage of the CSEU. In the view of both EEF and CSEU officials the law contributed to the success of the CSEU campaign by frustrating alternative and inferior strategies (interviews with Mr Brighton and Mr Adams). In an entirely rational world the CSEU would have picked the most effective strategy even if the law had not restricted its choice. Yet, CSEU policies were a result of a complex political process which is far from guaranteeing optimum outcomes. Also, the law by preventing national action made it easier for the union leadership to convince members to support selective action. So, Elgar and Simpson are correct to see the CSEU campaign as illustrating a 'positive and successful side to the law from a union perspective' (1993b: 104).

The most significant litigation of the campaign was not a result of the trade union legislation of the 1980s. As in the miners' strike of 1984/85 injunctions were sought on the basis of union constitutions. There must be a *prima facie* case that the CSEU had breached its rule on the majority required for it to support industrial action. If the CSEU had had individual members, the employers could no doubt have found some who were sufficiently compliant to lend their names to applications. It is not obvious if Mr Justice Schiemann thought BAe's attempt to use the CSEU rulebook against its affiliates insufficiently or excessively ingenious, but in any event his ruling put an end to litigation based on the CSEU constitution (see Section 4.8).

Appendix to Chapter Four

List of Interviewees

Mr Jack Adams, Deputy General Secretary, TGWU

Mr Peter Brighton, Director General, EEF, 1989-91

Mr Alec Ferry, General Secretary, CSEU, 1978-94

Mr Gil Jones, Director of Human Resources, Smiths Industries

Mr Bill Jordan, President AEU/AEEU, 1986-94

Mr Barney McGill, Convenor, NEI Parsons

Mr Alistair Littlejohn, Scottish Engineering Employers' Association

Dr James McFarlane, Director General, EEF, 1982-89

Mr Derek Reding, Personnel Director, NEI

Mr Phil Richards, Employee Relations Manager, British Aerospace head office

Mr Brian Smith, British Aerospace, Kingston

Ms Barbara Switzer, Deputy General Secretary, MSF

Mr Bill Taylor, London District Secretary, CSEU

Note: The initial interview with Mr Ferry was conducted jointly with Ray Richardson.

5) FEWER HOURS, HIGHER PRODUCTIVITY? A REVIEW OF RESEARCH

5.1) Introduction

British research on reduced working hours has tended to concentrate on engineering. The bulk of this research suggests that reduced hours stimulate productivity rather than increase employment. The conclusions from the research carried out in 1992/94 are somewhat different (see the next two Chapters and Richardson and Rubin, 1994). This divergence of findings makes its all the more important to look at previous research in some detail.

This Chapter starts by examining the work of the Policy Studies Institute (PSI) which was largely concerned with the engineering industry. This is followed in Section 5.3 by consideration of other research on engineering. The next Section outlines the research which has taken place on other industries. Section 5.5 is devoted to the PSI study of the construction industry. A feature of PSI's work was its emphasis on quantitative data. While this was not a particularly successful part of their research, analysis of quantitative data is an important alternative to the survey and case study approaches considered in the next Chapter. A study by PA Management Consultants is considered separately in Section 5.7. This study merits separate treatment because of its unique attempt to assess the effects of higher costs caused by reduced hours. Information from other studies forms the basis of the next three Sections. Sections 5.8 and 5.9 examine whether reduced hours in services and manufacturing have different effects, and the relationship between reduced hours and shift working. Both are topics on which the PSI research is largely silent. The next Section looks further back to reductions in hours in the 1950s and 1960s. These reductions raise the issue of overtime, which is less significant for more recent reductions (see Section 7.3). Finally, Section 5.11 draws some conclusions on the effects of reduced hours in the light of the research which has been reviewed.

5.2) The work of the Policy Studies Institute

By far the most substantial body of research on the effects of previous reductions in hours was carried out by the Policy Studies Institute (PSI) between 1979 and 1984.¹ The *Employment Gazette* gives a representative, though unusually bald, statement of the main finding: 'There is no evidence ... that reductions in working time lead to increased employment. This is mainly because hourly productivity tends to increase to compensate for the reduction in working hours' (October 1983: 436). PSI do not suggest that shorter hours caused higher productivity, but their denial of a causal link is qualified. 'While it would clearly be unwarrantable to suggest that reductions in working time "caused" productivity improvements, it seems prudent to regard their association as more than coincidental.' (White and Ghobadian, 1984: 188). In a later review of the international evidence Michael White, the author or principal coauthor of all the PSI studies, argues that reduced hours tend to cause productivity increases 'sufficiently large to cancel any effect of employment creation. It cannot be claimed that there is a simple causal relationship, since the evidence [from a variety of countries and time-periods] relates to periods of complex change, and numerous other influences are involved' (1987: 16). The clear implication is that only these other influences prevent the induction of a simple causal relationship from the evidence.

The main PSI finding, that reduced hours tend to increase productivity, is broadly consistent with the results of the 1991 research (Richardson and Rubin, 1993) reported in the next Chapter. That Chapter makes a number of points on the relative merits of surveys and case studies. These points are relevant to PSI's studies of management perceptions and analysis of plant-level data. Yet, PSI also carried out case studies, the main research method used in 1992/94. So, while research methods may account for the varied findings by Richardson and Rubin, they do not explain the differences between PSI and the 1992/94 research.

Two other considerations are much more crucial to an assessment of the PSI work. First, the basic analytical framework underlying all the studies is, to say the least, questionable. Secondly, the effects of shorter hours may not be readily observable, but require the use of hypothetical questions. The analytical framework is of primary importance. As the third of

¹ The research, commissioned by the Employment Department, consisted of a 1979 survey (White, 1980), 1980 case studies (White, 1981), a 1981 survey (White, 1982), a 1982 survey and 1982/83 case studies (White and Ghobadian, 1984) (see White and Ghobadian: 1984, 194).

the five PSI reports acknowledges: 'The approach adopted ... has been influenced and moulded by a particular conception of the ... issues' (White, 1982: 1). The first report sets out the underlying conception, or analytical framework, in greatest detail (White, 1980: 3/4). Any increase in productivity 'offsets' the employment effect of shorter hours. The underlying growth in productivity is only mentioned once. The report suggests that 'work sharing' can only be effective in increasing employment if working time is reduced at a faster rate than the underlying growth in productivity. So, if higher output, employment and productivity are observed in the wake of reduced hours, the increase in employment is attributed to the rise in output and the increase in productivity to reduced hours (provided that the increase in productivity is large enough). PSI seem to have assumed implicitly that without reduced hours output and productivity would be either static or growing at the same rate. These now seem unreasonable and unwarranted assumptions. Yet, when PSI started their work in 1979, manufacturing productivity had not changed in half a decade. So, the analytical framework would not then have seemed so incredible. But, this framework provided the basis for all PSI's subsequent work (White and Ghobadian, 1984: 2).

PSI's conclusions reflect their analytical framework rather than their research. This is well illustrated by the following quotation. 'Much of the change in productivity during the period under consideration is likely to have resulted from the business cycle, or from the response of firms to increasingly severe competition. To attempt to separate and quantify the various types of influence on productivity is a task which lies outside the scope of our study' (White and Ghobadian, 1984: 189). Such an attempt, however difficult, is essential. Otherwise, growth in productivity totally unrelated to reduced hours is falsely attributed to reduced hours.

The second issue crucial to an assessment of the PSI research, whether the effects of reduced hours are readily observable, arises from the analytical framework. If the analytical framework were correct, a simple before and after comparison would indeed reveal the effects of reduced hours. Discarding the spurious supposition of a static environment requires a view of outcomes without reduced hours. This necessarily involves hypothetical questions. Where, for reasons unconnected with reduced hours, employment is expected to fall, this must be taken into account. Otherwise, the employment effect of reduced hours through job retention is neglected.

The final PSI report acknowledges that the managers covered by the research did not share their view of productivity improvements. 'In the studies which we have summarised here, the effects of shorter working time have been placed at the centre of attention, and other developments ... have been considered only for the light they cast on this main subject. However, it is also possible to consider reductions in working time as merely a variation within continuous, and much larger, processes of change and adjustment. Such a perspective would be nearer to the view of managers with whom, in the case studies, we have discussed the implications of shorter hours in some depth. For example, there is a degree of artificiality in considering a reduction of hours as a discrete event which evokes specific, enumerable productivity improvements' (White and Ghobadian, 1984: 187). The 1992/94 research reported in Chapters Four and Five sees productivity very much in the same way as the managers.²

As a conscientious and perceptive researcher Michael White broke free of his self-imposed analytical straitjacket on a number of occasions during his PSI research. Job retention is crucial when a reduction occurs at a time of recession. This applies as much to the 1992/94 research as to the PSI research. Their work concentrates on engineering, printing and construction in 1981 when hours were reduced during the deepest recession of the post-War period. The 1992/94 research considers reductions in 1990/92 during the longest recession. One PSI report, noting that 70 per cent of the plants in a survey had experienced redundancies in the previous year, observes: 'It might be thought, therefore, that any employment effect of shorter working hours could only be detected in the somewhat esoteric terms of a slowing-down of the rate of de-manning. This would not be, technically speaking, an easy matter to assess' (White, 1982: 23).

The baleful influence of the analytical framework is most apparent in PSI's neglect of job retention. A question about additional recruitment was consistently used to assess the employment effects of reduced hours, so excluding job retention. Even in PSI's first survey in July 1979 32 per cent of managers had implemented redundancies in the previous year (calculated from 1980, Table II.5). Yet, the research excluded job retention unless managers

² The 1992/94 research, like that by PSI, does not entirely accept managers' views of productivity growth. Managers, interviewed in that research, tended to see productivity growth as paying for shorter hours. Their concern was the practical question of financing shorter hours rather than the more academic question of the results of shorter hours.

raised it when asked for general comments on reduced hours. The first study mentions job retention just once. Reduced overtime can 'have the effect of preserving jobs even though no additional recruitment is involved' (White, 1980: 58).

In a later report PSI concede one case where planned redundancies were withdrawn because of reduced hours. They argue that, if shorter hours had had a widespread influence on manpower reductions, 'we should have found widespread evidence of a similar kind' (White and Ghobadian, 1984: 182). This seems to contradict their earlier point on the difficulty of detecting job retention. It also ignores the exceptional feature which made job retention visible. Management withdrew proposed redundancies as part of a union agreement on reduced hours, which they had not expected. Most of the employers covered by the PSI research had advance notice of the reduction in hours through national agreements - in the case of engineering two years' notice. Only one company seems to have been faced with unexpected reductions in hours when redundancies were being proposed. This, of course, is the one case where PSI acknowledge job retention.

Any link between productivity improvements and shorter hours found from case studies is, as PSI point out, largely a matter of judgement. 'It could be argued at one extreme that productivity improvements are, or should be, taking place continuously, and should not be considered as offsets linked to shorter working time. Where the offset is directly concerned with the use of working time - as in the abolition of meal-breaks or the introduction of systems of flexible hours - then that argument becomes difficult to sustain' (White, 1981: 76). Unfortunately, their research makes little or no effort to distinguish between productivity offsets linked to shorter hours and unrelated productivity increases, which would have occurred without shorter hours. This distinction is generally regarded as 'outside the scope of our study'. Accordingly, the research provides little direct evidence of the link, if any, between shorter hours and productivity improvements.

The details of the research cast considerable doubt on the contribution of shorter hours to productivity improvements. Specific measures taken by management to increase productivity in response to the shorter working week do not seem to have affected productivity outcomes. A PSI survey in 1981 covered 218 firms, mainly in engineering, immediately after hours were reduced under national agreements. About two-thirds of the sample reduced hours as a result of national agreements. Only 48 per cent of manufacturing plants reducing the

working week had actually implemented any offsetting measure (calculated from 1982: Tables 23 and 25), although the vast majority had reduced hours before the survey. PSI comment: 'Many establishments have made the change to shorter hours without introducing measures to offset the effects at the same time: and, potentially more serious, many establishments have not even come to a decision about the changes they can make' (White, 1982: 19/20). Quantitative data gathered in a subsequent 1982 survey demolished this concern.³ The approach to productivity offsets reported by management in the 1981 survey had no influence on subsequent productivity performance. It is true that, as Table 7.1 shows, productivity fell in plants with no intention of making productivity offsets. Yet, PSI felt unable to draw any safe conclusion from this because so few plants were involved and the productivity changes were so variable (White and Ghobadian, 1984: 19). Productivity increases in the rather larger number of plants where an intended offset had not been made at the time of the 1981 survey were actually twice as great as where an offset had been made. On average the 48 factories which did not implement offsets achieved exactly the same productivity outcome as the 44 which did. This suggests that offsets linked to reduced hours are substitutes for productivity improvements unrelated to reduced hours.

Table 5.1 Approach to Shorter Hours in 1981 and Productivity Outcomes

	Number of plants	Productivity change 1981/82
No offset intended	11	- 4.9 per cent
Offsets intended but none implemented	37	+ 3.9 per cent
Offsets intended and some implemented	44	+ 1.9 per cent

Source: White and Ghobadian, 1984: 57.

In the 1982 survey managers reported more productivity measures related to reduced hours than they had done in 1981. PSI suggest that: 'By 1982 it is likely that many of the managers found it hard to distinguish between productivity improvements, which would certainly contribute to offsetting the effects of shorter hours, but which in many cases would have originated quite independently of that development', an interpretation they find 'confirmed

³ Section 7.7 questions the quality of PSI's quantitative data.

by our case studies in engineering companies' (White and Ghobadian, 1984: 39). This reinforces the point made earlier about the subjectivity of attributing productivity improvements to reduced hours. Indeed, managers' attributions seem as arbitrary as those of researchers. A further illustration is provided by Attribution Ambiguity in the 1992/94 research (see Appendix to Chapter Six).

The six engineering case studies, which PSI carried out in 1982/83, also make no attempt to attribute productivity increases to reduced hours. The quotation in the last paragraph acknowledges the independence of productivity improvements and reduced hours 'in many cases'. The case studies are, however, much more concerned with before and after comparisons of factory performance. So, the criticism of PSI's analytical framework also applies here.

In one case study, Mechanical Components Manufacturer, management raised the issue of job retention. 'Our management informants believed that the numbers made redundant might have been greater if there had been no programme to reduce hours. But no calculations were offered in support of this belief. It is also notable that the proportion of workers made redundant was much higher in the case of manual workers, even though the manual workers had received a large cut in working hours while the white-collar workers had received only a small cut. This suggests that, while the reduction of hours may have had some moderating influence on the redundancy programme, it could not have been a very direct or strong influence. The company's efforts to improve the technology and systems of production seem likely to have been a significant influence on the company's ability to reduce manpower levels' (1984: 132). The improved technology and systems of production presumably affected manual workers somewhat more than white-collar workers. So, relative rates of redundancy seem irrelevant.

Mechanical Components Manufacturer is the only case study which reports management views on the effects of reduced hours on subsequent redundancies. Yet, there were two other cases which also seemed 'particularly suitable for [investigating] employment-saving hours reductions'. Presumably, managers' opinions were not sought, but the Components Manufacturer managers volunteered their views. The case studies are dominated by futile attempts to draw conclusions solely on the basis of rather inadequate quantitative data. Insights which managers could have provided are not sought while valuable but unquantified

information which they volunteer is discounted, as at the Components Manufacturer. The aim of the case studies seems to be the analysis of quantitative data, however inadequate. To be fair PSI are consistent in this approach. They fully acknowledge job retention where it was readily quantifiable, at the mail order company in the 1980 study,

PSI seriously overstate the productivity effect of reduced hours by adopting an analytical framework in which any increase in productivity is seen as 'offsetting' the employment effect. The employment effect is further diminished by neglecting job retention.

5.3) Other research on the engineering industry

The 1981 reduction in engineering was the subject of a number of studies in addition to those by PSI. The productivity clause in the 1979 national agreement was a particular focus of interest. This required 'maximum cooperation at all levels, national, local and domestic, to ensure that productivity is increased so that there are no increases in manufacturing costs as a result of the reduction in working hours'. Employers retained the right to determine the means of achieving the productivity increase, but did have to consult employees.

The Engineering Employers' Federation attached considerable significance to the interval between agreement and implementation. They argued that managers would have two full years to prepare for the reduction so as to minimise any cost increase and that the cost effects should be negligible in view of the productivity clause (see Section 2.13). Yet, management does not seem to have made much advance preparation. Two studies, which included interviews at 12 factories in the West Midlands and North Gloucestershire shortly before the reduction, found little or no consultation over productivity improvements as required by the national agreement (Bastin, 1981, and Fahey, 1981). Managers seemed to have no idea how they would maintain output or offset the cost of the reduction. An exception was a USA-owned company, the only one in the study to measure productivity, whose management intended to offset the cost by negotiating a lower pay increase. Most managers had not even formed any view on incentive payments. This was despite the EEF's advice that they, unlike basic hourly pay, should not be increased when hours were reduced. Yet, one personnel manager's comment on piece rates may have reflected a widespread attitude. After referring to the forthcoming pay negotiations and the inevitability of further redundancies, he said: 'It remains to be seen how forcefully the unions will pursue questions of detail with all these

wider issues surrounding us'. The West Midlands study observed little notice being taken of the productivity provisions of the national agreement. The Gloucestershire study concluded: 'The majority of managers and shopfloor representatives believed that overall productivity would increase by at least the minimum 2½ per cent demanded by the 1979 Agreement, more often than not attributed to the depressed state of the economy and unemployment.' ... 'Most [managers] considered [a rise in productivity] essential for their company survival.' (Fahey, 1981: 38). This study also found that where demand was more buoyant there was a strong expectation on all sides of more overtime.

An Industrial Relations Review and Report feature article suggests that the productivity provisions were much more effective than these two studies indicate (IRR&R Report No. 262, December 1981). The article, which mainly looks at four large companies, states: 'An examination of how the hour's reduction has been implemented shows that in the final analysis the reduction has cost employers little or nothing'. This, however, reflects management hopes about measures such as improved time-keeping and reduced tea-breaks. There was no investigation of outcomes. In common with the other studies IRR&R finds 'very few companies seem to have taken advance planning seriously'.

A rather more extensive survey by Income Data Services again confirms the absence of advance planning (IDS Report No. 366, December 1981). This survey indicates that management efforts to introduce measures, such as cutting back on paid breaks, at the same time as the reduction in the hours met strong shop-floor resistance. 'Many companies have ... avoided confrontation by simply reducing the working week without offsetting the cost'. (See Section 2.13 for shop-floor resistance to management efforts to implement the productivity clause.)

The studies, other than that by IRR&R, provide little support for the PSI view of the productivity consequences of the 1981 reduction. They are, however, much less sophisticated and more limited in scope than the PSI studies. Even so the Gloucestershire study suggests that productivity growth was unconnected with the reduction.

The economic consequences of the 1989/91 campaign have attracted little research other than that reported in the next two Chapters. Little carried out interviews at two factories and expresses some scepticism about the productivity effects of the shorter working week

agreements. He raises the possibility 'that the productivity payback is merely a mask, putting into writing things which were already occurring in practice' (1991: 77).

5.4) UK research on other industries

PSI's work was not confined to engineering. For example, one third of the 140 manufacturing plants in the 1982 survey were outside engineering, mainly in printing. This does not seem to have affected the results. So, PSI's findings are probably not specific to engineering and may be relevant to reduced hours in manufacturing generally. PSI also studied the construction industry, which is the subject of the next Section.

From 1979 to 1985 working time was an active area of research in the UK. In addition to PSI, the Institute of Manpower Studies (IMS, 1979), the Trade Union Research Unit at Ruskin College (TURU, 1981), PA International Management Consultants (PA, 1981) and the Jim Conway Foundation (JCF, 1985) carried out work on reduced hours. Many of these reports rely on management perceptions of the effects of future changes in working time. PSI and PA surveyed management perceptions and produced representative results. The startling variation in their results suggests that this is not a reliable research method. Only PSI and PA really focus on the economic effects of reduced working hours. The other studies are chiefly of interest for the information they provide on service industries and shift working. TURU also provide some insight into the institutional forces behind the delay in the response of actual hours to reduced basic hours in the 1950s and 1960s.

5.5) The PSI construction industry study

The construction industry study was rather different from the other PSI studies. 'The main reason for this was that the 1981 survey showed that relatively little information about labour utilisation and labour costs was available to management in this industry, and that the follow-up survey would therefore be ineffective in obtaining such information' (White and Ghobadian, 1984: 146). Basic information was obtained by a telephone survey of senior personnel or industrial relations officers at ten national contractors. There were visits to two large construction companies, four medium-sized firms and two large construction sites. The head office interviews included three head office departments concerned with labour costs, such as work scheduling.

The research strongly suggests that reduced hours had no effect on labour costs in construction. This is, however, more an implication than a conclusion. It raises the issue of the effect of reduced hours on pay, which is considered in Section 7.5.

In general managers regarded shorter hours as a 'non-event', an opinion for which PSI express some understanding 'in view of the much larger problem of the industry in coping with recession' (ibid: 156). Managers saw no point in devoting attention to the increase in costs, which they thought reduced hours had caused. The whole industry was affected in the same way (ibid: 150). Another reason why managers were unconcerned about the reduction was that standard forms of contract protected firms from the cost impact of nationally negotiated changes. However, as PSI point out, this would only be true of existing contracts. Competitive pressures, which were intense when hours were reduced in November 1981, would limit the ability of contractors to pass on higher labour costs (ibid: 154). Management also felt that 'flexibility ... would take care of - or at least make undetectable - the effect of the shorter working week' (ibid: 151). Flexibility was required to deal with uncertainty, the great variations in the industry, for example, the weather and the availability of the right kind of labour when required. 'In catering for major sources of uncertainty, the management methods of such firms [which carry out their planning and scheduling of work in an approximate manner] already in a sense provide a space into which the effects of the shorter working week can be fitted. It is in this sense that some managers state that the reduction "makes no difference" or at least no detectable difference' (ibid: 152). PSI's emphasis on the absence of any detectable difference implies some increase in employment and/or overtime.

The increase is small relative to routine variations between the time work actually takes and the time planned. So, it cannot be detected.

The research mainly focuses on management perceptions. Just one case showing shorter hours in practice is reported. This is an example of 'more sophisticated work scheduling' by a large contractor (*ibid*, 158/59). This company had introduced 'balanced workloads', a more systematic way of allocating workers to each phase of construction. A manpower saving of 10 per cent was typically achieved. The need for flexibility was met by a contingency allowance within the times used in the calculations and by allowing site management to authorise up to half an hour's overtime a day. A detailed example of how 'balanced workloads' were calculated is provided. 'Theoretical minimum numbers required' increased by 2.6 per cent. This suggests a 'pure' employment effect (see Section 1.7). PSI, however, stress that on this particular project the company did not find it necessary to increase the number of workers allocated to any phase of construction. The largest number allocated to any phase was only five. The 'theoretical minimum numbers' were obviously rounded to give whole numbers of workers. There is no suggestion of any change in how this was done. So, by increasing the 'theoretical minimum numbers' reduced hours would raise employment on future projects. The 1992/94 research came across a similar employment calculation (see Different Tales in the Appendix to Chapter Six).

PSI suggest that 'careful work scheduling could be used to avoid increases of manpower and overtime costs following the introduction of shorter hours'. Yet, there is no suggestion that reduced hours had affected the care with which work was scheduled. This is a further example of changes totally unrelated to reduced hours being treated as 'offsets'. The report emphasizes the several 'means of alleviating general pressures on labour costs' used by construction firms. In addition to improved work scheduling these were less overtime, lower bonuses or tighter work targets, reduced spending on lodging and travelling expenses, and increased use of subcontractors.

PSI avoid speculation on how reduced hours affected employment and overtime in construction. It appears that on existing contracts, and future contracts where work scheduling is also unaffected by reduced hours, overtime increased. Once work scheduling reflects reduced hours, the probable effect is more employment.

PSI adopted different approaches in the construction and engineering studies. This was because the 1981 survey suggested that construction had less potential for productivity growth than engineering. The 1982 study, however, found considerable scope for improving productivity in construction. Yet, in construction productivity growth was not automatically interpreted as an offset to shorter hours. This explains the contrast in the results of the construction and engineering studies. The link between reduced hours and productivity found in engineering is an artifact of the approach adopted.

5.6) PSI's quantitative data

The 1982 PSI survey collected extensive quantitative data. Managers were asked to complete a data sheet of accounting information. Completed sheets were obtained from 67 of 140 plants, but four were unusable because of obvious inconsistencies (White and Ghobadian, 1984: 200). These 63 responses are the basis of the reported 45 per cent response rate (*ibid*: 5 and White, 1983: 433). However, a further 18 data sheets were apparently of insufficient quality to permit analysis, leaving just 45, 32 per cent of the sample, of which 29 were in volume terms and 16 in value terms (White and Ghobadian, 1984: 9). A further 75 managers estimated changes between 1981 and 1982.

PSI were remarkably optimistic about interpreting production figures during the early stages of recovery from a recession of unprecedented severity in the post-War period. ‘The stable or (in the case of engineering) slightly increasing level of output in 1981/82 provided favourable conditions for evaluating the effect of a change such as the introduction of the shorter working week. ... The comparison of 1981 with 1982 is unusually unproblematical [for industry aggregates]’ (*ibid*: 3/4). This claim is made despite strong evidence that the fall in employment in 1982 cannot be related to changes in demand since 1981 (*ibid*: 19). The obvious explanation of the fall in employment is in a delayed response to the recession. If this is correct, comparing 1981 and 1982 data reveals nothing about the effect of reduced hours.

Indeed, productivity was most influenced by workforce reductions. In plants which increased or had no change in their labour force productivity fell by 1.7 per cent while, where employment was reduced, productivity rose by 6.1 per cent (*ibid*: 57). PSI do not accept that this represents a delayed response to the recession. Instead, they produce an explanation

which they admit 'at first sight ... may appear ... bizarre' (ibid: 20). They see reducing employment as a means of improving productivity when the working week is reduced. Their explanation is less bizarre than the false premise that the shorter working week is the key to all the changes observed between 1981 and 1982.

The apparent success of the 1982 survey in gathering quantitative data appears to have been achieved at the expense of the quality of the data. The information from the data sheets on the volume of production, which involved deflating sales figures by industry output prices where necessary, differed systematically from managers' estimates. The data sheets show an average rise of 5.5 per cent while the average increase from the estimates was 0.2 per cent (ibid: 50). Combining the estimates with the data sheets produces a production increase much closer to industry aggregate statistics than the estimates alone. On these grounds the estimates and the data sheets were pooled for all the analysis of the results (ibid: 10). A further justification given for pooling the data is that establishment size and market demand as reported by managers had very similar relationships to the production figures from both sources (ibid: 12). However, PSI provide information which seems to contradict their justification. For example, the data sets show the greatest growth in output when demand was fluctuating whereas the managers' estimates suggest that fluctuating demand was associated with smaller increases in output than rising or stable output (ibid: 51).

Even the data on labour hours worked seems unreliable. Fluctuating demand was associated with the largest fall in labour hours according to the data sets. Where demand was fluctuating, the data sets suggest a rise in productivity of 24 per cent. In contrast managers' estimates from plants with fluctuating demand suggest static productivity (ibid: 51 and 55).⁴

The overtime data had particular problems as PSI acknowledge (ibid: 23). In engineering the 22 data sheets show an average growth in overtime between the first quarters of 1981 and 1982 of 115 per cent while 55 managers estimated a fall in overtime of 2 per cent (ibid: 59). The data sheets from printing and pharmaceutical plants also suggest a much larger growth in overtime than managers' estimates, although the difference was not so extreme. Information on the change in overtime levels would have been more useful than percentages.

⁴ The data sheets contained 12 more plants reporting labour hours than reporting output. Yet, managers estimated labour hours in ten fewer plants than they estimated output (ibid: 51 and 56). So, the output and labour hours used to calculate productivity relate to somewhat different groups of plants.

The generally low level of overtime in the first quarter of 1981 means that small changes in levels produce large percentage changes, which can be either positive or negative.

The PSI engineering case studies also used quantitative data, but suffered similar problems. One major difficulty was with output figures. The output figures, like those obtained from the data sheets in the survey, do not take account of any change in subcontracting. In four of the six cases the value of sales or output was deflated by industry output prices. These output prices are not reported, but, in the one case where the price can be calculated, it was 8.5 per cent (ibid: 120). PSI acknowledge the unreliability of obtaining real output in this way, at least for construction. 'The numbers employed in the industry have declined rapidly during the 1980s, but only in parallel with the ... value of production ... deflated by the output prices for the industry - that is, by factors which adjust them approximately to constant tender prices. ... [T]he tender prices themselves have been consistently depressed throughout this period ... It is quite possible, therefore, that productivity gains or cost savings have been largely passed on to the customer' (ibid: 156). The price increase an individual factory receives for its output is likely to vary from the industry average even where this is correctly calculated. In two of the four cases where deflated output figures were used, Company A and Mechanical Components Manufacturer, real output fell by 25 and 30 per cent. With such difficult market conditions prices are most unlikely to have risen by the industry average. Another company, Light Engineering, introduced an important new product which was expected to increase sales substantially. The margins on the new product were probably higher than on the products it replaced. So, here the industry output price index may underestimate the actual rise in prices which the company was able to obtain.

Two case studies, Domestic Appliance Manufacturer and an Example of Rising Costs, use a measure of physical output, the number of units produced. What was produced seems to have changed substantially over the period of comparison. For Domestic Appliance Manufacturer there is a reference to several distinct products at site one and we are told that at site two 'production scheduling and control was fairly complex owing to product variety' (ibid: 82). Rising Costs produced 'a range of precision products' (ibid: 136). There is just one reference to the problems of using units as a measure of output. Comparing a 34 per cent fall in units produced by Rising Costs between three months in early 1982 and the same three months a year later with a 32 per cent fall in total attendance hours over the same period, PSI note that the difference 'could be accounted for by minor factors such as variations in the

mix of products, or even variations in recording of output' (ibid: 142). They only allow a very small margin of error for these minor factors since they go on to say that 'it seems clear that it [productivity] had not improved'. Even this conservative view of the margin of error implies that the accuracy of the data is insufficient to show a rise in productivity of 2.6 per cent. If such a rise is not discernible from the data, they can hardly provide worthwhile information on the effects of reducing the working week from 40 to 39 hours.

PSI clearly had to use the data which was available, but they might have shown more awareness of its limitations. In many cases information from management would have made it easier to interpret the data. Certainly, the balance of the case studies between quantitative and qualitative analysis does not seem justified by the quality of the quantitative data.

There is another problem with analysing the quantitative data which is perhaps even more serious than whether the production data is sufficiently accurate to show a productivity rise of 2.6 per cent. The effects of capital investment on output are not taken into account. Again, PSI might have been able to do little about this, but their analysis fails to make the necessary qualifications.

In the case study of two sites belonging to Domestic Appliance Manufacturer, PSI clearly recognise the role of 'the company's heavy investment' in improved productivity. 'The investment in new technology ... helps to explain the company's ability to make manpower reductions and labour productivity improvements' (ibid: 82). No attempt is made to quantify the effects of investment at either of the company's two sites. PSI, however, do acknowledge: 'There were probably effects from the capital investment programme' on unit labour costs (ibid: 92). The effects of capital investment seem to have dwarfed those of shorter hours, at least at site one to which this remark relates. PSI comment on a fall of 2½ per cent in the manual labour force at this site between November 1981 and 1982: 'This ability to reduce numbers of workers despite rising demand probably reflects the company's continued investment in new plant and equipment' (ibid: 97). At site one output per working day in the first ten months of 1982 was 14 per cent higher than in 1981 (ibid: 88). PSI assess the effect of shorter hours by regressing 1981 and 1982 monthly figures for unit labour costs and overtime hours on output and a dummy variable which has the value one for the ten months before the reduction and zero for subsequent months. This dummy variable of course reflects the lower level of capital equipment in the first ten months of 1981 as much as it does longer

basic hours. So, the dummy variable reflects more than reduced hours. PSI's conclusion about site one, 'The simplest interpretation is that the changes in weekly hours had no effect, one way or the other, on the firm's manpower policies' (ibid: 98), should instead relate to the combined effect of capital investment and reduced hours.⁵

All PSI's research tends to treat the combined effect of reduced hours and other factors as the effect of reduced hours alone. This means that quantitative analysis reveals nothing about the effect of reduced hours. Its only value is to illustrate some of the difficulties which quantitative analysis must overcome.

5.7) Bringing in higher costs

The PA study is apparently the only one at factory or company level which seriously considers the indirect effects of reduced hours through higher production costs. Its key assumption is that in the long-run productivity increases so that profit margins are unaffected by reduced hours. This assumption largely determines the results.

Managers at 30 establishments, selected to be broadly representative of manufacturing as a whole, were interviewed. The intention was to evaluate two 'limiting cases' as initial responses to reduced hours, no change in output and no change in employment (PA, 1981: 17). However, 'most [interviewees] held strongly to the view that they must maintain output at all costs. Some felt this so strongly that they would not even consider the second approach' (ibid: 58). There is no further mention of the second limiting case. Presumably, the managers who entertained the idea of not increasing employment were too few and unrepresentative.

The first approach, no initial change in output, did not allow an increase in overtime. Not surprisingly, the answers show a large initial employment effect. For the sample as a whole

⁵ The regressions suffer a number of technical problems. Output is first used to calculate unit labour costs and then treated as independent variable to explain unit labour costs. Output is presumably affected by overtime and, again, should not be treated as an independent variable to explain overtime. The five days worked at site one in August 1981 - ten less than in August 1982 because of short-time working - had unit labour costs roughly double those in the month before and the month after (ibid, 90). These five days are clearly responsible for a significant part of the variation in the squared mean deviations of monthly labour costs which the regression seeks to minimise. Unit labour costs at site two were particularly high in March and April 1981 (ibid, 95). This may also reflect short-time working, which ended in April 1981 (ibid, 94).

a 10 per cent reduction in basic hours produces an initial increase of 6.9 per cent in employment. This is a 61 per cent replacement effect. 61 per cent of the working time lost through the reduction is replaced by recruitment of additional workers.

PA asked managers about seven ways of reducing working time. Six had replacement effects in the range 61 to 68 per cent (ibid: 63). So, if managers anticipated any productivity effect from reduced hours, they expected very much the same effect from other measures such as increased holidays. Early retirement financed nationally was an exception. It had a 77 per cent replacement rate, 16 per cent more than reduced hours. Assuming no productivity improvement from early retirement financed nationally, there is 16 per cent non-replacement possibly due to productivity measures linked to reduced hours or to increased work intensity caused by lower fatigue, a factor taken into account by at least one manager (ibid: 53).

For the sample as a whole PA provide little explanation of the 39 per cent non-replacement of lost working time when hours are reduced. 'In general factors, specific to each company, such as the extent to which their resources were currently utilised, were much more important [than the characteristics by which we classified the organisations interviewed]' (ibid: 3). The seven companies with under 100 employees had an average replacement rate of 23 per cent. This, it is suggested, 'could be due, in part, to current surplus capacity and the need of small companies to control costs quickly to survive' (ibid: 66). The report later comments that the influence of size 'could well be because small companies have to act quickly to control costs in order to survive' (ibid: 83). It is hard to reconcile a higher incidence of surplus capacity in the small companies with a need to control costs quickly. Nonetheless, spare capacity seems the main reason for non-replacement of hours by employment.

Five cases are individually reported to demonstrate the range of assumptions and responses to reduced working time. These individual reports confirm that non-replacement of reduced hours by employment is often due to the reduction of spare capacity. Yet, there are other factors. Two companies in the South of England did not expect to increase employment because their local labour markets were tight (ibid: 46, 53). A further two companies expected to make more use of subcontractors and to secure 'small agreed increases in productivity, particularly for individuals who are currently under loaded' (ibid: 32). Their replacement rate was about 50 per cent, but it would be higher if employment by the

subcontractors were taken into account. The individual case reports give little indication that productivity improvements would be a significant, immediate response to shorter hours.

PA at first tried to investigate the indirect results of reduced hours through the effect of increased costs on sales. Costs were higher because managers expected weekly pay to remain the same despite reduced hours. Managers at 10 of the 30 companies felt able to increase prices to recover the costs of reduced hours with no loss of sales. For the other 20 companies PA were unable to establish a volume price relationship with 'sufficient precision' to forecast output levels. So, PA adopted a different approach. They simply assumed that productivity at these twenty companies would grow to restore 'viability', that is the real rate of return on capital at the time of the interviews. This growth in productivity halves the initial replacement rate to 30 per cent. The study, therefore, concludes that a 10 per cent reduction in working time would result in a 3½ per cent rise in employment and a 7½ per cent increase in productivity. The interviews took place between August 1979 and April 1980. By May 1980 PA felt that 'given the deepening recession, the safety valve of higher prices would be available to fewer companies and consequently the increases in employment would only be about one per cent'. Presumably, productivity was then expected to rise by 10 per cent.

PA admit: 'We did not undertake direct appraisals of whether the companies could increase productivity by 7-8 per cent but if our sample is at all representative of manufacturing industry there will be substantial scope in many, but by no means all, companies'. Companies unable to increase prices or productivity would have to eliminate marginally profitable activities, reducing employment. So, 'the overall increase in employment would probably be even less than the one per cent expected under current trading conditions or less than the three per cent in more buoyant circumstances'. The short-term effects of reduced hours may indeed depend on the state of the business cycle. Spare capacity reduced the extent to which managers thought lost hours would be replaced by employment. Yet, there is no reason why in the long-run, when profit margins have been restored, reduced hours should have different effects according to the stage of the business cycle when they were introduced.

One difficulty facing any attempt to take account of the indirect effects of shorter hours is the lack of 'sufficient precision' of the volume price relationship, what economists call the price-elasticity of demand. PA tried to get round this problem by assuming that firms

improve productivity to maintain 'viability', their previous real rate of return on capital. The link they find between reduced hours and productivity is entirely a consequence of this assumption. The logic behind the assumption is impeccable. Within their analytical framework firms must recover increased costs through prices or productivity improvements. The only alternative which they have is to go out of business. The fallacy of their analytical framework is the assumption of a fixed real rate of return on capital. In reality rates of return fluctuate considerably. In the long-run the rate of return may be unaffected by reduced hours, but equally reduced hours may have no long-run effect on hourly labour costs (see Section 7.5). So, their analysis cannot be justified as reflecting a long-run reality. They require either productivity or prices to rise to restore profitability when labour costs increase. If prices cannot rise, productivity goes up so that unit labour costs are unchanged. Unit labour costs can only increase if prices rise. So, employment is only affected by reduced hours when prices rise. The effect PA suppose the recession has on the productivity and employment consequences of reduced hours illustrates their assumption that prices determine productivity.

Employment of non-manual workers, particularly non-technical staff, appears from the PA report to be very much less affected by reduced hours than employment of manual workers. Three of the individual case reports include a break-down of the immediate employment effect by category of employment. Managers at two companies thought that the number of technical and administrative staff would remain at 95 and 347 (ibid: 32, 38). One manager, who expected increased subcontracting, anticipated a 5½ per cent rise in manual employment, an 8 per cent rise in technical employment and a 5 per cent rise in administrative employment (ibid: 24). The reports on the two companies in the South which were unable to recruit labour made no distinction between manual and non-manual employment. At the smaller of these companies, which had 100 employees 'everyone is working to full capacity' (ibid: 46). So, while there is no break-down of employment effects for 27 of the 30 companies in the study, the available information suggests that the employment of non-manual workers, or at least administrative staff, is little affected by reduced hours. Managers believe some of the working time of these employees is relatively or even completely unproductive and expects that this time will be eliminated with reduced hours.

Superficially, PA's conclusions seem similar to those of PSI. Both suggest a large productivity effect. This is due to PA's assumptions which transmute the employment effect found in their interviews into a productivity effect. PSI's first study, like the PA study, asked manufacturing managers hypothetical questions about a future reduction in hours. PSI, in contrast to PA, found employment effects of only 34 per cent for manual workers and 5 per cent for non-manual workers (calculated from White, 1980: 62). The PSI survey was on a much larger scale than the PA survey and it did not preclude increased overtime. PSI asked about additional recruitment rather than employment and preceded this question with a request for general comments on reduced hours. It is just possible that these differences explain why PSI found rather less than half PA's employment effect. Alternatively, PA's initial findings from their interviews may be as unreliable as their conclusions. Managers probably do not have well-formed views on the consequences of hypothetical events such as reduced hours. So, their answers may be sensitive to the context of the questions. Research based on such answers is of little value.

5.8) Are service industries different?

Research on the results of reduced hours in the service industries relies on managers' answers to questions about hypothetical reductions. In view of the comments at the end of the previous Section this is unfortunate. Yet, the research involves case studies rather than the surveys carried out by PA and PSI. So, depending on the researchers, there is some possibility of gathering more considered and valuable information from managers.

TURU carried out two case studies in retail distribution and one in the health service. These suggest that managers can more easily cut back on unproductive working time in services than in manufacturing. The personnel director of a large, national chain of department stores did not think that a 35-hour week, a reduction of 2½ hours, would affect employment. Staff working hours would be staggered so that on each day some started at a later time than the store opened and a smaller number finished earlier than the store closed (TURU, 1981: 93). Similarly, the management of a large Cooperative Retail Society felt that a two-hour reduction to a 38-hour week had no implications for staffing. A 35-hour week would only marginally increase employment. There would be a small increase in the numbers of part-time staff and supervisors to maintain cover at the larger stores. Opening hours of the smaller stores would be reduced in line with the fall in full-time hours (*ibid*: 87/88).

An IMS case study in retailing produced very similar conclusions to those of TURU. A reduction in basic working hours was likely to result in more part-time staff and staggered hours for full-time staff so that fewer were working outside peak trading hours (IMS, 1979: 60).

Managers in TURU's hospital case study were aiming to 'absorb' a 2½-hour reduction in nurses' hours by measures such as reductions in the overlap between shifts (TURU, 1981: 125). They were also proposing to reduce overtime for male ancillary workers, instead offering workers some supplement to the basic rates through bonus schemes. Overtime had been used to compete in the local labour market despite low basic rates. These proposals apparently implied a reduction rather than an increase in employment. According to the head porter and the porters' full-time union officer, porters were resisting the management proposals because they feared job losses (*ibid*: 122/23).

Shorter hours were a major issue in the annual wage negotiations at a mail order company. The previous year's wage agreement had traded-off part of the wage increase for shorter hours. The unions had sought a similar agreement with a further reduction in the working week from 37½ to 35 hours. Management had, however, persuaded them to accept an agreement with no change in hours (IMS, 1979: 38). Despite this management was sympathetic to the work-sharing case for a reduced working week. This is more than can be said for the IMS report, which denies the possibility of work-sharing on the grounds that the workforce was predominantly female and non-manual while the unemployed were mainly male and manual (*ibid*: 40).

Of 12 case studies carried out by PSI in 1980, only one was outside manufacturing, also at a mail order company. This is the case mentioned in Section 5.2 where uniquely PSI acknowledge job retention as a result of reduced hours. In the annual pay negotiations the union accepted a lower increase in weekly pay in order to reduce the working week from 37½ to 36½ hours and to secure the withdrawal of proposed redundancies.

In an IMS case study of a bus company management had actively considered alternative working arrangements to reduce overtime. However, the report did not see any change to the existing arrangements as feasible (IMS, 1979: 102). This was in part due to union resistance, but individual worker behaviour was important. Basic rates were low and turnover would

rise if overtime were restricted. Recruitment of suitable workers was difficult, despite management approaches to job centres which had not previously been used.

5.9) Fewer hours, more shifts and more jobs?

With constant capital utilisation fewer hours inevitably lead to more shifts. If capital works the same hours and requires the same number of employees to produce a given output, more employees are needed if each works fewer hours. More employees mean new shift arrangements. Extra numbers on existing shifts could not replace the time lost by the reduced length of shifts. Of course, constant capital utilisation is not normally a reasonable assumption. Reduced hours tend to lower capital utilisation, particularly where employees all work the same single shift. Indeed, in terms of the impact on total production costs this can be as serious as the rise in labour costs considered in Section 1.7.

Where there are continuous operations, the assumption of constant capital utilisation is justified. Plant is operated 168 hours a week because of technical considerations such as the time taken to stop and restart production or because expensive capital equipment is uneconomic without maximum use. Reduced hours do not change these reasons.

Yet, reducing basic hours does not necessarily reduce actual hours. Overtime may increase. This is particularly likely with continuous working. 168 hours a week must be worked and the 24-hour day must contain a whole number of shifts if shift workers are to have any continuity in the times they work. The effect of these indivisibilities can be exaggerated. Hours can always be reduced by giving shift workers more free time over their shift cycles. It may, however, be difficult to find workers to cover the working time released in this way. More overtime also avoids changes to shift arrangements, which can be difficult to implement.

One of TURU's case studies, at a chemical plant producing carbon black, shows how reducing basic hours affected continuous shift working. The 48-hour week had involved seven half-teams, two of which were working at any time. When the basic working week was reduced to 44 hours, an additional half-team was recruited and the workforce reorganised into four teams. These teams worked a four-week cycle. Each team worked 21 eight-hour shifts and had seven potential rest days in the four weeks. If the teams worked on none of

the potential rest days, they would only be working 21×8 hours in the four-week cycle, that is a 42-hour week. So, one of the potential rest days was worked as a day shift doing cleaning and odd jobs. This was known as a 'spiv day' and was not regarded as particularly productive. Not surprisingly, the only change with the 42-hour week was the elimination of the 'spiv day'. The four-week cycle was also retained when basic weekly hours were reduced to 40, but workers worked one less day shift in the cycle. Some day workers were recruited as a result.

These changing shift patterns allow a straightforward but highly notional calculation of the employment effects of reduced basic hours. The calculation should be regarded as no more than illustrative. The day workers recruited with the 40-hour week were not a full shift. The notional increase in employment caused by the 44-hour week, that is by a move from seven half-teams to four full teams, is 14 per cent. The further reduction to 42 hours did not raise employment. The 40-hour week gives a notional five per cent rise in employment. The notional figures for employment increases show that the effect of reduced basic hours on employment with continuous working is highly discontinuous. Unfortunately, TURU give no information on actual employment changes. So, the notional cannot be compared with reality.

The relationship between hours, shifts and jobs is in practice more complex than the notional calculation of changes at the carbon black factory suggests. For example, where there is no operational reason for continuous working, the numbers employed on different shifts may vary considerably. Even where a complete new shift is introduced, more jobs need not be created. TURU comment on the introduction of a fifth shift as a means of eliminating overtime in a four-shift system: 'Those instances ... that we do know of have involved the consolidation of overtime earnings into an annual salary, i.e. no fall in gross earnings, and the 25% increase in manning has been achieved by a 25% demanning of all jobs' (TURU, 1981: 215).⁶

This statement is not supported by TURU's twelve case studies. It is equally true that the statement is not contradicted by the case studies. They generally fail to provide information

⁶ The percentages are rather confused, but the meaning is presumably: 'The 25 per cent increase apparently required for a fifth shift has been achieved by a 20 per cent demanning of all jobs'.

on employment changes. In any event there is no case study which corresponds to the circumstances of the statement. The carbon black factory used for the notional employment calculations is a partial exception. The day workers recruited when the 40-hour week was introduced can be regarded as a fifth shift. The change to shift arrangements was part of a productivity agreement. The stated aim of the agreement was to avoid a 'significant increase' in employment (*ibid*: 193). This implies some increase in employment, albeit by very much less than 25 per cent.

The IMS study covered revised shift patterns, but not reduced hours. Yet, in all three case studies of shift patterns IMS conclude that changes were unlikely to be considered seriously in the absence of reduced basic hours (IMS, 1979: 50, 69 and 75). Managers at a paper-making mill felt that reducing the basic weekly hours of shift-workers from 42 to 40 hours would increase employment by one quarter through the introduction of a fifth shift, but virtually all overtime would have to be eliminated.

Management at an iron furnace would also consider introducing a fifth shift if basic hours were reduced. They were dissatisfied with their present shift pattern which involved a high level of overtime and absenteeism. The views of management at a steel mill were rather different. The steel mill, unlike the iron furnace and the paper mill, normally operated only from Monday to Friday. Overtime was used for starting the mill up on Monday mornings and to close it down on Saturday mornings. A fourth shift was a possible long-term response to a 35-hour week. The state of demand, however, was such that fewer shifts were currently being considered. Another reason a fifth shift might not be adopted was that management anticipated difficulty in recruiting the required quality of craft workers and supervisors. Both the iron furnace and steel mill belonged to the same division of the British Steel Corporation. A divisional manager took the view that: 'Previous reductions in the working week have been achieved at (or near) nil cost and as a result produced little growth in employment. Management intended to offset the costs of any possible reduction in normal hours by improved productivity or by reduced annual increases in wage levels' (*ibid*: 81).

TURU identify a further obstacle to changes in shift patterns, the conservatism of management attitudes. This was most apparent in their textile plant case study where the personnel director of 'a very diverse group' ... 'argued that no UK textile mill has ever made a success of continuous shift-working' (*ibid*: 89). The current shift arrangements, an

alternating double day shift plus a permanent night shift both covering five days, were popular at plant level. This pattern of shift-working had 'been traditional in the area/sector for over 100 years' (ibid: 93). Managers thought continuous rotas, which Saturday and Sunday working would probably require, would be unacceptable to many employees and that they would exacerbate labour shortages, particularly among skilled workers.

Management attitudes to changes in shift arrangements are clearly influenced by their perception of employee expectations. TURU themselves point to a tendency for shift workers to have strong opinions in favour of existing shift patterns (1981: 207). IMS also found that: 'Very conservative attitudes were shown [by workers] towards the "status quo", both in terms of shift length, and the type of shift system worked' (1979: ii).

The JCF research consisted of nine case studies in three countries. Like IMS, JCF did not specifically investigate reduced hours. One UK case study did, however, involve a reduction in hours. This was at a greenfield site making beverage cans, billed as 'Europe's most advanced two-piece plant'. The plant started with eight-hour shifts in 1980. The number of teams was gradually expanded to four as the plant became fully operational with continuous working. This was a conventional four-week cycle, the same as at the carbon black factory in the TURU study with the 44-hour and 42-hour week. Management originally intended to move to a four-crew, twelve-hour shift system operated by the parent company in America and at other UK canning plants.

Problems with the existing four shift system caused management to revise their intentions. Workers had a contractual obligation to provide cover for absences. This had resulted in a vicious cycle of high absenteeism and high overtime. It was common for workers to work an extra eight-hour shift each week. With three hours' overtime on top of the basic 39-hour week being built into the shift cycle, 11 hours of overtime was being worked a week. Management saw this level of overtime as a cause of absenteeism. Union representatives said that it was not uncommon for workers to work shifts on 15 or 16 consecutive days. There was a high level of fatigue with overtime and unauthorised absenteeism peaking in the summer months when demand was at a seasonal high and children were off school. The extent of overtime and absenteeism meant that shift crews were unstable, creating problems of supervision and control. Similar vicious cycles of overtime and absenteeism were observed by TURU and IMS.

A five-crew shift cycle was adopted in 1983. This involved an annual hours system with holidays built into the shift cycles. There was no change in the number of workers employed on each shift. So, the number of shift-workers rose from 100 to 125. There seems to have been little scope for reducing manning. 'Manning levels were said to be very tight'. A single-union agreement provided for complete flexibility. The effect on unit costs is not entirely clear. The study refers to 'lower unit costs' and states that the new system had no apparent disadvantages to the company (JCF, 1985: 16). Possibly, reduced overtime and the advantages of stable shift crews fully financed the fifth crew.

5.10) Looking further back

Strangely, the further back reductions are the more generous TURU tend to be with information on their effects. This, perhaps, reflects their concentration on overtime which was more of an issue with earlier reductions.

A car manufacturer agreed to three reductions, each a little more than an hour, between 1955 and 1961 (TURU, 1981: 250/51). This was 'accompanied by high overtime leakage which has maintained actual weekly hours'. This was no accident. The 1955 agreement specified that the company was reducing basic hours 'in consideration of an assurance by the Trade Unions that, because the company's facilities are inadequate to meet current demand ..., there will be no reduction in the present minimum level of actual working hours'. Later agreements 'were in a similar vein'. If reduced basic hours do not affect actual hours, they cannot possibly increase employment. Between the late 1940s and the mid-1960s reduced basic hours had relatively little effect on actual hours (see Figures 1.1 and 7.1). Indeed, given the low level of unemployment, reduced hours could only have increased employment if they had caused a rise in labour market participation.

Yet, the effect of reduced basic hours on actual hours was not as limited as the text of the car company's agreements suggests. Actual hours fell in the longer term. Initially, this was due to demand fluctuations, but 'workplace organisation ... prevented the company subsequently, as demand improved, reverting to former overtime levels' (ibid: 251). The long-term effect of reduced hours at a car plant belonging to another company is also unclear (ibid: 269). Here, previous reductions in basic hours, from 44 to 42 and then to 40 under the national engineering agreement, had been matched by falls in actual hours worked. TURU attribute

this to the working practices then prevalent, piece work and 'job and finish'. Workers regularly left work before the end of their shifts. TURU suggest that 'there was a lot of "slack" in the organisation of production and this slack was taken up, in part, by the reduction of hours of work'.

JCF's comments on a 1976 reduction of the working week by 2 and 2½ hours at two factories belonging to Italy's second largest car manufacturer parallel those of TURU on the British car plant. The reductions were 'hardly felt because the utilisation of time was so erratic' (JCF, 1985: 82). (Section 9.6 considers the effect of reduced hours in other countries.)

5.11) Do fewer hours mean higher productivity?

The conclusions of most studies are consistent with PSI's findings as set out in Section 5.2. They suggest that reducing hours raises productivity. For example, TURU state: 'Our own case studies, where they involved major changes in working time practices, indicated once again the genuine scope for raising hourly productivity in the context of reduced hours of work' (1979: 295). Yet, only PSI systematically studied reductions in basic working hours. The reasons for rejecting their results are their interpretation of all productivity growth as an offset to reduced hours and their neglect of job retention. They place an undue emphasis on simple before and after comparisons. This only makes sense if the effects of reduced hours are readily observable.

The research outside engineering is less sophisticated than PSI's work. Most of it does not specifically seek to assess the results of reduced hours. There is only limited research on services. Still, management seems more able to identify unproductive time in services than in manufacturing. So, assuming reductions in hours affect unproductive rather than productive time, the productivity potential of reduced working hours is larger in services than in manufacturing. Managers expect reduced hours to have little effect on the employment of service employees and on non-manual employees in manufacturing.

The studies of services concentrated on retailing and took place in the late 1970s and early 1980s. Since then opening hours of stores and part-time employment have both increased. The productivity implications of reduced hours in retailing may now be different than managers in the studies anticipated. Relatively unproductive time may have fallen. Certainly,

managers in the studies anticipated. Relatively unproductive time may have fallen. Certainly, reduced hours now seem unlikely to result in shorter opening hours, as some managers supposed.

Reduced hours may indeed lessen unproductive time, or 'slack', in the short term. Both PSI and TURU suggest that this is an important effect. PA also find that managers expect reduced hours to lessen 'slack'. Yet, unproductive time does not necessarily mean a permanent increase in productivity when hours are reduced. Once hours have been reduced, parts of working time may gradually become less productive. If so, reduced hours need have no long-term effect on productivity. The idea here is of an equilibrium level of 'slack'. Reduced basic hours may lower 'slack' in the short term without affecting its long-run equilibrium level. Still, considerable time may elapse before an equilibrium is restored. In some cases the idea of an equilibrium level may be misconceived. For professional and managerial employment actual hours exceed basic hours. This 'negative slack' has been increasing through the 1980s (Gregg, 1994, and DEMOS, 1995). For such employees reduced basic hours cannot achieve a productivity effect by eliminating 'slack'.

Managerial and professional employees are very different from the employees covered in the studies. Employers do not control directly what professional and managerial employees do during their working time, but instead rely on internal control exercised by the employees themselves. The extent of direct control by management of working time is probably the key factor in explaining variations in the productivity implications of reduced hours between different groups of employees. Paid overtime provides a good indication of the extent of managerial control of working time. Where employees voluntarily work unpaid overtime, they rather than their managers must be responsible for getting work done and reduced basic hours are unlikely by themselves to change the amount of work they do. Unpaid overtime is rare except for professional and managerial employees. So, reduced hours may in the long-run have similar productivity implications for all employees who are not managerial or professional.

The research summarised in this Chapter provides little evidence about any employment effect of reduced hours. PSI conclude that productivity increases 'offset' the employment potential of reduced hours. So, the absence of an employment effect rests on their conclusion about productivity. There were, however, clear cases of increased employment in the TURU

and JCF studies where shift working was increased. There were even a couple of cases of job retention in the PSI research.

In general the research focuses almost exclusively on productivity. This means that points relevant to employment and overtime are scarcely considered. For example, the effects of reduced hours on pay and costs are only seriously investigated in a few studies. The PA study considered the cost consequences of reduced hours, but, like PSI, adopted an analytical framework which largely determined its results. The PSI construction industry study shows that the effect of reduced hours on hourly pay cannot simply be read from a collective agreement. Overtime and pay are considered further, along with the 1992/94 research, in Chapter Seven. The PSI engineering case studies, like their construction study, indicate that reduced hours do not increase hourly pay as much as more superficial studies suggest (see Section 7.4a).

The review of research shows that the alleged productivity effects of reduced hours reflect assumptions rather than investigation. There is little or no evidence that reduced hours have more than a transitory effect on productivity. As shown in Section 1.7 reduced hours must have some consequences for employment, overtime, output, or productivity. So, this Chapter leaves the results of reduced hours open. After looking at the 1992/94 research in the next two Chapters, clearer conclusions are given.

6) CONSEQUENCES OF THE CSEU CAMPAIGN

6.1) Introduction

This Chapter reports on research carried out in 1992/94 on the economic consequences of the CSEU campaign. This was joint work with Dr Ray Richardson. A version of the results has been published previously (Richardson and Rubin, 1994). As highlighted in the previous Chapter, the results of the 1992/94 research conflict somewhat with the conclusions of earlier research, including 1991 research by Richardson and Rubin. This 1991 research is thoroughly reassessed in order to show that the 1992/94 results have a firmer foundation.

The research methods used in 1992/94 and the conclusions on productivity, employment and overtime are presented in Section 6.2. Then, the research methods and results of the 1991 research are outlined. Section 6.4 attempts to understand why the research results are so different. The next Section argues that the case study approach adopted in 1992/94 should be preferred. Section 6.6 briefly discusses the lessons which can be learnt from the mistakes of 1991. Finally, the results of the CSEU campaign are summarised and the relationship of these results with the research on earlier reductions, considered in the previous Chapter, is elucidated. An Appendix gives brief reports on each factory in the 1992/94 research.

6.2) The 1992/94 research

Research commissioned by the Employment Department enabled Richardson and Rubin to carry out a thorough reassessment of their 1991 study. This research involved two rounds of interviews at 20 factories in a period of 16 months from late 1992 to early 1994. Generally, both personnel and production managers were interviewed. Also, the senior manual union representative in each factory was nearly always interviewed. In addition there were some interviews with financial managers and other union representatives.

6.2a) The factories visited

17 of the 20 factories in the 1992/94 study were also covered by the 1991 research. Five had been visited and the remaining 12 were selected from 102 where personnel managers took part in a survey. (Sections 6.3b and 6.3c give details of the 1991 visits and the survey.) The aim was to visit each factory twice and carry out extensive interviews with more than one manager plus union representatives. This seemed inappropriate for small plants. Accordingly, factories were only asked to take part in the 1992/94 research if the 1991 survey showed they had more than 250 manual employees. In addition each factory approached satisfied at least one of four other selection criteria. The criteria were that the personnel manager had reported:

- (i) an agreement which was self-financing; or
- (ii) a failure to achieve the offsets agreed with shorter hours; or
- (iii) the absence of any offsets; or
- (iv) less difficulty in negotiating shorter hours than was usual in wage negotiations.

These criteria were satisfied by 15 factories in the 1991 survey. Interviews were achieved at 12, including five of the six with self-financing agreements. There was no intention that the factories selected should be representative of those taking part in the survey. Rather, the objective was to visit factories where there was something unusual about the agreement or its consequences. Four pilot factory visits in September 1992 indicated that in more typical cases managers regarded shorter hours as something of a 'non-event'. When questioned they were very aware of the cost consequences of shorter hours, but there was very little on which to focus an interview. Managers tended to see shorter hours very much as they would see a high wage settlement. This finding is very much in line with a point made in the PSI report on their 1982/83 engineering case studies. 'Many companies have regarded the introduction of the 39-hour week as a minor irritation rather than as a significant problem or an important development. The most obvious reasons were that the size of the change involved in the 39-hour week was small compared to variations in business demand, and to changes in productivity and in manpower policies associated with the variations in demand' (White and Ghobadian, 1984: 123). The pilot visits indicated that the best way of exploring the general issues raised by reduced hours would be to concentrate on somewhat unusual cases. In these atypical cases management and union representatives were more likely to have clear views about shorter hours or at least about their agreement on shorter hours.

Case studies were carried out at three factories which were not part of the 1991 study. Managers were approached on a purely opportunistic basis because their factories seemed likely to provide interesting case studies. One personnel manager, who had asked for a copy of the report on the 1991 study, had mentioned difficulty in implementing some provisions of the shorter working week agreement. Another factory was included, because it was Japanese owned and its agreement appeared to make no effort to offset the costs of reduced hours. The third factory had not introduced the 37-hour week when the company personnel director was interviewed in 1991. It had subsequently done so, although there was no recognised union there.

The 20 factories visited only roughly reflect the geographical and industrial distribution of factories with reduced hours, as shown by the 1991 survey. For example, a much higher proportion of the factories visited were in mechanical engineering. There was no intention that the factories visited should be representative. The aim was that they should illustrate issues. Table 6.1 shows how the factories visited compare with those in the survey according to the selection criteria.

Table 6.1 Factories by selection criteria

	Factories Visited Number	Factories in Survey Percentage
Easy negotiations	1	12
Absence of offsets	4	10
Self-financing reduction	8	15
Failure to achieve offsets	7	14
None of the above	2	55
Total	20	100

Note: The overlap of selection criteria is mainly between self-financing reductions and failure to achieve offsets.

The factories not covered by the 1991 survey are classified as if they had been. This is not an entirely straightforward exercise. Some information from the 1991 interviews has been ignored. For example, Window Dressing really had no offsets but, as far as management at

the parent company knew, its reduction was self-financing. It is categorized accordingly.¹ The survey asked managers whether they had estimated how much the offsets had financed the reduction. It did not ask managers whether they believed their estimates.

6.2b) The research in context

The interviews primarily sought information on the productivity and output consequences of reduced hours. This required other influences on productivity and output to be taken into account. The most obvious feature, particularly in the first round of interviews at the end of 1992 and early 1993, was the recession. In addition the extent of change in working practices was impressive. These features are crucial to the research which has to disentangle reduced hours from other influences on productivity, overtime and employment.

Looking at shorter week agreements without considering change in a broader context is most misleading. This was why the interviews covered the process of change in each factory in some detail. Specific changes included in shorter hours agreements in one factory had been introduced elsewhere with no link to shorter hours. Looking at changes not linked to shorter hours in one factory provided a valuable perspective on the same change when linked to shorter hours in another factory.

Generalisations about the nature of changes in working practices are difficult, but they can perhaps be summarized as a growth in flexibility. There were two outstanding examples of this, one provided by the production director at Unreliable Memories and the other by the convenor at Loss Leader. In 1988 Unreliable Memories had required three workers to fit a bracket, one to drill the holes, another to screw the bracket in place and a third to apply a drop of paint. Following a flexibility agreement in 1989 one worker did the entire job. At Loss Leader a flexibility agreement in 1991 and subsequent training in cross-trade skills enabled work to be reorganised. A job which had previously involved 19 separate operations, each carried out by a different worker, was now done by two workers with large savings in time moving the work around and in stocks and paperwork. Neither the production director nor the convenor linked these changes to shorter hours. So, they might have been regarded

¹ The Appendix to this Chapter gives details of the factories in the 1992/94 study.

as outside the scope of the research. Yet, at other factories moves to increase flexibility had been linked to shorter hours through the terms of agreements.

One very clear conclusion emerges from the detailed study of the process of change in each factory. The varied approach managers adopted to shorter hours, which was a major reason for their factories' inclusion in the study, seems to have had little or no effect on productivity outcomes. This is admittedly a judgement unsupported by any statistics. It is, however, consistent with a PSI finding based on statistics gathered from factories in their 1982 survey. Whether managers introduced or implemented measures to increase productivity in response to shorter hours made 'no consistent difference' to productivity growth (White and Ghobadian, 1984: 19). (Section 5.2 gives more details.)

The recession was not quite as common a factor in the factories at the time of the first visits as the process of change. Yet, a large majority of the managers interviewed had suffered a substantial fall in sales in the period when hours were reduced. Team Work and Unreliable Memories were the two factories facing the most severe pressure. Demand in their markets fell by nearly one half between their shorter working agreements in 1990 and 1993. In late 1992 and early 1993 the recession and the process of change were much more conspicuous influences on the variables affected by reduced hours than reduced hours themselves.

6.2c) Productivity outcomes

The crucial issue in assessing the economic effects of shorter hours is how much measures to increase productivity in shorter hours agreements are really due to shorter hours. Managers in every factory in the study believed that productivity improvements easily absorbed the costs of shorter hours. While this is no doubt true, it is of very limited relevance. What matters is whether shorter hours caused productivity to rise faster than it would otherwise have done. The research investigated three reasons why productivity might have risen faster because of shorter hours.

i) 'Automatic' productivity growth

There could be an almost automatic increase in productivity. Fewer hours of work might mean that workers suffer less fatigue and so sustain a higher level of hourly effort during a shorter week. Studies by occupational psychologists indicate that fatigue is a factor in performance even with work weeks of modern length (see Section 1.8). Fatigue is perhaps most significant where work is repetitive and monotonous. BMW at one time sought to reorganise its production line work in Germany into six-hour shifts to attain higher productivity (Bosch, 1989). Two managers, production managers at Early Change and Wage Trade-off, thought that a fatigue effect might have occurred in their factories. Also, the production director at Unreliable Memories felt that workers paced themselves for a day's work so that when the working day was reduced output tended to fall by less than might be expected. Some agreements certainly involved a commitment from workers to work harder. Rover, where the speed of assembly lines was increased, is the prime example among the reported agreements. Explicit agreements on harder work and even implicit agreements, what has been described as the wage-effort bargain, raise questions about the relevance of a fatigue effect. Yet, a case such as Rover can still be seen as a combination of a deliberate increase in effort and a fatigue effect.

ii) Agreed new measures directly linked to shorter hours

The main reason for supposing shorter hours increased productivity is the nature of the agreements on shorter hours. Very many agreements contained provisions designed to increase productivity. The research indicates three reasons for doubting whether this creates more than a formal link between productivity growth and shorter hours. First, some provisions were included although they were not expected to have any effect on productivity. Secondly, there were difficulties in implementation, particularly with time reallocation. Thirdly and most important, provisions which would have been negotiated irrespective of shorter hours were included in shorter hours agreements.

An extreme case of provisions which were not expected to increase productivity was at Window Dressing where management reported to their head office that the agreement was self-financing, but expected it to have absolutely no effect on productivity. For example, one section of the agreement related to a group initiative on total quality and cost reduction. There was no need, as far as the manual workers were concerned, for this section as they were already cooperating fully with the initiative. Management and union negotiators had

knowingly engaged in a charade to satisfy the demands from group management. The agreements at a number of other factories also contained some provisions with virtually no content. But, in general, managers had expected the provisions they negotiated to increase productivity or to reduce costs. Window Dressing is the only one of twenty-three factories (including those in the pilot study) visited as part of the research where the agreement was completely cosmetic. It is probably exceptional. However, managers whose agreements contained provisions designed to mislead a higher level of management might be less willing than others to cooperate in research.

There were also a few factories where some provisions in hours agreements had not been fully implemented at the time of the final visits, three or four years after they had been negotiated. In one case management felt that there had been other, more urgent issues to deal with first. In another case some potentially valuable offsets required training programmes, and these had proved hard to organise. In other cases there was a lack of coherence within management. For example, an agreement covering training might have reflected the priorities of the managers responsible for negotiations, but the managers responsible for production might not be keen on releasing workers for training. While there certainly were cases of provisions which were a charade or which were not implemented, these are relatively unimportant in most factories. The third reason for doubting whether there is more than a formal link between productivity increases and shorter hours is of much greater significance. This is whether the provisions to increase productivity in shorter hours agreements would have been agreed without shorter hours.

In most cases the absence of any fundamental link between measures to increase productivity and shorter hours only emerged during the course of the interviews. Shipyard, the most impressive case of productivity improvements of the twenty agreements covered by the research, was an exception in that the personnel director made it very clear at the start of the interview that the productivity improvements would have been achieved whether or not hours had been reduced. Before shorter hours had become an issue, management had set up a 'Lost Time Group'. This was one of several initiatives taken to improve productivity following Shipyard's denationalization. The 'Lost Time Group' reported that on average workers were only actually working for 28 of their 39 contractual hours. In other words for each worker 11 hours a week were 'lost'. The 'Lost Time Group' also suggested measures which would convert this 'lost' time into working time. These included the abolition of

various allowances, a major reduction in time allowed for union activity and moving clocking points and amenity facilities closer to where workers were actually working. Management was quite happy to concede the claim for 37 hours in return for union agreement on the measures suggested by the 'Lost Time Group'. The unions accepted this, but management claimed that, without agreement, they would have imposed their terms. In view of the real risk of closure the union leadership at Shipyard felt that it would be unrealistic to resist management's terms, which included what they saw as a generous pay increase.

Most managers who had linked significant measures to improve productivity with shorter hours thought that this had played a greater role in securing agreement on the measures than the managers at Shipyard did. Nonetheless, other than for time reallocation, it was very rare to find any manager who, at the time of the interviews, could indicate any measure which would not have been introduced if hours had remained unchanged. So, with the partial exception of time reallocation, shorter hours at most affected the timing of productivity improvements and productivity at the time of the visits was no higher than it would have been without shorter hours.

The extent of change at Shipyard was extremely exceptional, but managers in at least 11 other factories reported that they too had been undergoing profound and continuing changes, whether in capital equipment, factory layout or in introducing various new working practices such as team-working, multi-machine manning and multi-skilling. These programmes generally got under way before the shorter working week campaign, but were not one-shot, finite affairs. It seems to have been largely an accident whether changes were linked to shorter hours. For example, negotiations over team work were already under way at Team Work when management was faced with a demand for shorter hours which they felt unable to resist. The shorter hours agreement contained no reference to team work, which was the subject of a separate agreement a few months later. Yet, if management had faced pressure from head office for a 'self-financing agreement', something on team work could easily have been included in the shorter hours agreement.

In view of the extent of change at most factories it is hard to see the demand for shorter hours as a major stimulus to change. There might at most have been earlier negotiations on changes which were already planned. This might affect the timing of productivity increases

but not their eventual extent. Efficiency improvements in the form of cost-offsetting measures were a feature of wage negotiations in the 1980s which has received widespread comment (see, for example, Wilkinson, 1989). This suggests that the introduction of change was not in any way dependent on shorter hours.

The research requires a judgement, however arbitrary, on the extent to which cost-offsetting measures were introduced as a result of the shorter working week. Managers and trade union representatives have both generally taken the view that changes other than time reallocation would have been agreed without the shorter working week, although somewhat later in many cases. The effect on when change was actually introduced is less obvious, but shorter hours probably also had some impact here, albeit somewhat less than for the timing of agreement.

iii) Productivity growth from 'goodwill' or the facilitation of change

Some agreements stressed the need to avoid a loss of production without specifying how this was to be achieved. A number of managers and trade union representatives suggested that productivity had increased as a result. The clearest example of this was at Secure Employment. The union convenors there reported that they had advised members that the agreement required them to maintain production. They had asked members to raise any production problems with the shop stewards. When members had no work, the union had reminded management of an earlier agreement on flexibility. In the year after the agreement a tremendous backlog of work had been cleared, although the workforce had fallen slightly and overtime had remained at the same level. Production had been maintained through better deployment of the workforce. The personnel manager, who was present for this part of the interview with the convenors, was asked by one of them for his view on the effect of the agreement on production. He simply responded by saying that he would not disagree with what they had said. During the second visit in 1994 production managers were amused by the idea the unions had behaved as the convenors had indicated. Nonetheless, they did acknowledge that the unions had made no effort to limit the extent of flexibility. So, the production managers did confirm a change in union attitudes to flexibility, but they saw the union role as 'abdication not participation'. The union convenors, however, did not attribute greater cooperation over flexibility entirely to the shorter hours agreement. They saw changes in middle management, which had improved workforce morale, as an important contributory factor.

A similar position was taken by management at Strong Demand, where the personnel manager felt that improved performance could in part be attributed to the goodwill generated by the agreement. This meant that the workforce responded positively to management efforts to ensure that working hours were fully utilised. This was, he argued, not something that could have been achieved by better policing. People generally had to police themselves. The company's approach included 'taking people seriously, treating them like adults. Every now and again we have a check on how things are going'. The manager argued that the gain in goodwill was not transitory because the company had been seen to reduce hours before it had been forced to do so, and that the noon finish on Fridays was a permanent reminder of this. The manager felt that greater goodwill had also lessened lateness and authorised absence within working hours. He maintained that this increase in time being worked during basic hours could not be attributed to the recession, because the factory workforce was continuing to increase. The personnel manager's view was that the company was getting more effective use of 37 hours than it had of 39 hours.

Here, too, the goodwill was seen to follow from a different management approach, as well as from shorter hours. The manager argued: 'The shorter working week, as much as anything else, got the message through to everybody about the requirement for change, and that, if the change is beneficial for the company, it has something to offer for the individual as well'. Yet, he conceded that 'given the change of approach on our side, it [the change in worker and trade union attitudes] would have been achieved in one way or another'. It is probably better to see the change in attitudes as part of the background to the shorter working week, rather than as a consequence of it. Nonetheless, judging by the views of both the personnel manager and convenor, the shorter working week had helped to consolidate the change of attitudes.

In both these cases, 'goodwill' emerged as an important factor from the interviews. Another study of two plants made very much the same finding. 'Management at the sites reported increased worker morale and the signs of a reduction in absenteeism after the [37-hour week] deal' (Little, 1991: 75). Improvements in morale or 'goodwill' are, however, unlikely to last very long unless buttressed by more fundamental changes, such as in management style. Further, these other changes may do more than reduced hours to generate goodwill. The 1994 visit to Strong Demand shows how transitory gains in goodwill can be. The personnel manager interviewed in 1991 had been promoted to a position at another location. His

successor reported that relations with the union had deteriorated. He attributed this to a change of convenor.

Facilitating changes which would have been introduced anyway is another way in which reduced hours may boost productivity through an effect on attitudes. A number of managers felt that this was a factor, but, again, from what they said, not one that generally affected the extent of change in the medium term. Factory managers typically felt that changes were necessary to increase output or quality and they did not expect any union attempt to veto these changes. However, managers often approached change with extreme sensitivity, seeing union agreement as making success more likely. This was particularly true of changes, such as the introduction of team working, which required the full cooperation of individual workers. Indeed, a number of managers made comments on the positive role of unions in change which were similar to those of George Simpson, the then Chairman of Rover, in his evidence to the House of Commons Employment Committee inquiry into the future of trade unions. Mr Simpson said that changes to working practices would not have been as swift without union cooperation. This is not to suggest that managers found negotiating change easy. They felt that negotiation was the best way. Conceding shorter hours may have reduced the friction involved in securing agreement, but that was all.

iv) Conclusions on productivity

Very little of the undoubted growth in labour productivity can be attributed to the shorter working week. Some agreements had an element of the cosmetic and others were hard to implement, but most consisted of changes which were in the pipeline and which management was intent on introducing. Change may have been 'facilitated' by the quid pro quo of the shorter working week. Yet, there is no evidence of any significant effect on the extent of change, particularly in the longer term. Without the immediate reduction to 37 hours, Shipyard, for example, might possibly have had a strike, but, in the judgement of management and the convenor, management would still have introduced its package of measures to eliminate 'lost' time. Indeed, there was a strike over changes sought by management in the next year's wage negotiations. So, if the shorter week can be credited with the avoidance of a strike, this was very much a short-term benefit.

Shorter hours may well have encouraged time reallocations (see Section 7.3). With this partial exception the 1992/94 research finds that shorter hours made little or no contribution

to productivity growth. If this is correct - and it is based on managers' response to close, extended questioning - then reducing hours must have had other consequences.

6.2d) Employment and overtime effects

Managers said that output was determined by sales and was unaffected by shorter hours. It follows that there must have been some increase in employment or overtime in order to maintain output. The research addressed two issues: first, how the foregone output was made good, and, secondly, the impact on costs.

i) How the foregone output was made good

Most managers had difficulty with this question because orders and output had often been falling at the time hours had been reduced. Few, if any, had found it difficult to meet the orders they had had. Analytically, however, the problem of foregone output remains a real one. Managers had not turned business away or insisted on prices which would have led to a loss of orders. So, they must have needed higher employment and/or more overtime to meet the foregone output. The recession meant that this normally took the form of fewer redundancies and/or smaller reductions in overtime than would otherwise have occurred.

The recession made it very hard for managers to address the issue of foregone output. There was a contrast here between cost-offsetting measures and changes in employment and overtime. Most managers could very readily express a view on whether cost-offsetting measures had been implemented, and even whether they would have been implemented anyway. With both employment and overtime falling at around the time hours were reduced, they either found it difficult to consider an imaginary world with unchanged hours or were unwilling to do so.

On being pressed quite hard, most managers could see the arithmetic of the case, and they would agree that shorter hours must have had some effect on employment, but it was not something that they had thought through independently. Their agreement that employment was higher than it would otherwise have been due to shorter hours was usually reluctant. Yet, managers showed no reluctance to contradict the interviewers on other points. So, the leading questions necessary to get them to think in a new way are unlikely to have produced answers which did not reflect their true views.

A good illustration of management reactions was at Early Change. The production director regretted the shorter working week. He felt that it must, in isolation, have affected the factory's competitive position adversely (though other factors had worked strongly to their advantage). When asked how the firm had coped with the loss of working time, he replied 'I don't think we have recovered the hours. We had achieved many things in [year of flexibility agreement], but the hours reduction cost us two hours'.

His initial response was that shorter hours had not affected productivity but had increased employment and probably also overtime. His view of overtime was just an impression because no one had looked at overtime to see the impact of shorter hours. In the same discussion, the employee relations manager saw things somewhat differently. He did not think that any extra overtime had been worked. After some discussion both agreed that employment rather than overtime had increased. A third manager, also in production, agreed that overtime had not been affected by shorter hours.

Shortly before the 1993 visit the factory had had an overtime ban. At the time of the visit management were seeking to increase overtime to make up lost production. Overtime was being offered on each of the first four days of the week, rather than just on Tuesdays and Thursdays, as was traditional. The workforce were not increasing the amount of overtime they worked, but were instead choosing to work overtime on the days which suited them. The only workers who were working more overtime were temporary workers, who, the managers thought, were trying to create an impression in an effort to secure permanent positions. In the view of the managers the workforce did not wish to work more overtime. This seems a valid conclusion. If the workers did not want more overtime in the immediate aftermath of a loss of customary earnings through the overtime ban, they are hardly likely to want it at other times.

At Early Change Friday overtime was very rare; the workers just did not want to give up their free Friday afternoon. This was true of most other factories, which also had four-and-a-half day weeks. The four-and-a-half day week often involved increasing the length of the working day from Monday to Thursday. As a result the time available for overtime was sometimes reduced. For example, on two days a week a factory might close at 7 pm rather than 5 pm to allow overtime. Closing times were not changed with the longer working day, so reducing the time available for overtime. If workers are unwilling to work longer than ten

hours a day, the reduction in hours may possibly lead to less overtime at times of high demand.

An indication of why production and personnel managers might not be fully aware of the effect of shorter hours on employment is provided by Different Tales. Financial managers used a manpower planning procedure to calculate employment from planned production, standard times, the basic hours available from the existing workforce, and assumed levels of absence rates, holidays and overtime working. In this planning process shorter hours did not affect overtime. So, shorter hours had an impact on employment. When employment was planned to fall for other reasons, the fall would be less. Production and personnel managers were much more aware of these other reasons, which had much larger effects, than they were of shorter hours.

The clearest case of increased employment was at Varied Production Methods. This is the only factory in the study with continuous operations. Production took place 24 hours a day, 365 days a year. Before the working week was reduced there was four-crew working with three hours of contractual overtime built into shift cycles. In addition workers had to provide cover for holidays and sickness, resulting in very high levels of overtime. The personnel manager, who started after the shorter week had been agreed, saw four-crew working as part of the factory's anachronistic personnel practices. The shorter working week made the four-crew system more expensive as there were now five hours of contractual overtime built into the shift cycles and basic weekly pay was unchanged. Shorter hours provided the catalyst for the gradual introduction of a new five-crew shift system which involved substantially less overtime, a fall in earnings of some 20 per cent and an increase in employment of 25 per cent through fewer redundancies. The rise in employment should be seen not as a consequence solely of the reduction to a 37-hour week agreed in 1990, but as the result of a series of reductions dating back to the 42- hour week in 1964. So, shift-workers did not feel the final effect of the 1964 reduction until nearly 30 years later. In the meantime overtime was increased.

The evidence, therefore, is that shorter hours increased employment, but that this generally took what Michael White (1982) saw as the esoteric form of the 'slowing down of the rate of de-manning'. There is also some indication of a rise in shift-working. Given the recession it is perhaps surprising how many factories had expanded shift-work between 1990 and

1992. No less than five of the twenty visited had done so. Most were untypical in that they had wished to increase or at least maintain output. This suggests that reduced hours at a time when market conditions are less difficult may be associated with an expansion of shift work. Varied Production Methods, however, was the only case where managers regarded the shorter working week as making an important contribution to the increase in shift work.

The conclusion of the research on overtime is that it increased to a limited and perhaps temporary extent. The conventional wisdom that reduced hours merely increase overtime appears to have affected the perceptions of a number of managers. One said that overtime had increased, but, after being asked for figures on overtime, he was surprised to find that these showed a decline. Another withdrew his initial statement that overtime had increased when asked when the extra overtime was being worked. Very few other managers reported an effect on overtime, probably because the recession meant that overtime was falling at the time hours were reduced. The National Board for Prices and Incomes in their research on the 1964 'package deal' agreement also found that managers' responses about their own experience were affected by conventional wisdom. 'There were cases in which management asserted that the narrowing of the timeworker-payment-by-results differential had resulted in falls in effort and productivity. No concrete evidence of such falls was produced, and in the one case where it was possible to test the assertion the management agreed that the result did not support their beliefs' (NBPI, 1969: 26).

From the limited extent of the productivity and overtime effects, increased employment emerges as the major consequence of shorter hours. Costs may well have increased by much more than the 1991 research indicated. This depends on how shorter hours affect the growth of wages (see Section 7.4). Higher costs inevitably have adverse effects on employment, but this negative indirect effect of shorter hours is significantly less than the positive direct effect (see Section 1.7).

6.3) The 1991 research

The main concern of the 1991 research was the effect of shorter working hours on costs in the engineering industry.² There were three stages. First, a number of collective agreements on shorter hours were examined. There was then a series of interviews at factory level with managers who had negotiated shorter hours agreements. Finally, there was an extensive postal survey which aimed to be representative of factories with reduced hours.

6.3a) The Collective Agreements

A number of collective agreements were reported in some detail in industrial relations journals (IDS Study 461, IRS Employment Trends 464). The journals indicated that managers had generally linked shorter hours with measures to increase productivity. The reduction in hours was nearly always from 39 to 37 over a one or two year period. In most cases the reduction was agreed as part of the annual wage negotiations. There was no sign of any reduction in weekly pay increases. So, a rise in productivity of a little more than 5 per cent would be necessary to offset in full the costs of the reduction. Somewhat arbitrarily, 83 agreements reported in sufficient detail were classified according to their major method of finance. This is shown in Table 6.2.

Table 6.2 Major method of finance in 83 reported agreements

Time reallocation	28 per cent
Specific change(s) in working practices	41 per cent
Employer finance	27 per cent
General commitment	17 per cent

Note: Ten agreements were judged to have had two major methods of finance.

Time reallocation is a change in the use of time for which workers are paid. For example, tea-breaks or washing-up times might be abolished. Time reallocation means that some of

² An attempt was made to explain variations in the cost of shorter hours. In view of the doubts about the accuracy of the estimated costs, no further comment is made on this attempt.

the increased leisure time given by the clause of the agreement reducing basic hours is taken back by another clause removing paid non-working time.

The most common examples of changes in working practices were increased flexibility in the type of work being done and multi-machine operation. It was particularly difficult to assess whether such changes should be regarded as a major source of finance.

Agreements rarely said that employers were meeting the bulk of the costs of shorter hours. Most agreements are in this category because of the limited nature or complete absence of cost-offsetting provisions. A few agreements did explain why the firm was financing the reduction. One referred to 'very significant improvements in flexibility and working practices from committed cooperation of the manufacturing partners. For this reason no additional steps are proposed for funding the reduction'. Another stated that improved working practices had already been bought out.

Finally, several agreements made a commitment to a very general objective (e.g. 'to maintain output' or 'not to increase costs') without indicating how this was to be achieved. Such commitments appeared to be exactly what the Engineering Employers' Federation had refused to accept in the national negotiations which had preceded the CSEU campaign. At the start of the campaign the EEF stated: 'Productivity deals were not always as effective in practice as they promised on paper. Employers gave but received little in return. We have learned the lesson ... Employers are still ready to give. But only in return for specific commitments, not mere statements of good intent'.

The Amalgamated Engineering Union (AEU) kindly permitted access to their head office files containing some 400 shorter hours agreements. These agreements covered a much greater proportion at smaller factories than did the reported agreements. Agreements at smaller factories were much less likely to have any offsets.³ The AEU files also showed that unreported agreements at larger factories were similar to the reported agreements. So, Table 6.2, based as it is on reported agreements, probably only reflects the situation in larger factories.

³ Most of the agreements shown in Table 1 as being mainly employer-financed did contain some offsets.

6.3b) The interviews

The interviews aimed to achieve an understanding of the varied nature of the agreements on shorter hours. There were thirteen interviews, twelve of which involved factory visits. One interview with the manager of a very small plant was conducted by telephone. The factory visits were fairly brief and generally involved only the senior plant production or personnel manager. Two group managers were interviewed as they had negotiated agreements covering a number of factories. One point was very clear from the visits. Shorter hours were most unwelcome. Yet, confronted with they often described as a brilliantly conducted campaign by the CSEU, managers had felt unable to resist.

The variations which emerged from the interviews were, if anything, even more marked than in the reported agreements. One company had agreed an immediate two-hour reduction which was not linked to any other change. The interviews in two cases substantially modified the impression which looking at the agreements alone would have created.⁴ The production manager at Wage Trade-off said that the weekly wage increase had been reduced to 'pay for' shorter hours. Window Dressing's production manager admitted that extensive cost-offsetting provisions had actually not affected costs. They had been put in the agreement to satisfy a higher level of management. A number of managers reported that conceding shorter hours had enabled them to secure agreement on changes which would otherwise have been very difficult or expensive.

The factory visits did not permit easy generalisations on the effects of shorter hours. It did, however, then appear that the net effect on costs differed markedly between factories. The main focus of the interviews was on understanding the terms of the agreements and obtaining an assessment of their effects. Managers were asked about the extent to which changes linked to shorter hours would have been achieved without the CSEU campaign, but this was not the central issue it became in the 1992/94 research.

⁴ The Appendix to this Chapter gives more information on the factories.

6.3c) The postal survey

Personnel managers at factories with shorter hours were surveyed in August 1991, followed by a reminder to non-respondents in October. A questionnaire was sent to one in five of the relevant factories listed by the CSEU as having agreed shorter hours by March 1991. 102 completed questionnaires were returned, a response rate of 55 per cent. Nearly 90 per cent of the managers said that they had estimated the gross cost of the 37-hour week, that is the effect on their factory's total manual labour costs of the reduction with no cost-offsetting measures. Almost 60 per cent said that the increase in labour costs was between 4 and 6 per cent. In most cases managers seem simply to have calculated the rise in hourly pay resulting from reduced hours with no loss of weekly pay.

Less than 10 per cent of the managers said that they had not negotiated anything to offset the cost of shorter hours. A much larger proportion of the agreements in the AEU files had no offsets. So, the survey probably suffered a serious response bias towards larger factories. Time reallocation (a reduction in paid time not previously worked) was the most common offset, followed by increased flexibility between departments and multi-skilling.

The extent to which managers expected offsets to cover the gross cost of the shorter working week varied substantially. On average managers' stated expectations were that offsets covered about half the gross cost. So, in a typical factory the shorter hours agreement was expected to add around 2½ per cent to manual labour costs.

Nearly 20 per cent of managers felt that reduced hours had lessened the weekly wage increase negotiated at the same time. These managers were mainly in smaller factories and claimed few other offsets. In addition, one quarter of managers said that shorter hours had reduced the wage increase in the next year's negotiations. The extent to which the next wage increase was smaller is obviously rather speculative, but, averaged over the whole sample, managers thought that the reduction was about half a per cent of wages. Taking this into account, managers' responses to the survey suggest an average final cost of the shorter working week agreements of around 1½ to 2 per cent of the manual wage bill.

The questionnaire asked whether the cost-offsetting measures would have been introduced either at the same time or a little later if shorter hours had not been an issue. Nearly 60 per

cent of managers said that the measures had been planned irrespective of shorter hours, but that shorter hours had led to earlier agreement. A small number of managers who had planned to introduce the measures anyway reported that the timing of agreement was unaffected. In total 70 per cent of managers with cost-saving measures felt that the effect, if any, of reduced hours was merely a matter of timing.

The timing effect of shorter hours does not mean that the agreements did not involve long-term cost-savings. More than 60 per cent of managers who reported cost-saving measures in agreements thought that, without shorter hours, the measures would only have been agreed in return for a higher wage increase. So, instead of paying for change with higher wages, most managers had 'paid' with shorter hours. Managers' replies to the survey suggest that on average wages would have been between 1 and 1½ per cent higher if hours had not 'paid' for change.

Calculating the net cost of shorter hours is a little involved. The net cost equals the gross cost less the sum of:

- (i) the value of any offsets which would not have been achieved anyway;
- (ii) any reduction in present or future wage increases due to shorter hours; and
- (iii) the wage costs required for the offsets that would have been achieved anyway.

Using managers' estimates, the net cost of the shorter hours agreements is 2 to 2½ per cent of the manual wage bill.⁵

6.3d) Summary of the 1991 research

As well as an estimate of the net cost of shorter hours there were five other main findings.

- * Managers had responded to shorter hours in a variety of ways.
- * Nearly half of managers claimed shorter hours had led to lower pay increases.
- * Nearly all managers reported that shorter hours agreements had increased productivity. *

Changes linked to shorter hours would often otherwise have led to higher pay.

(So, shorter hours reduced pay indirectly as well as directly.)

- * A few managers thought productivity increases fully covered the cost of shorter hours.

⁵ Taking account of factory employment, the cost is about 1 per cent lower. This would be a better measure of the cost to the industry, but for the probably higher response from larger factories with lower reported costs.

6.4) Why the research produced such different results

Academics nearly always take the precaution of qualifying their results. When they present their results, these qualifications are seldom highlighted. Rather, they are carefully tucked away in dense text. Yet, if the academics later change their minds and feel that their results are wrong, the qualifications are brutally torn from their context and paraded naked before the world. A number of qualifications were made in reporting the 1991 research, but, rather than rehearsing them again with added emphasis, this Chapter concentrates on other, more serious shortcomings. If academic studies are to be taken seriously, a real effort must be made to explain why research sometimes produces different results and why one set of results should be preferred to another.

6.4a) Difficulties caused by the nature of the information being sought

The principal difficulty in assessing the effects of shorter hours is finding out what would have happened had hours not been changed. In the context of the research this meant asking managers about an imaginary world in which the CSEU had not launched its campaign. Managers had more than enough to worry about in the real world to have even thought of this imaginary world before being asked about it. Their concerns were the more practical ones of how to absorb the costs of shorter hours and how to maintain production. The actual results of shorter hours had absolutely no practical implication for them. Even after managers had accepted the invitation into the imaginary world of unchanged hours, they were incapable of stating with any precision how productivity, employment, overtime and costs would be relative to the real world. The environment within which manufacturing takes place is subject to so many other changes and the links between the changes are so complex that the effect of any one change is hard, if not impossible, to evaluate with certitude. The consequences of shorter hours, whose effects are small relative to other influences, are particularly hard to assess. Further, in 1989/92 shorter hours were generally introduced over a period of at least one year, and the final effects might not be felt until a much longer period had elapsed. So, it is unrealistic to expect precise information from managers on the effects of shorter hours. This does not, however, mean that, if approached in the right way, managers cannot give interesting views and valuable judgements.

6.4b) The problems of the questionnaire

The 1991 results largely relied on a postal questionnaire. While, for the reasons given in the previous section, individual replies might be very inaccurate, these inaccuracies might be supposed to average themselves out over a large enough sample. Yet, personnel managers seem to have seriously and systematically overestimated the importance of the offsets in shorter hours agreements. The context of the agreements suggests why the significance of offsets may have been so exaggerated.

The EEF's position throughout the CSEU campaign was that the working week should only be reduced if this was done at no cost to employers. They claimed that the agreements at the initial six target factories were self-financing.⁶ The EEF gave detailed advice to its members on the offsets which could be introduced to make shorter hours self-financing. In factories belonging to large companies there was considerable pressure on management negotiators to secure offsets. Window Dressing shows unequivocally that this pressure did not necessarily result in financial savings for their companies.

The idea that management reports of agreements were misleading was one which was current at the time of the 1991 research. Certainly, the industrial correspondents of the national press were very sceptical of management claims. Michael Smith of *The Financial Times*, for example, highlighted the contrast between what some employers said in public and what they said in private (12 April 1991). He even succeeded in getting the chief executive of one major EEF member company to state publicly that shorter hours had had a serious effect on labour costs. Where employers were saying one thing in public and another in private, the 1991 survey seems to have merely secured replies reflecting their public position.

In some cases managers may have given misleading replies in line with what they had told their superiors. Some managers may have exaggerated the value of offsets in their agreements in order to make a favourable impression on their superiors, particularly if they thought others were doing so.

There is a further reason for doubting management reports of the value of offsets. Managers may generally have felt that good management would secure significant offsets, a view

⁶ On the basis of visits to three of these factories, not necessarily as part of the 1991 or 1992/94 research, the EEF's claim, given their view of self-financing, appears to be correct.

perhaps encouraged by the EEF's position. Since it is natural to think that you are doing a good job, managers may have overstated the value of offsets. For this reason the question about the value of offsets could have secured the sort of biased responses that would be expected if managers had been asked whether they had done a good job in negotiating shorter hours. The point here is not that managers deliberately lied in response to the survey. The suggestion is merely that their view of themselves as good managers and their knowledge of their own agreements conflicted with their view of the agreements which good managers had reached. Exaggerating the success of their agreements would be a normal way to lessen this conflict.

Perhaps, the single most important reason why managers' responses were misleading is that their primary concern was to absorb the adverse cost and production consequences of shorter hours. To the extent that they succeeded in this through negotiated agreements, they regarded the reduction as self-financing. The question of what would have happened without shorter hours was of no practical concern to them. Accordingly, managers would have spent very little, if any, time considering what would have happened if hours had remained unchanged. Yet, this is precisely what the survey required them to do. So, managers probably formulated their views as they completed the survey. Their replies to the survey may well have been somewhat casual and strongly influenced by the factors which inclined them to exaggerate the importance of offsets.

In conclusion there seems little reason to attach much weight to the views expressed by managers in responding to the 1991 survey. There is no suggestion that managers deliberately set out to mislead. So, the more factual the answer, the less likely it is to be inaccurate. The estimate of the net cost of shorter hours is a matter of judgement and so has no credibility.

6.4c) Problems with interviews

Interviews may produce more accurate results than surveys (Morris and Wood, 1991). Also, the results of interviews may depend on the approach adopted (Dunn and Wright, 1991: 7/13). The circumstances of the interviews were indeed very different in 1991 and 1992/94. The 1991 interviews took place quite soon after managers had negotiated the agreements. This, of course, had the advantage that memories were fresh. Yet, hours had often made the

annual wage negotiations unusually difficult and many managers were probably emotionally committed to seeing their efforts to reduce the cost of shorter hours as not having been in vain. Where issues are emotionally charged, perceptions may be particularly subjective. The failure from a management perspective of an agreement would only have emerged from the 1991 interviews if a single manager, who knew that he was the sole source of information, recognised this and was willing to confess what might be seen as a personal failing.

All research methods have their drawbacks. This is true of interviews. The general problem is that most individuals desire to be seen as successful. Senior managers generally present the factory for which they are responsible in the best possible light. An example of this, hopefully an extreme example, is provided by Wage Trade-off. The senior production manager was interviewed in 1991. During the interview he placed some emphasis on the extent to which single-status had been achieved. In response to a suggestion that shop-floor workers had limited promotion opportunities, he said that someone had gone from the shop floor to do an MBA. Although this example of company support for career development was far from central to the research, it was mentioned in a draft factory report sent to another production manager, seen as part of the 1992/94 research. He took the trouble to point out that the person from the shop floor who had done an MBA was in fact a graduate engineer who had been working as a foreman. So, while the senior production manager had not told a direct lie, he had clearly intended to mislead.

This problem of the selective way in which information might be presented at interviews is particularly acute for recent initiatives to which interviewees are personally committed and which they may genuinely believe to be more successful than they in fact are. An illustration of this is provided by Window Dressing. At the 1992 interview the production manager, who had been appointed since the shorter working week agreement, referred to his recent initiative to reduce Sunday overtime, which, being paid at double time, was more expensive than at other times. He gave the impression that a permanent reduction in Sunday overtime had been achieved. The union representative was somewhat sceptical of the results of this initiative, but, as his opinion was largely based on the absence of complaints from members, the views of a foreman, who was the subject of a short opportunistic interview, are probably more significant. The foreman regarded the attempt to limit Sunday overtime as purely a paper exercise with no practical effect. There seems to have been something of a history of unsuccessful efforts to reduce Sunday overtime. The shorter working week agreement

reached some three years' earlier specified: 'Sunday is to be regarded of exceptional need before it is worked'.

6.5) Why the 1992/94 interviews should be believed

The possibly misleading way in which information is presented is the major difficulty with interviews. The problem is that partial and perhaps highly selective answers may be taken as the whole truth. Also, what managers say may be influenced by their perceptions of the interviewers' expectations. Yet, on the issues most relevant to the research the 1992/94 interviews were probably largely successful in getting beyond incomplete and possibly misleading answers. A fuller picture was obtained by carefully challenging what managers said on the basis of familiarity with the issues. In all but one factory more than one manager and in most cases a union representative, generally the convenor of shop stewards, were interviewed. In addition, during the first round of interviews, managers were aware that there would be further interviews in about a year at which the claims they were making could be questioned. So, the 1992/94 interviews were in marked contrast to the 1991 interviews. The information obtained on each factory no longer depended on a single manager who was aware of being the sole source of information about that factory and who did not expect ever to be faced with further questions.

Undeniably, there are very real problems in relying on interviews as the principal source of knowledge. Yet, for the information required, the alternative of questionnaire surveys has much more serious shortcomings. Seeing a number of different people in each factory on more than one occasion over a period of time minimised the problems of interviews as a research method. Of course, interviewing more than one manager is no guarantee of accuracy, particularly where there is a corporate line. At one factory, Different Tales, managers actually admitted to holding a meeting to decide what they should say when interviewed. The circumstances here were rather exceptional. The managers correctly suspected that their view of the shorter hours agreement would differ substantially from the information given by the former personnel director who had responded to the survey. The purpose of the meeting was in effect to revise the corporate line following the personnel director's departure. In general by the time of the 1992/94 research management probably attached little or no importance to whatever corporate line may have been adopted when they

had conceded shorter hours. So, it is unlikely that managers in other companies held meetings to determine their line in advance of the interviews.

Perhaps, the main problem created by a corporate line is that, where this diverges significantly from reality, managers are less likely to cooperate with research in which the corporate line may be challenged. The aim of the interviews, however, was not to be representative, but to focus on particular issues in depth. So, response bias is not a problem.

While not lending itself to precise answers, the research method adopted in 1992/94 is capable of giving valuable information on the economic effects of shorter hours. Managers were generally able to address the hypothetical questions which the research required. Yet, it was often difficult to persuade them to do so. So, a survey such as that in 1991 which allows no opportunity for discussion is unlikely to produce accurate responses.

6.6) Lessons from the mistakes made in 1991

Having recognised mistakes, the most important lesson is not to repeat them. Questionnaire surveys are no doubt very valuable in gathering a large amount of factual information at low cost. Problems arise when they ask hypothetical questions or seek subjective information in other ways. Errors in the answers are not simply a statistical problem which disappears with a big enough sample. There is real danger of systematic bias. For issues where hypothetical questions are crucial, such as the economic effects of shorter hours, respondents' views are likely to colour their replies through mechanisms of the type set out in Section 6.4. As a result questionnaires may have little or nothing to contribute to the answers to such questions.

6.7) The economic consequences of the CSEU campaign and earlier reductions

The results presented in this Chapter suggest that the reduction in hours brought about by the CSEU campaign led to increased employment in the form of job retention rather than to higher productivity or reduced output. This, however, is not a complete conclusion. The results of the reduction in terms of overtime, the use of time and pay are reported fully in the next Chapter. So, a definite conclusion would be premature.

Increased employment is not inconsistent with the analysis of research on earlier reductions in Chapter Five. If reduced hours do not result in increased productivity, the research reviewed there leaves increased employment as a possible outcome. PSI interpret their research as establishing that reduced hours tend to increase productivity. So, there is some conflict between their conclusions on reductions in 1981 and the results of the 1992/94 research. The conflict would be resolved if the CSEU campaign had different results from earlier reductions. There is some evidence of varying effects of reduced hours on overtime (see Sections 5.9 and 7.2). Yet, this does not seem relevant to the contrasting conclusions drawn from the 1989/91 and 1981 reductions.

The conflict of conclusions reflects differences in method. In their initial study PSI looked first for employment and overtime effects, assumed to be readily observable, and used their failure to find them as evidence of a productivity effect. 'The main importance of these negative findings is to stimulate further examination of practices and policies of establishments with a shorter working week. These practices may suggest ways in which the establishments were able to accommodate the shorter working week, without an increase in manpower or overtime. If a firm reduces contractual hours per worker, but does not recruit extra workers or extend its use of overtime, either output will be reduced or productivity per worker must increase in order to maintain its level' (White, 1980: 19). Later PSI studies concentrated more on productivity growth, but failed to investigate the relationship between reduced hours and higher productivity.

The 1992/94 research first looked for a productivity effect and, finding that it was very limited, concluded that there must be either an employment or an overtime effect. There is admittedly little direct evidence of an employment effect, but PSI's evidence of a productivity effect depends entirely on the dubious premise that productivity would

otherwise have been static. If the methods adopted in 1992/94 had been used by PSI, they might well have found a significant employment effect. The bulk of the other research on the 1981 engineering reduction sought but failed to find a productivity effect.

There is no reason to suppose that the employment consequences of the CSEU campaign are unusual. It is probable that other reductions in other industries would have a similar impact on employment, with the exception of managerial and professional employees for the reasons outlined in Section 5.10. Only the pay consequences of the CSEU campaign, considered in the next Chapter, seem exceptional.

Appendix to Chapter Six

Factory Reports

The factory reports cover the background, shorter hours agreements and the results of reduced hours. They provide context for references to individual factories in the text. The reports focus on the distinctive features of each factory, avoiding repetition of points in the text. For example, there is more discussion of overtime than of employment effects, because it is harder to generalise about overtime. Most of the factory reports can be read independently of the text, but, in some cases, the report is limited to a reference to the text.

Only limited information is given on region or industry because breakdowns were published in Richardson and Rubin (1994). Giving region or industry for each factory might enable individual factories to be identified. Women are very poorly represented among both managers and convenors. For reasons of confidentiality, all interviewees are ascribed the male gender. Three size categories are used, small, less than 200 employees, medium-sized, between 200 and 800 employees, and large, more than 800 employees.

1) Attribution Ambiguity

The problem of attributing productivity growth, which is the result of a complex process of change, to a single event, such as a shorter working week agreement is highlighted by Attribution Ambiguity.

This large factory, part of a major engineering group, is a military contractor, which had traditionally operated on a cost-plus basis. By the time of the first visit in 1992 most contracts had fixed prices with severe penalty clauses if deliveries were late. The wages and hours agreement reached in 1989 covered 18 months. The personnel director described this as 'the key to the door of change'. It included radical changes to working practices, the introduction of self-inspection, the abolition of a fixed afternoon tea-break and changes to shift-working patterns, the details of which were subject to further negotiation. The agreement did not specify what the changes to working practices would be, but provided a number of examples of what would 'be needed in the immediate future', emphasizing that these examples were not an 'exhaustive list'. One example was multi-machine manning so

that two workers would work as a team operating three machines or three workers operating five machines. In addition machine operators were to do alternative tasks while their machines were running and to take tea and lunch breaks only when cycle times had been completed. In many respects the 1989 agreement established principles and a framework for detailed negotiation before implementation. It had provided the basis for the introduction of the Kawasaki Production System (KPS) which involved team work, Just in Time production and quality circles in the form of continuous improvement groups.

The personnel director acknowledged that, if he had been talking about KPS, he might have attributed all the productivity gains to KPS. He had, however, been asked to talk about the shorter working week, and his opinion was that the shorter working week and KPS had made equal contributions. KPS involved a new management philosophy which required a new culture and the shorter working week had provided a vehicle for the changes necessary for this new culture.

Other factories within the group had been selected by the CSEU as targets for industrial action. After some initial resistance from management there were agreements at the target factories on a 37-hour week in return for what were, at least on paper, substantial cost-offsetting measures. In accordance with instructions from head office Attribution Ambiguity negotiated the 37-hour week on a self-financing basis entirely independently of wages. However, if the previous wage agreement had been for twelve months, a wage increase would have been negotiated at the same time. The most important items in the agreement related to working time, the abolition of the morning tea-break, a weekly fifteen minute weekly allowance for machine cleaning and a two-minute allowance for lateness at the start of each shift and after the lunch break, which few workers used. These measures and their effects are summarised in Table 5.1. The agreement also included a number of other provisions. Management was given the right to transfer shift workers to any of the existing shift patterns at seven days' notice. There was a new procedure for the use of temporary/contract labour. The procedure for claiming pay during sickness was tightened. Finally, the union made a commitment to joint participation with management in productivity improvements.

The personnel director acknowledged that there had been one or two areas in the shorter working week agreement which were for the consumption of head office. There had been

some collusion with the union over these areas. In general the management negotiators had little freedom to fudge. The pressure from the senior site management was more effective than that from head office. For the first time the accounts department had been involved in monitoring the results of the agreement. Management had carefully costed the agreement. They were confident that it had proved to be self-financing.

Attribution Ambiguity's productivity performance had been impressive. Management's preferred measure, 'effectivity', a measure of actual times against unrevised standard times, had improved by nine per cent in 1989, 17 per cent in 1990 and nine per cent in 1991. KPS had aimed to achieve an improvement of fifteen per cent in the year of its introduction. Management reported a number of other changes which had affected performance. Working areas, many of which had been badly planned, badly managed and had had safety problems, had been rationalised and reorganised.

2) Delayed Implementation

Pay and hours were negotiated together as part of the annual pay settlement which came into effect in February 1990. A reduction of 30 minutes in the 39-hour week in June 1990 was directly linked with the introduction of cashless pay. Abolition of washing-up times and tea-breaks was similarly linked to a second 30-minute reduction in February 1991. The final hour's reduction, establishing the 37-hour week, was delayed until July 1992 and was conditional on self-financing.

The company's main business was as a contractor to the aviation industry, doing very labour-intensive and highly skilled work. Traditionally, the company had been mainly a military contractor, but by 1991 there was more civil than defence work. Civil work was continuing to increase in importance.

The large factory had a fluctuating workload, which was mainly managed through varying numbers of workers on short-term contracts. At the time reduced hours were agreed design staff, about a fifth of the permanent workforce, already had a 37-hour week. Clerical workers then had a 37½-hour week. Manual workers generally worked a single shift from Monday to Friday. There was only a very small night shift. Yet, 365 days were worked a year. There were very high levels of overtime with management expecting Saturday and Sunday morning

and bank holiday working. The average level of overtime was seldom below six to eight hours a week. In peak periods working weeks in excess of 60 hours were common and some workers, particularly the contract workers, would work as many as 80 hours a week.

The former Chairman, who had been chief executive of the group for very many years, retired just over a year before the first visit early in 1991. His dominant management style and unshakeable convictions on how work should be organised precluded management from even discussing organisational change. Other senior managers retired at around the same time, creating a natural watershed. This enabled strategic decisions to be taken and questions of internal organisation to be tackled. The shorter working week negotiations coincided with this watershed. So, management was pleased to delay the introduction of the shorter working week and to create the opportunity to link it with changes which they had not yet worked out in sufficient detail to negotiate.

One major change was already being introduced. A shift pattern of four days on and four days off, covering all 365 days in the year, had been introduced in one section with no change to the basic 39-hour week. Management reported some initial union resistance, but the new shift pattern had proved very popular with the workers who had more leisure for the same pay. Shift premia compensated for the loss of overtime. The advantage to the company was that work could be turned round more quickly as longer hours were worked each day, particularly at weekends. Management was seeking union agreement so that manual workers could be put on this shift system, according to the needs of the business.

Another important issue for management was the introduction of electronic time recording and direct data entry for job-booking with workers using computer terminals. This would allow management to identify 'wasted time' and, subsequently, to take measures to increase productive time. An example was the practice of workers stopping their normal work to fetch equipment from supplies. The extra information which would be generated would help management to decide whether it would be necessary to have supplies deliver equipment.

In November 1990 management proposed extensive cost-saving measures to the unions. These proposals were the abolition of the three-minute morning and afternoon clocking allowances and of a three-minute washing allowance at lunch time; multi-skilling and flexibility; acceptance of technology and new methods, specifically direct data entry for job

booking and electronic time recording; a reduction in the time allowed for medical and similar appointments from 60 to 30 hours a year; and the abolition of tea breaks and the ending of access to vending machines in periods close to the start or end of work. These proposals became part of the annual pay negotiations on the increase due in February 1991. Management argued that a large pay increase and the reduction in hours could not be afforded. The negotiations were further complicated by a deterioration in orders which occurred while they were in progress. Eventually, management conceded what the unions regarded as an acceptable increase of nine per cent and the unions agreed to the 30-minute reduction which had been due in February being postponed until June. Management withdrew their proposal to abolish tea-breaks. Supervisors had warned that allowing workers to take breaks at times of their own choosing would create enormous policing problems. In contrast to most of the other companies in the study workers generally used hand tools and there were no machines which could be left running while workers took staggered breaks. The abolition of the washing-up allowance was implemented with the half-hour reduction in June 1991.

The agreement also provided for the abolition of clocking allowances and the direct entry of job-booking and electronic time recording which was expected to be in July 1991. Multi-skilling and flexibility were to be the subject of a separate agreement. The number of hours allowed annually for medical and similar appointments were reduced to 40.

In the 1992 negotiations hours were linked even more directly with pay. Management made no effort to negotiate change in return for the final hour's reduction. This led to the reduction being brought forward from July to February 1992. The agreement increased weekly rates by only 2.1 per cent. The reduction of one hour was responsible for a further 2.7 per cent increase in hourly earnings. Management would have preferred to give a five per cent increase in return for maintaining the 38-hour week. Nonetheless, in view of union insistence that the commitment to a 37-hour week be honoured, management was quite happy with the outcome. They felt that hourly rates were unaffected by the reduction and that 4.8 per cent was below the 'going rate' at the time.

The design staff's union had, since the initial hours negotiations in 1990, been seeking a compensatory payment to maintain hourly pay differentials over staff originally on a 39-hour week. These staff had the same reductions in hours as manual workers. In 1992 the design

staff received a weekly pay increase of 4.8 per cent, in line with the manual workers' hourly, rather than their weekly, pay increase. In return tea-breaks in the design office and some other staff areas were abolished. This nominally increased working time by 50 minutes a week, but management felt that in practice working time was increased by more than one hour. The ironical result of the claim for parity was that the design staff had longer contractual working hours than manual workers who retained tea-breaks.

There were no offsetting provisions for the 30-minute reduction for clerical workers, who are not covered by collective bargaining. In the period when the working week was being reduced, their numbers fell by one half through computerisation of accounts and administration with offices moving from the use of manual typewriters to being almost paperless.

The link between the shorter working week agreement and change within the factory turned out to be less than management had anticipated at the time of the first visit which took place during the 1991 negotiations. Management never attached much significance to the three-minute clocking allowances, although on paper they added up to thirty minutes a week. This was because most workers did not take advantage of the allowance. In any event the clocking allowances had still not been abolished at the time of the third visit at the end of 1993. This was because integrated system for electronic time-recording and direct data entry for job-booking was not yet ready for use. There had been a number of problems with the system and, while these were being resolved, attention had had to be diverted to the records of materials in stores, which management decided was a higher priority for computerisation. Computerisation of administration was also more important to the company than direct data entry by manual workers. In explaining the delay the personnel director emphasized that the attitude of the former Chairman meant that the company had entered the 1990s without a single computer.

Implementing the abolition of the washing allowance was much more simple. The bell for lunch now went three minutes later than it had done before. The personnel director did not, however, think that this had resulted in each worker working an extra 15 minutes' productive time each week (or 10½ minutes where the four day shifts were being worked). He was unable to make a judgement, saying that it depended very much on the individual supervisor. His opinion was that the company 'had not saved an awful lot'.

The changes to which management attached significance, electronic time recording and direct data entry for job-booking, multi-skilling and flexibility, and the new shift system, were not really affected by reduced hours. The new shift system had never been linked to shorter hours. Multi-skilling and flexibility had been part of management's agenda for offsetting the cost of reduced hours, but had eventually been negotiated independently of reduced hours. Only electronic time-recording and direct data entry had been negotiated along with the shorter working week. The personnel director was confident that, once data entry was fully operational, it would save the company considerably more than the cost of the shorter week. However, he added that the shorter working week was totally irrelevant to this. The link between them was purely coincidental.

The 1991 study of the same factory, 'Firm 5', reached the conclusion that there was more than 'somewhat earlier delivery of something [management] they would have got later' in that changes would otherwise have been paid for in some other way (Richardson and Rubin, 1993: 208/11). The 1992 visit led to the conclusion that the shorter working week was not resulting in the earlier implementation of change. In 1993 the personnel director described this as a fair comment. Managers had changed their views, because of the delay in implementing electronic time recording and job-booking and also because they had not known what attitude the unions would adopt to change. There had been less resistance than management had anticipated. For example, the unions had readily accepted management's argument that electronic time-recording and job-booking was required by customers, who expected detailed costings.

3) Different Tales

Managers at this medium-sized factory told a very different tale in 1992/94 from that related by the former personnel director in completing the 1991 survey. He had claimed that the agreement on reduced hours had significantly improved the company's competitive position. In 1992 the personnel manager suggested that the former personnel director had been 'very good at presentation, not so good at negotiation' and was 'telling a tale to justify his continued existence' after conceding pay rises of 20 per cent and a reduction in the working week to 37 hours in a period of two years. An example of his skill in presentation was in the shorter working agreement itself. There were provisions on team working, but these were

subject to the continuation of all customary working practices. The convenor's view of the agreement was: 'If this happened every year, the company would shut'.

The company, which was not a member of the EEF, had agreed at the beginning of 1987 to reduce manual workers' basic week from 39 to 38½ hours in January 1989. In October 1990 there had been a further agreement on hours, again separate from wage negotiations. This second agreement immediately reduced weekly hours to 37½ with a further reduction to 37 from November 1991.

Different Tales, of all the factories visited, faced the most intense pressure for the 35-hour week. The personnel manager blamed the former personnel director for this. He had given the staff unions a verbal undertaken that the staff would receive half of any reduction secured by the manual workers. This is was when their members had a standard working week of 37 hours and the manual workers a 39-hour week. The intention was to harmonise at 35 hours. The closest to a written version of the undertaking was in the 1989 pay agreement with technical staff. This provided that 'future reductions in the working week will take into account the principle of convergence towards a commonly agreed week' and would be subject to agreed productivity gains.

In 1989 technical staff negotiated a reduction in their working weeks of 15 minutes to 36 hours 45 minutes following what their union journal described as 'controlled sanctions'. This fulfilled the undertaking in view of the half-hour reduction which manual workers had received. The reduction was later extended to clerical workers.

The staff unions were insistent in the 1992 negotiations that the new personnel director honour his predecessor's undertaking and reduce their members' hours by 45 minutes, one half of the manual reduction. Management conceded the 45 minutes to the technical staff, but restricted the clerical staff to 15 minutes.

The staff reductions provided the basis for continued manual union demands for further reductions on the grounds of harmonisation, which they had been promised by the former personnel director. In 1992 management conceded a 36½-hour week for manual workers in return for the abolition of four five-minute washing allowances. The 1994 wage negotiations

introduced a 36-hour week, which had already been achieved by the staff unions. This was linked to continuous operation of some machinery between shifts.

Management faced unusual pressure from both its manual and staff unions on hours.

The technical staff had taken what their union journal described as 'controlled sanctions' in 1989 to secure the quarter-hour reduction to 36½ hours. This was the only occasion in the research where there was serious pressure from a non-manual union to reduce hours below 37. A number of managers in other factories indicated to us that the role and membership of non-manual unions had declined. The strength and militancy of the technical staff's union seem to be the really exceptional feature at Different Tales. So, the demand from the manual union for harmonisation of hours with staff, which also existed in other factories, could not be satisfied with a 37-hour week.

4) Double Day Shift

This medium-sized factory is American-owned and makes components for the motor industry. Wage agreements are negotiated every two years. There were no offsets in the 1990 agreement which reduced hours. Management felt that they had already secured just about everything they could reasonably ask. Another reason for the absence of offsets was the experience of the 1988 agreement. This had contained specific provisions on working practices affecting workers in different ways. As a result the union had had great difficulty in securing approval of the agreement. Management had experienced resistance from the workforce to the implementation of the agreement.

The 1988 agreement had been an enabling agreement. Local discussion was necessary before implementation. Little had been implemented before the 1990 agreement. Management attributed this in part to union resistance, although acknowledging a lack of impetus from management. The convenor, while admitting some foot-dragging by the union, put much more emphasis on management's responsibility. Multi-machine manning, for example, required re-engineering of feeds to machines. This had only started three years after the 1988 agreement.

Management argued that there was a limit to what they could get from writing things, such as productivity improvements, down in agreements. Agreements still had to be policed. It

was more important to create an atmosphere in which people believed that productivity improvements were sensible in order to make the business a success. Management was seeking to create this atmosphere through a team working approach.

Most manual workers were employed on a double-day shift. There was also a small permanent night-shift. In 1979 weekly basic hours had been reduced from 39 to 37½, giving double day workers the hours which had applied under the engineering national agreement since 1947. The company was not a member of the EEF. There were no clocking allowances, but workers were allowed three minutes for washing up before an unpaid 15-minute break in the middle of each shift and at the end of each shift. Where possible machines ran through shift changes and unpaid breaks. So, the washing times did not affect production. There were no scheduled tea-breaks, but workers were free to go for cups of tea provided machines were kept going.

The 1990 agreement reduced the working week to 36½ hours. It increased pay by 11 per cent and 7 per cent a year later and introduced skill-based pay. There was also a list of conditions and a statement of principles, which had been suggested by the union. In different circumstances management might have interpreted skill-based pay and the statement of principles as offsets to the cost of reduced hours.

With hindsight management felt they should not have reduced hours below 37. The workforce was contributing to the levy and would have been unwilling to accept that the same basic working hours as day workers in other factories in the area, most of which had already agreed to 37 hours. At the time management had felt that the 35-hour week bandwagon would not be stopped and that a 35 or 36 hour week was inevitable within a short period. There was no reason to fall out with the union over half-an-hour if further concessions were inevitable. With the recession, management felt that a 37-hour week agreement would have stuck for some time.

The personnel manager thought that the reduced working week had probably had an adverse effect on competitiveness and had increased overtime. However, there had been redundancies in 1992 before the implementation of the second stage of the reduction. Manpower planning assumed no effect of shorter hours on overtime. The convenor took a different view of the

effect of reduced hours on overtime. The figures for overtime showed a continuing downward trend which was unaffected by the reduced working week.

The production manager was concerned that shorter Fridays were resulting in lower hourly output. He, like some other managers, felt that more chasing was required to maintain output on Fridays. Over the working week as a whole he did not feel that shorter hours had led to any increase in hourly effort. This was possibly because the redundancies and a low pay deal in 1992 had reduced motivation.

5) Early Change

There had been a radical flexibility agreement in the mid-1980s. Management thought that there was no further change which they could link to shorter hours. The consequences of reduced hours are discussed in Section 6.2d(i).

6) Fabricator

Fabricator is a small factory making pipes and containers. Output varied considerably. The shop stewards had made no effort to press for reduced hours in the agreement effective from August 1989. The situation was very different the next year. The company personnel director said that the factory had been targeted by the CSEU and that the shop stewards had sought a 37-hour week with nothing in return. They were able to call a strike over hours without reference to officials and felt that they had more ammunition than usual. Agreement on offsets to the cost of reduced hours was very difficult and had required the involvement of full-time union officials.

Pay and hours were totally linked throughout the negotiations. Management had approached the negotiations with two objectives. They regarded an increase in the wage bill of about 9 per cent as a desirable outcome from the negotiations in order to attract and retain workers. There had been a loss of skilled labour to smaller companies. The second management objective was to introduce a system to control the effect of the reduced hours on costs. The agreement more than achieved management's objective of increasing the wage bill, as the personnel director acknowledged. Basic hourly rates rose 20 per cent. This, however, is a very misleading figure. A productivity bonus, which was around 2 per cent of the old basic

rates and which had become an automatic payment, was consolidated into the basic rates, as was a Christmas bonus worth 6 per cent of annual earnings. While the Christmas bonus was discretionary, management clearly felt that it had become expected. The increase in hourly rates also included the effect of a reduction in basic hours from 39 to 38. Management wanted, for a given cost of the settlement, to have the maximum possible increase in the basic rate. Accordingly, the rate which was used for calculating overtime premia and which had been around 10 per cent below the basic rates was frozen. Taking all these factors into account the percentage increase in the wage bill attributable to the agreement was arguably in single figures. Earnings were, however, also increased by a new bonus scheme introduced at the same time as the agreement. Management regarded this as independent of the negotiations.

The personnel director told us that a reduction of one hour in August 1990 was largely financed by bell-to-bell working and the abolition of washing-up time which meant that 33 minutes' paid non-working time became working time. A three-minute clocking allowance was abolished and washing up times, at the lunch break and at the end of the shift, were reduced from five to three minutes. (The calculation is $(3 \times 5) + (2 \times 9)$.) The washing-up allowance applied only nine times a week, since Friday was already a half-day.) The text of the agreement, however, does not make the link between reduced hours and the changes to paid non-working time as direct as the personnel director indicated. It states: 'The consolidation of the above [reductions in paid non-working time] to be met by increased productivity (see below) and a rate of 10p per hour [just over 2 per cent] included in the base rate of pay.' Management could not explain the significance of the reference to the productivity clause later in the agreement and, further, seemed unsure of the meaning of the clause as a whole. Leaving aside the impenetrable reference to the productivity clause, the wording strongly suggests an increase in basic rates to 'buy out' paid non-working time. Where hours and pay are negotiated together, it is artificial to attribute other provisions in an agreement exclusively to hours or to pay. Nonetheless, given the conflict between management and union over whether there should be offsets to reduced hours, there are obvious presentational advantages for both sets of negotiators in an agreement which could be interpreted either as 'buying out' some non-working time or as giving offsets to the cost of reduced hours.

The agreement provided for two further reductions in half-hour stages to give a 37-hour week. The reductions were to take place in August 1991 and August 1992, but were conditional on efficiency improvements. There had to be a 3.9 per cent increase for the first half-hour reduction and a total increase of 7.8 per cent for the final half-hour. If the efficiency improvements were achieved before the dates specified in the agreement, the reductions would be brought forward.

In 1991 the personnel director expressed satisfaction with the results of the reduction of washing-up time and the abolition of the clocking allowance. There were reports on the delivery of these provisions of the agreement at formal monthly management meetings. These reports gave no indication of any slippage in the control by shop-floor management and supervisors of working time. The reduction in washing-up time was relatively straightforward. The bell for lunch and for the end of the working day was sounded two minutes later. For some time management effort to control working time was clearly greater than before the reduction. Before the reduction workers had tended to put on their overalls after clocking in. So, the clocking allowance was in effect also a changing allowance. Indeed, two Fabricator managers suggested that work had not actually started work until some time after the end of the period covered by the clocking allowance. So, abolishing the allowance had increased actual working time by more than 15 minutes. The agreement provides some support for this claim. The increase in the basic rate linked in the agreement to the reduction in paid non-working time is a rather greater percentage of the basic rate than the reduction in paid non-working time is of total working time.

The two managers saw variations in the volume of work as a major reason for fluctuations in actual stopping and starting times. They, however, expressed confidence that, when the work was there, workers would observe their contractual stopping and starting times. This was not a question of automatic compliance, but required management effort. The production manager said: 'I have a purge every so often'. Policing working time was becoming easier for the production manager in Fabricator for a reason which was not mentioned in other factories. The reduction in the manual workforce meant that there were fewer workers to police. Managers in other factories, where the manual workforce had been reduced by similar or greater proportions, did not regard this as affecting the policing of working time. A production manager in a smaller factory is probably more directly involved with the workforce than in a larger factory. Fabricator was among the smallest factories in the study.

The efficiency improvements on which the half-hour reductions due in August 1991 and 1992 were measured by an index of estimated times over actual times. This is what Bennet and Smith-Gavine (1987) call the Percentage Utilisation of Labour index. The managers took the view that in general the work load was the dominant influence on the efficiency index. The production manager said: 'If there's not much work around, then the efficiency just totally drops'. In addition the use of estimated times to price quotations and contracts probably introduced a further significant source of cyclical variation. Surprisingly, in view of the link made between the index and the reduction, managers had no clear idea of reasons for variations in the index. The managers said that they had given the workforce 2 per cent on the index. Even with this addition the index in August 1991 was just below the level required for the reduction. Nonetheless, the reduction was given. The final half-hour reduction was made in April 1992, rather than in August 1992, with no any reference to the efficiency index, the level of which had not changed. This was an indirect consequence of the imposition of a pay freeze by the group. At this time Fabricator was performing well and management wished to give the workforce a 'sweetener' to compensate for the delay in the pay increase. So, linking the second and third stage of the reduction to the efficiency index had little or no effect.

Fabricator's output, although fluctuating, was relatively unaffected by the recession at the time of the reductions. Management, however, felt unable to assess the effect on overtime. There was no regular production flow and therefore no consistent overtime level. Events after the last stage in April 1992 provide a striking illustration of this. The second half of 1992 saw a prolonged period of heavy overtime. Twelve-hour days were worked and some temporary workers were recruited. From the start of 1993 work had been short and no overtime was worked. Fluctuations in overtime had increased because delivery dates were increasingly important in securing work. So, what work there was had to be got through the factory more quickly, which required more overtime. This also tended to produce more periods of work shortage when there was no overtime. The only information management had on overtime was as output from their computerised payroll. This showed the overtime worked by individuals. There was no distinction between factory workers and site workers, who were on the payroll until their transfer to Non-union in 1992. So, calculating overtime for the factory workers was completely unpractical.

7) Japanese

The shorter working week agreement, as reported in an industrial relations journal, seemed to be exceptionally expensive. All workers, including staff and shift-workers, received a two-hour reduction with no loss of weekly pay and there were no cost-offsetting measures.

The company had started production on a greenfield site in the late 1980s. Continuous improvement meant regular reductions in production times. Quality circles involved production workers in this process. All employees received appraisal pay. A single-union agreement placed great emphasis on flexibility and team work. An Advisory Council dealt with collective issues, such as pay and hours. This was formally a non-union body, but the agreement institutionalised a union role within the Council, whose existence precluded conventional collective bargaining.

The personnel manager was aware of union activity as part of the CSEU campaign. Leaflets had been distributed. He did not think that the levy had been collected within the factory. There had been no union request for the levy to be deducted from wages along with union subscriptions. Managers felt they could not resist the demand for shorter hours made by the Advisory Council, on which the local full-time union was playing an unusually active role. They thought they had been selected as a target. A half-hour reduction to 38½ hours in July 1990 and the introduction of a 37-hour week by the end of 1992 were eventually agreed.

The only change the personnel manager linked to reduced hours, which the company did not cost in detail, was a reduction in the pay settlement. The general increase of 9 per cent was unaffected, but the maximum appraisal pay was 4 per cent instead of 6 per cent. The personnel manager argued that this saved 2 per cent on the pay bill. The average appraisal pay in the previous year, when the maximum was 6 per cent, had been 4.5 per cent. A maximum of 4 per cent saved one third of the total appraisal pay, 1.5 per cent of the pay bill. In addition, the distribution of appraisal pay was controlled, saving a further 0.5 per cent.

The introduction of the 37-hour week proved controversial for the Advisory Council. Managers had at first strongly opposed reducing hours on Friday below six hours. It was finally agreed that work should finish at 12:45 pm on Friday, instead of 3:45 pm, with a reduction in lunch breaks. The 4¾ hours on Fridays proved more productive in hourly terms

than longer hours on other days. 45 minutes of the two-hour reduction were taken in the unusual form of an extra week's shut-down in October, which was a slack period. The Chairman of the Advisory Council said that this suited the workforce because of the long period between the summer holidays and Christmas.

In one important respect management expected the shorter working week to have much less effect than an outsider might assume. Non-production workers tended to work unpaid overtime. Management expected this unpaid overtime to increase with reduced hours. It was hard to assess whether this expectation had been fulfilled. Hours had been reduced at a time when most non-production workers had a heavy workload. Subsequently, unpaid overtime had fallen. Friday afternoon was no longer worked, but the personnel manager did not know whether unpaid overtime at other times had increased since the reduction.

Reduced hours had implications for employment. An annual load and capacity plan included a calculation of manpower requirements based on expected sales and productivity growth. This would be affected by basic hours. However, the company's commitment to employment security meant that an excess of manpower over requirements would not normally lead to redundancies. So, the short-term effect of reduced hours was probably more to reduce excess manpower than to increase employment of production workers. For other employees unpaid overtime seems to have been affected in the short term. In the longer-term increased employment of production workers is probable.

8) Long Negotiations

This large and very long-established factory was part of an electronics company which had traditionally been heavily dependent on a single customer. The company belonged to a major UK engineering group, but in the late 1980s formed a partnership with its major European competitor, which acquired a minority stake. Managers reported that the support from the partner was crucial to the factory's survival.

The 1980s had seen dramatic changes in the factory, both internally and externally. Work had become much more capital-intensive and was now largely organised on assembly lines, operating on a just-in-time basis. Direct labour accounted for approximately 5 per cent of total costs. The reconstruction of the factory had been accompanied by the introduction of

new technology and the working practices necessary to take full advantage of the technology. There was multi-manning and flexibility. New workers required 12/20 weeks training to supervise machines and to deal with simple problems in their operation.

At the time of the shorter working week negotiations just over half the manual workforce were shift workers with an effective basic working week of 37½ hours. Shift workers' nominal hours were 40, but they had five paid half-hour meal breaks. Day workers had a 39-hour basic week. Hourly rates were the same for all workers irrespective of their shift pattern. The longer nominal hours of both two-shift and three-shift workers meant that each week they were paid for one more basic hour than day workers.

The shorter working week was part of the unions' annual pay claim. Negotiations had started in January 1990 to allow time for agreement to be reached before the anniversary date in March. The negotiations proved extremely difficult. Agreement was only reached in November 1990 shortly after a ballot in which the manual unions had secured majorities from their members working 39 hours a week for strike action. A strike would have been supported by the CSEU fund.

During the negotiations there was no disagreement over the 37-hour week as such. The dispute was over the offsetting provisions and the timing of the reduction. Management had approached the negotiations with a menu of restrictive practices and other issues which they felt it was necessary to tackle. One minor example was the wearing of electrostatic overalls. These were necessary to protect the product, but some workers refused to wear them.

A major issue in the negotiations was the finishing time on Friday. This affected the night shift, who worked until 6 am on Saturday. The day workers were looking to have Friday afternoons off. Management wanted five-day working to maintain customer access. This was more important with non-manual workers, but the non-manuals would expect to negotiate similar arrangements to the manuals. As a consequence of the move away from reliance on a single customer, management wished to widen the window of customer access which was already restricted because staff worked 8:30 to 4:30 when the commercial norm was 9 to 5.

The agreement gave day workers an immediate one-and-a-half hour reduction followed by a further half-hour reduction in November 1991. The lunch break was reduced from one

hour to 48 minutes to give a Friday finish at 3 pm instead of 4 pm and to allow the reduction to spread over the week with a finishing time of 4:30 pm instead of 5 pm from Tuesday to Thursday. The implementation of the final stage was negotiated later. The unions had sought a 2 pm Friday finish in return for a further reduction in lunch breaks, but the 3 pm finish was maintained with the half-hour being taken off Monday. Shift workers received an immediate 15-minute reduction in their working hours followed by a further 15 minutes in November 1991.

There were extensive cost-offsetting provisions. These included re-measurement of all standard times which was a reiteration of previous agreements. Other provisions included multi-machine manning, unattended running of machines during tea and meal breaks which would be staggered where this would increase running times and trade union support for payment of wages by credit transfer. Parts of the agreement reaffirmed existing practices on flexibility in shifts, including ad hoc shifts and overtime, to enable rapid response to orders, flexibility between jobs, bell-to-bell working, the use of subcontractors, trade union cooperation in the company's various training and communication programmes which included quality improvement and team briefings. There was also agreement on wearing overalls.

Production-related staff who had had a 39-hour week negotiated reductions in line with the manual workers. Other staff went from 37½ hours to 37.

Management reported that the cost of the agreement had been monitored and had proved to be minimal. The value of the agreement for line management had been that it had enabled change to be introduced smoothly without union resistance. They were satisfied with the operation of most of the provisions of the agreement. They felt, however, that competitive pressure could have been as great a favourable influence on flexibility and productivity as the agreement. The introduction of new technology was greatly increasing the potential for flexibility and, so, the new provisions had greater practical effect than a comparison of their wording with the previous flexibility agreement might suggest.

The trade union commitment to encourage their members to transfer to cashless pay appeared to have had little effect. At the time of the first visit, two-thirds of the workforce were still paid in cash. All those recruited over the past three years had cashless pay.

To some extent the implementation of the shorter hours agreement had been affected by redundancies which had soured relationships with the trade unions. During the first visit there was a general lack of cooperation such that management felt that it would have been futile for them to have suggested to the senior union representative that he take part in an interview. In direct contradiction of a specific provision of the shorter hours agreement, the unions were discouraging their members from attending team briefings with some success. Workers would continue to work instead of attending. Relations had improved sufficiently by 1993 for the second visit to include a meeting with union representatives. They did not see the provisions linked to shorter hours as of any real significance. They conceded that flexibility was very important for the company, but thought this had been achieved through other agreements.

9) Loss Leader

This large factory was included in the 1992/4 research because the personnel director's response to the 1991 survey indicated that the offsetting provisions in the shorter working week agreement were largely not achieved due to 'management apathy'.

Hours were the major issue in the 1989 wage negotiations, which were extremely difficult. The agreement included union acceptance of a new manufacturing strategy, 'an integral part of [which] is the opportunity to expand and enhance the skills and capabilities initially within trades and grades of individuals within these teams, where it is mutually agreed' and a commitment to 'a culture of continuous improvement in manufacturing methods, process and plant' with improved work flow within and between departments a particular objective. The agreement specified an extensive list of measures, such as 'team working' within and across departments, involvement in continuous improvement groups, and enhancements in the role of semiskilled and ancillary workers. 'Team working' was defined as workers undertaking 'peripheral skills' outside their trade after appropriate training.

Management saw the agreement as part of a process of negotiating change, which had become a regular part of the annual pay settlements. The 1989 changes had not in themselves had much effect. The personnel director thought the position rather different when the 1991 pay agreement was taken into account. He described the shorter working week agreement as a 'loss leader' for the flexibility agreed in 1991. Without shorter hours change would still

have been achieved, but it would have been much more difficult, possibly only occurring after redundancies. The personnel director in responding to the 1991 survey had chosen the lowest category for the value of the offsets to the cost of reduced hours, less than 25 per cent. He was the only manager who when interviewed sought to revise the survey estimate upwards.

The personnel director was confident that the shorter working week had not led to any increase in overtime. The production manager, however, was less sure. Overtime was more affected by efficiency improvements which would have occurred anyway, by new technology and changes in the extent of subcontracting. So, he did not feel able to make an assessment of the effect of the shorter week. There had certainly been no move to Friday afternoon overtime, although management would prefer this to Saturday morning overtime. The workforce were unwilling to work Friday afternoons although the premium of time-and-a-half was the same as for Saturday mornings.

10) Non-union

Non-union is a small factory manufacturing and repairing heavy machinery. The work in the factory is very much one-off production. Management described the manual workforce as very loyal, highly trained and very flexible, but with traditional attitudes. There had never been a request for union recognition, although the parent company was strongly unionised and management believed that a fair proportion of the workforce were union members. The union members appear to have thought that union recognition would not improve their conditions. Non-union seems to have at least matched the terms which their manual workers could obtain elsewhere. In some respects Non-union seems to have lacked behind a number of unionised plants in the introduction of change. The practice of 'one in all in' for overtime had only been discontinued in 1992 after a period in which offers of overtime had gradually been made more selective.

The practice of at least matching outside conditions explains management's approach to the shorter working week. The working week was reduced from 39 to 38 hours early in 1989, well before it became clear that the CSEU would be mounting a serious campaign. There was a further reduction to 37 hours in 1992. This was linked with the reduction at Fabricator, following a degree of integration of personnel policy across the two factories.

Management did not negotiate the reductions with anyone. So, there was no question of any formal provisions to offset the costs of reduced hours. The production manager told us that at the time of the first reduction in 1989: 'We had a good talk about the lack of productivity and the need to tighten our belt, and we asked the men to honour more effectively the wash up times... it was done with a general pep talk rather than any rules and regulations'. Non-union is the smallest factory in the study. Its personnel policies appeared much more informal than at other factories in the study. There may have been some scope for tighter management control of working time, but management clearly felt that the costs of imposing such control would far outweigh the benefits. The production manager explained management's approach to reduced hours and the possibility of measures to reduce the cost as follows: 'We have a very small workforce here and we believe we're a well-integrated little team. We believe that everybody is part of a family. We've got quite good production rates out of our workers and we certainly have lots of skills which are not repeatable. We felt honour bound that, if that was the national trend, we should follow it without necessarily extracting more blood from the stone, as it were. We've already got a situation where we can't reduce the tea break period because we don't have a set tea break. I suppose we could have looked more closely at our start and finish times. We don't have them formalised, but everyone understands that they can go to wash about 5-10 minutes before the end of the shift. So, this is traditional'. He conceded that the pep talk had not had a sustained effect, but pointed out that finishing times were only important 'when you've got the work'. So, there had been no point in repeating the pep talk in 1992 when the 37-hour week had been introduced as the factory was very short of work.

There were redundancies in 1992 and a serious shortage of work which continued in 1993 with prolonged short-time working, broken by short periods of overtime as customers required machinery to be serviced more quickly than in the past. This makes it impossible to isolate the effects of the shorter working week on the factory.

The situation in site installation was much clearer. Site installation was transferred to Non-Union in 1992. Previously, it had been part of Fabricator and was covered by Fabricator's 1990 shorter working week agreement. However, the offsets in the agreement were not applicable. So, only the timetable for the reduction in hours applied and there were no offsets. The normal working week in site installation was 50 hours from Monday to Friday. 12-hour days were not unusual. The only effect of the shorter working week was that two

more hours were paid as overtime. The director of site services explained: 'We have to tailor-make the hours we work to the time we have to do the job'. Management seemed fairly relaxed about the increase in costs. While some competitors still had basic weeks of 38 hours in 1993, they were under strong pressure to bring them into line with those of the other installers. The workforce is highly mobile and has no strong ties to any employer. This must limit the scope for variation in terms of employment in site installation. The workforce presumably have a low demand for leisure or a strong preference for taking their leisure in large, continuous chunks. If they took more leisure, this might well be in the form of longer breaks from work rather than in shorter working weeks. So, although the shorter working week made no difference to the weekly hours of site installation workers, this does not preclude a downward trend in their annual working hours.

11) Secure Employment

Secure Employment was visited because the personnel manager had indicated in his response to the survey that the benefits of the cost-offsetting measures in the shorter working week agreement had largely not been achieved. He attributed this to the time taken for retraining required for multi-skilling and flexibility. As in so many other cases the interviews discovered that the information from the survey was misleading.

The company manufactures a highly specialised product which it originated and developed. It retains a remarkably high share of the world market. The company's founder had been actively involved in its management until his death in the early 1980s. The traditions he had established were continued through a second generation of his family, which held the top management positions and a majority of seats on the Board.

Employment was very stable. This reflected the commitment of its founder to employment security and the fact that, until the 1990s, the company had been totally insulated from recessions. Managers said that new equipment was not being used to its full potential. The convenors readily accepted that management had not taken full advantage of the opportunities for demanding created by new technology.

Before the agreement on the 37-hour week there had been a variety of standard working hours. There was a 4½-day week for manual workers. Most were on a normal day shift of

39 hours a week, from 8 am to 5:15 pm, Monday to Thursday, with a 45 minute unpaid lunch break and from 8 am to 1 pm, Friday. About one quarter of manual workers on the double-day shift had a nominal working week of 37½ hours. One shift was from 6 am to 2 pm and the other from 1:45 pm to 9:45 pm with half-hour unpaid meal breaks in the middle of each shift. Staff with production control functions also had a 37½-hour week. Other staff had shorter hours. Production engineers and design office staff had a 36-hour week and administrative staff a 35-hour week.

Hours had been negotiated as part of the annual pay negotiations in 1990. The agreement gave all manual workers a two-hour reduction in equal stages in January and November 1991. The day shift's working week was reduced to 37 hours and the double-day shift, about one quarter of the workforce, previously on a 37½-hour week, went to 35½ hours. Paid breaks were, however, reduced for the shift workers so that their actual working hours only fell from 35½ to 35. The agreement also provided for a 9 per cent pay increase from August 1990. During the negotiations the unions gave a verbal undertaking that production would not fall as a result of the shorter hours. The agreement did not specify how this was to be achieved, merely requiring 'domestic discussions to work out cost-saving measures'. The practical consequences of the agreement are not at all clear. They are discussed in Section 6.2c(ii).

Traditionally, there were fairly high levels of overtime with at least half the manual workforce working 10 or more hours overtime a week. In 1993 there was very little overtime. Overtime depended on demand, like subcontracting, which was also used extensively at times of peak demand.

Management did not see any possibility that shorter hours had resulted in lower pay increases. The company had seen shorter hours as a move towards harmonisation. Only a minority of workers had been affected. Single-table bargaining meant that any trade-off would have had to be explicit. The convenors, however, felt that the pay settlements in the period when hours were being agreed or implemented had been lower, although they had no evidence of this. They would expect any decent management faced with having to concede reduced hours to claw a little back on pay.

12) Shipyard

See Section 6.2c(ii).

13) Strong Demand

In the 1991 survey the personnel manager indicated that the negotiations on the shorter working week had been much less difficult than wage negotiations usually were. Despite this significant offsetting provisions were reported. While not going so far as to claim a 'self-financing reduction', he expressed the opinion that the offsets covered more than three-quarters of the costs of the reduction. The offsetting provisions listed on the survey form were, however, not included in the shorter working week agreement, which contained very little offsetting. The information from the survey here, as in so many other cases, seems grossly misleading. Provisions in the agreement could only have offset a small fraction of the cost of the reduction. When interviewed the personnel manager placed a great deal of emphasis on 'goodwill' (see Section 6.2c(iii)).

The medium-sized factory was exporting 90 per cent of its sales and enjoyed continuing growth in demand through the recession. Despite redundancies affecting support workers in 1992 manual employment had increased slightly between 1989 and 1993. There were 50 more direct workers, mainly employed on the night shift.

In October 1989 there was an 18-month pay deal with a 38-hour week effective from April 1990. The agreement also provided for a 37-hour week from November 1991 subject to conditions. The union maintained the position that hours should be reduced without strings. Paid non-working time was not an issue in the negotiations. Management officially took the view that there were no tea-breaks, but in practice there was a morning break with a trolley going round the factory. The half-hour lunch break was already staggered and CNC machinery was kept running.

From of the agreement the only specific offset which can be linked to the reduction is the introduction of monthly cashless pay from April 1990. A clause of the agreement, headed 'cooperation', 'committed' 'the company and the trade union ... to continuing flexibility and cooperation (accompanied by consultation and negotiation) to achieve increasingly efficient

methods of production and improved productivity'. Specific mention was made of running machines unmanned outside normal working hours and cooperation with new technology, new methods and procedures. There was a separate agreement over the reduction in November 1991. This provided that current levels of efficiency would be maintained and that cashless pay would be introduced. There was a further clause on full cooperation and flexibility, similar to that in the previous agreement. In addition there was a 'recognition that the reduction in the working week is a cost item, and therefore all employees are expected to utilise all working time fully'. These reiterated and rather vague clauses on cooperation constitute little more than a statement of intent to continue an established pattern of cooperation and flexibility. As such, it is very hard to attach much practical significance to them. The shorter working week, however, was associated with increased management attention to ensuring working time was productive. So, in combination with changes in management priorities these provisions may have had more substance than appears on paper.

The working week of day workers was reorganised to give them a 4½-day week. The working day from Monday to Thursday was extended by 15 minutes. On Friday work finished at noon instead of 3.30 pm, with a half-hour lunch break being abolished. In April 1990 the night-shift, who already had a four-day week, simply took an hour off their starting time on Thursday. In November 1991 the 37-hour week was introduced in the form of a 3½-day week. From Monday to Wednesday the night shift started at 8:45 pm, half-an-hour earlier than before, and on Thursday at 8:30 pm, an hour-and-three-quarters earlier. The Monday to Wednesday shifts also ended 15 minutes later at 7:45 am, the start time of the day shifts. These changes enabled a 2 am finish on Thursday. The agreement went on to provide that overtime could be worked after the Thursday shift from 2:30 am to 8:45 am on Friday mornings and from 4:15 pm to 8:15 pm on Friday afternoons. 12:15 pm to 4:15 pm on Fridays was available for day shift overtime. These changes to starting and stopping times meant that the working times of successive shifts were continuous rather than being separated by 15 minutes.

In the short-term management does not seem to have been concerned with the fall in working hours. For budgetary purposes their target for overtime by direct workers in 1990 was 28.4 per cent of basic hours, that is just over 11 hours. In 1991 the target was reduced to 19.9 per

cent, or 7½ hours. It was increased to 22.2 per cent, or 8½ hours, in 1992.¹ In practice the level of overtime, though showing considerable fluctuations, was, as a percentage of basic hours little changed over the three years, averaging about 28 per cent. Overtime went from being 2 per cent below target in 1990 to 9 per cent above in 1991 and 6 per cent above in 1992.

Despite considerable monthly fluctuations the level of overtime in 1992 was very similar to that in 1990. There was some Friday afternoon overtime in place of weekday evening and Sunday morning overtime. In terms of average overtime premia this represents some saving of costs. The saving was probably marginal as the Friday afternoon overtime had a higher premium rate than evening overtime.

Between October 1989 when the agreement was signed and April 1990 when the 38-hour week was introduced the factory's measure of performance, the actual standard hours produced, rose by 5 or 6 per cent. Dividing this measure by actual hours gives a ratio of allowed time to actual time, equivalent to the Percentage Utilisation of Labour index. The personnel manager said that such a large change in so short a period was unusual. He suggested 'goodwill' explained part of the improved performance in the period to April 1990 (see Section 6.2c(iii)). However, standard hours produced increased by more than 10 per cent between August 1991 and March 1992. The performance measure is affected by capital investment, changes in working practices, and changes in shop floor organisation. It was not the practice in the factory to adjust standard times to take account of such changes. The measure was used for a bonus scheme, which provided around 15 per cent of earnings. Management was seeking to encourage acceptance of change by not adjusting standard times for efficiency improvements.

14) Success

The company produced a consumer product, which was handmade and machine-finished. It was unusual in its industry in having all manufacturing operations under one roof which gave it a competitive advantage in speed of response. Quality was also important. Between 1982 and 1992 exports had increased from less than one per cent of sales to 30 per cent, with

¹ Overtime as a percentage of basic hours is affected by reduced hours, but this is relatively insignificant.

most of the growth since 1988. In the early 1990s the manual workforce increased by about 20 per cent, but was still well below 200.

The negotiation of the shorter working week coincided with a process of product improvement. At the time they were the only firm recruiting in the area which management felt had made the union more cooperative. Managers felt that there had been a real possibility of a strike over hours. The managing director suggested that some workers saw the levy as a holiday fund and they wanted to get back the £170 they had paid in.

Management felt that, particularly for the first hour, more concessions had been obtained than they would have secured without it. They would have sought much the same changes without reduced hours, but would have done so in stages.

Management acknowledged that it was physically impossible for all workers to have clocked in three minutes after the start of their working hours there had been a tendency, before the agreement to ensure that the clocking allowance was fully used.

In August 1992 as follow-up to the hours agreement team leaders were introduced. These [could be described as working charge-hands] and were responsible for between 6 and 18 workers. This made it easier to ensure that workers did not leave their jobs until finishing time. There had been enforcement difficulties in the first month. This had required the use of the disciplinary procedure. Workers could leave work to get a cup of tea. Their work required brain power. They were expected to do a volume of work.

15) Target

This large factory was one of the six initial targets of the CSEU campaign. See Section 7.3b for the effect of time reallocation.

16) Team Work

Management attached much more importance to an agreement on team work than to shorter hours. While both issues were negotiated and implemented in the same period, they never became linked. See Section 6.2c(ii).

17) Unreliable Memories

Unreliable Memories is the one factory in the 1992/94 research to have been in both the 1991 interviews and survey. It provides interesting insights into how one of the key questions in the 1991 survey was answered. This question was: 'What percentage of the cost increase [of the shorter working week] did you expect these concessions [in return for the agreed reduction in hours] in total to offset?'. The production director who was the 1991 interviewee ticked the box for 75 to 99 per cent.

The shorter working week agreement was part of the annual wage negotiations. It included provisions on flexibility, responsibility for quality and the extension of shift-working. There was an existing flexibility agreement, but the production director explained that was not proving entirely satisfactory. The production director saw self-inspection as involving a complete change of culture. Shop-floor workers became the last people to see the product before the customer. The game of getting work past the inspector had been taken away. Management intended to expand shift work to deal with an order book which was still expanding at the time of the agreement.

If hours had not been an issue, management said they would have raised the same three issues with the unions, but the production director said in 1991 that hours had been a major factor in securing agreement on them. The personnel manager, who was seen in 1993, did not feel that hours had affected the outcome on these issues.

The two managers agreed that the 37-hour week had only been discussed at the end of the negotiations and that management's response had been to present the unions with a total harmonisation package, which included tea breaks, the method of payment and clocking. Provisions for tea breaks for manual workers were brought into line with those applying to other workers. In practice, tea could often not be consumed in manufacturing areas for safety reasons. The agreement put manufacturing in the same position as engineering, which was a staff area, and enabled better control over the ten minutes rather than reducing breaks below ten minutes.

The managers said that the shorter working week agreement had been costed formally. They did not attach much significance to the exercise, which was required by their superiors. They

could not recall the result of the costing, but thought that around one half of the costs had been recovered. This was based on the harmonisation package of refreshment breaks and cashless pay. The personnel manager thought that, if hours had not been an issue, the pay increase and the provisions of the agreement on flexibility and self-inspection would have been just the same. The production director's answer to the survey reflected all elements of the agreement rather than just the refreshment breaks and cashless pay. The interview with the shop stewards also illustrates the difficulty of recollecting whether cost-saving measures are attributable to hours or earnings when all three are negotiated together. While they had not been directly involved in the negotiations, they were adamant that management had informed the unions how much more they were prepared to pay for cashless pay and that the pay increase had been adjusted accordingly. Memories may only be unreliable because attribution is arbitrary.²

The production director was most reluctant to accept that the shorter working week had had any effect on employment or overtime. This reluctance was initially shared by the shop stewards. After discussion they conceded that there had probably been a marginal increase in employment, but, like most managers, their agreement was an acceptance of the arithmetic rather than a reflection of their own experience. Employment or overtime effects were particularly hard to detect as the company had suffered so severely in the recession. Four rounds of redundancies had reduced the company's workforce by nearly one half. Factory employment had only fallen a little, with work and workers being transferred from satellite factories which were closed.

A radical change to working time had been negotiated at the beginning of 1993. This allowed management to require that the 37 contracted hours were worked at any time between 7 am and 7 pm on any day of the week, including Saturday and Sunday. So, for example, there were often three ten-hour days and one seven-hour day. As a result a delivery on Friday afternoon could be worked on Saturday and Sunday providing work for the next stage of the product cycle on Monday. Overtime was only paid for this Saturday and Sunday work if the total hours worked in the week from Saturday to Friday exceeded 37.

² The production director had a very clear understanding of all issues of importance to the company. The adoption of the soubriquet 'Unreliable Memories' is not intended as an aspersion on his ability.

18) Varied Production Methods

The factory had three distinct production processes. These included furnaces which operated continuously 24 hours a day, 365 days a year. The employment consequences of the introduction of five-shift working are discussed in Section 6.2d(i).

19) Wage Trade-off

Wage Trade-off was the only factory in either the 1991 or the 1992/94 research where management claimed an explicit trade-off between hours and wages with basic weekly rates being reduced (relative to what they would otherwise have been) so that hourly rates were little affected by the reduction in hours. In other words there was income sharing rather than a reduction 'with no loss of pay'. Section 7.5b casts some doubt on this claim.

Wage Trade-off was also the only factory visited in 1992/94 to implement the 37-hour week in four annual stages. Under a two-year wage agreement the hours of all manual workers were reduced by 30 minutes in February 1990 and by a further 45 minutes in February 1991. The basic week was then 37½ hours for day workers and 37 hours for shift workers. A second two-year wage agreement gave day workers two further reductions, each of 15 minutes, in February 1992 and February 1993.

The factory traditionally operated on very high levels of overtime. This had been as high as 36 per cent of the basic hours in 1989, but 20 per cent as in 1990 was a more normal level. The reduction in overtime between 1989 and 1990 reflected changes in the method of manufacture. Management had no difficulty in getting workers to work the overtime which they required. Overtime was used to ensure that production plans were met, but manpower planning allowed for overtime in the range of 15 to 20 per cent of basic hours.

The factory was in advance of most of the others visited in terms of changes such as the introduction of cellular, or team working. There was no suggestion that the shorter working week had had any effect on the pace of these changes.

20) Window Dressing

The shorter hours agreement in October 1989 was one of the first in the study. It followed a 37-hour week agreement at another factory which belonged to the same group and which had been one of the six initial CSEU targets. Group management instructed Window Dressing's management to negotiate a 37-hour week with no increase in costs. Management could see no way of doing this. The cost-saving measures agreed at the target factory either reflected existing practice in their medium-sized factory or were not applicable. The result was that several clauses from the target factory's agreement were adopted with slight modifications. Management said that these clauses were only included to satisfy group management. They did nothing to offset the cost of shorter hours.

The only saving which management identified was in the wage settlement, which was one to two per cent lower. The increase of 8½ per cent was, however, a little above the EEF average for the last quarter of 1989. In addition a new grade was introduced which ended up costing considerably more than management had anticipated. So, while management was clearly willing to concede a higher pay settlement to avoid shorter hours, the settlement may not have been any higher if hours had not been an issue.

Management found assessing the effect of reduced hours on overtime difficult. In 1991, when hours had cut by 1½ hours, overtime had not increased, but management could not rule out the possibility that, but for the reduction, there would have been a fall. By the time of the 1992/94 research management was even less able to assess the effects of reduced hours on overtime. They were much more aware of other influences on overtime. Some of these, for example the redundancies of most unskilled manual workers in 1992, had led to more overtime. The 37-hour week meant that the day shift finished at 12:30 pm instead of 3:30 pm with the elimination of a one-hour lunch break. Friday afternoon overtime seemed to be more common than in other factories, but it was still not extensive. There were no records which distinguished Friday afternoon overtime from overtime at other times paid at the same rate. The shorter hours agreement had provided that there would only be work on Sunday in cases of exceptional need. Management attached little significance to this, which was part of periodic efforts to limit Sunday overtime. These efforts did not seem to have led to Friday afternoon overtime being substituted for Sunday morning overtime.

7) FURTHER ISSUES AND GENERAL CONCLUSIONS

7.1) Introduction

This Chapter concentrates on three issues crucial for assessing the economic effects of reduced working hours. The issues are overtime, the use of time within the basic working week and basic pay. The 1992/94 research covers all three, but, being confined to factories with reduced hours, it lacks a comparative dimension. Accordingly, a survey was carried out in 1993 in conjunction with the Engineering Employers' Federation. This, like the rest of the 1992/94 research, was joint work with Dr Ray Richardson. The main aim was to obtain information on the use of time and on pay increases which included factories where basic hours had not been reduced. The Chapter also reports results from the 1993 survey and details of the 1992/94 research, relevant to the three issues. An Appendix gives the text of the survey questionnaire. The research reported in the previous Chapter depended on qualitative information from interviews and surveys. The next two sections look at other, more quantitative methods of assessing the results of reduced hours. The final section sets out some general conclusions based on the material in this and the previous two Chapters.

7.2) Overtime

Overtime is, arguably, the variable most directly affected by reduced basic hours. In the 1960s it was generally believed that overtime increased so much when basic hours were reduced that actual working hours were left virtually unchanged. Hugh Clegg observed: 'Judging by the precedents established in recent years, 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' (1962: 14). Whybrew found that the evidence largely justified the 'widely-held belief that this reduction in standard hours [to 40] will have very little effect on actual hours worked and will serve mainly to increase the number of hours for which workers are paid at overtime rates' (1964: 149).

This view that reduced hours merely increase overtime has persisted. Indeed, it seems to form a part of conventional wisdom. For example, a leading article in *The Independent* on 24 October 1989, said of the claim by the CSEU for a reduction from 39 to 35 hours: 'This

could more accurately be described as a claim ... for a four-hour rise in overtime. It is a pay demand under another name'.

Figure 1.1 shows basic hours and the hours actually worked by full-time male manual workers. Overtime peaked in 1965 and 1989. There has been no sign of any upward trend in overtime despite a fall in basic hours of more than two hours between the two peaks. Indeed, taking account of the discontinuity in the overtime data in 1970, the 1989 peak is significantly lower than the 1965 peak. The state of the economy seems to be a much stronger influence on overtime than the length of the basic week. So, the effect, if any, of any particular reduction in basic hours on overtime is not readily observable.

The movement in overtime over the past thirty years is quite inconsistent with the view that reduced hours are no more than a means of increasing overtime and earnings. Generalisations based on one or two observations in a period of full employment do not seem to be applicable to more recent reductions. Possibly, actual hours now follow basic hours more closely because of the change in the balance of supply and demand in the labour market since the mid-1960s.

Figure 7.1 shows the same information for full-time male manual workers in engineering, as Figure 1.1 does for all manual workers.¹ It suggests that over the past thirty years engineering has been something of an exception to the general tendency for actual hours to fall in line with basic hours. Yet, comparing peaks may give a false impression of the trends in engineering. From the 1980s male manual workers' hours in engineering have clearly responded much more to the state of the economy than male manual workers' hours generally. Still, even the 1989 peak in engineering hours, which appears unusually high in relation to hours both before and afterwards, is three hours less than the 1955 peak. This comparison is distorted by the 1970 discontinuity in the statistics. For all male manual workers the discontinuity increases actual hours by 1.3 hours. So, the reduction in basic hours in engineering between 1955 and 1989 is largely reflected in actual hours.

¹ The sources for this Figure and for Figure 1.1, which gives the equivalent information for engineering, are, 1947-69, British Labour Statistics, Historical Abstract, 1969 and, 1970-94, New Earnings Survey.

It was only in the 1960s that serious academic commentators felt that overtime would rise in line with reductions in hours. Nickell (1983) concludes that in the long-run overtime is virtually unaffected by reductions in the basic working week. This, he suggests, is because falls in basic hours have reflected individual preferences. Accordingly, as noted in Chapter 1, overtime might well respond differently if hours were reduced when this did not reflect preferences.

The 1992/94 research (see Section 4.3c) indicates that the introduction of the 37-hour week in engineering did not lead to any increase in overtime. This is a somewhat tentative conclusion as the prolonged recession meant that it was not possible to observe a full economic cycle. However, as Figure 7.1 shows, the overtime peak in 1989 has not subsequently been approached, although engineering sales grew by 11 per cent in 1994.

There is no indication from the 1992/94 research that changing employee time preferences have any role in explaining the 1989/91 reductions. This should not come as a surprise. Changes in employee time preferences may have been a precondition for a successful union campaign. Yet, the research provides some support for William Roche's argument (1991) that post-War reductions in working hours cannot be explained by changing employee time preferences. As mentioned in Section 1.6 the CSEU leadership did not feel that their 1989/91 campaign reflected a spontaneous demand for reduced hours. They were very aware of the need to mobilise support for reduced hours. Employers' attitude to the CSEU claim was influenced by the perception, based for example on the willingness of workers to work overtime, that there was little or no demand from employees for shorter working time (Mr Jones, March 1993).

Events at Target also suggest that employees do not have clearly defined preferences over working time, at least in terms of the distribution of working time. The workforce prolonged the strike because they wanted a four-and-a-half day week rather than a nine-day fortnight. Yet, according to all accounts the nine-day fortnight proved extremely popular. Of course, the four-and-a-half day week had, until the CSEU approved the nine-day fortnight, been very much union policy. Still, if union policy determined the initial attitude of members to the nine-day fortnight, their individual preferences can hardly be used as an explanation. Research by the Trade Union Research Unit (see Chapter Six) also indicates that employee preferences are not clearly defined. They found that employees tended to favour whichever

shift arrangement they were working, but that changes could prove popular once implemented.

7.3) Use of time

Time reallocation, making non-working time within the basic week productive, was a feature of shorter working week agreements (see Section 6.3a). Also, as mentioned in Chapter Six, reduced hours are linked to time reallocation in a way which goes beyond a mere question of timing.

The effect of the shorter working week on the use of basic working hours can conveniently be analysed by splitting it into two parts:

- a) How the agreements affected contractual working time; and
- b) The effect on actual working time.

7.3a) The effect on contractual working time

Contractual starting and finishing times are clearly documented. They correspond to the basic working week. Yet, the measurement of working time is not a simple matter. The actual times at which work starts and finishes are often subject to practices which are far from well defined. The same is true of the finishing and starting times of tea breaks, which form part of the basic working week. In addition there may be unofficial tea breaks without clearly defined starting and finishing times. Management officially recognises some differences between actual working time and the basic working week, for example clocking allowances and washing-up times. In these cases contractual working time is less than the basic working week. Other deviations, such as extended tea breaks, may not enjoy such recognition. In principle the difference between official and unofficial paid periods is that management retains the right to require workers to work during the unofficial periods.

In practice the distinction is not always easy to maintain. In a sense management can always be seen as acquiescing in unofficial paid non-working time. This is illustrated by Wage Trade-off. This factory was first visited in 1991 when the production director said that tea breaks had been bought out some time before shorter hours were negotiated and that there were no paid breaks. It was only on the next visit that the existence of an unofficial morning

tea break emerged. Management had sought to formalise this through an agreement with the union, but the union had wanted a ten minute break whereas management felt that the break should be five minutes. So, there was no agreement and the actual break remained somewhere between five and ten minutes.

It would be over-simplistic to see tea breaks as an entirely non-productive use of working time. F W Taylor, the father of 'scientific management', was a great advocate of rest periods, which he argued were necessary to maximise production. These considerations are still of importance today for some workers, for example those on assembly lines or using hand tools. Indeed, at Delayed Implementation management introduced an extra tea-break on a new shift system involving four long days followed by four days off.

Technical change means that many machines once in operation require watching rather than physical effort. Accordingly, workers can take breaks without disruption to production, provided that in their absence colleagues accept responsibility for their machines. So, production can be increased by replacing traditional fixed tea breaks with staggered breaks. This means that instead of all machines being shut down for fixed breaks they operate continuously. More than one manager expressed complete indifference to the number of tea breaks workers took provided this was during machine cycles so that production was unaffected.

Reductions in the working week and in paid non-productive time have traditionally gone hand in hand. The 1960 engineering agreement, which reduced basic weekly hours from 44 to 42, contained specific references to the elimination or reduction of tea-breaks and washing periods. The 1964 national agreement cut the basic working week from 42 to 40 hours and included a union commitment 'to emphasize to their members that the Agreement provides for a normal week of 40 hours' work' and 'to support the full utilization of working hours with particular reference to starting and finishing times'.

The national agreement on the reduction to 39 hours in 1981 included a clause committing employers and unions 'to ensure that productivity is increased so that there are no increases in manufacturing costs'. The PSI research indicates that reductions in tea-breaks or other elements of paid non-working time were the most common measure adopted in engineering

factories in attempt to increase productivity (White, 1982: 48). In 30 per cent of engineering factories paid non-productive time was reduced (White and Ghobadian, 1984: 68).

The 1991 survey indicated that 70 per cent of the 1989/91 agreements involved a reduction in paid time which was not worked. In most cases the reductions seem to have been fairly small. Only 28 per cent of reported agreements used reductions in paid non-working time as a major source of finance (See Table 6.2).²

The survey of factories belonging to EEF-member firms was carried out in late 1993. The factories were selected by EEF officials to give roughly equal numbers with reduced hours and with unchanged hours. There were 79 replies, a response rate slightly above 50 per cent. The split between factories with shorter hours and those with unchanged hours was reasonable (60 versus 40 per cent). In the vast majority of factories with reduced hours the reduction was from 39 to 37 hours, generally in two steps of an hour each. Managers in factories with shorter hours reported on average a reduction of 35 minutes in paid non-productive time which compares with 12 minutes reported by managers in factories with unchanged hours. These figures cover the five years to the end of 1993 and indicate a significant difference which has persisted for nearly two years after the final stage of implementation of the shorter working week.

Technical change may well be the underlying reason for changes such as the abolition of fixed tea breaks and the introduction of staggered lunch breaks. Nonetheless, the survey suggests that such changes affecting contractual working time within the shorter working week agreements have produced an offset which, judging by the different experience in factories not reducing the working week, is genuinely attributable to the shorter working week.

The reduction was regarded as a major source of finance if it resulted in an increase of at least 40 minutes a week in working time. Translating agreements into times involved some guesswork.

7.3b) The effect on actual working time

The time within the basic week which is actually working time does not necessarily change in correspondence with the changes to contractual working time considered in the previous section. Specifying that a break or a period formerly allowed for changing is now working time is unlikely of itself to change the customary behaviour of workers. Implementation and enforcement may be difficult. Such changes may deliver rather less than they promise on paper. Yet, the shorter working week could result in better enforcement of working time. For example, management might be able to limit a ten-minute tea break, which was taking rather longer, to ten minutes. If so, the increase in actual time worked will exceed the increase in contractual time.

Reductions in paid non-working time are implemented each time the working week is reduced. This suggests only a limited long-term impact of shorter hours on paid non-working time. Otherwise, it would not possible to reduce non-working time with every reduction in the working time. Alternatively, reductions in non-working time may be more cosmetic rather than real. Even if previous reductions in hours have had no real effect on paid on non-working time, it does not follow that the same is true of the 1989/91 agreements.

The 1993 survey suggests that the compensation managers gained for reduced hours in actual working time was almost as much as they gained in contractual working time. Where hours were reduced, the average increase in actual working time was 30 minutes whereas it was only ten minutes where hours were unchanged. The difference in actual time gained, 20 minutes, is only a little less than the 23-minute difference in contractual time. Some managers claimed better enforcement of working time, that is they gained more actual than contractual time. So, the average figures give a misleading impression of the amount of slippage between negotiated reductions in paid non-working time and increases in time actually worked. A number of managers admitted to substantial slippage between contractual and actual time. Indeed, where slippage was reported, it averaged about one third of the increase in contractual time. Still, the survey indicates that shorter hours agreements which reduced paid non-working time did largely translate into increased actual working time.

During the factory visits a significant minority of managers were extremely sceptical about the effectiveness of reducing contractual entitlement to paid non-productive working time.

They argued that such changes only worked if there were a change of culture with manual workers becoming much more committed to their work. As one of these managers, who worked at Varied Production Methods, put it: 'You can write agreements until you are blue in the face. It doesn't matter a damn. What matters is how foremen lead, not [how they] discipline, but lead. You will get people working right up to the bell not by making agreements to that effect, but just by exercising the right sort of leadership and getting them motivated to want to work up to that time'. A similar point was made by the personnel director of Attribution Ambiguity speaking of the abolition of fixed breaks. He distinguished between performance and appearance. Delivery was easier in terms of appearance, such as whether workers were seen reading newspapers, but what mattered was the effect on performance.

The manager at Varied Production Methods, where technical change had not affected the production implications of staggered breaks, was particularly sceptical about eliminating tea-breaks. 'If you ask people to work four hours at a stretch without a break, the chances are that the quality of their work will deteriorate. It is part of their biological clock. What happens in reality is that they have tea-breaks and smoke-breaks at other times and you [management] don't know about it. ... The only way to alter that ... is by a totally different management culture which is very .. airy-fairy. It is not something you can measure in concrete terms. You are motivating your people. You will never get it by a formal agreement in a negotiating group with a set of shop stewards. It is by developing a different style of management, particularly a different style of supervision.'

Yet, in one of the case studies, Shipyard, a traditional style of supervision had been reasserted with apparent success. Before workers clocked in they had to present themselves to their supervisors changed and ready for work. Even here the effectiveness of bell-to-bell can be seen as a result of a change in culture. Industrial relations had traditionally been highly adversarial, but the perspectives of management and the convenor seemed as close as at any other factory in the study.

Nonetheless, the interviews taken as a whole indicate considerable cynicism about the abolition of tea breaks, which some managers saw as a regular event in other factories. A few managers acknowledged that their shorter working week agreement was not the first occasion on which the same tea-breaks had been abolished, but they indicated that this time

was different. Certainly, the idea of the repeated abolition of tea breaks is familiar in trade union circles. The meeting of Rolls Royce union representatives to consider a recent agreement at the Glasgow factory was mentioned in Section 4.9. The Glasgow convenor successfully defended himself against the charge of 'selling out' tea breaks by asking for several identical offenses to be taken into consideration!

The survey strongly suggests that reduced hours resulted in a fall in non-working time during the basic working week, at least in the short and medium term. Yet, non-working time as a proportion of basic hours may still not be permanently affected by small variations in the length of the working week. The stimulus which reduced hours gave management efforts to enforce contractual hours appears generally to have been only temporary, as might have been anticipated. This stimulus was not confined to factories where agreements included provisions on paid non-productive working time. At Strong Demand management made greater efforts to enforce starting and finishing times when hours were reduced. This was not prompted by anything in the agreement. The convenor reported that the effect lasted for a week or so.

Reducing hours does not, of course, affect the nature of the problem which management faces in enforcing working times, as the example of Strong Demand shows. So, enforcement problems should not lead to the conclusion that there is no lasting result from provisions such as abolition of washing allowances in working week agreements. Time lost as a result of non-enforcement may be no more than before.

No authoritative statement on the effectiveness of reductions of paid non-working time, in the factories in the study is possible. Some managers may not, themselves, have been fully aware of the situation. In addition many factories were suffering as a result of the recession even when visited for a second time. This means that the long-term effect of reductions in non-working time was still not apparent. Where there is a shortage of work, management is naturally less inclined to enforce finishing times strictly. What will happen to actual finishing times when demand is higher is still very speculative. The impression from the interviews is that persistence of changes which have been effectively introduced is not a major problem. Management's difficulty is in securing implementation without an unsustainable level of supervision. If management has to wage a war of attrition to bring actual and contractual working times into line, their objective is always the contractual working times. There is no

reason to suppose that the extent to which the battle-line deviates from this objective is affected by reduced hours.

A small minority of convenors suggested that changes to non-working time were cosmetic and that local management was less interested in enforcement than in impressing a higher level of management. Even in these cases management may in the future be able to ensure the observance of contractual working times. So, the best estimate of the long-term effect of shorter working week agreements is probably the change in contractual working times, allowing for any change which would have been expected if hours had not been reduced. Nonetheless, a number of managers admitted that particular provisions of their agreements were ineffective. This is taken into account in the Table 7.1 below. Information from the convenors is disregarded. It would be a breach of confidence to relate information of this kind from convenors to the factories where they worked. So, the Table shows changes to the times which workers are required under their contracts to work except where management indicate to the contrary.

Table 7.1 Increases in Contractual and Actual Time

Factory	Change(s)	'Contractual' time (minutes)	Actual time (minutes)
Attribution Ambiguity	Tea breaks	50	50
	Cleaning allowance	15	15
	Lateness allowances	20	5
Delayed Implementation	Clocking allowances	30	0*
	Washing times	15	5
Different Tales	Tea breaks	25	0
	Washing times	25	20
Fabricator	Clocking allowance	15	7.5
	Washing times	18	18
Success	Clocking allowance	15	7.5
	Tea breaks	50	50
Target	Tea breaks	50	50
Team Work	Tea breaks	50	10
Unreliable Memories	Tea breaks	0**	0**
Varied Production Methods	Washing times	30	5

* Managers at Delayed Implementation were planning finally to abolish clocking allowances in July 1994, but they report that few workers take advantage of them.

** At Unreliable Memories the agreement abolished a fixed daily ten minute tea break, but later specified that there would still be a fixed break where required for safety reasons. Managers did not want manual workers to drink in the immediate vicinity of their work because of the risk of spillage of liquid, but wished to harmonise conditions. The later withdrawal of a trolley service produced a gain in actual time.

How individual workers are affected by these changes depended very much on exactly the work they were doing and how breaks had previously been organised. Target provides a good illustration of the varied effect of time reallocation even within one factory. A ten-minute break, which applied to all workers, was abolished. The convenor reported that most workers were operating machinery which, once running, did not need continuous attention. Instead of shutting down machinery for ten minutes each morning, they were free to take a break of ten minutes between 9 and 10 am without affecting output. The workers described this as the 'happy hour'. Other workers, such as those doing maintenance, had no machinery

which could be left running while they took their break. So, it would seem that here the abolition of the fixed break had no practical effect and that as much work was being lost through the morning tea-break as before the agreement. The convenor, however, assured us that this was not generally the case. The previous practice had been for workers whose duties took them all over the factory to return to their bases for their morning tea-break. After the agreement they took their ten-minute break where they were at the time. As Target is a large factory, the gain in output done by these mobile workers as a result of the agreement was probably more than for any other group of workers. For other workers not using machines which could run without individual supervision there was no gain in output.

The personnel manager at Different Tales felt that the time actually recovered by the company as a result of the abolition of washing-up time was a little less than twenty-five minutes. Both he and the production director said that flexible tea-breaks had been counterproductive. Management had lost the ability to control the breaks and, as a result, more production was lost through breaks than before. The production director explained that many of their machines needed to be reset eight or nine times a day. Rather than getting a colleague to watch their machine while they took a break, workers tended to take breaks between machine cycles.

In rather more cases management expressed satisfaction with the results of abolishing fixed tea-breaks. Their concern had been with the total loss of working time involved, which was generally put at five minutes more than the contractual time. So, looking at contractual working times may not indicate the full extent of the change. Management at Team Work, who reported a failure to police the abolition of fixed breaks, felt there was a gain in production. The time lost through breaks no longer included the additional time beyond the ten minutes which had been allowed for formal breaks. In other cases management claims to have secured a gain in effective time greater than the gain in contractual time is disregarded. In terms of the overall picture this roughly offsets the exclusion of information from convenors, although individual cases may not be accurately described.

The abolition of clocking allowances does not affect contractual working time. It merely removes an automatic deduction from pay as a penalty for lateness. This was generally linked to a move away from provisions which originated with manual time recording systems. These recorded time in blocks of 15 minutes and a worker who was later than the time allowed was

'quartered', that is lost quarter of an hour's pay. In the three cases where the abolition of clocking allowances was linked to the shorter working week management perceptions of its significance for working time varied. All managers agreed that it was physically impossible for every worker to take full advantage of the allowances. If they all tried to clock in at the latest allowed time, there would be queues at the clocking machines and those at the back would be 'quartered'. In view of what managers at the other two factories said the claims of managers at Fabricator have been slightly scaled down.

The abolition of lateness allowances, which were similar to clocking allowances, at Attribution Ambiguity was of importance to management because of pressure from head office for bell-to-bell working. Management said that, following the agreement, workers were certainly clocking in by their starting times, but they were unable to monitor the time they actually started work. Teams had to start work at the same time. To make this easier clocks had been moved closer to actual work places. So, even in relation to working time the effects of the shorter working week agreement could not be distinguished from the consequences of other changes.

Staggered lunch breaks featured in only two of the shorter working week agreements at the 20 factories in the study. At Team Work the personnel manager, who was one of the sceptics, said that there was little benefit. Production during lunch breaks conflicted with the wish of team members to eat together.

7.4) Pay

7.4a) Previous research

There has been a general presumption that, at least in Britain, working hours are reduced with no effect on weekly pay. This sometimes seems almost to be an article of faith, maintained irrespective of the evidence. Evans and Bell (1986: 17) summarise the findings of an Institute of Personnel Management study of 92 organisations 'in all the cases reported earnings had been maintained when working hours have been reduced'. Yet, on the very next page they refer to 'several examples of companies introducing five-crew working at no additional cost'. To be fair in most cases additional costs were avoided by demanning rather than by lower pay. Even so the study included a 'few examples of five crew working creating 25 per cent extra manning'. Reduced overtime, and thus reduced pay, was a clearly a factor in keeping costs down when

five-crew working was introduced (Palmer and Redmond, 1986: 87). There were clearly some cases where shorter working hours reduced earnings.

The survey of the history of reduced hours in Section 2.9 contains several instances which contradict the general presumption that reduced hours have no effect on weekly pay. The reductions in printing in the 1930s and in engineering in 1960 definitely led to lower weekly pay. Econometric evidence suggests that reduced hours have no effect at all on hourly pay (Houpis, forthcoming, and Grubb, quoted in Layard, Nickell and Jackman, 1991: 504).

What reduced hours do to pay has been most thoroughly explored in the extensive PSI research on reduced basic hours (see Sections 5.2 and 5.5 for details of the research). Unfortunately, the effect of reduced hours on pay was not regarded as central to the research except in construction. Accordingly, the authors of the research fail to draw their findings together and suggest no general conclusions.

In a 1981 survey of the engineering, construction, printing and pharmaceutical industries PSI asked about the effect of reduced hours, which were generally introduced at the end of the year, on the 1981/82 wage settlement. Unfortunately, managers and, to an even greater extent shop stewards, suffered an 'element of confusion between [hourly] rates and weekly wages' (White, 1982: 26). More answered that reduced hours had led to higher weekly wage increases than said that increases were lower. Most managers, particularly in engineering, saw no effect on the wage settlement. The strongest sign of an effect of reduced hours on pay was that more than a fifth of managers expected to negotiate pay when the reduction in hours came into effect under national agreements. A follow-up question established that most of these managers had conceded that weekly pay would not be reduced. 'On the whole ... management's efforts to find ways of avoiding or reducing the hourly pay increase [to maintain weekly earnings when hours were reduced] seem to have been unsuccessful' (*ibid*: 25). Less than four per cent, concentrated in engineering, 'avoided the basic rate increase'.

Surprisingly, a subsequent 1982 survey only sought the views of shop stewards on the effect of reduced hours on the pay settlement after the reduction. 12 per cent of the shop stewards 'stated that shorter hours had led to a reduced level of settlement' (White and Ghobadian, 1984: 35). This may be an underestimate. The 1981 survey showed that shop stewards 'generally saw much less impact [than managers] on wage negotiations' and indicated that management felt that

unions would not necessarily be aware of the effect of reduced hours on wage settlements (White, 1982: 26).

Six case studies carried out in engineering in 1982/83 suggest that weekly pay was generally lowered by reduced hours. Section 7.4c examines why the case study and survey evidence are in such conflict. At 'Domestic Appliance Manufacturer' management seems to have largely avoided increased wage costs. A payment by results scheme, which accounted for more than 50 per cent of pay, was not adjusted. So, the increase in hourly earnings was less than one half that required to maintain weekly earnings with constant output. No information is given of the effect on pay when hours were reduced at a factory belonging to a Light Engineering Company. Yet, after looking at the wage increases from 1981-83, PSI conclude: 'The rate of wage increase has been low relative to industry trends and movements in the retail price index, and this could be considered as cancelling out the costs of the reduction in hours' (White and Ghobadian, 1984: 104).

Company A, 'achieved an agreement [on hours] which protected it against increased wage costs in a particularly secure way' (ibid: 111). In the case of Company B, PSI were very sceptical of management's view that the reduction had not increased hourly earnings. A limit on the cost increase caused by the annual wage settlement was set by the parent company. Local management had to cost the settlement to show that it was within the limit. All management's costings were available to the union negotiators. 'So the union representatives were aware ... that a portion of the money available had been allocated to cover wage costs associated with shorter hours' (ibid: 119). However, PSI still suggest that reduced hours had increased labour costs. This is not based on any criticism of how the company had costed the reduction. Rather, they speculate that the parent company was influenced by the national agreement on shorter hours in setting the limit for the cost increase. This seems implausible. The engineering industry national agreement specified that costs should not be increased by reduced hours.

Mechanical Components Manufacturer reduced the working week from 40 to 37 hours. The reduction in hours was on the basis of no loss of earnings, but, after comparing settlements and earnings with industry figures, PSI conclude 'there was little to suggest that the company was incurring above average wage costs' (ibid: 135). At Rising Costs PSI were able to say little about the effects of shorter hours. 'The period in which the shorter working week was introduced was also marked by continuing pressure on management from falling market demand. It was not

possible for us to separate the effects of shorter hours on the company from the effects of this more general background' (ibid: 141).

In all five cases where the effect can be assessed reduced hours seem to have led to little or no long-term change in hourly earnings. For Company B this depends on accepting management's views rather than PSI's.

The 1982 PSI study of the construction industry, like the engineering case studies, fails to reach a conclusion on the effect of reduced hours on pay. Yet, PSI do, as noted earlier, recognise the importance of the pay effect in construction. The 1982 study strongly suggests that reduced hours had little effect on labour costs. This was because of the strong influence of market forces on earnings. 'All our respondents were saying ... that they were able to use market forces to trim labour costs' (ibid: 174).

Yet, the implication that reduced hours had little effect on construction labour costs is qualified. PSI suggest that in a business upturn 'the same market forces which had been restraining labour costs would tend to have the reverse effect. At such a time, the cost effects of shorter working hours might begin to show through' (ibid). Why the effects of shorter basic hours should depend on the economic cycle is not explained. If market forces determine wage costs, this will be as true in an upturn as in a recession.

Disregarding the qualification, the finding of the case studies on costs contrasts sharply with that of a 1981 survey of construction industry company secretaries. From the 1981 survey 'it appeared that increases in labour costs were an inevitable consequence of the hours reduction' (ibid: 146). The change of conclusion cannot be explained by a change in the management interviewees. The senior personnel officers and other managers interviewed in 1982 appear to have said very much the same as the company secretaries.

The change of conclusion seems to reflect a difference in approach. In 1981 managers denied even the possibility of offsetting the effects of shorter hours through productivity improvements. This had the beneficial effect of making the concentration on productivity offsets which was the main feature of the PSI's other work impossible. 'It proved unrealistic to examine the question of productivity offsets in connection with shorter working time as a separate or isolated issue. Rather, it proved more useful to consider the position of labour productivity in the industry as

a whole, and to examine what means were available ... to improve or control labour costs' (ibid: 147). So, in contrast to the rest of PSI research, productivity growth was not automatically misconstrued as an 'offset' to the employment effect of reduced hours.

7.4b) The 1991 and 1992/94 research

As on other occasions when unions have secured reduced hours the CSEU's objective in 1989/91 was that basic weekly pay should be unaffected. The research suggests that here as elsewhere the CSEU largely achieved its objective.

In all but two of the factories in the studies, the reductions in hours were negotiated at the same time as wages. This is consistent with the more general situation in the industry, where there are only a few reported cases of hours being negotiated separately from wages. A notable example of an hours agreement separate from wages is Rover (see Section 3.11). Collective agreements reducing hours and increasing basic pay give no clue about the basic pay increase had hours not been reduced. Even where hours are negotiated separately from pay, the changes linked to shorter hours might otherwise have been linked to higher pay. Also, future pay increases may be affected.

In the 1991 survey a minority of managers, concentrated in smaller factories, reported that reduced hours had led to lower wage settlements either when reduced hours were agreed or in the next year's negotiations. One in six said that the pay increase negotiated with reduced hours was less, but they were not asked how much less. Just over one quarter claimed a reduction in the next year's wage settlement, on average by about 1.5 per cent.³ The interviews in 1991 and 1992/93 explored the effect of reduced hours on pay increases. In 1991 managers at two factories reported that reduced hours had affected pay increases. One of these is Wage Trade-off, where the production director claimed hours had been reduced with no increase in hourly pay. However, the interviews in 1992/94 do not support this view nor does a comparison of weekly pay increases with the average increases reported by EEF members (see factory report in the Appendix for details). The second manager was at the smallest factory visited in 1991, employing just under 100 people. He expected the increase in the negotiations after the reduction

³ The figure of 1.5 per cent uses fairly conservative estimates of the average reduction within the three intervals offered to managers. The average of reductions below 1.6 per cent is assumed to be 0.5 per cent, the average for estimates between 1.6 and 3 per cent 2 per cent and for those over 3 per cent 3.5 per cent.

in hours to be lower. Having agreed to reduce hours with no loss of pay, he would not reveal this to the union. The pay effect would be rather small, in part because most manual employees worked shifts and had a reduction of only half-an-hour.

In 1992/94 opinions were obtained from up to three participants in the negotiating process on whether reduced hours had affected weekly pay and, if so, how large was the effect. There was not always consensus even between management negotiators in the same factory on the existence or size of any such trade-off. This is perhaps not too surprising. In wage negotiations items are generally not agreed in isolation and agreement on any point is conditional on agreement on all items.⁴ The suggestion of an explicit trade-off between pay increases and shorter hours made at Wage Trade-off was not repeated elsewhere. However, managers at Delayed Implementation, Japanese, Varied Production Methods and Window Dressing claimed a more modest effect on wage settlements (see Appendix). Managers in the other 16 factories were not aware of any such effect. Indeed, the personnel manager at Employment Security reported that when reduced hours were agreed the company had made a slightly higher pay offer in an effort to forestall the reduction.

The context of the CSEU campaign may explain the failure of managers, at least in the larger factories covered by the 1992/94 research, to obtain compensation for the costs of reduced hours in the form of lower basic pay increases. The success of the campaign meant that management lost the control of the negotiating agenda to which they had become accustomed in the 1980s. The personnel manager at Team Work commented on the difficulty of the negotiations. The unions were demanding 35 hours and would settle for 37, but what if any other concessions they would make was unclear. The fact that the agreement was subject to approval by the CSEU was a further source of uncertainty. The personnel manager at Employment Security said that the unions had as much power on the issue of hours as they had ever had. Strong Demand's approach was based on the recognition of 'an external force which made eventual concession on a reduction inevitable', according to its personnel manager. In these circumstances it is hard to see that managers could have negotiated lower pay settlements because of the cost of reduced hours.

⁴ The convenor at Different Tales said the first thing learnt on TUC courses was not to become committed before the entire deal was agreed.

Offsets in the shorter working week agreements might otherwise have been negotiated in return for higher pay settlements, as mentioned in Section 4.2c. There is no way of distinguishing this from lower pay settlements as a direct result of shorter hours. Wages, hours and offsets were all negotiated together. Negotiators sometimes used this to their advantage. At Fabricator the agreement was worded so that management could tell their superiors that a reduction in washing and clocking allowances was an offset to the shorter working week and the union could tell the workforce that the allowances had been 'bought out' in the pay increase.

The 1993 survey of EEF members was mainly designed to test whether wages had grown more slowly in factories where hours had been reduced. It enables settlements in factories with shorter hours to be compared with those in factories with unchanged hours over the period 1989 to 1993. The case studies show that managers, at least in larger factories, had not generally sought to lower wage settlements to compensate for the cost of reduced hours. So, if wage settlements are lower, this will be an indirect result of reduced hours through a loss of competitiveness. Ability to pay, which of course affects wage settlements, must have been damaged by reduced hours given the limited nature of any productivity effect. The survey, however, shows that, far from being lower, wage settlements were actually slightly higher in factories with reduced hours. The survey, however, also provides some evidence that union influence was a significant factor in higher pay increases. It is possible that, if union influence had not been exerted to reduce hours, it would have led to even higher wage settlements in firms reducing hours. Unions tend to have more effect on wages when the economy is in recession.⁵ In the period 1989-93 wages in unionised factories would have been expected to grow faster than in non-unionised factories.

7.4c) Conclusions on pay

The contrast between the PSI survey findings and their case studies is striking. In some ways this parallels the differences between the 1991 and 1992/94 research which are considered in Sections 4.4 and 4.5. Once again questionnaire results appear unreliable. However, the surveys gave managers as opposed to shop stewards only a limited opportunity to report pay effects. Their responses may simply have reflected the fact that hours were reduced with 'no loss of pay'.

⁵ The evidence for a counter-cyclical union wage effect comes from the union mark-ups calculated in the USA using data from the 1970s. Lewis gives the union mark-up for each year in the decade (Lewis: 1963, 179). This has a correlation coefficient with unemployment of 0.7 (own calculation).

Case studies can be more effective in going beyond this sort of knee-jerk reaction. Certainly, case studies can explore answers in more depth than surveys.

The 1992/94 case studies, however, find little or no evidence that reduced hours lowered basic weekly pay. The only case of a pay reduction was Varied Production Methods, but this was because a subsequent change to shift arrangements cut overtime. The 1989/92 reductions seem to have had no effect on basic weekly pay up to 1993. So, they must have increased hourly pay. Other evidence suggests that such a long-lasting effect on hourly pay is exceptional. There is an obvious reason why the 1989/91 CSEU campaign had such a strong effect on pay. It brought about an unparalleled mobilisation of union power at plant level.

7.5) Other information from the 1993 survey

As the value of managers' response to direct questions on the impact of reduced hours is dubious, the 1993 survey of EEF members explored the issue in a somewhat different way. Questions were slightly more complex and unusually phrased, for example: 'If you had not reduced the working week, how much higher or lower do you think your manual labour costs would be?'. The intention was both to make respondents pause before replying and to make them think about the problem from a different angle. The questions on employment, the extent of overtime and shift working were worded similarly to the question on labour costs. There is no way of telling how successful this was in overcoming the problems which afflicted the 1991 survey. The responses to these questions are given in Table 7.2.

Table 7.2 Managers' Responses on Effect if Hours Not Reduced

	Labour Costs	Employment	Overtime	Shiftwork
Lower	25	11	19	8
The Same	14	26	18	24
Higher	4	7	5	3
No Idea	4	3	5	10

The rather involved questions mean that the Table may not be immediately transparent. It is easier to interpret in terms of what reduced hours have done. Four out of 49 managers reported that labour costs would have been higher if hours had not been reduced. This means that, taking

into account the offsets they attributed to reduced hours, these four managers felt that their companies had lowered labour costs by reducing hours. The majority, however, believed that labour costs had risen, on average by about 3 per cent of manual labour costs. There is a high level of consistency in answers to the questions. For example, a large majority of managers who said reduced hours had not affected costs also reported no effect on employment, overtime and shift working.

In the 1982 PSI survey only a minority of managers reported that the 1981 reduction had increased costs. This does not necessarily mean that managers feel shorter hours in 1989/92 cost more than in 1981. The unusual wording of the 1993 survey makes comparison difficult, as does the difference in the interval between the reductions and the surveys.

In view of the public position adopted by the EEF and employers generally managers' views on employment effects are remarkable. More managers thought employment was higher because of reduced hours than thought it was lower. In the case studies managers very seldom mentioned increased employment in response to an open question about the result of reduced hours. So, it is surprising that as many as 11 of the 44 able to give an opinion indicated that reduced hours had increased employment. Perhaps, the complex wording of the question led more managers to think through the issues.

Manual employment in the average factory in the survey fell by 20 per cent between 1988 and 1993. So, the positive employment effect is presumably through job retention in the form of fewer redundancies. The fall was more serious in factories with shorter hours, but this is not statistically significant and appears to be better explained by factory size than by whether hours had been reduced.

The survey indicates a rather stronger overtime effect and a slightly weaker effect on shift working than the case studies. This is probably due to the lack of discussion. As reported in Section 4.3c(i) managers who initially reported an overtime effect did not always maintain this position. Where shift working had increased, managers tended to see reduced hours as only a minor contributory factor.

The relationship between managers' estimates of the costs of the reduction and their other answers is very interesting. Only six managers ticked the box for the highest increase in labour

costs, a rise of over four per cent. Yet, five of these thought employment had risen due to reduced hours. So, they account for nearly half the managers reporting higher employment. Of the four managers who said costs had been reduced by shorter hours two thought employment had fallen. A similar view was taken by only five managers from the 38 who thought costs were unchanged.

Where managers think productivity offsets are insufficient to meet the costs of reduced hours, they tend to report that overtime and/or employment are higher. The employment effect is more common where productivity offsets are less significant. There is some indication of a negative employment effect from productivity offsets which exceed the cost of the reduction. This is highly consistent with the view expressed in Section 1.7 that the indirect effect of reduced hours on employment and overtime through higher costs is much less than the direct effect. It is, however, possible that managers' responses to the survey did not take indirect effects into account.

7.6) Plant-level quantitative data

The 1992/94 research made some effort to obtain plant-level data which would indicate the effects of reduced hours. No manager felt able to provide such data. Data for a whole factory would be affected by the changes which have been outlined in Section 7.2. There were few instances where a simple before and after comparison, even on one production line, was possible. The best possibility of such a comparison was in one of the smaller factories, where management were very cooperative. However, the shop steward revealed that the workers concerned operated a production quota. He was not, however, forthcoming about the effect of reduced hours on the quota. In any event the existence of the quota meant that it would not be possible to observe the fatigue effect which Section 1.8 suggests as a possibility.

To measure productivity requires reliable statistics on output and total hours worked. Most engineering factories, certainly all those visited during the 1991 and 1992/94 research, are not producing a single, standard product. Indeed, most of the output of a large proportion of the factories visited was one-off, often of major items of capital equipment. This reflects the high representation of mechanical engineering factories. Frequent changes in product, or in the product range, mean that none of the managers visited had statistics which could be used to give a meaningful physical measure of output. Further complications standing in the way of any

measuring physical output were changes in profit margins and in the extent of subcontracting. For these reasons no manager interviewed could produce a measure of productivity that an economist would recognise.

In every factory there was, of course, some way of monitoring performance. Managers themselves were often dissatisfied with their performance measures. Indeed, their efforts to improve performance measures were a significant obstacle to examining performance over time. A very common measure was the factory's 'percentage utilisation of labour', that is the standard or allowed time as a percentage actual production time, the PUL index used by Bennet and Smith-Gavine (1987). At Fabricator the implementation of the reduced working week was made conditional on improved labour utilisation. The PUL index is not a measure of productivity. It measures labour intensity, based on standard times. As such it should take no account of all the reasons why standard times themselves change. For example, when there is new technology, standard times should generally be reduced. However, the extent to which standards were revised varied considerably. So, little confidence can be placed on the PUL index even as a measure of labour intensity.

Measurement problems are almost certainly not the main reason why managers do not try and measure productivity in a way economists would recognise. If they saw such an exercise as valuable, most could obtain a good measure of the physical output of their factories. Their concern, however, is with the value of output. It is the value of output which determines whether a factory stays open.

Another problem confronting the attempt to collect plant-level data was the failure of management in most cases to keep data for long enough. This was a particular problem with overtime data. There were only a few factories where managers were able or willing to make available aggregate overtime on a monthly or quarterly basis extending back before the reduction in hours. Rush orders, cyclical and seasonal variations and overtime bans, which sometimes seemed a standard event in pay negotiation, made it hard to discern the effect of reduced hours. Further, the recession by making companies compete harder on delivery dates had, in some factories, led to short periods when a lot of overtime was worked. Fabricator and Non-union had alternating periods of high overtime and short-time working. While this was exceptional, it seems to reflect a general tendency to make more use of overtime to meet delivery dates. So, the

data which was made available does not permit any conclusions about the effect of reduced hours on overtime.

The 1992/94 research failed to replicate the quantitative work carried out by PSI (see Section 5.6). It is unlikely to have missed much of value through this failure.

7.7) Statistical analysis of industry and other data

Simple before and after comparisons of industry data have little hope of showing the effects of reduced hours. There is little to add to the discussion of PSI's use of quantitative data in Section 5.6. Yet, Michael White of the Policy Studies Institute attaches considerable importance to aggregate analysis. In a 1987 report for the ILO, after giving the findings of the PSI research, he continues: 'These survey findings might be thought to be of insufficient scope to provide a general account of the effects of hours reduction in the industries concerned. However, aggregate data subsequently becoming available for the engineering industry for the year 1982 confirm the statistical picture provided by the survey in all particulars, and this suggests that the processes of adaptation described in this research were widespread (White, 1986)' (1987: 13/14). The 1986 paper, given as the source, makes no attempt to control for influences other than reduced hours which would lead output, employment and productivity to vary between 1981 and 1982. So, it adds nothing of substance to the earlier PSI results. Incidentally, the data quoted in the 1986 paper were available well before the results of the PSI research.

Simple before and after comparisons are worthless. A comparison of after and the after which would have been with unchanged hours is needed. A model of the industry might be developed to simulate the variables of interest under hypothetical conditions. Such models already exist, but they lack sufficient precision to allow the effect of reduced hours to be identified. Alternatively, a similar approach might be adopted to that used in the 1993 survey. Detailed information over a period of some years in a standard form might be obtained for a number of factories, some of which have unchanged hours. The increasing availability of Census of Production data may make this type of exercise feasible in the future.

Data collection is not the only difficulty confronting such a comparative analysis of factories with reduced and unchanged hours. The analysis has to take into account all the relevant differences between the factories. It is virtually impossible to do so, at least for the 1989/92

reductions in engineering. Trade unions will have an impact on the variables of interest. It is hard to see that there could be a better measure of union influence than whether hours were reduced. So, the results of the exercise may simply indicate the combined effects of shorter hours and strong unions, not the effects of shorter hours in isolation. This is precisely the problem which affects the conclusions of the 1993 survey on the effects of reduced hours on basic weekly pay. Statistical analysis of this kind has been used in several studies to assess the effects of unions. The conclusions are a matter of some controversy. This suggests that only a number of studies with consistent results could provide convincing evidence of the effects of reduced hours.

7.8) General conclusions

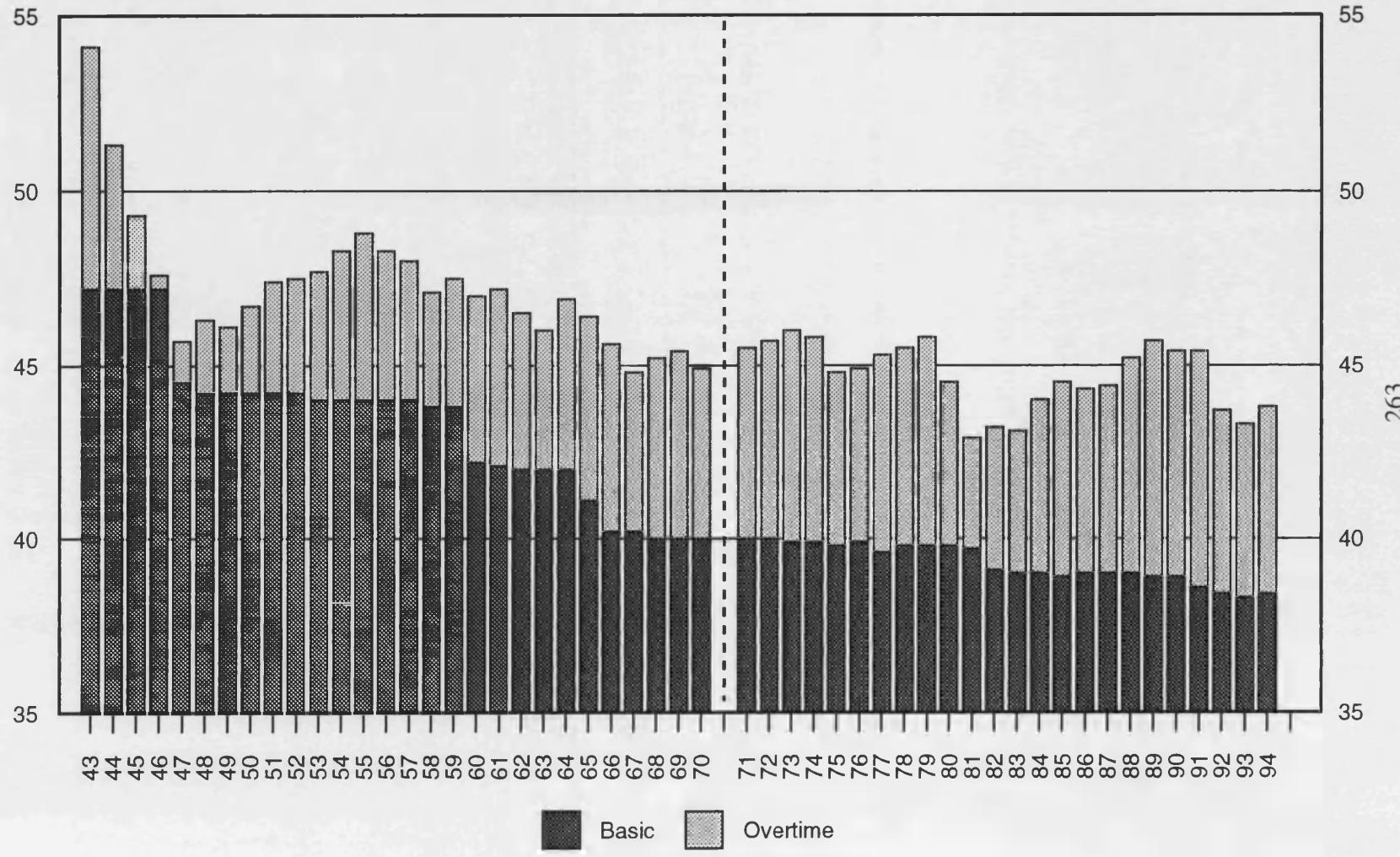
All the studies considered in this Chapter and the previous two Chapters were conducted at the workplace. They aim to show what happens when working hours at one workplace are reduced. A general reduction affecting every workplace could have very different effects particularly on employment, as explained in the previous Section.

The 1992/94 research shows that the CSEU was successful not just in reducing hours, but in ensuring that reduced hours did not involve a loss of pay. It also suggests that the main economic effect of reduced hours was increased employment. The review of previous research in Chapter Five indicates that earlier researchers failed to substantiate their belief that reductions in hours raised productivity. Indeed, there is remarkably little evidence of productivity being higher because of reduced hours. So, the favourable employment effects do seem to be confined to the 1989/92 engineering reductions.

Reduced basic hours introduced at an individual workplace tend to increase employment. This may be a long-term rather than an immediate effect. A positive employment effect from reduced hours depends on the absence of ancillary changes, that is on *ceteris paribus* conditions. If a reduction in hours raises hourly pay or lowers capital utilisation, it has negative indirect effects on employment which could cancel out the positive direct effect. It is even possible that the net effect of reduced hours is to destroy jobs. The analysis in Section 1.7 suggests that in engineering these negative indirect effects are small relative to the positive direct effect. This analysis, however, is intended to be illustrative rather than definitive. So, the indirect effects of reduced hours remain important qualifications to applying the finding that reduced hours increase employment more widely.

FIGURE 7.1

HOURS OF MALE MANUAL ENGINEERING WORKERS 1943-94



Appendix One to Chapter Seven

Table A7.1

Basic and Total Hours of Male Manual Workers in Engineering

1) Including absences for part of week

2) Excluding absences for part of week

Year	Basic	Total	Overtime	Year	Basic	Total	Overtime
1943	47.2	54.1	6.9	1970	40	44.9	4.9
1944	47.2	51.3	4.1	1971	40	45.5	5.5
1945	47.2	49.3	2.1	1972	40	45.7	5.7
1946	47.2	47.6	0.4	1973	39.9	46	6.1
1947	44.5	45.7	1.2	1974	39.9	45.8	5.9
1948	44.2	46.3	2.1	1975	39.8	44.8	5
1949	44.2	46.1	1.9	1976	39.9	44.9	5
1950	44.2	46.7	2.5	1977	39.6	45.3	5.7
1951	44.2	47.4	3.2	1978	39.8	45.5	5.7
1952	44.2	47.5	3.3	1979	39.8	45.8	6
1953	44	47.7	3.7	1980	39.8	44.5	4.7
1954	44	48.3	4.3	1981	39.7	42.9	3.2
1955	44	48.8	4.8	1982	39.1	43.2	4.1
1956	44	48.3	4.3	1983	39	43.1	4.1
1957	44	48	4	1984	39	44	5
1958	43.8	47.1	3.3	1985	38.9	44.5	5.6
1959	43.8	47.5	3.7	1986	39	44.3	5.3
1960	42.2	47	4.8	1987	39	44.4	5.4
1961	42.1	47.2	5.1	1988	39	45.2	6.2
1962	42	46.5	4.5	1989	38.9	45.7	6.8
1963	42	46	4	1990	38.9	45.4	6.5
1964	42	46.9	4.9	1991	38.6	45.4	6.8
1965	41.1	46.4	5.3	1992	38.4	43.7	5.3
1966	40.2	45.6	5.4	1993	38.3	43.3	5
1967	40.2	44.8	4.6	1994	38.4	43.8	5.4
1968	40	45.2	5.2				
1969	40	45.4	5.4				

Sources: 1943/46 Ministry of Labour Gazette;
 1947/69 British Labour Statistics Historical Abstract;
 1970/94 New Earnings Survey.

Note: Data are for July 1943, 1944 and 1945 and for January 1946.
 Thereafter they are for April.

Appendix Two to Chapter Seven

EEF/CEP SHORTER WORKING WEEK QUESTIONNAIRE

WOULD YOU PLEASE WRITE IN YOUR OWN NAME AND TELEPHONE NUMBER, IN CASE WE NEED TO CLARIFY ANY POINTS RAISED BY YOUR RESPONSES.

YOUR NAME

YOUR POSITION

TELEPHONE NUMBER

I. WORKING WEEK ARRANGEMENTS

1. What was the level of weekly basic hours for your largest group of full time manual employees at the beginning of 1988?

2. Have you changed this level since the beginning of 1988?

YES
NO

If NO, please go to Question 1 on the next page; if YES,

2a. Please indicate the date and amount of each reduction.

	Date of reduction	Amount by which basic hours were reduced
1st reduction		
2nd reduction		
3rd reduction		
4th reduction		

2b. Roughly what percentage of your full time manual employees have had their weekly basic hours reduced by these amounts?

II. GENERAL INFORMATION

1. How many full time manual workers were employed at this plant at the beginning of 1988?
2. How many full time manual workers are employed now?
3. What proportion of these are female (please tick as appropriate for both 1988 and now)?

Proportion of females	1988	Now
55% or more		
Between 45 and 54.9%		
Between 35 and 44.9%		
Between 25 and 34.9%		
Between 15 and 24.9%		
Between 5 and 14.9%		
less than 5%		

4. Have you taken measures since 1988 to reduce the time for which full time manuals are paid but not productive, e.g. tightening up on bell-to-bell working or reducing paid breaks?

YES
NO

If NO, go to question 5; if YES,

- 4a. What proportion of such workers were affected by these changes?
- 4b. How many extra contractual working minutes per affected worker has this given you each work week?
- 4c. And how many extra production minutes per affected worker has this given you in practice?

5. Have you introduced any of the following since 1988?

Measures	Please tick as appropriate
More shift working	
Staggered breaks	
More machines running unmanned	
Multi-machine manning	
Increased job flexibility	
Revised pay schemes	
Any other measures (please specify below)	

III. LABOUR COSTS

1. How large are your manual labour costs as a percentage of your total production costs?

Manual labour costs as a percentage of total costs	Please tick as appropriate
More than 40%	
20 - 40%	
10 - 19%	
Less than 10%	

2. By what percentage did weekly basic pay levels for full time manual workers increase as a result of your wage settlements/reviews in each of the following years?

Year	Percentage increase in basic pay rates	Month of the settlement/review
1988		
1989		
1990		
1991		
1992		
1993		

3. Many things can cause total earnings to grow faster (or slower) than basic pay rates. Can you please indicate (with a tick) in which settlement/review periods any of the following factors had a significant effect on the earnings of your full-time manual workers.

Year	changes in overtime or shift premia, relative to basic pay	new forms of payment system (including profit sharing and merit pay)	changes in the number of shifts worked	re-grading	changes in the amount of overtime
1988					
1989					
1990					
1991					
1992					
1993					

4. What effects have changes in the composition of the manual work force (e.g. changing proportions of women, or skilled workers, or shift workers) had on the earnings of your manual workers over the period 1988 to 1993?

Effect on earnings	Please tick as appropriate
Increased them by more than 3%	
Increased them by between 1 and 3%	
Increased them by less than 1%	
Reduced them	
No view	

5. How many additional days of holiday entitlement (excluding service-related holidays) have you agreed to for full time manual workers between 1988 and 1993?

6. If you have increased service-related holidays between 1988 and 1993, please give details.

7. Do you expect the length of the working week to be an issue in your plant over the next three years?

YES
NO

IV. FACTORS RELEVANT TO PAY SETTLEMENTS/REVIEWS.

1. How satisfied are you with the level of labour productivity in your plant?

Comparison	Please tick as appropriate
Very satisfied	
Somewhat satisfied	
Neutral	
Somewhat dissatisfied	
Very dissatisfied	

2. How satisfied are you with the level of profitability in your plant?

Comparison	Please tick as appropriate
Satisfied	
Neutral	
Dissatisfied	

3. How does the level of earnings for full time manual workers in your plant compare with that for similar workers in your local labour market?

Comparison	Please tick as appropriate
Your workers' earnings are a lot higher	
Your workers' earnings are a little higher	
Your workers' earnings are about the same	
Your workers' earnings are a little lower	
Your workers' earnings are a lot lower	

4. How has the influence of trade unions on the level of manual workers' earnings in your plant changed since 1988?

Comparison	Please tick as appropriate
Union influence is greater	
Union influence is about the same	
Union influence is less	
Unions are not recognised	

V. FINALLY, A SECTION TO BE COMPLETED ONLY IF YOU HAVE REDUCED THE WORKING WEEK SINCE 1988.

1. If you had not reduced the working week, how much lower or higher do you think your manual labour costs would now be?

Effect on labour costs	Please tick as appropriate
Lower by more than 4%	
Lower by between 2 and 4%	
Lower by less than 2%	
No change	
Higher	
No idea at all	

2. If you had not reduced the working week, how many more or fewer workers do you think you would now be employing?

Effect on number employed	Please tick as appropriate
Somewhat more	
The same number	
Somewhat fewer	
No idea at all	

3. If you had not reduced the working week, how much more or less overtime and shift working do you think you would now be demanding from your workforce (please tick)?

Effect	On overtime working	On shift working
Somewhat more		
The same amount		
Somewhat less		
No idea at all		

8) WHAT DO UNIONS DO TO HOURS? AN ECONOMETRIC ANALYSIS

8.1) Introduction

This Chapter starts with some simple statistics on the relationship between unions and hours of work. The rest of the Chapter identifies the union effect on working hours more precisely. Section 8.3 develops an economic theory on hours of work. Basic hours are decided by collective bargaining, but workers may be able to work longer hours through overtime. The next Section looks specifically at overtime which is rather neglected in economic analysis concerned with labour supply. The results obtained in this Section are used in Section 8.5 to obtain theoretical effects of reduced basic hours on actual hours. Section 8.6 expands the model of hours to include union bargaining over basic hours. Some practical issues involved in estimating the equations from the model are then considered. Section 8.8 says more about the data sources. The following two Sections give the results of the basic and total hours equations. Finally, Section 8.11 discusses the significance of these results.

8.2) Simple statistics

Seeing whether hours differ with union recognition is the most simple way of gaining some idea of possible union effects. Table 8.1 gives information from the 1990 Workplace Industrial Relations Survey on the total weekly hours of full-time manual workers where unions are recognised and where they are not.¹ Unions are linked with shorter hours, particularly for skilled manual workers. Table 8.2 gives the same information for basic hours. Unions appear to reduce basic hours by between half an hour and one hour. Overtime is only appreciably affected by union recognition for skilled workers where it is reduced by two hours.

¹ Full-time employees are those whose basic weekly hours exceed 30. Basic hours are calculated by subtracting overtime hours from total hours. Union recognition is recognition covering some manual workers.

Table 8.1 Total Hours of Full-time Manual Workers in WIRS 1990

	Skilled	Semiskilled	Unskilled
No Recognition	44.0	41.9	41.4
Union Recognised	41.4	41.2	40.5
Difference	2.6***	0.7	0.9

Table 8.2 Basic Hours of Full-time Manual Workers in WIRS 1990

	Skilled	Semiskilled	Unskilled
No Recognition	39.2	39.4	39.5
Union Recognised	38.6	38.5	38.6
Difference	0.7	0.8*	0.9**
***	significant at 1 per cent level		
**	significant at 5 per cent level		
*	significant at 10 per cent level		

These statistics are not based on a representative sample of the establishments covered by WIRS, that is of those with at least 25 employees. This is because WIRS over samples larger establishments so as to be able to give more reliable information about employees. The data can easily be weighted so as to be representative of establishments. There is, however, a more serious problem. WIRS only has information on hours for establishments with at least five employees in a particular category, such as unskilled manual. This exacerbates the bias in the sample towards larger establishments and also introduces a new bias. Establishments which have a high proportion of a particular category of employees will be over-represented in that category. Weighting the data to take account of the deliberate over sampling of larger establishments still leaves the union sector with a significantly negative effect on both total and actual hours if the three manual categories are taken together. Yet, the apparent union effect on basic hours becomes insignificant for semiskilled workers, while increasing for the basic hours of unskilled manuals. So, with the exception of the basic hours of semiskilled workers, the apparent union effect on hours cannot be a reflection of the higher level of union recognition in larger establishments.

The British Household Panel Study provides information on the hours of a representative sample of employees. Tables 8.3 and 8.4 break down usual average total and basic hours for employees according to whether there is a recognised union at their workplace.

Table 8.3 Total Hours of Full-time Manual Workers in BHPS 1991

	Skilled	Semi/Unskilled
No Recognition	41.2	40.9
Union Recognised	38.8	39.7
Difference	2.5***	1.3**

Table 8.4 Basic Hours of Full-time Manual Workers in BHPS 1991

	Skilled	Semi/Unskilled
No Recognition	39.0	39.1
Union Recognised	36.6	37.6
Difference	2.3***	1.6***

There are many reasons why BHPS might produce different results from WIRS. It, for example, covers employees in all establishments. The smaller establishments excluded from WIRS employ one quarter of all employees. It is not surprising that BHPS shows lower average hours than WIRS. WIRS gives information on typical employees in larger establishments. Employees working less than average hours are atypical and so are only represented in proportion to their numbers in BHPS. Nonetheless, in terms of the effect of union recognition the information employees gave BHPS is broadly consistent with that which managers at establishment level gave WIRS. For all manual categories union recognition is associated with shorter total and basic hours. In both surveys unions have the greatest apparent influence on the actual hours of skilled workers. WIRS, however, suggests that the effect on the basic hours of skilled workers is relatively small so that the union effect is to reduce overtime. BHPS indicates that unions lower basic hours of skilled workers nearly as much as they lower actual hours. BHPS shows a more significant effect of union recognition on the hours of unskilled and semiskilled workers than WIRS. This is not surprising in view of the small number of workplaces without union recognition in the WIRS sample. In both surveys unions apparently affect the hours of skilled workers more than the hours of unskilled and semiskilled workers.

Unions negotiate basic hours rather than total hours (see Section 1.6). So, it is natural to look more closely at basic hours to see whether simple statistics can reveal more about the union effect on working hours. For example, there may be some sign whether unions lower hours across the board or whether they primarily impose standard hours. Table 8.5A gives the

distribution of basic hours of skilled manual workers from WIRS. Unlike the earlier Tables part-time workers are included. The apparent union effect is most marked on the 40-hour week which, even including part-timers, is less than half as common where unions are recognised. There is clearly some link between union recognition and shorter hours. However, hours between 30 and 35, the full-time category with the lowest hours, are an exception. This, like the higher incidence of part-time working in the non-union sector, may be due to less recruitment of workers with short hours into unions rather than to a union effect on hours. The Table indicates that unions contribute both to a new level of standard hours, 39 hours rather than 40, and to reductions in hours below the standard.

Table 8.5A Basic Hours of Skilled Manual Workers in WIRS 1990

	No Recognition Percentage	Union Recognised Percentage
30 hours or under	8	3
31 to 34 hours	7	4
35 to 37 hours	12	18
38 hours	5	14
39 hours	39	47
40 hours	24	10
<u>41 hours or over</u>	<u>5</u>	<u>4</u>
Sample size	76	799

Tables 8.5B and 8.5C give the same information as Table 8.5A but for semiskilled and unskilled workers. Part-time working is more common for these workers, particularly in the non-union sector. This needs to be taken into account in interpreting the Tables. For example Table 8.5C shows that for unskilled workers the 39-hour week is 8 per cent more common in the union sector. Yet, if the comparison is restricted to full-timers, the 39-hour week is actually more common in the non-union sector. Unions again seem to produce a marked reduction in the frequency of the 40-hour week for full-time workers, but this is less marked for unskilled workers.

Table 8.5B Basic Hours of Semiskilled Manual Workers in WIRS 1990

	No Recognition Percentage	Union Recognised Percentage
30 hours or under	10	4
31 to 34 hours	3	4
35 to 37 hours	20	19
38 hours	5	14
39 hours	39	48
40 hours	20	10
<u>41 hours or over</u>	<u>3</u>	<u>5</u>
Sample size	61	682

Table 8.5C Basic Hours of Unskilled Manual Workers in WIRS 1990

	No Recognition Percentage	Union Recognised Percentage
30 hours or under	36	15
31 to 34 hours	2	3
35 to 37 hours	10	16
38 hours	7	11
39 hours	33	41
40 hours	11	8
<u>41 hours or over</u>	<u>2</u>	<u>5</u>
Sample size	101	835

Tables 8.6A and 8.6B present similar information from BHPS. The proportion of skilled workers in the non-union sector with basic hours of 41 or more is much higher than in WIRS. This is clearly why skilled workers' basic hours in the non-union sector are nearly the same in both surveys (compare Tables 8.2 and 8.4) while BHPS otherwise shows hours at least two less than WIRS (see also Tables 8.1 and 8.3). Contractual overtime is a possible explanation of the higher incidence of long basic hours in BHPS. Employees may make little distinction between contractual overtime and basic hours, particularly if, as may occur in the non-union sector, overtime does not attract a premium rate. BHPS first asked employees for their usual total hours and then asked them how much overtime they normally worked. Employees might not have included overtime paid at their usual hourly rate, although the question was intended to capture all forms of overtime, paid and unpaid. Managers and employees, particularly in the non-union sector, may report the same information differently where contractual overtime does not attract a premium rate. Catherine Marsh similarly notes

that the EOC survey (see Section 1.5), like BHPS an employee survey, shows a higher incidence of basic hours in excess of 40 a week than surveys of employers (1991: 19).

Table 8.6A Basic Hours of Skilled Manual Workers in BHPS 1991

	No Recognition Percentage	Union Recognised Percentage
30 hours or under	25	28
31 to 34 hours	14	20
35 to 37 hours	14	22
38 hours	4	6
39 hours	12	17
40 hours	17	4
<u>41 hours or over</u>	<u>14</u>	<u>3</u>
Sample size	225	238

Table 8.6B Basic Hours of Semi/Unskilled Manual Workers in BHPS 1991

	No Recognition Percentage	Union Recognised Percentage
30 hours or under	60	46
31 to 34 hours	8	13
35 to 37 hours	9	14
38 hours	1	5
39 hours	5	11
40 hours	11	5
<u>41 hours or over</u>	<u>6</u>	<u>7</u>
Sample size	464	506

Unions are also linked with shorter hours in a much larger data-set drawn by Oswald and Walker from the Family Expenditure Surveys of 1979-86 (1993: 9). This data set, covering 15,774 manual men aged between 21 and 64 with basic weekly hours over 20, also shows that 38 and 39 hour basic weeks are more common for union members and 40-hour weeks for non-members. Table 8.7 shows average basic and total hours according to union status.

Table 8.7 Hours of Male Manual Workers, Family Expenditure Surveys, 1979-86

	Basic	Total
Non-members	40.9	45.1
Union members	39.7	44.0
Difference	1.2	1.1

The difference union status makes to both the basic and total hours of these male workers is rather less than indicated by the BHPS for all manual workers with basic hours over 30 (see Tables 8.3 and 8.4). Yet, if the BHPS sample is restricted to male workers and extended to include those with a basic week between 20 and 30 hours, the difference in the size of union effects is very much less than comparing Tables 8.3 and 8.4 with Table 8.7 suggests. For total hours there is virtually no difference in the size of union effects. For basic hours the apparent union effect is still somewhat larger, 1.9 as opposed to 1.2 in the Table. The important point is that the three data sets considered, BHPS, WIRS and FES, all indicate that both basic and overtime hours are appreciably less where unions are recognised or have membership.²

The simple statistics set out in this Section suggest that unions reduce hours, particularly for skilled workers. Of course, if other factors, such as industry, are taken into account, the apparent union effect may be much less. The sample sizes, particularly the limited number of non-union establishments in WIRS, require more sophisticated techniques for this to be investigated.

8.3) Economic theory on hours of work

The simple neoclassical model of labour supply is the obvious starting point.³ It explains the supply of weekly hours in terms of pay and individual characteristics, but ignores all other dimensions of labour supply (see Section 1.3). Data limitations probably explain the continued popularity of the model among economists for empirical work. If more

² Andrews and Simmons report a study of the New Earnings Survey panel from 1975 to 1990. Over this period the difference in total hours according to union status fell from about one hour to zero while the difference in basic hours rose. Union status is coverage by national bargaining, which as they observe is a 'suspect measure' (1994: 4). See Section 3.9 for the decline in national bargaining.

³ This is how Deaton and Muellbauer (1980) label the model. Pencavel (1986) calls it the canonical model.

comprehensive data on labour supply were available, a life-cycle framework would be appropriate.

A worker's utility, U , increases with weekly wages, W , with leisure, ℓ and declining with weekly hours of work, h . The relative value the worker places on wages and leisure depends on personal characteristics, represented by the vector, X :

$$U = U(W, \ell, h, X) \quad (U_w > 0, \quad U_\ell > 0, \quad U_h < 0). \quad (1)$$

The worker chooses hours of work so as to maximise utility. This involves a trade-off between weekly wages and leisure. The more leisure, the fewer hours worked and the lower wages. There is just one constraint on the worker's choice of weekly hours in the simple neoclassical model. This is the time identity, the fact that leisure and hours of work must sum to the total time endowment. Of course, the time identity can more be simply be used to substitute out hours of work from the utility function, as Deaton and Muellbauer do, or to substitute out leisure as Pencavel does. The version given as equation (1) is used by Layard and Walters (1978). It has the advantage of making clear that working hours affect utility through the loss of leisure time as well as through the disutility of work.

The analysis in this Chapter makes use of two additional constraints. These are that the full-time workers cannot work less than their basic hours, b , or more than the maximum weekly hours, m , which their employers offer.

$$h \geq b \quad (2)$$

$$h \leq m \quad (3)$$

8.4) Overtime and the theory of hours of work

Overtime is only distinguished from basic hours in the simple neoclassical model because it is paid at a premium rate. Employers provide workers with whatever weekly working hours they wish to supply. Where overtime is considered separately from basic hours, it is normally explained in terms of labour demand by employers (for example, Ehrenberg, 1971). Workers accept whatever overtime employers offer. Models in which unions negotiate hours of work tend to assume that actual hours are negotiated (see Earle and Pencavel, 1990, and Oswald and Walker, 1993). Section 1.6 is critical of this assumption.

The approach in this Chapter is to see overtime as a bridge from basic hours, which are union influenced, to actual hours, where individual choice is more important. While unions have no role in relation to actual hours, they influence overtime in three ways. First, they negotiate basic hours. Secondly, they also bargain over premia for overtime. Thirdly, unions influence how much overtime individuals chose through pay effects.

About half the manual workforce works no overtime in any week. The distribution of actual working hours is truncated at basic hours. This can only be explained by a constraint or a 'badly behaved' utility function, which does not comply with the axioms of continuity or non-satiation. Yet, empirical estimates of labour supply do not generally include the constraint that hours are no less than basic hours. Kahn and Lang observe: 'Relatively little empirical work has been devoted to labour supply models with constrained hours' (1991, 605). Lack of information on basic hours in the data sets used to analyse labour supply may explain why such an obvious constraint is ignored.

The information in this thesis strongly suggests that, where collective bargaining exists, it is a powerful influence on basic working hours. Actual hours reflect individual choice more closely. Fortunately, a data set is available which enables a model with these features to be estimated. The British Household Panel Study, described in more detail in Section 8.8, contains a wealth of individual characteristics, information which enables basic hours to be calculated and employee preferences over working hours. The BHPS, however, suggests that the theory should be modified in one respect. Substantial numbers of employees with basic hours well below standard basic hours report that a trade union is recognised for negotiating pay or conditions 'for the people doing your sort of job in your workplace'. Unions negotiate the same basic hours for all employees in a particular category. Where individuals have different basic hours, this is generally not the result of union negotiation. Union membership is much less common among those with shorter basic hours.⁴ There is more scope for individual choice where hours do not conform to a standard. So, unions are less likely to reduce the basic hours of employees who work less than standard basic hours. Indeed, unions may resist very short basic hours and so increase the average hours of employees working less than standard hours.

⁴ In the sub-sample of the BHPS used for analysis 27 per cent of employees with basic weekly hours below 30 belonged to a recognised union. Membership was 40 per cent for those with basic hours of 35 or more.

8.5) What reduced basic hours do to actual hours in theory

The worker's utility has already been defined as:

$$U = U(W, \ell, h, X) \quad (U_w > 0, \quad U_\ell > 0, \quad U_h < 0). \quad (1)$$

This can be simplified by using the time identity to eliminate ℓ .

$$U = U(W, h, X) \quad (U_w > 0, \quad U_h < 0, \quad U_{hh} < 0). \quad (1')$$

Weekly earnings, W , depend on weekly working hours, h . They are made up of earnings during basic hours plus any overtime earnings, that is

$$W = w.b + w.(1 + p).(h - b) \quad (4)$$

where w is hourly earnings during basic hours, b basic hours and p the premium for overtime earnings expressed as a fraction of hourly earnings during basic hours. The identity can be rewritten more simply as:

$$W = w.(h + (h-b).p) \quad (4')$$

Substituting (4') in (1') gives:

$$U = U(w.(h + (h-b).p), h, X) \quad (1'')$$

The worker's choice of weekly hours maximises this function subject to the two constraints, equations (2) and (3), that is $b \leq h \leq m$. To avoid multiple equilibria marginal disutility of working hours must be increasing, at least when hours exceed basic hours
i. e. $U_{hh} < 0$ for $h \geq b$.

The solution to the maximisation problem is of the form:

$$h = h(b, w, p, X) \quad \text{for } b \leq h \leq m \quad (5)$$

Totally differentiating the utility function (1") with p held constant:

$$dU = U_w[w(1+p)dh - pdb + \{h + (h-b)p\}dw] + U_bdh \quad (6)$$

For a worker whose choice of hours is unconstrained $\frac{dU}{dh} = 0$ and

$$\frac{dh}{db} = \frac{U_w \cdot w \cdot p}{U_b + U_w \cdot w \cdot (1+p)} - \frac{U_w \cdot [h + p \cdot (h-b)]}{U_b + U_w \cdot w \cdot (1+p)} \frac{dw}{db} \quad (7)$$

Equation 7 gives the comparative statics of a change in basic hours. There are two cases which will be considered. The first is where hourly earnings, w, are unaffected by a reduction in basic hours. The second term on the right-hand side of equation (7) then disappears giving

$$\frac{dh}{db} = \frac{U_w \cdot w \cdot p}{U_b + U_w \cdot w \cdot (1+p)} \quad (8)$$

The other case involves constant weekly earnings. Then, $\frac{dw}{db} = -\frac{w}{b}$

Substituting this into equation 7:

$$\frac{dh}{db} = \frac{U_w \cdot w \cdot p}{U_b + U_w \cdot w \cdot (1+p)} + \frac{U_w \cdot w \cdot [h + p \cdot (h-b)]}{[U_b + U_w \cdot w \cdot (1+p)]b} \quad (9)$$

This simplifies to:

$$\frac{dh}{db} = \frac{U_w \cdot w \cdot h \cdot (1+p)}{[U_b + U_w \cdot w \cdot (1+p)]b} \quad (9')$$

Equations (8) and (9) show how changing basic hours affects an unconstrained worker's choice of working hours. Reduced basic hours always increases earnings for an unconstrained worker even where the hourly wage is unaffected. If the worker continues to work the same hours as before the reduction, weekly pay is higher because more time is paid

as overtime. Alternatively, the worker could opt for unchanged earnings and reduced hours. The process of optimisation implies a trade-off between increased earnings and reduced hours. So, earnings must rise and hours must fall.

The alternative case is a reduction in hours with no change in weekly basic earnings. From equations (8) and (9') it is clear that reducing basic hours with no change in weekly basic earnings affects hours worked by $h.(1 + p)/b.p$ times as much as when basic hourly pay is unchanged. $h.(1 + p)/b.p$ represents the ratio of the 'full income' effects of the reduction in basic hours. If actual hours are unchanged, the effect of reduced hours on weekly earnings is $h.(1 + p)/b.p$ times as much with constant basic weekly pay as with constant basic hourly pay. The functional form of the utility function does not affect the relative effect. The terms relating to marginal utility cancel out when the relative effect is calculated. The differential equations reflect marginal effects. So, the change in marginal utility is proportional to the 'full income' change. The effect of the change in 'full income' on marginal utility is second order and so disappears. That is why the functional form of the utility function is irrelevant.

Reducing basic hours with unchanged basic weekly pay has a much greater effect on the choice of hours than where basic hourly pay is unchanged. For example, for a worker who before the reduction chooses to work no overtime and has an overtime premium of one third, the effect is four times as large.⁵ If the overtime premium is one half, the effect is three times as large.

Empirical studies of labour supply suggest quite a small effect on actual hours when basic hours are reduced with no change in basic weekly pay. The average UK estimate of the uncompensated wage elasticity of labour supply of men is -0.16 (Pencavel, 1986: 73). This means that working hours fall by 0.16 per cent when hourly pay increases by one per cent. For the worker whose initial choice is to work no overtime and whose overtime premium is one half, 'full income' increases by $1\frac{1}{2}$ per cent if basic hours fall by one per cent. With unchanged hours basic weekly pay is the same, but one per cent of hours are paid as overtime at a premium of one half. A reduction of one per cent in basic hours with no change in basic weekly pay results in a fall in actual hours of 0.24 per cent ($0.16 \times 1\frac{1}{2}$). So, every hour taken off basic hours, with unchanged hourly pay, should result in a reduction of about

⁵ In this case $h.(1 + p)/b.p = 40.(1 + \frac{1}{3})/40.\frac{1}{3}$.

15 minutes in actual hours and an increase in overtime of 45 minutes. This, of course, assumes that workers are free to work the overtime they want.

Significant numbers of workers may be constrained by basic hours to work longer hours than they would like (see Section 1.5). Such workers cannot reduce their hours when real incomes rise, unless there is also a fall in basic hours. This means that workers who are able to reduce their hours do so by more than the empirical estimates of the elasticity of labour supply suggest. If one third of workers are constrained by basic hours, a one-hour fall in basic hours leads workers who wish to work overtime to reduce their actual hours by 22½ minutes. Two-thirds reducing their actual hours by 22½ minutes while the constrained third work the same basic hours produces the average reduction of 15 minutes. A fall in basic hours leads to an exactly corresponding fall in actual hours for constrained workers.⁶ If one third of workers reduce their hours in line with a one-hour reduction in basic hours and the other two-thirds work 22½ minutes less, average hours worked fall by 35 minutes. So, if constraints are widespread, the neoclassical approach suggests that reducing basic hours with no loss of pay affects actual hours quite significantly.

There is considerable evidence that in practice hours are reduced with no effect on hourly pay (see Section 7.5). In this case, the analysis in the previous paragraph must be adjusted. The unconstrained workers then work 7½ rather than 22½ minutes less, assuming an overtime premium of one half. As already shown, with an overtime premium of one half, a reduction with no loss of pay has three times the effect on the unconstrained choice of hours as a reduction which leaves hourly pay unchanged. So, when hourly pay is unaffected, reducing the basic week by one hour should lower average actual hours by 25 minutes.

The theoretical effects on actual hours of reductions in basic hours cannot readily be tested. They are derived by considering the effect in isolation. This is clearly essential for analytical purposes. Yet, when the implications of the theory are compared with reality, other factors need to be taken into account. The principal factor affecting working hours in the neoclassical approach is real hourly income. If this is rising by 2 per cent a year, an elasticity of labour supply of -0.16 implies a fall in working hours every decade of 3.5 per cent. In

⁶ Some workers will no longer be constrained by the new basic hours and will reduce their hours by less. Equally, when incomes rise some unconstrained workers become constrained and are unable to reduce their hours as much as they would like. The analysis in the text neglects both groups.

terms of weekly hours the fall is about 1½ hours a decade, very much in line with the trend in actual and basic hours in the post-War period.

Stephen Nickell argues that reduced actual and basic hours are both caused by rising real income (see Section 1.3). The analysis in this Section shows that basic hours do affect actual hours. This reflects the assumption that one third of workers are constrained. Yet, this assumption is not necessary to explain aggregate movements in actual hours using the elasticity of labour supply estimated from individual, cross-sectional data. Of course, it may just be a coincidence that estimates of the elasticity of labour supply are consistent with movements in aggregate actual and basic hours. Alternatively, as suggested in Section 1.3 there may be some mechanism independent of individual preferences which accounts for the relationship between actual and basic hours. Still, the fact that aggregate actual hours can be explained using estimates of the elasticity of labour supply from individual data supports the neoclassical explanation of reduced working hours. Like the support the simple statistics in Section 8.2 give the institutional view this is suggestive rather than definitive.

8.6) Bargaining over basic hours

Until now hourly earnings, basic hours and the overtime premium have been taken as given in the worker's labour supply decision. They are, however, the outcome of bargaining if the worker's employer negotiates with a union.

The union's 'utility function' or maximand, M , may be written:

$$M = M(w, b, p) \quad (M_w > 0, M_b < 0, M_p > 0) \quad (10)$$

Since the model being developed does not cover employment, the employer's profit function can assume constant returns to scale and be written in terms of profits per worker as:

$$\Pi = f(h) - W \quad (11)$$

Substituting for W from 4'

$$\Pi = f(h) - (h + p.(h - b)).w \quad (11')$$

This produces a Nash bargaining maximand:

$$\Omega = M^\beta \cdot \Pi \quad (12)$$

where β is a measure of union strength.

Substituting from (10) and (11') for M and II and taking logs gives:

$$\ln \Omega = \beta \ln M(w, b, p) + \ln[f(h) - (h + p.(h - b)).w] \quad (11')$$

The first order conditions which determine the three negotiated variables are:

$$\frac{\partial \ln \Omega}{\partial M} = \frac{\partial \ln M}{\partial M} + \frac{\partial \ln[f(h) - (h + p.(h - b)).w]}{\partial M} = \frac{\beta}{M} + \frac{h + p.(h - b)}{M} = 0 \quad (12)$$

$$\frac{\partial \ln \Omega}{\partial \Pi} = \frac{\partial \ln M}{\partial \Pi} + \frac{\partial \ln[f(h) - (h + p.(h - b)).w]}{\partial \Pi} = \frac{1}{\Pi} - \frac{w}{\Pi} = 0 \quad (13)$$

$$\frac{\partial \ln \Omega}{\partial p} = \frac{\partial \ln M}{\partial p} + \frac{\partial \ln[f(h) - (h + p.(h - b)).w]}{\partial p} = \frac{h - b}{p} + \frac{(h - b).w}{p} = 0 \quad (14)$$

In addition an employer will not offer overtime if the value of the output obtained by so doing is no less than the additional costs involved. So, there is an additional constraint on working hours, which is obtained by differentiating (11'):

$$f'(h) \geq (1 + p).w. \quad (15)$$

This condition enables the maximum hours, m, the employer is prepared to offer to be calculated from the production function.⁷ It applies in the absence of union bargaining. The three variables determined by bargaining will be fixed by the employer subject to the constraint that workers of the desired quality derive no less utility from their employment than they would from the alternatives available to them in the labour market. In terms of observable variables equations (12) and (14) will be very much the same as when there is bargaining. Proxies for union power should have the effect of increasing hourly earnings and reducing basic hours. Equation (13) is rather different since basic hours do not appear (or appear only weakly) in the utility function of those workers whose desired hours exceed their basic hours. So, the basic hours equation should be less well defined in the non-union sector.

⁷ This statement is a considerable simplification. How much overtime employers offer will be affected by the proportion of workers who will agree to work it as this will affect the profitability of keeping production going for longer hours.

This is not surprising as, other than for basic hours, the union maximand can be expressed as an aggregation of individual workers' utility functions.

Equation (5), subject to the constraint imposed by equation (15), determines the hours which are actually worked. These equations are the same whether or not there is bargaining. Where desired hours exceed basic hours, unions only affect actual hours indirectly through their effects on hourly earnings and overtime premia.

8.7) Estimation of equations from the model

Three equations from the model whose parameters can be estimated are:

$$h = b + o(w, p, X) \quad (16)$$

$$b = b(w, X, Y, U) \quad (17)$$

$$p = p(w, X, Y, U) \quad (18)$$

where o is overtime, constrained to be non-negative, Y is a vector of establishment characteristics and U a vector of measures of union power.

In the model basic hours, b , overtime premia, p , and hourly earnings in basic hours, w , are determined simultaneously. However, constraints on hours affect hourly earnings. As Pencavel observes: 'Individuals will gravitate towards those employers who fix working hours close to workers' preferences while employers who stipulate unpopular hours will tend to experience difficulties in recruiting or retaining workers. In this manner, the wage rate will respond to these variations in the supply of workers to different employers and compensating wage differentials will arise. It would be an error, therefore, to estimate market equilibrium models in which workers are characterised as being constrained to work the number of hours mandated by their employers without at the same time treating the wage rate paid to these workers as jointly determined' (1986: 41). This point is hard to take into account when using BHPS data. Suitable instruments are not available. So, hourly earnings have to be omitted from the hours equations. Fortunately, hourly earnings are insignificant

when included in the regressions.⁸ This means that the results are less likely to confuse the direct effect of unions on hours with their indirect effect through higher earnings. With the WIRS data hourly earnings can be instrumented.

8.8) The data sources

The ideal source of data with which to test the theory and estimate the effect of unions on working hours would combine the workplace information and individual characteristics, that is components of both vectors, Y and X. The theory indicates that workplace information, such as details of trade union organisation, determines basic hours while individual characteristics, such as family circumstances, decide total hours. Reality, however, falls short of the ideal. So, the empirical work is based on two data sources, the British Household Panel Study (BHPS), which is strong on individual data, and the Workplace Industrial Relations Survey 1990 (WIRS), which is the best source of workplace information.

It is virtually impossible to disentangle the roles of individual characteristics and institutional features in deciding hours of work.⁹ The reason for this is that workers have chosen to take and retain their jobs. 'Thus it is likely that there is a fairly general tendency in operation for the labour forces of particular enterprises to become to some degree homogeneous, in terms of their members' orientation to work, as a result simply of a process of self-selection' (Goldthorpe et al., 1968: 183). This self-selection process means that in practice both institutional features and individual characteristics are likely to be important in regressions which attempt to explain basic and total hours of work. So, there is little prospect of a conclusive test of the theory through showing that institutional features alone explain basic hours while total hours are explained by individual characteristics only. In any event there is no source of data which would enable the theory to be tested in this way.

BHPS is, as its name suggests, a household panel study. It provides some information on establishment characteristics, including union recognition, industry, size of workforce and sexual segregation. The analysis uses data only from the first wave of interviews in the last

⁸ Hourly earnings remain insignificant when their effect is allowed to vary with union recognition, as in Oswald and Walker.

⁹ Panel data from the BHPS may enable investigation of the causal role of individual characteristics.

three months of 1991. These involved 5,538 households and 10,264 adults, of whom 9,912 were interviewed. There were 5,337 employees, but one sixth of these have had to be excluded from the analysis because they report regularly working unpaid overtime.¹⁰ Further, basic hours cannot be calculated for almost one tenth of the employees without unpaid overtime. This is mainly because, when asked how much overtime they usually worked, they indicated that overtime was inapplicable to them. The basic weekly hours of one half of the remaining 4,095 employees were below 35. Nearly one third had basic hours below 30. Unions probably have little role in determining such short basic hours, as mentioned in Section 8.4. Some 40 per cent of the 4,095 with no unpaid overtime regularly worked paid overtime.

The 566 employees who usually worked some unpaid overtime have to be excluded from the analysis, although they are a significant proportion of the 2,146 who usually worked overtime. The theory supposes that employees would always work fewer hours if their income were unaffected. Regular unpaid overtime might be compulsory, but this would destroy the distinction between basic and total hours.

WIRS provides detailed data on 2,061 establishments with at least 25 employees. This includes some information relating to individual employees to whom the theory should be applicable, namely the weekly earnings, total hours and overtime hours of the worker with median earnings in up to three manual categories. The worker on median earnings for a particular occupational category is probably reasonably representative of that category. This increases the importance of the point already made that self-selection means that institutional features will be related to workplace characteristics. So, establishment information should provide a particularly good proxy for individual characteristics. However, as mentioned in Section 8.2, information on hours and earnings was only collected where there were at least five workers in the occupational category. This reduces the number of observations considerably. For semiskilled workers only 990 establishments report hours and earnings information.

¹⁰ 889 employees worked regular unpaid overtime. This figure is the number who worked some overtime and who did not report the same number of regular hours of paid overtime. Unpaid overtime is incompatible with the theory developed in Section 6.6. This assumes that overtime is voluntary and that workers would always work fewer hours if they could do so for the same weekly pay. If compulsory, unpaid overtime undermines the distinction between basic and total working hours. There is no need for the theory to cover all employment. It is clearly limited to those who are eligible for paid overtime. So, the exclusion of a number of employees from the analysis is only a cause for concern if it creates estimation problems.

Neither data set provides information on overtime premia.¹¹ This makes it impossible to estimate the effect of unions on overtime premia. Overtime premia have an ambiguous effect on hours worked. Higher premia increase pay for additional hours, so leading workers to wish to work longer. They also increase the cost of additional hours to employers who will be less willing to offer overtime. The constraint in equation (15) specifying the maximum number of hours offered will be binding at lower hours. So, the inability to take account of the influence of unions on overtime premia could make the estimate of the union effect on working hours too low as well as too high.

8.9) The basic hours equation

Equation (17), the basic hours equation, can be estimated as it stands from both the BHPS and WIRS data.

$$b = b(w, X, Y, U) \quad (17)$$

For the BHPS the endogeneity of hourly earnings may be a problem. However, as nothing can be done about this, hourly earnings are simply omitted from the hours equations. The high proportion of workers with short basic weekly hours creates another difficulty in estimating union effects. Unions do not negotiate the hours of these workers. They may, however, influence their average hours by discouraging employers from making use of some forms of part-time work. If part-time work is not distinguished from full-time work, union recognition does not have a statistically significant effect on hours. This result is misleading as it conceals two opposite effects. If the explanatory variables are allowed to take different values according to whether hours are above or below a particular threshold, the apparent absence of any effect of union recognition on basic hours is seen to disguise two opposing effects (see Table 8A.1). Union recognition reduces basic hours where these are at least 35 a week, but increases them where basic hours are less than 35. The latter result is probably misleading. Union recognition is less likely where part-time working is common. So, causation is probably the reverse of that suggested by the regression. In other words for part-

¹¹ Where overtime is worked, hourly earnings for basic hours are unknown. An equation explaining the hourly earnings of workers not working overtime could be used to estimate the hourly earnings for basic hours of workers working overtime. The overtime premium could then be calculated. It would, however, be necessary to assume that the same equation describes hourly earnings whether or not overtime is worked.

time workers short basic hours may cause low union recognition and not vice versa. 35 hours was chosen as the dividing point on the basis of experimentation.

For workers with weekly basic hours of at least 35, the union effect is well defined, as is shown in the first column of Table 8A.1. The best estimate is that union recognition reduces the basic working week by two hours. If basic hours are 40 in the non-union sector, the natural logarithm of basic hours is 8.30. Subtracting 0.06 and taking anti-logs gives a figure of 38.0 hours. Two hours is far from a precise estimate. The lower limit of the 95 per cent confidence interval is 0.7 hours. So, the chance that unions have reduced the hours of workers covered by the data set by at least 0.7 is 39 in 40. This is very strong evidence that unions significantly reduce basic hours of work.

The WIRS results for skilled workers, reported in Table 8A.2, also show that union recognition reduces basic hours.¹² The coefficient on the union recognition variable is smaller and less well defined than with the BHPS data, but it is still significant at the two per cent level. It is, however, only just significant at the 10 per cent level when the proportion of the manual workforce who are unionised is excluded from the regression. The effect of the proportion unionised is not as predicted by the model. Controlling for recognition, the proportion unionised increases basic hours and is significant at the 6 per cent level. This seems inconsistent with the theory. The more powerful unions are the more they should reduce basic hours. The effect of strong unions, as indicated by the proportion of workers unionised, is, however, consistent with Whybrew. He placed great emphasis on the difference in attitudes to working hours between the national union leadership and their members, including union representatives at establishment level (1968, paragraph 133). Union members may attach less priority to reduced basic hours as a bargaining objective than their national leadership. More strongly unionised workers, who when negotiating with employers depend less on support from the union outside their establishment, may have their priorities more closely reflected in the outcome of negotiations.

¹² The equation excludes 46 of 1,094 observations which could have been used. 20 reported total hours of skilled workers below 35 and 26 gave total hours of 60 or more. This does not cause the statistical problems which excluding short basic hours from the BHPS equations would cause. Only a few outliers from each end of the distribution are excluded, rather than half the sample. Hours of 60 or more are less common in BHPS than in WIRS, possibly because WIRS includes North Sea oil and gas fields.

Table 8A.2 shows that the equation for basic hours, which does not perform too badly in the unionised sector breaks down in the non-union sector. This is consistent with the theory, which explains basic hours by bargaining. In the non-union sector variables which affect the outcome of bargaining can have only an indirect effect. So, they should be important in regressions in the non-union sector.

8.10) Results of the total hours or overtime equation

Equation 16 cannot be estimated as it stands because neither data set contains information on the overtime premium, p . Since the distribution of hours is closer to log-normal than normal, equation 16 can be rewritten, using equation 18 to substitute for p :

$$\ln(h) = \ln(b) + \alpha(w, X, Y, U) \quad (19)$$

Subtracting $\ln(b)$ from each side of the equation gives an equation for log overtime.

$$\frac{\ln(h - b)}{b} = \alpha(w, X, Y, U) \quad (19')$$

Observations are censored. Actual hours, h , cannot be less than basic hours, b .

The third columns of Tables 8A.1 and 8A.3 give the results of censored regressions for the above equation. The BHPS results in Table 8A.1 indicate that union recognition only affects total hours through its effect on basic hours. In other words, although unions reduce basic hours, overtime is the same as it would have been without this union effect. Ehrenberg (1971), using data from the United States, also found that unions did not affect overtime. The theory outlined in Section 8.5 suggests that the elasticity of total hours with respect to basic hours is less than one, that is that actual hours do not fall in line with reductions in basic hours. Accordingly, unions would be expected to increase overtime. This, however, does not take account of the wage effect of unions which should reduce the hours workers covered by bargaining choose to work. Yet, it is not obvious that this wage effect would exceed the effect of higher overtime premia which are a more direct influence on overtime. The WIRS results in Table 8A.3 indicate that unions actually reduce overtime. These results control for earnings and so are more likely to pick up the effect of higher overtime premia. Possibly, the BHPS results overstate the effects of unions on basic hours, and, as a result, obscure a

negative union effect on overtime. The analysis of the distribution of basic hours in Section 8.2 suggests some over reporting of basic hours in the non-union sector.

The WIRS results exclude establishments where managers reported that in relation to their current premises and equipment their establishment was working considerably below capacity. It is not possible to treat workers in these establishments as working fewer hours than they would like, that is to regard their observed hours as being right-censored in relation to their desired hours. There is no information on whether these establishments were working below capacity in relation to their employment or in relation to capital. More important, it is possible that workers are unable to work the level of overtime they desire and which they would be working were their establishment not below capacity. Where no overtime is worked, left-censorship, that is workers being compelled to work basic hours in excess of their desired hours, is a third possibility. So, there is no alternative but to exclude establishments working below capacity.

In Table 8A.3 the first column is included solely to show the effect of instrumenting hourly pay. This was done by treating as exogenous regional, payments-by-results and below-capacity-working dummies, and local labour market information, namely registered male and female unemployment and vacancies. The explanatory variables in the hours equation, other than hourly earnings, were also used as instruments. Surprisingly in view of the well-established relationship between establishment size and pay, total manual employment did not improve the adjusted R^2 when used as an additional instrument. The third and fourth columns split the sample into two according to whether management report recognising a union for bargaining over terms and conditions of employment.

A natural interpretation of the coefficient on log basic hours is the elasticity of total hours with respect to actual hours. The BHPS results in Table 8A.1 strongly reject the hypothesis of unit elasticity. This is only true of some of the WIRS results in Table 8A.3. Yet, the WIRS coefficients are much less well defined. So, the fact that the WIRS analysis does not generally enable the hypothesis of unit elasticity to be rejected is of limited significance. The elasticity of actual hours with respect to basic hours is consistent with the theory.

Table 8A.3 indicates that total hours are much more responsive to basic hours in unionised than in non-unionised establishments. The coefficient on log basic hours in the third column,

the union equation, is much more than that in the fourth column, the non-union equation. If all establishments reporting below-capacity working are excluded from the analysis, the effect of basic hours on total hours in the union sector becomes smaller, while it rises in the non-union sector. The effect of removing below capacity establishments in the union sector is somewhat paradoxical. Where establishments are below capacity, overtime is less likely to be worked and total hours should closely reflect actual hours. It is possible that overtime is less responsive to demand in the union sector. So, the evidence in Table 8A.3 does not establish that unions reduce overtime. Yet, as with the BHPS results in Table 8A.1, it is hard to escape the conclusion that unions do not increase overtime.

8.11) Significance of Results

The regression analysis goes beyond the simple statistics set out in Section 8.2. The statistics from WIRS suggest that, for skilled workers, the union effect was on total hours rather than on basic hours. The analysis shows that even for skilled workers union recognition leads to shorter basic hours and does not affect overtime.

The absence of an effect on overtime is inconsistent with the model developed in Sections 8.3 and 8.6. If unions are reducing basic hours in a way which does not reflect individual preferences, they should be associated with higher overtime. So, lower basic hours may reflect individual preferences in a way which the model does not allow. Alternatively, individual preferences may not explain actual hours. For example, demand factors may be important in the union sector because of higher overtime premia. Unions may reduce overtime by making it too expensive for employers. Unfortunately, the data do not allow investigation of such a union effect on overtime. Nonetheless, the results from two very different data sets indicate that basic hours are reduced by union bargaining and that overtime does not rise to compensate for this.

The union effect on basic hours has implications for estimates of the union effect on earnings. As Millward (1993) and Booth (1995) point out, these estimates use weekly rather than hourly earnings. The justification for this is that hours may not be accurately measured and are insignificant in the equations used to estimate the union effect. Hours should, however, be instrumented. So, Millward and Booth are right to question estimates of the union effect on earnings. The estimates are, however, likely to be too low rather than too

high as they suppose. If unions reduce working hours by about two hours a week, as the analysis suggests, a union mark-up of 7 per cent on weekly earnings is a mark-up of 12 per cent on hourly earnings.

Table 8A.1 Results from the British Household Panel Study

regression	Log basic hours	Log total hours	Log total hours
	OLS	OLS	Censored
Log basic hours	-	0.79 (99)	0.73 (73)
Basic hours at least 35			
Age/100	2.53 (6.4)	0.08 (0.4)	- 0.04 (1.9)
Age squared/10,000	- 3.16 (6.2)	- 0.11 (0.4)	0.31 (1.1)
Union recognition	- 0.06 (2.8)	- 0.01 (1.3)	* (0.1)
Responsible for child under 12	- 0.12 (3.4)	- * (0.3)	- 0.06 (2.9)
Sex segregation	- 0.04 (1.1)	- 0.01 (0.3)	0.01 (0.4)
Basic hours below 35			
Age/100	2.22 (6.0)	1.63 (9.4)	1.39 (6.7)
Age squared/10,000	- 2.56 (5.5)	- 2.11 (9.7)	- 1.96 (7.6)
Union recognition	0.08 (4.1)	0.02 (2.4)	0.03 (2.8)
Responsible for child under 12	- 0.16 (6.3)	- 0.08 (6.2)	- 0.07 (5.1)
Sex segregation	- 0.12 (8.4)	- 0.04 (8.8)	- 0.02 (4.2)
Household non-labour income	- (6.2)	- (5.1)	- (2.6)
Partner's labour income	- (2.3)	- (3.2)	- (4.0)
Short-term/temporary work	- 0.32 (11)	- 0.12 (8.4)	- 0.11 (6.4)
-			
R ²	0.58	0.60	0.95

* Less than 0.005

Notes: Household non-labour income, partner's labour income and short-term/temporary work are completely insignificant for employees with basic hours of at least 35.

t-statistics in brackets.

Table 8A.2 Workplace Industrial Relations Survey Basic Hours Equations (Two stages least squares estimation)

	All	Union	Union	Non-union
Hourly pay instrumented	-0.006 (-1.8)	-0.008 (-2.0)	-0.007 (-1.8)	-0.009 (-1.8)
Union recognised	-0.012 (-2.5)	-	-	-
Proportion unionised	0.013 (1.9)	0.012 (1.7)	-	-
Proportion skilled	-0.005 (-0.8)	-0.007 (-1.0)	-0.007 (-1.0)	-0.06 (-0.4)
Proportion female	-0.021 (-2.4)	-0.022 (-2.3)	-0.025 (-2.6)	-0.013 (-0.7)
Majority skilled male	-0.010 (-1.3)	-0.012 (-1.2)	-0.014 (-1.5)	0.0002 (0.01)
Shift working	-0.003 (-0.9)	-0.003 (-0.6)	-0.003 (-0.5)	-0.005 (-0.7)
Industry dummies				
Observations	720	535	535	185
R ²	0.10	0.13	0.13	-0.03

Notes: The proportions relate to the manual workforce.

t-statistics in brackets.

**Table 8A.3 Workplace Industrial Relations Survey Total Hours or Overtime Equations
Excluding Establishments Much Below Capacity (Total hours censored at basic hours)**

	All	All	Union	Non-union
Log basic hours	0.54 (3.4)	0.94 (4.4)	1.12 (4.7)	0.59 (1.4)
Hourly pay uninstrumented	-0.034 (-5.4)	-	-	-
Hourly pay instrumented	-	0.035 (1.5)	0.069 (2.6)	-0.017 (-0.4)
Union recognised	-0.054 (-2.5)	-0.04 (-1.6)	-	-
Proportion unionised	0.051 (1.7)	0.018 (0.5)	-	-
Proportion skilled	-0.38 (-1.5)	0.008 (0.3)	0.035 (0.9)	-0.092 (-1.3)
Proportion female	-0.17 (-4.8)	-0.093 (-2.0)	-0.028 (-0.5)	-0.18 (-2.0)
Majority skilled male	0.11 (2.9)	0.09 (2.0)	0.11 (1.7)	0.07 (1.1)
Shift working	0.051 (2.9)	0.022 (1.2)	0.054 (2.2)	-0.042 (-1.3)
Industry dummies				
Observations	752	669	492	177
Left-censored	429	369	269	100
-				
R ²	0.51	0.46	0.50	0.60

Note: t-statistics in brackets.

9) CONCLUSIONS AND POLICY IMPLICATIONS

9.1) Introduction

This final Chapter sets out the conclusions of the thesis in Section 9.2 and then examines their policy implications. The principal finding is that reduced basic hours tend to increase employment when introduced at an individual workplace. As Section 9.3 emphasizes, this does not necessarily mean that reducing basic hours in all workplaces would increase employment. Accordingly, the conclusions do not in themselves provide a basis for advocating a general reduction in working hours as a solution for unemployment. They do, however, suggest that some government support for reductions in hours at individual workplaces could increase employment. The experience of other European countries is relevant to this suggestion. Section 9.4 provides a context for considering reduced hours in other countries. The next section focuses on France, Belgium and Germany. In France and Belgium governments have supported general reductions in hours. Section 9.6 looks at the results of reduced hours in France, Belgium and Germany. Some lessons are drawn from the experience of these countries in the following Section. Finally, Section 9.8 suggests that reduced hours might have a role in UK employment policy.

9.2) Conclusions

Chapters Two to Four concentrate on the industrial relations of reduced hours in the engineering industry. National bargaining suffered what a military strategist might describe as ‘collateral damage’ through the union success in securing reduced hours. The influence of national bargaining over earnings and earnings increases had largely withered away. It is true that national bargaining ended with a bang rather than a whimper. Yet, it would be wrong to attach much significance to the demise of national bargaining. The sound and fury of the CSEU campaign were over reduced hours. The CSEU’s strategy moved working time as a bargaining issue from national to plant level. So, their adoption of the strategy marked the loss of the one remaining, significant function of national bargaining.

The rest of the thesis is concerned with the economics of reduced hours. A review of earlier research indicates that the productivity effects of reduced hours have been exaggerated. The results of earlier research are in part attributable to the methods adopted. Indeed, the contribution which questionnaires, as opposed to case studies, can make to the assessment of economic effects is questionable.

The original research carried out for the thesis and for the Employment Department indicates that, of the four economic variables which are linked with reduced hours through the definition of productivity, employment was the most affected. There is little sign that output, productivity or overtime was much changed by reduced hours. Indeed, the most powerful evidence of the employment effect is the absence of other effects.

The available information indicates that hourly pay was increased by reduced hours. Certainly, the survey of EEF-member firms suggests that the pay effect of reduced hours had not diminished by 1993. This again goes against previous research. It seems that the CSEU may actually have delivered reduced hours without loss of pay. This would inevitably tend to reduce the favourable employment effects.

The econometric analysis in Chapter Eight confirms the importance of unions in relation to working hours. The model developed in that Chapter clearly does not offer a complete explanation of working hours, despite combining elements of both individual choice and institutional control. Still, it is clear that neglecting what unions do to hours can distort downwards estimates of the union effect on earnings.

9.3) Reduced Hours and Unemployment

The findings of the studies considered in Chapters Five to Seven cannot be generalised from the plant or industry level to the whole economy. They are all very much micro-studies. As such they only indicate what reduced hours do when introduced at individual workplaces. What happens when all workplaces reduce hours at the same time could be very different. Reduced hours may increase employment at one workplace, but they can only increase employment at all workplaces if the economy has an excess supply of labour. An excess supply of labour is a necessary but not a sufficient condition. Many economists believe that unemployment is at an equilibrium despite an excess supply of labour (for example, Layard,

Nickell and Jackman, 1991). Looking at unemployment in this way, reduced hours simply reduce national income and have no long-term effect on unemployment, which returns to its equilibrium level. Even when unemployment is above its equilibrium level, reduced hours have no role. Boosting aggregate demand would be a more reliable way of reducing unemployment and would increase rather than reduce national income.

There may be a prolonged adjustment process before unemployment reaches its long-run equilibrium. Layard, Nickell and Jackman recognise that unemployment has an element of state dependence. State dependence, or hysteresis, was perhaps first explained by a more classical economist, Nassau Senior, as early as 1841. He 'found .. that periods of enforced idleness tended to undermine a workman's skill and habits of regularity' (Harris, 1972: 2/3). Hysteresis, whatever the reason for its existence, means that the equilibrium view of unemployment does not preclude the possibility that reduced hours lessen unemployment in the short and medium term. If reduced hours prevent people becoming unemployed, hysteresis means that the resulting lower unemployment can persist for some time. This suggests some limited role for reduced hours as an element of employment policy.

If the equilibrium view of unemployment is rejected, reduced hours may assume a central role in employment policy, for example Bastian (1994b), Gregg (1994) and Ormerod (1994). The 1992/94 research on its own does not provide an argument for a general reduction in hours as a means to combat unemployment. That argument would require an analysis of why unemployment exists and some consideration of other potential solutions. Such an analysis is outside the scope of this thesis.

Macroeconomic studies are an obvious way to look at the aggregate effects of reduced hours. Unfortunately, such studies do little more than reflect their initial assumptions. For example, the productivity effect of reduced hours is not estimated directly. Instead, a particular effect, based on microeconomic studies, is assumed. Weekly earnings are assumed to be left unchanged by reduced hours, although they could be estimated from a wage equation. The suitability of models of the aggregate economy for simulations of the effect of reduced hours is debateable. They do not describe labour market relationships in sufficient detail (Hart, 1989: 225). Further, the ability of such models to simulate the future path of economy, which is what they are designed to do, has often proved highly limited.

Some macro-economic results have been dismissed as 'ludicrously optimistic predictions about employment responses to hours cuts' (*ibid*). The most optimistic result was obtained in a simulation for the European Commission using the HERMES model which takes account of trade effects (Social Europe Supplement 4/91). A reduction in weekly working hours from 39 to 36 with no change in weekly pay by one industrial enterprise in twenty every year for five years in France, Germany, Italy and the UK would lead to an increase in employment in the UK of 1.3 per cent, that is of more than 300,000 (*ibid*: 29). If the UK reduces working hours in isolation the output effect is more than doubled, implying an increase in employment of 750,000. This large increase in employment from a very limited reduction in hours is a consequence of the assumption that the operating time of capital equipment rises by 15 hours when employees' working time falls by three hours.¹ Costs are actually reduced by shorter hours, which reflects the assumption that hourly productivity rises so as to offset one third of the reduction. Four-fifths of the jobs created are in enterprises with unchanged hours because of the economy's greater competitiveness (*ibid*: 117).

A number of earlier macro-economic studies covering various European countries have been reviewed by van Ginnenkin (1984) and Hart (1989). They 'seem to point firmly to the conclusion that a reduction in the standard workweek will serve, to a greater or lesser extent, to stimulate employment' (Hart, 1989: 224). The 1992/94 research suggests that the productivity effects assumed in these studies are too large. Further, the studies ignore the evidence from wage equations, using both British and international data, indicating little or no effect of reduced hours on hourly pay.

Both the 1992/94 research and the wage equations suggest that the macro-economic studies underestimate the employment effects of reductions in working hours. Yet, the significance of the 1992/94 research lies in its implications for policies against unemployment which can be implemented at individual workplaces rather than for policies which would affect all workplaces simultaneously.

¹ The authors of the study justify this assumption by the recent experience of a number of European firms, notably IBM France and BMW at its Regensburg factory, which have adopted three half-shifts of 36 hours spread over six days in place of a single shift of 39 hours. This increases plant operating time from 39 to 54 hours ($3 \times \frac{1}{2} \times 36$) (Catinat, Donni and Taddei, 1990: 162).

9.4) International Trends in Working Hours

According to an International Labour Office study, 'Reductions of working hours have tended to follow similar trends in large groups of industrial countries' (Evans, 1975). However, recent trends in the non-European members of the OECD have been rather different from those in the European members (Blyton, 1985). In the USA most observers believe that average working hours have not fallen since 1940. Coleman and Pencavel (1993) report a small fall in the hours of men with relatively little schooling while the hours of those with above average schooling have increased. Juster and Stafford, on the basis of time diaries, dispute the 'widespread public impression that work hours have increased' (1991: 479). Time diaries show a substantial fall in the weekly hours worked by American men between 1965 and 1981. Japan, despite having by far the longest working hours of any advanced industrial country, has reduced working hours by much less than Western Europe in the post-War period. Since 1988 legislation on maximum working hours has changed the situation in Japan (Takagi, 1993). The fall in working hours in Japan from the late 1970s has now caught up with that in Western Europe (OECD Employment Outlook, 1994, Table B).

In Western Europe the past twenty years have served to reinforce Evans's conclusion. Indeed, it may no longer be sensible to examine working time in a purely national context. Section 4.3 shows the influence of IG Metall of Germany on the CSEU campaign which brought about the 1989/91 reductions.

The influence of national industrial relations systems is clearly seen in how working hours are reduced. Treu (1989) observes: 'In general the various systems have used their "strongest" instrument to implement policies on working time: statutory law in France, Spain, Belgium, Japan; inter-confederal bargaining in the Netherlands and Denmark: industry-wide agreements in the Federal Republic of Germany: decentralised action in the United States and United Kingdom'. Reductions in hours, like other changes to terms of employment, are clearly achieved through industrial relations institutions.

To a lesser extent institutions may affect the results of reductions, as can be seen from TURU's account of union resistance to increased overtime in a car factory. In general the response at plant or factory level to reduced hours is not determined by industrial relations institutions (but see Bastian, 1994a, and Campbell, 1989, discussed briefly in Section 9.6,

for a contrary view). Management, for example, seldom concedes unions any real role in employment decisions except when redundancies are an issue. Unions have more influence over the terms of redundancy than on the numbers made redundant. In so far as management's response is not constrained, the effects of reduced hours are an economic rather than an industrial relations question. As such studies in other countries are very relevant to the economic issues involved.

Case studies suggest that where institutional factors influence the effects of reduced hours, they are not specific to individual countries. For example, a 1976 reduction of 2 and 2½ hours in the working week at two of the factories of Italy's second largest car manufacturer is said to have been 'hardly felt because the utilisation of time was so erratic' (Jim Conway Foundation, 1985: 82). This corresponds exactly with TURU's view of the reduction in weekly hours from 44 to 40 at one of the car plants in their study.

Worksharing, the idea that reduced hours will share out work and so reduce unemployment, has been an important motivation for government intervention on working hours in European countries where the law is the 'strongest instrument' of the industrial relations system. Studies of the consequences of reduced hours in Belgium and France, where it has been public policy to reduce hours, are of particular interest. Both countries have introduced selective measures which give employers a financial incentive to adopt some form of worksharing. Their experience here is of great relevance to the issues raised by the 1992/94 research. Looking at other countries may also indicate whether reducing hours throughout an economy has the worksharing potential which the 1992/94 research suggests the UK engineering reduction has had. The experience of Belgium and France could indicate whether the positive micro employment implications of reduced hours for worksharing can be translated into favourable macroeconomic results.

The German experience of reduced hours is also worth some attention. As in Britain unions rather than Governments have been responsible for reduced hours. Reductions in Germany in 1985 have been subject to extensive research, which, like the 1992/94 research, indicates a strongly positive effect on employment. This is an important part of the argument that the results of reduced hours depend on national industrial relations systems. Blyton (1989) puts forward a conflicting explanation. He suggests that the state of the economy affects the results of reduced hours. (See Section 9.6 for a discussion of these explanations).

Before looking at the research on reduced hours in France, Belgium and Germany it is necessary to outline how hours have been reduced in these countries.

9.5) Reduced Hours in France, Belgium and Germany

The Governments of France and Belgium acted to reduce working hours in the early 1980s as a means of reducing unemployment. The French Government was continuing a tradition which has not been notably successful (see the next Section). The policy of the Socialist Government elected in 1981 was to achieve a 35-hour week by 1985. In his inaugural address Prime Minister Mauroy stated: 'Cutting working hours constitutes by far the most effective measure against unemployment. ... It will only promote new employment if and when we really achieve the 35-hour week in 1985' (Bastian, 1994b: 132). In 1982 a Government decree introduced a fifth week of paid holiday and reduced the basic working week from 40 to 39 hours with no loss of pay for those on the minimum wage and in the public sector. Following industrial unrest President Mitterrand overruled his Employment Minister and assured private sector employees that they would also not lose pay (*ibid*: 135). It was still left to industry-level negotiations to determine the pay consequences of the decree on the 39-hour week. Only the two sectors which agreed a basic week below 39 hours introduced partial reductions in pay. In engineering there was a 38-hour week with 70 per cent wage compensation and in chemicals a 38½-hour week with 66 per cent compensation (Bastian, 1994b: 136).

These agreements and a pay freeze within three months of the decree indicated that any further move towards a 35-hour week would be on the basis of income sharing. This undermined support for the 35-hour week. Research into the 39-hour week was 'rather disillusioning'. The 35-hour week was relegated to a distant objective (*ibid*, 148). The government, however, continued to promote reduced weekly working hours through 'solidarity contracts'. These give exemptions from social insurance contributions for three years on a declining scale to enterprises which reduced working time to avoid redundancies or increase employment (Jallade, 1985). The government's aim was that solidarity contracts should result in a 35-hour week, a 5 per cent increase in employment and a 10 per cent increase in productivity (Jim Conway Foundation, 1985).

Shortly before going down to an expected defeat in the 1986 elections the Socialist Government passed further legislation on the reduction and reorganisation of working time. This legislation drew heavily on an official Report by Dominique Taddei, then a Socialist member of the National Assembly and later consultant to the European Commission. In his Report Taddei advocates what he later describes as the ‘extension of short time shift working’ or the ‘reorganisation/reduction of working time (abbreviated as RRWT)’ (Taddei, 1991: 10). The Plan involved an increase in the working time of capital as the working week was reduced towards 32 hours with no loss of pay. The legislation did lead to an agreement in the engineering industry. Otherwise, it was of no immediate practical significance. The new Government changed the law so that shift work could be extended without reducing working hours (Bastian, 1994b: 161).

In the late 1970s working time was the central issue in Belgian industrial relations. The centre-left Government had given modest support to the reduced working time through wage subsidies over a two-year period conditional on recruitment of the unemployed (Bastian, 1994b: 90). The budget assumed 20,000 jobs would be created, but there were few applications (Leroy, Meulders and Plasman, 1993: 97). The centre-right Government elected in 1981 took more radical measures on working time, after devaluing the currency and suspending the indexation of wages. From 1983 the Government under ‘Operation 5-3-3’ encouraged employers to reach agreement with unions at sector or enterprise level on reducing working hours by 5 per cent, typically a two-hour reduction in the basic week, increasing employment by 3 per cent and cutting weekly or monthly pay by 3 per cent. The incentive for employers to participate was that, if they did not, they had to pay the money they saved from the non-indexation of wages in tax (*ibid*: 99). Collective bargainers had considerable discretion in how working hours were reduced and could achieve a result ‘considered equivalent’ to a 3 per cent employment increase, but the pay cut was mandatory (Bastian, 1994b: 96). ‘Operation 5-3-3’ was very widely adopted with 1.3 million out of 2 million private sector employees being covered by agreements by the end of 1984 (*ibid*).

The Belgian government also adopted the Plan Palasthy, named after an economist from Hungary who was adviser to the Employment Minister. The idea is similar to that of the Taddei Plan, but the emphasis was on promoting continuous working seven days a week. Employers could obtain exemption from various restrictions on working hours, such as the ban on Sunday working, if they secured union agreement. In practice this meant that hours

had to be reduced. Use of the Plan Palasthy was limited in part because of union opposition to the policies of a centre-right Government (Bastian, 1994b: 101). Between 1983 and 1987 there were only 55 agreements involving 850 new jobs. This, however, represents 5 per cent of employment at workplaces adopting the Plan. A study at one company estimates an increase in employment of four per cent through indirect effects. The Plan was most commonly achieved in the form of employment for 24 hours a week on two 12-hour weekend shifts (EIRR 129, 149). The general verdict seems to have been that, where adopted, the Plan Palasthy proved 'an unexpected success' (EIRR 149: 18).

In Germany industry-wide agreements have been the main instrument for reducing the working week. The federal Government has been hostile to union demands for reduced hours. In 1983 the engineering union, IG Metall, was one of only three unions, demanding a shorter working week. The employers' organisations declared publicly that they would in no circumstances agree a shorter working week. 'The defeat of the engineering union seemed inevitable' (Bosch, 1986: 278). In 1978/79 IG Metall had been forced to accept unchanged working hours in the steel industry after a six-week strike (Bosch, 1993: 194). In 1984 there was a seven-week strike in the engineering industry in Hessen and Baden-Württemberg and, in printing and paper, nation-wide, but selective and intermittent, strikes for twelve weeks. The strikes led to agreements on a reduction in the 40-hour week to 38½ hours, which could be implemented flexibly at plant level. The 1984 dispute, 'the greatest strike in the history of West Germany' (Bosch, 1986: 271) largely inspired the 1989/91 CSEU campaign (see Section 4.3). In 1987 the engineering agreements covered three years and introduced the 37-hour week in 1989. Individual weekly hours were allowed to vary between 36.5 and 39 and the reduction could be taken in the form of additional holidays provided the average weekly hours worked by employees in the plant were 37 in a six-month period. Previously, the flexibility had been restricted to a two-month period. The next agreements in 1990 specify hours until 1998. They provide for a basic working week of 36 hours from 1993 with a second reduction to 35 hours in 1995. Flexibility is further extended by allowing 13 per cent of employees to work a 40-hour week with compensation either through higher pay or by sabbatical leave over a two-year period.

All these reductions have taken place on the basis of no loss of weekly pay. Yet, as Section 7.4 shows, it is unwarranted to consider the terms of collective agreements conclusive on this point. Seifert, looking at reductions in the 1980s, concludes 'working time reductions have

had little or no influence on the overall cost of collective bargaining' (1991: 501). The situation is unlikely to be different in the 1990s. Still, the 1990 settlements, and earlier settlements reducing hours, were only possible because the German unions had mobilised exceptional power. Arguably, this may have enabled them to negotiate settlements which increased hourly pay by more than settlements without reduced hours would have done. It is possible that higher hourly pay tends to persist. Yet, reduced hours under the 1990 settlement can only increase hourly pay from 1993 and 1995. Unless the unions maintain an exceptional level of mobilisation through most of the 1990s, the 1993 and 1995 reductions must have had some impact on weekly pay increases negotiated after they were agreed. So, Seifert's conclusion is likely to apply also to the reductions in the 1990s.

During the 1990s the Governments in Belgium and France have continued to intervene to promote work sharing. In Belgium reduced hours have been imaginatively combined with early retirement, of which the country also has extensive experience. Employees over 55 have been given the right to work half-time and receive half their pension (*Financial Times*, August 16, 1993). Federal employees have the right to move from a five-day to a four-day week but with the same daily pay, although there are transitional payments to cushion the initial loss of income (European Industrial Relations Review 245, June 1994). New federal employees have no option but to accept the four-day week with correspondingly lower pay (Leroy, Meulders and Plasman, 1993: 93). The Government urged the private sector to emulate this move to a four-day week. There have been some company and national agreements on a four-day week, largely in order to avoid redundancies (EIRR January, March 1994).

Since 1992 one element of the French Government's employment policy has been to encourage employers to increase employment or prevent redundancies by negotiating working time reductions with loss of pay (EIRR 226, November 1992: 24). In 1993, faced with rising unemployment and a stream of redundancy announcements, Prime Minister Balladur called on employers to avoid redundancies until all alternatives had been explored. This was more than a high-profile restatement of existing policy. What became known as the 'Balladur directives' were widely interpreted as a ban on further redundancies in the public sector. In response to a Government request Thomson-CSF, the state-owned electronics and armaments group, negotiated a worksharing agreement with its unions. The agreement withdrew 1,600 redundancies, which had already been announced, and guaranteed no further

redundancies for 18 months with the exception of 800 workers eligible for early retirement. The main worksharing measure was a cut in the 38½-hour basic working week of the company's 18,500 employees by 3 per cent and a 3 per cent cut in pay. The Government's scheme for compensating short-time working meant that the pay cut was halved. Under legislation which came into effect in 1994 the pay cut was further reduced.

The legislation also means that employers can receive a reduction in social security over three years, 40 per cent in the first year and 30 per cent thereafter. This subsidy is only available as part of a formal agreement with the Government which provides for a reduction in working time of at least 15 per cent with some reduction in pay, an increase in the workforce of 10 per cent within a year and the maintenance of this increased workforce for three years (EIRR 239, December 1993). However, previous experience with worksharing plans casts some doubt on the realism of employment guarantees (EIRR 246: 6).

Germany, like Belgium and France, has seen significant developments on working time in the past couple of years. The best known is the Volkswagen agreement of November 1993. The company proposed a four-day week and a pay cut of 20 per cent as an alternative to 30,000 redundancies among its 103,000 employees. Negotiations certainly cushioned the impact of the pay cut and allow different calculations of its size. WSI, the trade union research unit, suggests that the cut is 15 per cent (EIRR, 254: 21). The agreement was due to last for two years during which there would be no redundancies. Its significance lies in IG Metall's acceptance of work sharing with a loss of pay. WSI suggests that the agreement is of limited application elsewhere because less well-paid workers would not accept pay cuts as large as at Volkswagen (EIRR, 247: 7). Nonetheless, the Volkswagen agreement has been followed by sector agreements in ten industries covering some 6½ million employees (EIRR, 254: 20). Work sharing is introduced by local agreement except in coal mining where there is only one employer. The agreements provide for reductions of between two and eight hours a week, generally with no change in hourly pay, and half contain a guarantee of no redundancies. In 1994 it was estimated that 700,000 employees were affected by worksharing, of whom 500,000 were employed by members of the engineering employers' federation, Gesamtmetall, and had an average reduction of four hours (EIRR, 249: 6).

While the federal Government has not given any encouragement to worksharing, the state government of Lower Saxony played a crucial role in Volkswagen's adoption of the four-day

29-hour week (EIRR 239). As the state Government is the car maker's biggest shareholder, there is a close parallel with Thomson-CSF's adoption of the 'Balladur directives'.

9.6) The Results of Reduced Hours in Europe

The most radical policy of reduced hours was adopted in France in 1936. The basic working week was reduced from 46 or 48 to 40 hours with no loss of pay and paid holidays were increased by two weeks. According to *European Economy* 'the result was a disaster' (1980, No. 5: 94). Yet, Dreze suggests there 'was little practical impact on effective working time and a questionable immediate impact on employment' (1991: 491). Kalecki (1938), assessing 'The Lesson of the Blum Experiment', reports that employment rose by 24 per cent in a year, despite a slight fall in large industrial establishments. He calculates that the productivity of manual workers increased by 2 per cent, through increased labour intensity, contrary to 'much talk in the right wing French press of its fall'. Industrial production rose by 3 per cent. In the same year the franc was devalued by 30 per cent and hourly wages rose by 61 per cent. It is far from obvious how the effects of reduced basic hours can be isolated from these other changes, particularly if the fall in actual hours was, as Dreze suggests, modest.²

Marjolin (1938) takes a very different view. He argues that the 40-hour week meant that 'France suddenly found herself in a state of full employment'. This was mainly achieved through the ending of short-time working. 'The fundamental error which vitiated the whole of the Blum experiment' was 'the fact ... that France has never had an unemployment problem' (pp. 184/5). According to the 1936 population census unemployment was only 4 per cent. Marjolin is very critical of Kalecki for not attributing sufficient importance to the 40-hour week, 'the dominant factor of the whole experiment. It was that which ... stifled the revival which had been going on for some months' (p. 191) by creating 'an artificial scarcity of workers' in the capital goods sector (p. 186). Marjolin's analysis indicates that the reduced working week did indeed share work, albeit largely as a substitute for another form of worksharing, short-time working. The problem was the absence of 'a reserve of [unemployed] labour sufficient to provide the labour market with that elasticity which it

² Kalecki, himself, was trying to draw a 'lesson' from a 'rise of money wages in a closed system with the rate of interest held constant' rather than from reduced hours.

needs if the volume of production is to expand' (p. 184). So, the 'disaster' of 1936 may well have increased labour demand.

France was not the only country where the working week was drastically reduced in the late 1930s. The Director of the ILO reported to the 1938 International Labour Conference on these developments. 'The experience of the United States and New Zealand shows that under favourable circumstances the 40-hour week can be introduced and worked without causing any serious dislocation. If the experience of France has been different, ordinary logic would suggest that not the 40-hour week itself but the economic circumstances in which it was applied are primarily responsible' (ILO, 1938: 50). Before and after comparisons using aggregate data cast only limited light on the effects of the 40-hour week. They are unlikely to be more useful in assessing the effects of smaller reductions in basic hours even under economic conditions much less turbulent than in France in 1936 (see Section 7.7).

1982 was another turbulent year for France, albeit placid in comparison to 1936. Fortunately, it is not necessary to rely on analysis of aggregate data to assess the results of the 1982 reduction. An official survey by INSEE does little to justify the high expectations of Prime Minister Mauroy. Nonetheless, it shows a much greater employment response than is indicated for the UK by a PSI survey in 1981. 37 per cent of industrial managers interviewed by INSEE said they had recruited new staff as a result of reduced hours (Bastian, 1994b: 137). In the 171 engineering and printing factories covered by the PSI survey managers said '(with one solitary exception) that the shorter working week had not influenced their recruitment activities or plans' in 1981 and 1982 (White, 1982: 23). Managers in 101 of these factories reported no recruitment activities or plans in 1981 and 1982. This indicates the intensity of the recession in engineering and printing in the UK in 1981. France did not suffer so severely and the INSEE survey was not confined to two of the most hard sectors of industry. This may explain the marked difference in the results of the surveys. In any event the INSEE survey gives a figure of between 14,000 and 28,000 for the number of new jobs in industry and commerce in France. Job retention was, however, three times as great as job creation (EIRR 159: 24). Two other similar studies also produced results consistent with INSEE's figure of 50,000 to 100,000 jobs created or saved by the 39-hour week

(Bastian, 1994b: 138).³ At most the three studies suggest an employment effect of 20 per cent, where 100 per cent represents the 'pure' employment effect defined in Section 1.11.

The results of 'Operation 5-3-3' in Belgium are, like those of the 39-hour week in France, generally judged to have fallen far short of the Government's expectations. Two points should be taken into consideration. The reduction of employees' working hours was around 1½ per cent over two years in firms signing agreements instead of 5 per cent. The official evaluation is based on the absolute changes in employment in 1983 and 1984. This shows an employment increase of 52,000, which is 3.7 per cent of employment in firms covered by agreements. Employment in firms not covered by agreements fell sharply in 1983 (Bastian, 1994b: 96/8).⁴

Research into the 1985 reductions in Germany is widely seen as producing much more favourable results for employment than the research in France and Belgium and also the PSI research in Britain. The German employers naturally do not accept that reduced hours have had favourable effects on employment, but their concerns seem to be based on a reduction in plant operating times rather than on a different interpretation of studies of reduced hours (see Neifer-Dichmann, 1991). Blyton (1989) highlights the contrast between the results of studies of the effects of reductions in Germany and in Belgium, France and Britain. Blyton qualifies the finding from the studies in the latter three countries of 'only a small, if any, job creating effect' by observing: 'Much less attention has been paid to the potential job *maintenance* effects of the reductions. Though more problematic to study (since it involves the hypothetical question of what would have happened if hours had *not* been reduced), at a time of high redundancy rates job maintenance becomes as significant as job creation. One of the studies (the French case) has in fact commented on the retention effect, estimating that this was up to four times as great as the job creating effect.' As argued in Section 5.2, it is hard to see how any of the effects of reduced hours can be assessed without hypothetical questions.

³ It is, however, not clear whether part of the employment effect reported for the other two studies represents their estimate of the results of increased holidays. If so, they may indicate an employment effect of reduced hours less than the lower limit of the INSEE study.

⁴ Bastian reports a fall of 50,000, nearly 10 per cent, in 1983, but gives no figure for 1984.

Yet, contrary to Blyton's suggestion, job retention seems to have been crucial to the employment effects of reduced hours in the German engineering industry in 1985. A survey by Gesamtmetall, the employers' association, of 5,000 factories with 2.4 million employees showed an employment effect of 21 per cent. A survey of very similar coverage by IG Metall, which took account of job retention, suggested an employment effect of 70 per cent (International Labour Office, 1988: 36). The factors mentioned in Section 6.4b as reasons for doubting perceptions of the effects of reduced hours no doubt also contribute to the difference in the results of the two surveys. Gesamtmetall surveyed managers while IG Metall addressed its survey to Works Councillors. IG Metall also surveyed Works Councillors in the iron and steel industry. The employment effect was slightly higher than in engineering, attributed to continuous working, but IG Druck und Papier, the printing and paper union, obtained a marginally lower employment effect from a similar survey of its industry, where there was also a reduction of the working week in 1985 (*ibid*). The Federal Statistical Office estimates an employment effect of 45 per cent while a purely econometric study by the Institute of Economic Research (DIW) indicates an employment effect for production workers of 50 per cent plus an initial overtime effect of 30 per cent, which in the longer term probably converts to an employment effect (Bosch, 1993: 147). Of 12 studies of the 38½-hour week introduced in 1985 all find a significant employment effect. These studies mainly used questionnaires, but a couple analysed aggregate data, another two were based on econometric estimates and the Federal Statistical Office used both surveys and econometrics (Seifert, 1991). Seifert, who like Bosch is employed by the trade union research institute, WSI, concludes that the employment effect, including non-production workers, of the 1985 reductions was between one-half and two-thirds of the 'pure' effect.

Campbell (1989) suggests that the reason 'the employment effects were least encouraging in the United Kingdom and France, relative to West Germany' .. 'has plausibly much to do with systematic differences among the country's industrial relations' (p. 179). His conclusion is that: 'Elements [of the "corporatist" model] - broad union structures, vertical integration, centralized and hierarchical controls - appear to be the necessary, although not sufficient, structural features required for channelling a reduction of working time into an employment effect' (p. 189). Bastian (1994a) takes a similar view, without being so specific on which elements of an industrial relations system affect outcomes. Taddei, on the basis of extensive research for the European Commission, concludes: 'For the most part the problems inherent in the organization of working time are more or less the same [throughout the Community]

and the solutions called for hardly differ' (1991: 9). This is much more in line with the position argued in Section 9.4.

9.7) Lessons from the European Experience

The 'Blum experiment' of 1936 is of limited relevance to the UK today. The equivalent today would be the introduction by law of a four-day week of 32 hours with no loss of pay. Hardly anyone in Britain advocates this.⁵ Yet, Marjolin's conclusion is still central to the debate on worksharing. A general reduction in working hours can only bring about an increase in employment if labour supply is sufficiently elastic. This condition will nearly always be satisfied at workplace level and probably also at industry level. Labour can move from one workplace or industry to another. It is not obvious that the unemployed can take the jobs which reduced hours potentially create. This is a fundamental reason why assuming that a general reduction in working hours would reduce unemployment from studies at plant or industry level is fallacious.

If France has lessons for Britain about a general reduction in working hours, it would be better to look to 1982 rather than 1936. Even advocates of worksharing have little good to say about the 1982 reduction. Jens Bastian admits that by 1985 it 'was considered a manifest disaster. [The] Taddei [Report] warned that a renewal of this strategy would be detrimental for firms' competitiveness and wage discipline' (1994b: 157).

The Belgian experience with 'Operation 5:3:3' shows that, given adequate incentives to employers, worksharing schemes can be adopted on a large scale.

9.8) The Role of Reduced Hours in UK Employment Policy

⁵ The four-day 32-hour week enjoys considerable support in France, although as in the 1986 Taddei Report agreement at company level and a cut in pay is envisaged. For example, Larrouturou of Arthur Anderson advocated the four-day week in *Le Monde* in 1993 linked with a pay cut of between 3 and 8 per cent, recruitment equal to 10 per cent of the workforce and tax cuts. In the same year the Senate approved similar proposals, but they were defeated in the National Assembly despite the support of the Gaullists (Bastian, 1994b: 246; 1994c: 303, 307). The Socialist platform in the recent Presidential election contained a commitment to a 35-hour week within five years and Presidential candidate Jospin pledged a 37-hour week by 1997.

Neither the 1992/94 research nor any other research suggests a simple relationship whereby reducing hours automatically leads to an immediate increase in employment. The relationship is particularly long term and, thus, necessarily more uncertain where reductions affect non-manual employees and employees outside manufacturing. Nonetheless, the problem of long-term unemployment in the UK primarily affects male manual workers. So, reduced hours concentrated on male manual workers in production industries could be part of a strategy for reducing unemployment. Immediate employment effects can be expected in two circumstances, where there would otherwise be redundancies and where shift working is increased. Increased shift working may have the additional benefit of increased capacity utilisation, as in the Plan Plasathy and the Taddei Plan, but this is not necessarily the case. The number of shifts can be increased even where there is continuous working, as at Varied Production Methods.

The evidence in this thesis supports some form of short-term public subsidy of reduced hours where they avoid redundancies, or lead to recruitment, particularly where they are linked with increased shift working. Hughes (1977) advocates a subsidy for shift working. Bosworth and Dawkins are rather more cautious (1983: 218). The potential increase in output through higher capital utilisation will lower prices, damaging the profitability of production, so that some of the potential increased output is not profitable. As a result the increase in output and thus employment will be less than might be expected. They also fear a loss of employment through reduced demand for capital goods. Yet, these adverse effects do not apply where work is continuous as capital utilisation is then unaffected by increasing the number of shifts. Bosworth and Dawkins themselves advocate Government intervention to change the relative costs of shift-work and overtime, although only when the economy is moving out of recession. They argue that this could lower the costs of expanding output. Easing capacity constraints in a recovery would be an added advantage of Government intervention. Yet, the subsidy would presumably either have to be large or last longer than the capacity constraints if it is to affect employer behaviour. So, their emphasis on the timing of intervention seems misplaced.

The hours of shift workers have been rising relative to those of other workers. Before 1947 under the national engineering agreement the weekly working hours of shift workers were 9½ hours less than those of other workers. With the 37-hour week the difference in hours has now in many cases entirely disappeared. The costs and practical difficulties of reducing the

hours of shift workers are greater than for other workers. In addition changes to shift arrangements have to overcome the conservatism of both managements and employees, as TURU and the NBPI noted. Reduced hours for shift workers have a significant externality in expanding the number of manual jobs. This is the basis of the case for a subsidy.

There is, however, no corresponding case for subsidising higher pay especially where pay is already relatively high. This can only provide a temporary shield from the economic facts of life. If fewer hours are worked, weekly pay must be less. The form of the subsidy can influence the terms on which shorter hours are introduced. In the long run the terms of the introduction of shorter hours may have little or no effect on hourly pay. This would however be little consolation to employers concerned about the bottom line in their next year's accounts. There is no point in introducing a subsidy unless its terms are sufficiently attractive to employers. Employers will only be sympathetic to work sharing if income sharing is explicit. So, on political as much as on economic grounds it is essential that any government subsidy is conditional on income sharing.

Where working is not continuous, there is no necessary connection between increasing the number of shifts and reduced hours. In terms of industrial relations there is a connection. Trade unions are often not keen on shift work in principle and demand shift premia which employers may find unacceptable. This can be an obstacle to the extension of shift work (Mr Warman, Director of Personnel, Vauxhall, March 1991). Measures to encourage work sharing should, if possible, be made attractive to trade unions as well as to employers. If hours were not reduced, disagreement over loss of pay would be avoided. Yet, shift premia would still be an issue. One of the reasons for the subsidy is to encourage the compensating differential for shift work to take the form of more leisure rather than higher pay. This could be achieved by making the subsidy conditional on the weekly earnings of shift workers being no more than those of day workers. The proposals would probably be more attractive to unions if the subsidy required reduced hours. Alternatively, unions could be given a veto as in Belgium with the Plan Palasthy and in Britain with the temporary employment subsidy and the temporary short time working compensation scheme.

The main conclusion of this thesis is that reduced hours at individual workplaces do increase employment. The effect is most clear for manual workers in manufacturing industries. The

Government should encourage reduced hours in carefully defined circumstances as a measure against unemployment.

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