

THE UNIVERSITY OF HULL

WOMEN MUNITION WORKERS DURING THE FIRST WORLD WAR
WITH SPECIAL REFERENCE TO ENGINEERING

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by

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PREFACE

The purpose of this thesis is to show how the First World War altered the nature of women's employment and how a sudden mobilisation of some 1½ million women was made possible through a concerted and sustained Government effort and labour regulation.

To all appearances, nothing in the history of women's work prior to 1914 would have suggested that such a transformation of their employment was possible within a short time span. Women's jobs had always been considered as belonging to certain definite trades and much energy of social reformers and defenders of women's rights was spent on a struggle to improve conditions in the traditional women's industries, including the sweated trades which came under the aegis of the Trades Boards Act of 1909. Nevertheless, the two decades prior to the outbreak of the war witnessed some significant changes in the organisation of the metal and engineering trades and the Census of 1911 was beginning to reflect these changes in the slowly growing number of women occupied in these trades and a much faster growth of the male workforce particularly in the infant motor and allied industrial sector.

However, it required a war emergency to accelerate the process of change. War time reorganisation and technological investment injected into engineering and chemicals industries facilitated the massive absorption of female workhands into light and heavy engineering and other allied industries. Work processes were reorganised on the basis of greater mechanisation, further division and sub-division of labour and intensive training schemes were designed for unapprenticed women workers. State central planning enabled women to learn unaccustomed tasks which prior to the war would have been considered entirely beyond their capacity. As a result of intensive instruction, women came to perform semi-skilled and in some cases skilled work, to replace men in most labouring and process work and to operate automatic and semi-automatic machinery. Despite the fact that women exhibited a considerable aptitude for

acquiring new skills, further refinements in the system of division of labour with its infinite number of gradations did not serve to enhance their industrial status in the long run. Whatever the short term gains in higher earnings for the duration of the war period, the extension of the technical element served to degrade the human labour factor and to reinforce the deeply ingrained principle that women had a particular talent for dexterous but mindless machine minding. It is significant that whenever women achieved particularly good results in quantity or quality of output, their achievement was credited to the newly introduced machinery and not to their natural aptitude or skill. The fact that the use of old fashioned machinery continued to persist in many branches of engineering work, while modernisation was proceeding in others, was rarely remarked on.

In this new setting and without the traditional go-slow and resistance techniques which male workers had perfected through the years to combat exploitation, women were particularly liable to exploitation. Their employment and the threat it posed for men workers was viewed with mistrust and fear by the traditional occupiers of the shop floor. At first, male workers resisted the introduction of women. Eventually, after hard bargaining and protracted negotiation as well as threatening compulsion, the Government succeeded in overcoming official labour resistance to the processes of dilution and smoothed the path of manufacturers in organising large scale production of munitions.

It should be noted that this was but the first step in the war effort. The other new factor was the unprecedented intervention of Government in the process of production, in exercising control over this process, in financial, technical, and educational aid to the munitions industry. It was as a result of this concerted State intervention that absorption of women into munitions, many of whom came to the metal and engineering sector from the isolation of domestic service or the traditional women's trades like textiles and clothing, became feasible. The effect was the transformation of the

labour market through job and geographical migration. Women were drawn into munitions work primarily for its comparatively high earnings - a new feature of war-time life which stood in sharp contrast to women's earnings in metals and light engineering in the pre-war period. There were other factors which made war-time munition work more popular than other, similar factory work though these factors are more difficult to document precisely. These were the enhanced prestige of the patriotic content of such work and the propitious social ambiance of new work communities many of which were better equipped than similar pre-war factories. On the one hand the nationally inspired war effort occasioned, not untypically, a veritable barrage of publicity extolling the civilian effort, while on the other hand both Government and private goals were directed to maintaining the new labour force in conditions adequate to the gruelling daily tasks. Whatever may have been the motives behind the State effort in protecting women's health and welfare, and while the contributing factor of social control should not be discounted, the result was a significant improvement in women's health. Higher wage levels and uninterrupted earnings were obviously major factors in this improvement.

It is my contention that improved conditions, better feeding and the newly enhanced status of women workers led to new expectations and a new awareness among women workers. Increased enrolment in trade unions was one of the results. New issues of women's economic and social status were inevitably raised by these new circumstances and one of the most striking was the campaign for the principle of equal pay. With the backing and indeed the insistence of the male unionists, women organisers like Mary Macarthur led a campaign for equal pay with the recognition that such a policy might in some cases lead inevitably to an exclusion of women from some employments. At the same time widespread and vocal demands were made by women unionists for widening the scope of women's work to include jobs which in the past had been considered the exclusive preserve of male workers.

Whatever may have been the strength of newly organised women unionists they were at all times both sustained and dependent on their male counterparts. It was the strength of the male trade union movement which had successfully circumscribed the scope of Government-directed dilution by insisting on safeguards in regard to its duration and conditions. While the war lasted men workers remained vigilant about the possible exploitation by employers and the State of the inexperienced workforce - the women. Despite paper guarantees male unionists were suspicious of the promises made and continued their vigilance through rank and file militancy, quiet small-scale sabotage and organised demands over pay. Whatever the motivation of militant unionism during the period of the war, it served the women well while it lasted. However, at no point did the powerful male workers' movement formulate demands for the reabsorption of war-time emergency women workers into a scheme of post-war reconstruction. In fact, the contrast was remarkable; the men had agreed to dilution on being assured of reinstatement while women were enticed into war time work without being given any guarantee of tenure or alternative employment or compensation for loss of employment. In the post-war situation of work shortage, they were not recognised as having any of the rights accorded to male workers. In relation to the war-time munitions effort the classic definition of the unemployed as the 'reserve army of labour' could be reapplied to women in particular. The post-war absorption of a greater number of women than before into the ranks of engineering repetition work was a continuation of pre-war trends and bore little relation to the semi-skilled tasks which many women had been trained to perform. Such waste of potential and actual manpower is striking.

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ABBREVIATIONS IN ALPHABETICAL ORDER (Newspapers and Journals are underlined)

ASE	Amalgamated Society of Engineers
<u>ASE Journal</u>	<u>ASE Journal and Monthly Report</u>
BA	British Association for the Advancement of Science
<u>BEAMA Journal</u>	<u>British Electrical and Allied Manufacturers' Association Journal</u>
BM	British Museum now British Library
<u>BJS</u>	<u>British Journal of Sociology</u>
<u>BMJ</u>	<u>British Medical Journal</u>
BoT	Board of Trade
<u>CC</u>	<u>Common Cause</u>
COP	Committee on Production
<u>CR</u>	<u>Contemporary Review</u>
<u>EC</u>	<u>Executive Committee</u>
<u>EHR</u>	<u>Economic History Review</u>
<u>EJ</u>	<u>Economic Journal</u>
<u>ER</u>	<u>Edinburgh Review</u>
<u>FR</u>	<u>Fortnightly Review</u>
HO	Home Office
IWM	Imperial War Museum
<u>JPE</u>	<u>Journal of Political Economy</u>
<u>JRSA</u>	<u>Journal of the Royal Society of Arts</u>
<u>JRSS</u>	<u>Journal of the Royal Statistical Society</u>
Lab	PRO prefix for Ministry of Labour papers
LP	Labour Party
LP/WNC	War Workers National Emergency Committee papers at the LP
Mepol	PRO prefix for Metropolitan Police papers
MM	See British Government Publications (8) History of the Ministry of Munitions, 12 vols (1920-24) followed by vol no, pt no, and page
MoL	Ministry of Labour
MoM	Ministry of Munitions
MoR	Ministry of Reconstruction

Mun PRO prefix for Ministry of Munitions papers

NAC National Labour Advisory Committee, also known as National Advisory Committee

NAUL National Amalgamated Union of Labour

NFWW National Federation of Women Workers

NUGW National Union of General Workers

NUGMW National Union of General and Municipal Workers

NUR National Union of Railwaymen

NY New York

PIN PRO prefix for Pensions and Insurance papers

PQ Political Quarterly

PRO Public Record Office

QR Quarterly Review

RC Royal Commission

TUC Trades Union Congress

WEWNC War Emergency Workers' National Committee, printed Executive Committee Minutes at the EM

WIC Women's Industrial Council

WIN Women's Industrial News

WU Workers' Union

WLL Women's Labour League

WSPU Women's Social and Political Union

MONEY CONVERSION TABLE

<u>£. s. d.</u>		<u>Decimal</u>
6d	=	2 ¹ / ₂ p
12d = 1/-	=	5p
24d = 2/-	=	10p
240d = 20/-	=	£1

CHAPTER 1

THE PATTERN OF WOMEN'S EMPLOYMENT

BEFORE THE WAR

Women like most men have always worked. In pre-industrial Britain their activities were linked to the occupation of the household - agriculture and fisheries - or to the various rural industries of pre-industrial society. Until the 1850s agriculture and rural industries like straw plaiting, lace and glove making were still important sectors of employment for women. However with the growth of the factory sector in the textile trades women were increasingly employed in them and their numbers in agriculture and the rural industries declined. In 1859 an anonymous survey of 'Female Industry' published in the Edinburgh Review maintained that three million out of a total of six million women above the age of twenty 'are industrial in their mode of life. More than a third, more than two million, are independent in their industry and self supporting like men'.¹ Because of their social and political inferiority women however remained particularly liable to exploitation. They represented a reservoir of cheap labour not only because they were less well organised than men but because there was a striking surplus of women in relation to men. From 1881 until 1911 the sex ratio remained at 106 women to 100 men, and in some urban districts it was substantially higher. As the development of British industrialisation reached maturity in the closing decades of the 19th century, the trends in the women's employment were undergoing a slow process of change. The most important factors were the decline in agriculture and the virtual disappearance of rural industries as sources of employment for women accompanied by ^{an absolute} /rise in the service industries and the distributive trades.

1. Edinburgh Review, April 1859, 335. The author has been identified as Harriet Martineau in W.E. Houghton (ed), The Wellesley Index to Victorian Periodicals, vol 1 (1966)

A cursory examination of the table below drawn from the 1911 census and showing the proportions of women in some of Britain's basic industries reveals some obvious truths. Firstly the disproportionately large number of women in domestic service and its allied trades, i.e. laundry etc., a most startling example of a non industrial occupation which absorbed more than half the total female labour force. Secondly the high proportion of women in Britain's oldest industry, textiles and its outgrowth the clothing trade. Thirdly the relatively high proportion in the traditional women's professions - teaching and nursing. On the other hand the relatively low proportion of women in industries like chemicals, transport and metals and in the distributive trades, is very conspicuous.

Table 1 Proportion of Women in Labour Force in Various Occupations in 1911

Occupations with a proportionately larger female workforce than the aggregate national proportion of females in the labour force (29.6%), according to the census of 1911.

Personal service (particularly high in private domestic service and lodging houses)	75.7%
Clothing (including dressmaking)	66.9%
Tobacco manufacture	64.5%
Textiles (particularly high in hosiery, lace, cotton and silk)	55.8%
Professions, entertainment and sport (particularly high in nursing and teaching)	49.0%

Occupations with a proportionately smaller female workforce than the aggregate national proportion of females in the labour force (29.6%), according to the national census of 1911.

Commerce, dealing and finance	21.9%
Chemicals	20.2%
Skins and leather	20.6%
Public Administration	10.6%
Brick, cement and pottery	21.0%
Drink manufacture	5.5%
Metals and allied products	7.6%
Public utilities	0. %
Transport and communications	1.7%
Wood	9.5%
Construction	1.1%
Mining	0.8%
Agriculture and fishing	7.5%

Occupations with an approximately equivalent proportion of females to the aggregate national proportion of females in the labour force (29.6%), according to the national census of 1911.

Paper

34.0%

The logic of female occupations was partly grounded in long standing traditions of suitability, respectability and training, some of which went back to the pre-industrial era, and partly to legislation. Let it be said at once, however, that legislation in a sense followed a tradition and did not create it. Traditionally women avoided outdoor work, work which involved carrying, dirty work and, night work (from which women were debarred by the 1895 Factory Act) if they could find other work. The sphere of women's work was not only regulated by legislation but by criteria of employers, the rules of trade unions and the pressure of socialising agencies at the disposal of the community at large. Work opportunities as a result were extremely confined and in the trades where women were employed in large proportions entirely different from the men's.

Domestic service was traditionally considered the most suitable of occupations for women, with its promise of bed and board. According to the 1911 census 1 $\frac{3}{4}$ million women were employed in domestic service and ancillary occupations. Despite the rise in absolute numbers however, which could partly be attributed to the growth of the female population, this sector was experiencing a relative decline ever since 1881. Leaving aside the 1891 census which untypically included all unoccupied female relatives of the head of the household as domestic servants and cannot therefore be used as a standard of comparison, the number of women engaged in this sector increased between 1881 and 1901 by 8.2% while the entire population advanced by 25.2%. Even more significant perhaps was the fact that in that period the number of young women between the ages of 15-20 in service decreased by 7.3%, notwithstanding an increase of 28.1 in that age group.¹

1. Census of 1901. General Report with Appendices, Cd 2174, 1904, 95

By 1911 female employment in domestic service declined by 2.1% in comparison to the 1901 census and there was a further decline in the 15-20 age group, especially in the urban districts.¹ Clearly younger women who found it easier to obtain work than married women shunned such work. Some writers attributed this aversion to the influence of the suffrage movement which was thought to have 'reached the minds of domestic servants',² and Social reformers sought to halt this decline by refurbishing the image of domestic service. It was believed that its degraded status was due only to bad conditions and that greater liberty, better wages and above all better training would make it more attractive. The 'professionalisation' advocated by some reformers was to be the answer to the shortage of supply of domestic servants.³

'Let us all do our share in uplifting it and establishing it as an honourable and desirable profession on the high place where it deserves to be',

said Lady Willoughby de Broke in her postscript to C V Butler's book.⁴

In 1898 the Women's Industrial Council set up the Association of Charwomen to act as a labour exchange for domestic servants and dressmakers. Its aim was to give the occupation status by grading skills and fixing a standard rate. Despite these efforts, the unpopularity of domestic service was borne out by the low percentage of women in domestic work in industrial areas, where alternative employment opportunities provided better wages and more freedom, as against the high percentage of domestic workers in rural areas.⁵

Whereas the attempts to raise domestic service from its menial status implicitly accepted contemporary criteria of suitability while endeavouring

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1. Census of 1911. Occupations and Industries. Cd 7018, 1914, XXVI
 2. C V Butler, Domestic Service (1916) with a supplementary chapter by Lady Willoughby de Broke
 3. S Hogg, The Employment of Women in Great Britain 1891-1921, (Oxford D Phil. 1968) 344-5
 4. C V Butler, op. cit., 108
 5. Ibid., 131

to improve conditions, a different campaign was being waged by some reformers to open up greater employment opportunities through the repeal of factory legislation. This type of campaign went back to the 1870s and the activities of the Women's Rights Movement.¹ This campaign was, of course, both misguided and ineffectual in both the short and long run, but it endured. The reasons for its persistence were to be found in the strikingly low pay which was characteristic of women's occupations both before and after the war and which - it was argued - was attributable to the narrow range of occupations open to women. The 'repealers' maintained that equality of opportunity for women could only begin to succeed if the statutory restrictions on women's labour which forbade night work, overtime beyond a certain limit, and the prohibition of women's employment from certain trades were lifted. Miss Jessie Boucherett - a factory inspector - claimed in an address to the National Union of Women Workers conference of 1894 that the long hours prevailing in seasonal industries like bleaching inevitably disbarred the women and compelled them to take up sweated occupations like needlework. She claimed too that in laundries women were prepared to work long hours in order to retain their jobs but that factory regulations made women's employment uneconomical and resulted in their displacement by men in steam laundries.² Miss Boucherett also maintained that women's work in the lead factories, though dangerous, was well paid and that women wanted to continue in it.³ Boucherett and Blackburn, in a tract condemning the 1895 Factory Act claimed that women would thereby be further disadvantaged in their struggle to obtain work. The clauses which they considered particularly injurious related to overtime for those women in particular who worked in seasonal trades and constituted a deprivation for those who worked in the so called dangerous trades.⁴ The authors were bitter in

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1. E Cadbury, M C Matheson and G Shan, Women's Work and Wages, (1906) 26
 2. National Union of Women Workers, Annual report of conference 1894 82
 3. Ibid., 86
 4. J Boucherett and H Blackburn, The Conditions of Working Women and the Factory Acts, (1896) 22

their accusations against male workers who, they claimed, turned the Factory Acts to their own advantage by keeping women out.¹

There is little evidence however that women workers themselves wanted the repeal of the Factory Acts, even though they may have resented the control and visits of the factory inspectors.² One regulation, however, which prohibited the employment of women two weeks prior to confinement and four weeks after giving birth was often successfully evaded, especially among the poorest women. The Women's Industrial Council study described how in a rabbit down factory, where women's work consisted of the distasteful task of cleaning and dressing of skins/^{women} worked as near as possible to their confinements. The master would not have allowed it if he had known but as 'they sat at work it was not noticed'.³

Other social reformers like Beatrice Webb and the Women's Cooperative Guild, vigorously supported factory regulation and its extension as a pre-condition for the strengthening of women's trade unionism.⁴ Mrs Webb spoke disparagingly of 'those well meaning ladies, who by restricting the extension of Factory Legislation are keeping alive the domestic workshop and sweater's den'.⁵

The Factory Acts did not exclude women from trades in which they were traditionally employed. In industries where machinery required day and night maintenance women were not employed on the day shift either, whereas in some textile work, where it paid to employ women, a day shift was specially arranged to accommodate them while men did the night work.⁶

1. Ibid., 23

2. S Hogg, D Phil, op. cit., 232. Boucherett and Blackburn supported their thesis by quoting a meeting of 30 laundresses who voted at a meeting against the restriction on hours. See Boucherett and Blackburn, op. cit., 36

3. C Black (ed), Married Women's Work, (1915) 195

4. B Webb, Women and the Factory Acts, Fabian Tract No 67 (1896) 1

5. Ibid., 14

6. S Hogg, D Phil, op. cit., 230

In woollen and worsted trades carding and combing was done by men at night and by women during the day.¹ In hosiery women continued to be employed in large numbers despite the necessity for night work.² In bread baking men were traditionally the bakers of bread at night because they maintained their exclusive control over dough mixing processes of bread as well as biscuit making, while women performed the lighter tasks of icing, creaming packing and labelling.³

A study of women's industries in Liverpool carried out in 1902-4, showed that the Factory Acts led to the displacement of very few women in very few industries. In copper wire twisting where work had to be done at night several women were dismissed on the introduction of the Acts but 'it appeared that one reason for dismissal of the women was that it did not answer to have the men and women working in the same room. If the women had been in a separate room it might have been a different matter'. The legislation, in other words, was but one factor while a middle class standard of morality was another when it came to women's employment. On the other hand legislation in the watch making industry, which was one of the main women's industries in Liverpool, displaced women from some jobs but increased their overall numbers.⁴

The divide between men's and women's work was delineated by other factors than the minimal restrictions of factory legislation. 'There is no more chance of our having our houses built by women than of our getting our floors scrubbed by men', as Beatrice Webb succinctly put it.⁵ The prevailing division of labour as illustrated by the above example was regulated by other laws than those of Parliament, as the next section will show. Tradition formed contemporary notions about women's work and its purpose, which decreed that night work could remain a most natural activity

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1. H.O. A Study of the Factors which have operated in the Past and are operating now to determine the Distribution of Women in Industry, Cd 3508, 1929, 10
 2. Ibid., 19
 3. Ibid., 21
 4. A Harrison, Women's Industries in Liverpool, (1904), 44
 5. B Webb, Fabian Tract No 67, op. cit., 11

for women in non-industrial occupations such as nursing, midwifery and domestic service.

The Social Criteria of Suitability

Socially imposed criteria of suitability were mediated to working class women through middle class notions of decency, morality and hence acceptability. It may be argued that these criteria which emerged entirely from middle class observers and from models drawn up by middle class social and moral reformers were never accepted by working class women or that they ever weighed more than marginally on the daily struggle for existence that was being waged in the majority of households. Women and particularly married women found work difficult to obtain and were willing to settle for whatever was available to them. While this is undoubtedly true, at the same time it would appear that male workers (see Chapter 8) and husbands within some sections of the working class (see below p 19) were influenced in their views by some of the prevalent notions of middle class respectability. For instance, while it is clear that married women were more often than not obliged by dire poverty to seek paid work, this conflicted with the theoretical obligations of the husband to support a family. The result was that women would work in secret (see below p 13).¹ The transmission of middle class values also served, when successfully implanted, to reinforce the restrictive tendencies of certain artisans, such as the mule spinners, who maintained that mule spinning was degrading to women. While the observations and precepts described below do not prove that women themselves were materially affected by these criteria in their search for gainful employment, they nevertheless served to shape their aspirations in some basic though circuitous ways. 'Rough' work in 'rough' company was to be avoided and 'clean' work in 'respectable' company was to be desired. The point to be noted is that the definition

1. Cynics may also reflect that it assured the wives of an income safe from their husbands' profligacy.

of desirability and non-desirability was formulated by middle class spokesmen and spokeswomen. Domestic work was not defined as rough by either employers or employees but was shunned at all cost. However, much factory work was disdained, as in printing, food manufacture, hollow-ware, in favour of warehousing and shopwork. (See below p 11 .) The extremes of unsuitability were characterised, as has been mentioned, by outdoor work, wet work, the carrying of loads, but also encompassed subtle standards of dress, physical surrounding and company which rarely accorded with the reality of most women's lives. On the other hand these criteria were also highly elastic in the case of occupations considered suitable for other reasons. Wet work in laundries, in conditions of heat and a state of undress was considered acceptable by most observers, but in other circumstances, scanty clothing and labouring that was probably less arduous, was deemed degrading. A list of women's occupations enumerated in the Reformer's Year Book for 1905 was highly revealing. The editors - F W Pethick Lawrence and J Edwards - defined suitable employment for women which showed their ignorance of working class life. The criteria of suitable work which emerge from the quotation below include cleanliness, behaviour and demeanour of the workers, size of workshop and a plea for paternal supervision in the direction of choice. It is hardly conceivable that a working class girl would have had the freedom of choice ^{to observe} these admonitions.

In a trade [i.e. one requiring an apprenticeship] it is possible for a girl by increasing skill to rise very considerably. In a factory it is not ... On the whole it may be said that work for which skilled fingers are required, tends to develop the intellect. Work in which great cleanliness and delicacy of handling are required fosters neatness, quiet manners and particularly as to personal appearance. In trades where the workers' hands, face and clothes must get dirty, girls tend to be slovenly and ill mannered ... Work for women unless in private houses [note the exception of domestic work] which requires brute strength is never very desirable in its effect on character. Laundries - some being rough and hot beds of low talk and behaviour, other being unusually refined ... The conditions in each factory depend on the employer, the forewoman, the neighbourhood and the class from which the workers are drawn. A factory may begin by having almost

paternal supervision ... But quickly becomes rough as new wings are added and workers are engaged in hundreds instead of tens. Any father wishing to choose for his daughter would do well to hang about outside one or two factories at closing time and judge by the language, dress and behaviour of the girls as they go home of the general character of the shop.¹

The City of Birmingham's Education Committee report reiterated the generally desirable criteria of sex segregation, healthy surroundings at work - 'where no bad language is allowed'. The report compiled by Miss Matheson for the City's Education Committee concluded in fact by recommending the type of job which was in any case available in Birmingham at the time, thus reinforcing the trend of commercial demand for women's labour. The jobs available and recommended were those in the pen trade, small brass work, hooks and eyes, nail, screw and chain making, some printing work and artificial jewellery.² It would appear that the writer gave her approval to chain making only of a particular kind, probably small chain manufacture. Here is a description of a chainmaker which epitomises some of the highly negative attributes of the work:

As one looks in the shop lit up with the glare of the fire and hot irons and sees the women bare armed, bare chested, perspiring and working with feverish eagerness, the vision suggests the nether regions and the shock to the sensibilities of the visitor is almost overpowering.³

At the other end of the spectrum, the most suitable type of work and the most socially desirable was clean work, preferably indoors, separate from men,⁴ which involved tending the sick or caring for children. Though women performed both types of work within this wide spectrum, work aspirations were partly influenced by these genteel ambitions. Low wages did not deter young women from seeking work in shops rather than factories, in warehousing, hospital work (other than nursing) and in offices. 'Ware-

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1. F W Pethick Lawrence and J Edwards (eds), Reformers Year Book, (Manchester 1905) 113
 2. Birmingham, City of, Education Committee Report, nd. but written definitely before the War, 2-3
 3. E Cadbury and G Shann, Sweating, (1907) 39
 4. M M Bird, Women at Work, (1911) 21. 'Better class girls avoid all work that brings them into contact with men workers'. The reason given is that talk between men and women causes offence to the respectable girl.

house work is very popular and eagerly sought after by the best class of working girls', despite being badly paid, reported social investigators from Birmingham.¹ Beatrice Hutchins wrote in 1915 that 'girls who are thus employed [i.e. in warehousing] are usually a social grade superior [to factory workers] though they by no means earn better wages'.² Indeed low pay was sometimes a sign of status in that it showed a disregard for economic needs. 'Some hospitals have deliberately lowered the salaries in order to secure a higher class of applicants to whom the salary during training is not of primary importance.'³ Midwifery too, an exclusively female occupation, though less genteel than nursing was equally badly paid. The Inspector of Midwives for Hertfordshire declared in 1913 that the average annual wage of a midwife was £13.1s.8½d !⁴ It follows that genteel work, or suitable work in the case of women, was deemed as sufficient reward in its own right. Industrial work, on the other hand, with the exception of textiles and clothing which had a long history as a women's and even a family occupation from pre-industrial days, was marked by a stamp of social disapproval. Even in the cotton industry there were jobs considered unsuitable because they did not conform to standards of decency advocated. Mule cleaning and mule spinning were among these. The disapproval was due to the scanty clothing worn in the spinning rooms, the 'unhealthy moral atmosphere' and the fact that the work was dirty and unpleasant. There is evidence that men unionists continued, even during the war period, to oppose vigorously the employment of women in spinning rooms on grounds of morality (see Chapter 8), but women were glad of the work and objected to publicity they received for fear of losing their jobs.⁵ In some industrial

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1. Cadbury, Matheson and Shann, op. cit., 76
 2. B L Hutchins, Women in Modern Industry, (1915) 68
 3. Ibid., 110. The salary ranged from £10-£30 pa.
 4. Woolwich Pioneer, 26 January 1917, 6
 5. D J Collier, The Girl in Industry, (1918) 42-4

occupations firm gradations of status were established differentiating between one type of job and another even within the same industry.

A detailed investigation of women in the printing trades written in 1904 made the following points:

The printing trades generally do not attract the most genteel girls, but there are grades between them ... in Manchester up to 1870, to be a folder was looked upon as being next door to being on the streets, but now folders look down upon feeders. Folding and sewing girls look down on the machine girls tremendously and would not sit at the same table with them for anything ... The folder herself despised ... is reported to look down upon the litho and bronzing girls ... for reasons of gentility, girls prefer to become book folders where hours are longer and pay lower, rather than become paper bag makers.¹

The clear message of the above is that social status and stratification operated among women in regard to the different occupations but also within the very confines of the different occupations. Unlike men's work where skill and pay were the most important considerations in status evaluation, this was not so in women's work where factors of local traditions, work ambiance, marital status of fellow workwomen and attitudes of menfolk all played an important role. In occupations where the mere fact of remunerative employment was regarded as an admission of personal failure, these factors assumed considerable significance. Working class women or girls who worked out of necessity and not out of choice could not afford to forego the immediate economic gains in order to acquire skills through apprenticeships which in any case were largely confined to a few trades such as dress-making and millinery. Necessity and social pressure circumscribed the working woman's occupation to mechanical operations and she became an 'adjunct to machines'.²

The progressive young woman eager to show that she is man's equal and can do man's work, seems to be a product of the middle classes. I never met girls with ambitions of that sort among the employees I talked with, said an investigator in the printing trades.³

1. J R MacDonald, Women in the Printing Trades (1904) 67. The Investigators were Mrs J L Hammond, Mrs H Oakeshott, Miss A Black, Miss A Harrison and Miss M Irwin

2. Ibid., 67

3. Ibid., 65

The socio-economic agencies which controlled women's employment opportunities, were based on a firmly fixed concept of marriage, family, woman's true vocation and the bitter harvest of the dispossessed craftsmen. The married woman's working opportunities were even more circumscribed than the unmarried girl's. The accepted view, even after the war, was that the married woman should for the sake of the race and the nation stay at home to look after her children. The notion of 'the interests of the community' had been firmly implanted into the minds of its male members. It became in many parts of England an admission of lack of moral fibre to let a wife go out to work. This was not the case in all localities, but in Newcastle for example:

The men seem to resent their wives working and to feel the position undignified and out of order and the women consider it a hardship which must be borne in silence. They prefer to keep their work as secret as possible and often live in out of the way bye-streets or in rooms up dark passages. So effectively do they hide themselves that the general idea amongst men trade unionists is that no married women are wage earners except as charwomen.¹

This notion of the built-in morality of the male breadwinner was thus transmitted to his wife in most industrial trades, with the exception of course of textiles and clothing. In printing for example, 'The sense of feminine respectability opposes their fellow workwomen working after marriage, unless they have been unfortunate in their husbands'.²

In these circumstances, casual charring, office and school cleaning was the main resort of the woman with children and when this was not available her employment opportunities were curtailed even further. Appalling economic conditions were reported in a London area from which middle class families had moved and alternative industrial work was not available.³

The other resort of the married woman was to take work home. Employment was irregular, wages pitifully small and hours excessively long.

1. C Black (ed), op. cit., 195
 2. J R MacDonald, op. cit., 102
 3. C Black, op. cit., 117

Dressmakers would accept twenty hours continuous stretches of work in the rush season and starvation in the time when the fashionable world was sated with gala garments, rather than have their occupation put in the category with factory workers.¹

One positive aspect of this type of work was that it permitted a certain elasticity of time table for the woman with a household and children, and often of course involved the labour of entire families. The range of home work was enormous. It included the typical handwork trades like artificial flower making and feather curling which could bring in from 6/6 - 8/- for a seventy-two hour week,² to chain making in the backyard - an almost exclusively Black Country trade. In between these two extremes, women performed a wide variety of home work which included dressmaking, laundry work, fur pulling, toy making, box making, button, hook and eye carding. A minimum wage for home work was laid down for some trades by the Trade Boards Act of 1909 at 3d per hour, but was often neither observed nor enforceable. By 1914 wages for home workers had fallen even further.³ According to De Vesselitsky the vast majority of home workers were married women or widows.⁴ Local studies of working women like those done in Birmingham and surrounding district, showed that 38% of women over ten

1. K G Busby, The Women's Trade Union Movement in Great Britain, Bulletin of the Bureau of Labor, No 83, July 1909, 8

2. C Black, op. cit., 32

3. V De Vesselitsky, The Homemaker and her Outlook, (1916) 65. This study was completed in 1914.

One eighty-one year old informant interviewed, who spent her early childhood in a rural area (Bolton-upon-Dearne, Yorks) described the dearth of employment opportunities there for women and girls. The only type of work available was casual charring or outwork. Since there were eight girls in the family the father decided that the only solution was to move the entire family to Batley where work was available in the wool mills. Prior to that the mother earned a meagre wage by cleaning in a pub and shirtmaking at home at 4d per garment. See IWM tape recording with Mrs J Arrowsmith, 6 November 1975.

4. V De Vesselitsky, op. cit., 13

were at work but over half (52%) of home workers were married women and of these almost one half (46%) were widows or deserted wives. In laundry work 63% were married women, in charring 83%.¹ It seems to have been an incontrovertible rule that the lower the job the higher the proportion of married women, with of course the notable exception of Lancashire / textiles.

Margaret Irwin - the Secretary of Scottish Council for Women's Trades - wrote in 1896 that the low paid jute factories in Dundee 'afford employment for the unskilled and casual worker thereby attracting married women in necessitous circumstances'. She recorded that in one mill 97% of the workers were married women.² The statistics of married women so employed have gone unrecorded through the censuses and official Government investigations.³ The 1911 Census put the proportion of married women in paid work at 10.3%, while 14% of all women in paid employment were said to be married.⁴ By the end of the War it became an accepted fact that census figures in regard to married women revealed only the tip of the iceberg. The Ministry of Reconstruction Report of the Women's Employment Committee (1919) touched on some of the problems involved in enumerating its extent:

The census figures cannot be accepted as quite conclusive. The woman intermittently employed is inclined to enter herself as not employed if she is interrogated during an interval of unemployment. In many districts to state that you go out to work after marriage is to a certain extent to confess your marriage a failure. It is probable, therefore, that the census figures understate the actual number of occupied married women. No statistics on the subject are available from the Census of Production and the return made by employers at the request of the Home Office in 1907 did not produce anything like a complete record, even of those employed under Factory Acts, in the textile trades.⁵

The textile factories were industries where married women could continue in occupations begun in girlhood. Another traditional industry where married women could find employment was clothing. In other industries

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1. Cadbury, Matheson and Shann, op. cit., 147, 210
 2. M Irwin, Women's Industries in Scotland, (1896) 9
 3. C Black, op. cit., 223. In selected districts of Leicester the investigator found 43% of married women in receipt of wages, whereas the census found only 25%.
 4. War Cabinet Committee on Women in Industry, Report Cd 135, 1919 sometimes referred to as Justice Atkin's Committee, 22
 5. M.o.R. Women's Employment Committee, Report, Cd 9239, 1919, 53

like jam making, canning, fish curing, herring gutting and agricultural labour, in which married women and children did find employment, seasonality and irregularity made statistical compilation extremely difficult.¹ All the above occupations were termed as unskilled and therefore badly paid. In textiles and clothing which could not by any standard be classed as unskilled, women were merely relegated to the lesser paid tasks or less profitable areas. Ring spinning and piecing was women's work, whilst mule spinning was men's.²

Despite the employment of married women in some areas of industry, they were debarred from other work even if it accorded with criteria of suitability and gentility. Married women were kept out of the civil service, the professions and also out of industrial work where conditions were healthy, like Cadbury's Bournville works.³ One of the reasons sometimes given was that married women caused immorality among young girls.

It is a matter of common complaint that the men and women talk in a way unfit for the ears of young girls. Many social workers deplore the presence of married women and object strongly to their employment.⁴

Married women also experienced discrimination because their domestic duties were estimated to be of paramount importance. In the South 'the prejudice against employing married women as being detrimental to their health and their home life is still strong enough to shut them out of many factories unless they are widowed or deserted. In the textile districts of the North the hold the factory has upon the lives of the women is more enduring'.⁵

1. Ibid., 53

2. C Black, op. cit., 130

3. C Chisholm, 'Interesting Women in Factory Work', System, April 1916, 258

4. Cadbury, Matheson and Shann, op. cit., 195

5. M M Bird, op. cit., 9

The prejudice against employing married women was however attributable to causes other than the employer's concern for the welfare of the married woman and her children. The independent and even militant spirit of the married woman and her insistence on a fair wage is cited in two sources at least as another reason. In the printing trades,

A trade union official said that theoretically the married woman ought to reduce wages but that he was bound to say that his experience in the trade taught him that she did not. She has acquired the right to grumble and she is put down in a considerable proportion of the reports as the centre from which the general discontent in the work-room emanates. Many employers object to her in consequence ... she is in short part and parcel of the fellowship of wage earners.

An employer in a London printing firm who refused on principle to employ married women confirmed this view by saying 'one has no hold over them ... they are tiresome being so cocky'.¹ In Leicester employers were said to dislike employing married women because 'they find the married women too independent - married women in fact are likely to demand a fair wage'.²

Moreover, the prejudice against the employment of married women was the product of two myths at least which the continued disbarment helped to perpetuate; the myth of the male breadwinner and the true mission in life of the married woman.

The myth of the true breadwinner was composed of several elements. One of the most important of them was that the differential between men's and women's wages rested on the rationale of the man's obligation to support a family and the consequence thereof - that the better paid and more skilled jobs be reserved for men. The concomitant of this theory was that the woman ought not to work after marriage and while her children were growing up. Her work before marriage ought not to be a career but a stop gap that filled in the time between adolescence and the arrival of 'the deliverer'.³

1. J R MacDonald, op. cit., 107, 108

2. C Black, op. cit., 228

3. M M Bird, op. cit., 4

A perfect woman may be the most inefficient factory hand or shop assistant. But if she has no art to make her home a place of health and comfort and happiness for her husband or her dependents she is not perfect as a woman.¹

It is a fact, however, that what was needed in most working class families was not 'the art to make home a place of health and comfort and happiness' but hard cash. The estimate of the proportions of women who worked in order to support dependents varied from one investigation to another. One writer suggested that prior to the War women supported something like four million dependents.² Gertrude Tuckwell spoke of 'women's cheap labour ... with its disastrous consequences that in thousands of working class families it has diverted the mother's attention from the supervision of her home'. She pleaded that 'the withdrawal of the mother as wage earner will be compensated by the fact that her competition in the labour market is also withdrawn'.³ This postulated a state of affairs where the labour of women was driving down the wages of men, whereas in fact it was the inadequacy and irregularity of men's wages that seemed to drive married women to work.

Home work which was probably the lowest paid sector of women's work could still be an important and in many cases essential contribution to family income. Giving evidence to the Fair Wages Committee in 1908, Margaret Irwin, opposed the prohibition of home work despite the difficulties involved in imposing minimum wage standards because such a prohibition 'would doubtless involve considerable hardship to numbers of persons who through infirmity or domestic claims ... are unable to attend a factory but who are able to do certain kinds of light work such as tooth brush drawing or embroidery, in their own homes'.⁴

1. Ibid., 106

2. Ellen Smith, Wage Earning Women and their Dependents, (1915), 35

3. G Tuckwell, The State and its Children, (1894) 159, 161

4. Report of the Fair Wages Committee, Cd 4422, 1908, 22. This Committee was set up to enquire whether the principle of Fair Wages as defined by the Government was being observed by sub-contractors in fulfilling Government contracts.

A connection between married women's work and the husbands' incomes must be taken into account in any analysis of women's employment. One such study showed that the proportion of married women in paid occupations rose as the income of their husbands declined. In Birmingham only 35.9% of married women with husbands earning less than 25/- per week were occupied solely with domestic tasks. Of those with husbands earning 25/- and over, 50% were occupied solely with domestic tasks.¹ A study of five towns and 2150 households conducted by Bowley and Burnett-Hurst in 1915 showed that more than 25% of the adult male workers were earning less than 24/- per week and that therefore according to the minimal standards set by Rowntree for York in 1899 they and their families were living in conditions of 'primary poverty'.² In these households the number of women and girls working was very small, however, except in Northampton where it was slightly greater.³ Perhaps even more important than these partially documented and contradictory figures are the reports by factory inspectors which record evasions of Factory Acts in regard to the return of mothers within less than four weeks of the birth of the child and point out the financial imperative that made this necessary. A factory inspector reported in 1908 from Scotland:

I have never found and never expect to find, a woman who has a husband in steady work or even in work at all, attempting to return but it is the poor unfortunate creatures who have got into trouble or married women whose husbands have deserted them or who are out of work, who stay in the factories until the last possible moment and return as soon as they can manage to do so rather than starve at home.⁴

The Local Government Board in Dundee reported that 'if there were work for the men the women could stay at home and care for their children'.⁵ Married women worked where they could find employment and their opportunities for doing so, like those of their unmarried sisters, were greater in industrial urban areas like Lancashire and Cheshire, or in London and the

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1. Cadbury, Matheson and Shann, op. cit., 214, Table I
 2. A L Bowley and A R Burnett-Hurst, Livelihood and Poverty, (1915) 35
 3. Ibid., 190-193
 4. M.o.R. Report, Cd 9239, op. cit., 109
 5. Ibid., 110

Home Counties. This accounted for the trend of higher female to male ratios in the industrial counties and the lower ratios in the predominantly mining and agricultural districts - a fact first noted by the 1881 census.¹

The Carnegie Trust which conducted a study of working women in the first year of the War and before the employment of women had reached its peak, showed the proportion of married women in employment ranging from 5% in Durham to 28% in Leicestershire.² However, far higher percentages emerged from the study for urban areas and London boroughs which showed that the proportion of married women at work depended on the availability of jobs as well as the desire for work. The table below shows urban areas where the proportion of married women in employment was higher than average.

Table 3 Proportion of married women in employment in urban areas³

Acton	20%
Birmingham	22%
Blackburn	42%
Darwen	44%
Finsbury	30%
Holborn	32%
Leicester	28%
Preston	35%
Shoreditch	31%

Margaret Bondfield wrote in the 1916 Labour Year Book ^{that} /the proportion of married women was high in the occupations listed below and particularly high in charring, among widows.

Table 4 Proportions of married women and widows in various occupations⁴

	<u>married</u> <u>women</u>	<u>widows</u>
Wool sorting and carding	35.5%	8.8%
Charring	29.7%	48.9%
Laundry	28.5%	19.6%
Cotton trades	25.4%	3.07%
Lace making	24.26%	10.5%
Boots and shoes	22.06%	4.0%

1. J Saville, Rural Depopulation in England and Wales 1851-1951, (1957) 90-108

2. There was a shortage of work for women in Durham both single and married. Beatrice Hutchins reported the proportion of women in paid employment in the area as compared to Lancashire to be much lower, as the table below shows.

Table 2 Proportions of females occupied in Durham and Lancashire by age group

Age	<u>Durham</u>			<u>Lancs</u>		
	<u>15-19</u>	<u>20-24</u>	<u>25-34</u>	<u>15-19</u>	<u>20-24</u>	<u>25-34</u>
Single	40%	49%	49%	78%	80%	76%
Married/ widows	1%	2%	3%	24%	25%	19%

See B L Hutchins, The Working Life of Women, (1911) 5

3. Carnegie UK Trust, Report on the Physical Welfare of Mother and Children, (1917) vol 1, Tables 114 et al. The figures were collected in 1915.

4. M Bondfield, 'The Future of Women in Industry', Labour Year Book 1916, 253-302

An assessment of the woman's contribution to family income was also the preoccupation of progressive reformers connected with the women's rights movement who were involved in the struggle to raise the status of women's work and its remuneration and to explode the myth of the male breadwinner. A study conducted by the Fabian Women's Group 'extending over thousands of cases in practically the whole range of women's occupations' showed that about half the women canvassed were supporting wholly or partly either children, parents, siblings, disabled husbands or other dependent relatives. Among laundresses the proportion was as high as 75%, among cotton weavers 66%, among needle women 60%, among domestic servants 53% and among nurses 52%.¹ Bowley in a study of 609 households in Reading found only 33 cases of families with three children and a non-employed wife.²

The Rowntree - Stuart study of working women and their dependents published after the War was highly critical of the Fabian Study findings. Their study of a larger sample of women in eleven English towns found a much smaller proportion of women who were wholly or in part supporting others. The aggregate proportions ranged from 9% in Oldham to 13.9% in Newcastle. On the other hand the significant fact that emerged was that ⁱⁿ the higher age group of 36-40, which was assumed to include mostly married women or widows, as many as 28% of the women investigated were found to have dependents. This tallies far more with the Fabian Women's Study which showed 34.34% of women between the ages of 30-40 supporting others.³

The fundamentally different approach to the whole question of women's work in the two studies above is of greater interest than the actual findings. The purpose of the Fabian Women's Study was to establish that equal pay for women was the ultimate goal and therefore the dependence of the family on women's earnings was the relevant question for the investigators. On the

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1. Fabian Society, The War, Women and Unemployment, Fabian Tract No 178 (1915) 19-20
 2. A L Bowley, 'Working Class Households in Reading', JRSS, June 1913, 681
 3. B S Rowntree and F D Stuart, The Responsibility of Women Workers for their Dependents, (1921) 18-19, 23

other hand, the Rowntree-Stuart investigation aimed to establish a scientific basis for a woman's minimum wage:

To what extent are women in a similar position to men ? Obviously they should receive sufficient to maintain them in health and independence, irrespective of whether they are living at home or otherwise. But in fixing their wages should any allowance be made and if so what allowance, for the maintenance of dependents ?¹

The implications of the problem as posed above clearly defined the underlying principles of a man's wage as being based on the assumption, whether correct or not, that the level of his earnings should be sufficient to maintain dependents, whereas the woman's wage was as a matter of policy at least not to be based on her skills or experience, but on her ability to prove financial responsibility towards others. This socio-economic assumption tended even further to subordinate woman's employment opportunity and to make a realistic appraisal of her true role as contributor to the family income even more difficult.

Women's wages before the War

Any attempt at assessing wages and earnings is bound to be tentative and this is particularly true of the wages and earnings of women, whose very numbers are incorrectly recorded. The best that one can do in order to put the war years in some perspective is to give a range of women's wages. Clearly a Government Report that collected figures for 397,503 women and girls in 1906 and put women's wages as ranging from 8/6 in glass manufacture to 16/2 in the cotton industry,² concealed more than it revealed. These figures were based on the 1906 wages census which put the average wage of women over 18 at 13/6 and those of girls at 7/3, but which did not in its investigation include either domestic service or the larger part of home work.³

1. Ibid., 7

2. Ministry of Reconstruction Report, Cd 9239, op. cit., Appendix IV, 82,83

3. A L Bowley, Prices and Wages in the UK 1914-20, (1921) 188

A Fabian Society investigation of 1908 into the wages of women home workers put them at the levels set out below and noted that their earnings were declining.¹

Button carder	3/6
Chain maker	5-6/-
Metal box maker	8/2
Trouser maker (12 hour day)	10/6

It is essential to note that home work at these low rates did not point to isolated instances of women's wages but to a large stratum of the female working population. The Trade Boards Act of 1909 which legislated for minimum wages in only four home industries (tailoring, paper box making, lace finishing and chain making) revealed that 320,000 women and only 80,000 men were employed in these sweated trades. The Act laid down that minimum wages in these trades should range from 2 $\frac{3}{4}$ d per hour - 3 $\frac{1}{4}$ d.² It may be argued that out work represented the bottom end of the spectrum but even factories in which women were employed showed abysmally low wage levels. In the pen trade, for example, which was an important source of employment in the Birmingham area, the wages of women over eighteen in 1906 ranged from 7/- to 15/- per week. In all other trades in the area the bottom end of the scale for women ranged over the 6/- to 8/- mark and only in one trade (brass) did women's wages reach the 9/- to 10/- level.³ Apart from the episodic local studies, a much quoted source of information on women's wages are the Board of Trade reports issued at various dates from 1906 to 1913 for each group of industries.⁴

From many points of view this was an unsatisfactory enquiry. Firstly, because it relied on information voluntarily given by employers and therefore obtained only partial figures. In the clothing industry for example it covered only 29% of the factory and workshop operatives. Secondly, because in the seasonal industries it took no account of the slack periods. Despite its deficiencies however the enquiry did pinpoint the range of women's wages and located therefore the best paid and the least paid

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1. B L Hutchins, Home work and Sweating, Fabian Tract No 130 (1908) 6
 2. A L Bowley, Prices and Wages in the UK 1914-20, op. cit., 194, 196
 3. Cadbury, Matheson and Shann, op. cit., 41
 4. B.o.T., Earnings and Hours Enquiry, Cd 4545, 4844, 5086, 5196, 5460, 5814, 6053, 6556, 1906-1913

occupations. Moreover, it revealed the differentials between men's and women's wages.

Table 5 Average earnings (weekly) for men and women based on the 1906 census in industrial occupations and domestic service¹

<u>Industry</u>	<u>Men</u>	<u>Women</u>	<u>Youths</u>	<u>Girls</u>
Metals	32/2	12/2	10/7	7/2
General engineering	-	-	*19/-	11/-
Chemicals	29/2	12/5	11/-	8/6
Textiles - all trades: cotton, woollen and worsted, linen, jute, silk, hosiery	23/1	14/3	-	-
Bleaching, printing, dyeing	28/10-30/2	12/4	-	8/3
Clothing trades	30/2	13/6	9/8	5/9
Shirtmaking	29/10	13/4	8/11	6/9
Boots and shoes	28/8	13/1	10/6	6/10
Food, drink and tobacco	26/4	11/5	10/-	6/6
Paper and printing	34/4	12/2	8/11	6/4
Cabinet making	33/-	13/1	8/7	6/2
Saw milling	27/4	12/5	9/8	8/4
Porcelain, china and earthenware	32/4	11/11	11/2	6/2
Glass bottle	38/4	8/9	12/1	7/1
Leather manufacture	30/1	12/8	10/5	6/6
Leather tanning	28/11	12/11	11/-	9/2
Barmaids in pubs	-	10-12/-	-	-
Domestic service in London				
19 years between maid	£12/8/-	pa		
21-25 general	£14/18/-	"		
25-30 nurse, parlourmaid, cook	£21-22	"		
30-35 Lady's maid	£28/2/-	"		
40 years upwards, cook	£41/12/-	"		
footman	£26/14/-	"		
butler	£58/12/-	"		

* = topwage

The above average figures do not of course take into account the regional and occupational differences, nor the number of hours worked, though they do give some indication of the wage differentials between the sexes. One positive aspect which the figures conceal is the comparatively high level of wages which could be obtained by women in the textile industry at peak periods. It was reputed that some women weavers in the cotton industry who were operating six looms could earn as much as 30/7 per week as compared to a man's 32/10,² but these were clearly exceptions. The cotton weaving industry was unusual in that the piece rates were equal for both sexes in some sections of the industry

1. War Cabinet Committee on Women in Industry, Report, Cd 135, op. cit., compiled from information on pp 33-70

2. Ibid., 41

and it was therefore the only traditional, women's occupation of long standing where sex differentials were much narrower than the aggregate averages would suggest. In spinning, the differences were much more striking. Women were employed on ring spinning averaging 15/- per week on time work while men performed the better paid mule spinning, averaging 41/2 per week, after paying off the wages of a woman or girl whom they would employ to do the piecing.¹ While better wage rates may have been obtainable in the Lancashire cotton weaving industry there is no indication however that the same was true of women in other areas. Margaret Irwin reported in 1896 that in comparison to the Lancashire weavers' three or four looms - (note the discrepancy between this estimate and the maximum figure quoted by the War Cabinet Committee, see previous page) women in Glasgow operated only two looms. Moreover, women's wage rates were not standardised even among women themselves, but arbitrarily fixed by the employers who would reduce them as they pleased. The same was true for Scottish women tailoring workers of whom there were 5,000 in Glasgow alone.²

The position of women in the metal and engineering industry before the War

The metal and engineering trades did not conform to the criteria of suitability applied to female employment but that was not the only reason why the proportion of women in these industries was still so low despite the fact that total numbers employed in these industries was growing quite rapidly in the twenty years prior to the War. In 1911 the number of workpeople employed reached 1,773,000 as compared to 1,447,000 in 1901 and 1,094,000 in 1891.³ These were industries which by a long tradition were dominated on the labour side by craft unions which refused admission not only to women but to all newcomers through their rules of long apprenticeships. In 1885 the ASE decided to relax its admission regulations by

1. Ibid., 41

2. M Irwin, Women's Industries in Scotland, 5, 14, 15

3. J B Jefferys, The Story of the Engineers, (1946) 118

opening its doors, but not giving the vote, to the less than fully skilled men and unapprenticed mechanics, provided they received equal wages.¹ In 1901 an attempt was made at the executive level to widen the membership of the Society by admitting semi-skilled workmen to a newly created Machinists' section which was to bestow lower benefits on the payment of a lower subscription. This decision however met with virulent opposition from district branches and recruitment into the section was minimal. A decision in 1912 to admit unskilled workers met with even greater resistance and was repealed in 1917.² These tight restrictions in regard to new members did bring some real benefits to the craft unions and made it possible for them to exercise decisive control in some areas. In Sheffield, for example, the membership among engineers and moulders prior to the War was sufficiently high (40-50%) to enforce a closed shop. Unskilled engineering workers had a 30% membership, whereas the iron and steel workers had only 10-12%.³

However, important changes were taking place in the engineering industry during the period 1890-1914 with significant repercussions on the nature of the workforce. While the backbone of engineering continued to be rooted in machinery, steam engines and shipbuilding, major new industries were being developed in motors, cycles, sewing machines and the electrical industries which from the start were being adapted to a standardised method of production.⁴ Particularly in the period 1900-1914 new tools were being introduced and old ones were modified. The capstan and turret lathe, the milling machine, the external and surface grinder, the vertical borer and radial drill, as well as the micrometer were increasingly being used. New discoveries in applied metallurgy and the use of high speed steel were increasingly being adopted.⁵ Nevertheless, although the use of the turret

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1. B Drake, Women in the Engineering Trades, (1917) 10
 2. J B Jefferys, op. cit., 166
 3. S Pollard, A History of Labour in Sheffield, (Liverpool 1959) 235
 4. J B Jefferys, op. cit., 119-20
 5. Ibid., 122-4

lathe and screw making lathe had made headway, Britain was still lagging behind American techniques in moulding, in the use of pneumatic tools, jigs and fixtures.¹

These changes appeared to threaten the very existence of the skilled craftsman, by virtue of the newly opened up possibilities of employing unskilled and semi-skilled labour. This threat before the War was visualised entirely in terms of a male invasion of the craft market, rather than of any possibility of the use of female labour. This was true of engineering branches like core making and moulding, where the development of machine moulding was making headway from 1906 onwards. The Amalgamated Moulders Union which admitted semi-skilled labour and accepted wages lower than the craftsman's rate posed a real threat to traditional craftsmen organised in the National Federation of Foundry Unions.²

Though on the whole both management and unions opposed the introduction of Taylorism or other scientific management techniques, subdivision of processes was beginning to take place before the War. Changing techniques and production of new goods opened up some employment opportunities for women in the lighter metal industries where their labour did not conflict with the interests of the skilled craftsmen.³ The introduction of women into a particular process meant that it was redefined as women's work and wages were accordingly lowered. In the metal trades as in all other industrial occupations with the possible exception of textiles, there was a rigid division between men's work and women's work.⁴

By 1911 women represented about 5.86% of the labour force in metals and engineering. They were proportionately more numerous in the production

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1. A L Levine, Industrial Retardation in Britain 1880-1914, (1967) 10-52
G D H Cole, Trade Unionism and Munitions, (Oxford 1923) 36. For a more favourable view of techniques in engineering see S B Saul 'The Market and the Development of the Mechanical Engineering Industries in Britain 1860-1914' EHR, 1967, 111-130
 2. H J Fyrth and H Collins, The Foundry Workers, (1959) 145. See also S Pollard op. cit., 237.
 3. G D H Cole, Trade Unionism and Munitions, 51
 4. War Cabinet Committee on Women in Industry, Report, Cd 135, op. cit, 11

of precious metals (16.3%) and tools, dies and arms (11.36%). Women's opportunities however even in the new and mechanised trades were confined to repetition work, while the men continued to perform the craft jobs. Changing processes and techniques did not invariably provide women with employment opportunities. In the tin plate trade the proportion of women did not increase, while in declining low paid trades like nail making it increased to $\frac{1}{3}$ of the workforce.¹ It was however during the War that the shortage of labour dramatically altered the dimension of women's employment in the arms industry proper and in the allied metal, chemical and engineering trades. The table below drawn from the 1911 census shows the numbers of women employed in these industries which were subsequently most affected by the substantial war influx.

Table 6 Total number of women employed in metal, wood and chemical trades in 1911²

Metals

Iron and steel	2000
Tinplate	3000
Wire drawing, anchor and chain	15000
Hardware	23000
Engineering	9000
Electrical engineering	12000
Shipbuilding	-
Cycles and motors	9000
Railway carriage etc.	1000
Carriage, cart etc.	1000
Cutlery and tools	17000
Small arms	according to census 300 according to employers 1200
Scientific instruments	5000
Other metals	20000
Jewellery, watches and clocks	12000
Musical instruments	6000
Total	<u>140,000</u>

Chemicals

Heavy chemicals	1000
Textile chemicals, drugs, soap, colours and varnish, explosives	<u>28000</u>
Total	29000

Wood

Sawmilling	1000
Furniture and upholstery	23000
Wood boxes	4000
Basket making	2000
Brush making	8000
Total	<u>38000</u>

1. S Hogg, D Phil, op. cit., 124 et al

2. B.o.T. State of Employment in the UK, Cd 7850, 1914-16, compiled from tables on pp 16, 17

In comparison to the total number of workpeople employed in engineering and allied industries by 1911, the proportion of women employed in these trades as shown in the table on page 28 was still extremely low. During the War their numbers were vastly increased because of the war time expansion of the engineering sector, but fell again by the time the 1921 census came to be taken, though never to the pre-war level. The reasons for the exclusion of women from these growth industries lay in the complex social and economic factors of the pre-war economy. One of the main reasons was that the British engineering industry, despite new technology and new products, relied largely on its traditional heavy engineering products. Despite the new trends, and the slow but progressive technical, mechanical and organisational changes, the old and well trusted goods remained entrenched alongside the new. The same was true of methods and techniques. Even the war years which provided the incentive for modernisation did not advance the process to equal that of some of Britain's competitors. In these circumstances, the powerful control of the engineering unions was not conducive to fostering change. Conservatism in the adoption of new techniques was also reflected in the zealously guarded skills and traditions of the fitters and turners who in the period 1892-1914 continued to represent 90% of ASE's new members.¹ The engineering apprenticeship systems, which were gradually being modified in their role as the unique entrance qualification to union membership, were still the most important passport to the membership of craft societies. The significantly increasing number of semi-skilled workers entering the engineering industry in the motor trade were joining general unions like the Workers' Union, particularly in the Midlands, but the openings for women in these trades were still very limited. Women were employed in the Midlands in the manufacture of cycles, jewellery, pens, hooks and eyes, nails and chain making but the important new sector of motor manufacture was still largely closed to them. In 1911 only 2.7% of those employed in the Coventry car

1. J B Jefferys, op. cit., 127

factories were women,¹ although vehicle and aircraft production were successfully absorbing increasing numbers of semi-skilled men and general labourers. Women's failure to obtain employment in engineering would no doubt have passed unnoticed had it not been for the strikingly new pattern of employment ushered in by the war which was the result of the twin developments of technical progress and the suspension of trade union restrictions - or dilution. Prior to the war the firmly held belief that a woman's working life was confined to her pre-marital state implied that there was no profit to be gained from training her. In addition the elaborate edifice of social and economic criteria, as well as the powerful vested interests of employers and trade unions combined to channel women seeking work into traditional occupations on the one hand, and on the other into whatever casual labour may have been available.

Reformers like J J Mallon - Secretary of the Anti-Sweating League - who recognised the plight of women's economic exploitation attempted to analyse the causes of women's low pay. In a book written at the beginning of the war he concluded that women were disadvantaged by the fact that employers preferred to employ male workers and because their opportunities for employment were too restricted. His recommended remedy for countering this evil was however consonant with the accepted notions of suitability and respectability. The solution as he saw it lay in the expansion of the relatively new women's non industrial occupations - in the distributive trades and the white collar sector:

Attention should ^{be} directed to those occupations in which womanly characteristics would have their value and in which a woman would not be physically at a disadvantage ... The displacement of male typists by female typists and the larger employment of women in clerical occupations and as shop assistants ... undoubtedly represent an advance in the right direction.²

Had it not been for the war, the metal trades might not have earned the instant approval of public opinion as fitting occupations for women, although in the

1. J Hinton, The First Shop Stewards Movement, (1973) 218, ftn. 1
 2. B L Hutchins, Women in Modern Industry, 236

long run the economic trends would have opened up the lower grade processes of the engineering sector to them. The war hastened the process, at least temporarily. They became legitimate and even desirable trades but even in war time awesome warnings were sounded by custodians of women's virtues for whom the revolution in women's employment spelt a negation of women's personalities. At a YWCA meeting in 1917 the Lady Mayoress of Leeds appealed to her listeners as follows:

One of the greatest problems confronting them arose from the launching of girls into all kinds of occupations that were formerly looked upon as only suitable for men. The girls were doing that work splendidly, but the problem was how they were to be helped to keep the grace, and charm and beauty of their womanliness.¹

1. Yorkshire Factory Times, 8 March 1917, 8, 'Working Girl Problems'

CHAPTER 2

THE ENTRY OF WOMEN INTO

MUNITIONS PRODUCTION

This chapter ← — describes the economic and political pressures which, during the war period, brought women in massive numbers into industries where they had hitherto formed a tiny minority of the workforce. It ← — also touches on the conscious and unconscious resistance of employers, Government and labour to the employment of women in industries which had by tradition become the preserve of skilled male craftsmen. The strength of the resistance and the inability to effect a quick reorganisation of production in a war time emergency by employing women were inevitably an integral part of the prevailing notions about women's physique, ability to acquire skills, job endurance and family role. All these factors were reinforced by the age old suspicion and exclusiveness of male craft unions grounded in mistrust of the malevolence of management regarding labour cost and labour exploitation.

The previous chapter has shown that the metal and engineering trades, except for small pockets here and there were not only male dominated industries but in many cases exclusively male preserves. The broad definition of 'engineering trades' in which 170,000 women were engaged in 1914,¹ was encompassed by the definition of 'munitions' as defined by the Munitions Acts (1915, 1916 and 1918).² Munitions, in the terms of the Act, included :

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1. B Drake, Women in the Engineering Trades, (1917) 11
 2. MM (1920-24), Vol IV, Part 2, 72-74

1. the manufacture and repair of arms, ammunition, ships, vessels, vehicles and aircraft intended for use in the successful prosecution of the war;
2. construction of buildings for military purposes;
3. construction of docks;
4. supply of light, heat, water or power, transport facilities designated by the Ministry of Munitions;
5. repair of fire engines;
6. building of merchant ships and oilers.

The history of women's recruitment into the munitions industry and the initial resistance to this recruitment was marked by the preconceptions about capacities of women to do one sort of work rather than another.

The outbreak of the war at first caused substantial unemployment among women in their traditional trades. Textile factories in Lancashire were lying idle in the latter months of 1914.¹ In the Birmingham area there was a shortage of work in the jewellery, brass and cycle trades in which women had been employed in large numbers.² In the clothing industry women suffered unemployment as the demand for men's clothing declined and before the industry had been adapted for the manufacture of uniforms.³ In London, a fortnight after the declaration of the war only 70% of men and 52% of women were in full employment.⁴ The women most affected were those employed in the luxury industries like clothing, the potteries and lace making, and in the export industries like cotton and worsteds. Male unemployment was mitigated to some extent by army recruitment but female unemployment in the whole country remained until February 1915 at a level of 'an ordinary year of rather slack trade'.⁵ In September 1914, 36% of women in the clothing trades were on short time and there was a decrease in the numbers of women employed of 1.5%.⁶ The following table shows the state of employment for the months September 1914 - February 1915, as reported by the Board of Trade.

1. Ibid., Vol. 1, Part 2, 17
2. R H Brazier and E Sandford, Birmingham and the Great War, B-ham (1921) 131
3. Central Committee on Women's Employment, Interim Report, Cd 7848, 1915, ⁷
4. A L Bowley, The War and Employment (1915), Oxford pamphlet No 74, 11
5. Ibid., 15-18. See also B.o.T. State of Employment in the UK, Cd 7850 1915 81
6. Edith Abbott, 'The War and Women's Work in Engineering', JPE, July 1917, 64¹

Table 7. State of employment among men and women between September 1914 - February 1915.¹

	(Numbers Employed in July = 100 per cent)							
	September, 1914		October, 1914		December, 1914		February, 1915	
	M	F	M	F	M	F	M	F
Full time	60.2	53.5	66.8	61.9	65.8	66.6	68.4	75.0
	3,913,000	1,337,500	4,342,000	1,547,500	4,277,000	1,665,000	4,446,000	1,875,000
Overtime	3.6	2.1	5.2	5.9	12.8	10.8	13.8	10.9
	234,000	52,500	338,000	147,500	832,000	270,000	897,000	272,500
Shorttime	26.0	36.0	17.3	26.0	10.5	19.4	6.0	12.6
	1,690,000	900,000	1,124,500	650,000	682,500	485,000	390,000	315,000
Contraction in Nos. employed	10.2	8.4	10.7	6.2	10.9	3.2	11.8	1.5
	663,000	210,000	695,000	155,000	708,500	80,000	767,000	37,500
Enlisted	8.8	.....	10.6	.....	13.3	.....	15.4	.....
	572,000	.....	689,000	.....	864,500	.....	1,010,000	.....
Net displacement (-) or replacement (+)	-1.4	-8.4	-0.1	-6.2	+2.4	-3.2	+3.6	-1.5
	-91,000	-210,000	-6,500	-155,000	+156,000	-80,000	+243,000	-37,500

1. I O Andrews, Economic Effects of War upon Women and Children in Great Britain, New York (1918) Appendix A

The remedies suggested to reduce women's unemployment were entirely traditional, both ~~from~~ ^{of} the Government side and ~~that~~ the labour movement.

The Central Committee for Women's Employment appointed in August 1914 had as its members such prominent women unionists as Mary Macarthur, Margaret Bondfield, Susan Lawrence and Marion Phillips. Its purpose was to assist unemployed women and girls. The Committee set up relief workrooms where women were either employed or trained for the traditional women's trades of domestic economy (cooking) or sewing. Here women were paid the Trade Board minimum of 3d. per hour for a 40 hour week. Articles made were distributed free of charge, so as not to compete with the normal mechanism of the economy.¹

The emphasis was definitely on the traditional women's trades. Even in the Cradley Heath district unemployed women chain makers, whose craft knowledge could not be described as negligible were put to learning the sewing trade. 'Extraordinary progress in the use of the needle' was reported.²

The Fabian Society advocated training in 'new trades' for women but the concept of 'new trades' was moulded by traditional thinking and the old trades. The following is a list of the 'new trades' that the Fabian Women's Group had in mind: pulping of fruit; hand knitting of sea boot stockings; fancy leather, stationery and metal ware; waitressing - hitherto a largely male preserve except for barmaids; Bank and Post Office work, shop work and lift work; toy making and artistic handicrafts.³ The emphatic language used to advocate these remedies did not conceal their inadequacy. Could it seriously be thought that hand knitting or fancy leather work was not merely an extension of traditional training in house-craft and needlework? Yet this was the 'technical' training recommended by the Fabian Society at the beginning of the war. The possibility of introducing women to male skills was entirely absent from their proposals.

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1. The WEWNC was said to have endorsed the minimum wages paid by the Central Committee workrooms. Ibid., 27.
 2. Central Committee on Women's Employment, op. cit., 16
 3. Fabian Society. Women's Group Executive. The War; Women and Unemployment Fabian Tract No 178 (1915) 12

Though the language used bore the militant echoes of the 'new woman' movement, the analysis of women's economic distress was based on the traditional concepts of ills and remedies which had prevailed in the 19th century:

Are the wages of women always to remain inadequate to their needs? Or will the women of Britain rise to the occasion and insist on a thorough technical training for girls of all classes? Will they declare that a little instruction in baby-craft and housecraft and needlework at elementary and secondary schools will not meet the case of women who must earn a livelihood?¹

The women's column of the Woolwich Pioneer, a labour paper, waxed enthusiastic about the splendid careers and 'bright future' awaiting women in toy making in May 1915 when jobs in war work were already becoming available to women. By that time women were beginning to register for war work at labour exchanges.

When the war is over the toy making industry should be fully established and the country should be independent of foreign made articles.²

Emigration of unemployed women to the colonies was another remedy suggested at a meeting of the WEWNC in August 1914. A report of a meeting confirms also that the Board of Trade supported the idea.³ The Australian Government offered to pay each immigrant £1 on landing and the Central Committee was to provide the applicant with £5 worth of garments to be made in the Committee's workrooms.⁴ There is no evidence that substantial numbers of women availed themselves of this generosity but the Woolwich Pioneer of February 1915 did report that 120 'girls' left for Australia to find work as domestic servants. The fortunate candidates were selected by the Queens Work for Women Fund, patronised by Queen Mary.⁵ In March 1915 another party of unemployed women carpet setters from Kidderminster, factory girls, dressmakers, milliners and bookbinders left England.⁶ The Professional

1. Ibid., 26

2. Woolwich Pioneer, Pioneer Women's Column, 28 May 1915

3. WEWNC E.C. minutes, Report of meeting 28 August 1914

4. Central Committee on Women's Employment, op. cit., 18

5. Woolwich Pioneer, 12 February 1915

6. Ibid., 26 March 1915

Classes War Relief Council recommended that women prepare themselves for emigration by taking up training as nursery nurses, teachers, dressmakers, milliners, gardeners, bee-keepers, secretaries and clerks - a familiar litany of suitable occupations.¹

The emergence of women from this condition of labour surplus and their rise to a role of crucial importance in the war effort was clearly not due to the efforts of charitable or labour organisations but to the impact of war imperatives on industrial life. Women were mobilised into munitions gradually, as a last resort in a situation of dramatic labour shortage. The sequence of their mobilisation began with the so called munitions scandal of the winter of 1914 and spring of 1915.²

It had been the practice before the war for the Government to place armament orders with a limited number of firms which were included on a War Office List as being technically equipped to manufacture munitions. At the outbreak of the war it was found that the capacity of their plants was insufficient to meet the vastly increased demand for all military hardware. The War Office attempted to meet the new situation by accepting tenders from additional firms and by permitting large scale sub-contracting practices on condition that the quality of the products remained the responsibility of the main manufacturer.³ By the end of 1914 the failure of the main shell contractors to make good their deliveries was evident, while the machine gun orders were also in arrears.⁴ Similarly, the mere encouragement by the Board of Trade to commercial engineering firms to switch production to armaments was an insufficient remedy for the shortage of munitions supplies.⁵ It was only with the establishment of the Ministry of Munitions in June 1915 under the leadership of Lloyd George that

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1. IWM/Box 84/4, Report of the Professional Classes War Relief Council [1914?]
 2. At the end of 1914 the Government estimated that only 10-15,000 could be found employment in the production of munitions. MM, Vol I, Part 2, 16
 3. MM, Vol I, Part 1, 46-69
 4. Ibid., 120
 5. H Wolfe, Labour Supply and Regulation (Oxford 1923) 58. Humbert Wolfe - (formerly Umberto Woolf) Assistant General Secretary in Charge of Labour Regulations, Munition Tribunals and Controlled Establishments. In 1918 he became Controller of Labour Regulation

the vast organisation needed for the purpose of producing munitions actually took shape and became effective.

The Ministry of Munitions, which took over the functions of the Armaments Output Committee (War Office), began its task by organising production on the basis of a division of the country into thirteen armaments areas. Each area designated contained within it one or more large armament firms and other plants with engineering capacity. Originally the plan was to organise production in these areas under the supervision and tutelage of the main armament firms. This plan was partially abandoned in the spring of 1915 and supplanted by the National Factory scheme. National Factories, of which there were 200 by the end of the war, were set up under Local Management Boards appointed by the Government, included employers representatives and on occasion one or two trade union representatives. The Government had the power to requisition suitable premises, at a fair rent, and machinery in exchange for compensation.¹ Despite this new step of establishing National Factories, it would be wrong to assume that the Ministry attempted at any stage to nationalise armament production. The policies of the Ministry in this and other respects, as will be shown, remained at all times firmly linked to the business preoccupations of the armament interests. One indication of this is the personnel of the Ministry of Munitions. Over ninety directors and managers were recruited into the Ministry for the duration of the war, and played crucial roles in the various committees and sub-committees.²

Another important step in the reorganisation of munitions production was the introduction of the Controlled Establishment. Though these numbered only 6000 out of a total of 32,000 engineering firms by the end of the war they included all the important armament producers.³ A Controlled Establishment

1. MM, Vol I, part 3, 53-76

2. J Hinton, The First Shop Stewards Movement, (1973) 29

3. PRO - Introduction to the records of the Ministry of Munitions compiled in 1970. See also H Wolfe, Labour Supply and Regulation, (1923) 251

was placed under Government control in the sense that it was bound to give priority to Government work and by the regulations as set out in the Munitions Acts of 1915, 1916 and 1918 and the Defence of the Realm Act.¹ The Munitions Acts made Controlled Establishments subject to a limitation of profits but also empowered them to control the workforce through the system of leaving certificates and the suspension of trade union restrictions.² Controlled Establishments gained considerable financial assistance from the Government in that they were entitled special grants for machinery, buildings and welfare facilities and were entitled to claim for any losses after the war for capital investment during the war period. In the case of Vickers, for example, the residual value of Government extensions was calculated after the war at £498,532 as against a war time expenditure of £2,345,148.³ The full extent of Government investment in financing the Controlled Establishments must have been enormous since, according to K F Kellaway - Parliamentary Secretary of the Ministry of Munitions in 1916, 95% of the Controlled Establishments had not produced armaments prior to the war.⁴

The Cordite industry, unlike the armaments industry, was in a better position to meet the requirements of war production. According to one writer, its efficiency was considerable. The oligopolistic cordite firms had always depended almost entirely on Government orders, but the Government in its turn, though unable to exercise control over a rigged tender situation had in exchange required extensive modernisation of production and control over labour conditions. As a result the cordite industry was organised in large units, closely integrated and essentially modern.⁵

1. MM, Vol I, part 4, 17-21

2. Ibid., 38-42. The leaving certificate was defined as follows: 'A person shall not give employment to a workman who has within the last previous six weeks ... been employed on or in connection with munition work ... unless he holds a certificate from the employer by whom he was last so employed that he left with the consent of his employer'

3. Mun 5/100/360/43, 4. A house history of Vickers, written partly no doubt to enhance its reputation, states that Vickers and Armstrong produced the bulk of the guns for the war and 30% of machine guns. Vickers is said also to have designed and perfected the most versatile gun used in the war. See J D Scott, Vickers: a History (1962) 105-107

4. Mun 5/100/360/43

5. R C Trebilcock, 'A "special relationship" - Government Rearmament and the Cordite Firms', EHR (August 1966) 364

As a result of the new Government inspired armaments requirements, substantial changes occurred in local industries. In Birmingham, for example, almost all engineering works were engaged in munitions production by the end of the war. Although shells and fuses had never been a feature in the area, cycle factories were reorganised to produce both. The jewellery industry was likewise adapted for war production.¹ Industrial reorganisation was however only part of the answer to efficient war production. Labour shortage in all branches of engineering was a factor that became evident in the winter of 1914. Attempts were made to attract labour from private commercial work but this was complicated by the reluctance of private firms to release labour on the grounds of their own competence in fulfilling armaments contracts.² Moreover, skilled labour was in such short supply that in 1914 and first half of 1915 it was being enticed from one factory to another in pursuit of higher wages.³ A scheme of skilled Volunteer Munition Workers which was started in 1915 elicited a response from some 102,000 candidates by July 1915 but manufacturers objected to the release of all but 23,000 of these and many among this small number proved unsuitable for the work.⁴

Lloyd George, in an imperious memorandum demanding a report on action being taken in regard to the munitions problems, called the Munitions Volunteer scheme 'a colossal failure' and the report which was furnished for him stated unequivocally that:

It has for some time been clear that the need for skilled labour cannot be fully met either by simple transference of men from private work to Government work or by the release of men from the colours.⁵

The army release scheme which was launched at the same time did not produce better results than the Munition Volunteer scheme.⁶ No amount of

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1. A Briggs, A History of Birmingham, (1955) Vol 2, 217
 2. Wolfe, op. cit., 58. MM, Vol I, part 2, 25
 3. MM, Vol I, part 3, 94-95
 4. Ibid., Vol IV, part 1, 13
 5. Mun 5/49/300/14, Lloyd George's Memo 29 November 1915
 6. Ibid., 30

Government compulsion was capable of actually increasing the labour supply, but only of directing it to where it was most needed. Leaving certificates and badging, i.e. exemption from military service, were introduced to keep labour in munitions but plans for importing men from abroad which were suggested failed conspicuously.

The history of these attempts to recruit labour abroad though insignificant in its results and quixotic in its purpose was in some ways symbolic of Britain's economic role in the pre-1914 international system. Attempts were made to get labour from Canada, from Latin America where British firms had investments and among Belgian refugees from Holland.

In the spring of 1915, for example, Dewelyn¹ Smith reported a diminishing number of applicants at labour exchanges and proposed that Belgian refugee labour be recruited from Holland. The Government was however careful in doing this for fear of antagonising the trade unions and pledged that Belgian refugees seeking work would have to do so through the normal channels of the labour exchange:

Any steps taken to assist them to find suitable employment shall not be such as to endanger the employment of British workpeople.²

This however did not prevent large firms like Vickers from making their own arrangements to import foreign labour. In October 1915, 150 Dutchmen were brought over from Holland by this firm who had plans to bring 500 more from both Holland and Switzerland.³ By the end of the war 75,000 Belgian refugees were employed in separate plants owned by Vickers at Erith and by Armstrong's in Newcastle.⁴

The proposal to bring 'skilled and unskilled' labour from Canada had its origins in a plan formed in March-April 1915 by the Scottish Engineering

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1. Mun 5/9/180/8, 15 March 1915
 2. Lab 2/1492/LE 39910/140. Evidence of U Wolff (later H Wolfe), then Principal Officer in the Labour Exchange Department in the Board of Trade, to the Local Government Board, 13 November 1914.
 3. Lab 2/1492/LE 28848
 4. Wolfe, op. cit., 81

Employers' Federation.¹ It was reported that there was unemployment in Canada among members of the ASE and this was no doubt the reason why G N Barnes MP, a one time General Secretary of the ASE, agreed to investigate these suggestions. In May 1915, The Engineer reported that:

Mr G N Barnes MP for the ASE has left for Canada with the director and general manager of the Labour Exchange Department in London with the object of engaging suitable men for employment in this country in the production of munitions of war.^{1a}

This exercise proved fruitless; Canadian workers could not be induced to come to England and accept lower wages, however patriotic the purpose, when work was available over the border in the US.² The returns from this scheme were decidedly disproportionate to the effort involved. By the end of the war, recruitment from the Dominions totalled 7000, of whom 5000 were Australians.³

Even more far fetched were the attempts to import labour from Chile and Uruguay later in the spring and summer of 1916, when dilution was considerably advanced and training to dilutees was being given in technical schools and instructional factories. The incongruity of these projects and their ultimate fruitlessness can only be fully appreciated in comparing the time spent on the negotiations and length of voyage from South America, to the period of time required for the training of a semi-skilled or skilled dilutee. While these negotiations were being conducted from April until August 1916,⁴ an equivalent period of intensive training could have produced the results required. The search for labour did not even rule out the possibility of drawing on Russian resources and a report was prepared in November 1915, though there is no evidence that any negotiations were actually conducted for the mobilisation of Russian labour into Britain.⁵

^{1a}. The Engineer, 21 May 1915, 514

2. Mun 5/8/172/2. Munitions of War Committee... Armstrong and Vickers were rightly sceptical about this proposal even when first mooted, as their evidence at the above conference showed.

3. H. Wolfe, op. cit., 80

4. Lab 2/1492/LE 23190/2, 3, 4

5. Mun 5/49/300/13

1. Mun 5/8/172/2. Munitions of War Committee. History of the proposal to bring over workmen from Canada.

Throughout 1915 the shortage for skilled labour continued. Armstrong Whitworth works at Elswick clamoured for millwrights and fitters in March 1915.¹ In response to a questionnaire sent out by the War Armaments output Committee in May 1915, shell and fuse producers complained about shortages of toolmakers, tuners, fitters, riveters, gauge makers and tool room mechanics.² The need for skilled and semi-skilled labour was not sufficiently mitigated by large scale introduction of new foolproof machinery, nor by the promotion of partly skilled men to work involving higher skills, known in the trade as upgrading. New types of skills were required for the maintenance of new machines, for construction, testing and finishing. Gauge makers assumed a new importance but these could be trained from the ranks of non craftsmen.³ Skilled turners were needed to set up tools for dilutees and supervise their labour, but straightforward tool setting could be taught, as the Ministry of Munitions discovered by the end of 1915, in 4-6 weeks. Semi-skilled machinists who had before the war done some of their own tool setting were promoted to full time tool setting.⁴ However, despite upgrading and dilution the demand for the fully skilled craftsman remained unfulfilled throughout the war period, but was particularly acute in the period before the implementation of dilution schemes. In May 1915, after the signing of the Treasury Agreement which in theory opened up the possibilities of dilution, there was still a greater shortage of skilled labour than unskilled labour.⁵ Craftsmen were still being used in the old profligate ways traditional to the trade. In August 1915, Addison - Parliamentary Secretary to the Ministry of Munitions and Minister from December 1916 - reported the wastage of skilled

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1. Mun 5/10/180/40. Armstrong Whitworth proposals for increasing the labour supply. 22 March 1915
 2. Mun 5/8/171/14, May 1915
 3. J Hinton, 'Rank and File Militancy in British Engineering Industry, 1914-18', (Ph D London 1969) 51-55
 4. J Hinton, The First Shop Stewards' Movement, 63-65
 5. Mun 5/9173/2. Report of the Intelligence section on the Operations of the Munitions Department, 4 May 1915. Cole notes however that throughout 1915 and 1916 there was a relative scarcity of unskilled male labour which may not have been as great as that of skilled labour was but was nevertheless significant. See G D H Cole, Trade Unionism and Munitions, (Oxford 1923) 137.

labour on lathe operations, but even he still failed to realise the full extent of the demand for craftsmen and put the figure at 70-80,000.¹ In December 1915, another civil servant spoke of a demand for 40,000 men but added 'I think you will find that the demand will not in any way increase because employers have a habit of asking for much more than they really want and in any case, I have found that already the present demand is almost entirely fallacious'.² Hindsight makes it clear that, the demand was indeed fallacious but only because it grossly underestimated the need. The numbers eventually recruited into munitions were far in excess of either 40,000 or 70-80,000 envisaged in 1915. Upgrading and dilution brought in hundreds of thousands of new hands and made fuller use of the craftsmen's skills, but until the spring of 1915 the possibility of employing women on a large scale in munitions was almost completely discounted. Some 100,000 women had volunteered for war work in the winter of 1914 but they were not found employment in the munitions field. As one writer put it 'Prejudice against female labour could not be killed by three months of war'. Employers looked upon women as 'persons who had only to be trained in the actual occupation but who had to learn what is meant by a workshop'.³ But the prejudice against women went deeper than doubts about their inexperience of workshop conditions, since many of the women unemployed at the time had worked in clothing, textiles, jewellery and other factory occupations. The profitability of training women for jobs in munitions and the long term gains of such a policy were questioned. The history of the Ministry of Munitions found it logical why at first the enrolment of women on the Special Register was much greater than the numbers engaged. 'It is probable that the would-be armament workers with no previous experience included a large proportion of persons whom no employer

1. Mun 5/22. Meeting of the National Advisory Committee, 31 August 1915
 2. Mun 4/534/62, J B Adams of the Ministry of Munitions to C Ellis, 7 December 1915
 3. 4. Wolfe, op. cit., 78, 79

would have thought it worthwhile to train'.¹ In May 1915, 13,780 women were enrolled at Labour Exchanges on the Special War Register for armament work but only thirty-four were found jobs, and by 4 June of the same year nearly 80,000 women were enrolled of whom only 1,816 were engaged ^{for work} in armaments, engineering, vehicle construction and the metal trades.² The time and effort needed to train these applicants would have been minimal since the only context in which women were thought, at that time, as employable was in menial labouring or repetition work which required 2-3 days' training. Even so the total prospective demand for women's labour had been estimated at the end of 1914 to reach the grand total of 10-50,000 by the spring of 1915 by which date munitions factories were expected ~~to~~ to reach 'working order'.³

Prejudice was not confined to Government or employer circles. G D H Cole in a book written after the signing of the Treasury Agreement and published in 1915 opposed the Special Register on the grounds that only 2,000 women enrolled had been found work. 'There seems no reason for going in search of more female labour'.⁴ Prejudice against women was not, however, confined to industry and munitions but included apparently suitable occupations for which women had volunteered, like the civil service. One writer reported with chagrin ^{that} this prejudice against women at both the higher and lower levels was due to the fact ~~that~~, that the process of selection was being done by men.⁵ Male labour was increasingly scarce but the reluctance to employ women continued. A management magazine

1. MM, Vol I, part 2, 18

2. Ibid., 17

3. Ibid., 16

4. G D H Cole, Labour in Wartime, (1915) 208-9

5. L K Yates, 'Women and the Civil Service', Englishwoman, October 1915. 'A wrong standard is thereby unconsciously introduced into some of the clerical quarters of the civil service, which are ... apt to become haunts where diaphanous blouses and pseudo Parisian chic are strongly in evidence.' The civil service, however, did by the end of the war become strongly infiltrated by women. In the Ministry of Munitions alone women accounted for 12,636 out of a total of 22,620 employees. Mun 4/5323/ Vol 1, Establishment Committee

reported in December 1915 that in work as unskilled and unindustrial as envelope sealing 'men and boys had to be replaced constantly because they were leaving for better jobs or because of enlistment. Only in the end was work reorganised to use women'.¹ In January 1915, the labour shortage was so acute that proposals for labour conscription were being mooted for redirecting labour from non-essential to essential industries. At that date mobilisation of female labour was envisaged only in terms of re-direction into domestic service.²

Traditionally ingrained prejudice apart, one of the major stumbling blocks to the dilution of labour in general and the use of women in particular, was the opposition of the craft unions to the recruitment of unskilled labour for any task which by tradition and struggle had come within their control. Any scheme for the optimal use of scarce skilled labour involved the cooperation of these major craft unions - the ASE was the most important but they included also the various shipbuilding and woodworking organisations. The first concrete steps to achieve this aim were taken when the Treasury Agreement was signed between the union representatives, the employers and the Government, on 19 and 25 March 1915 (see Appendix A and B). The numerous conferences which took place throughout March centred on the issue of relaxation of trade union restrictions which dilution implied.³ These were practices and customs connected with work demarcation in engineering and shipbuilding which had, through the years, enabled labour organisations to maintain some measure of control over wages and workload. The suspension of restrictions applied not only to limitations of output and the number of machines to be attended by a workman but also to the suspension of rules regarding the

1. System, December 1915, 333

2. Mun 5/9/180/2. Memo by W Layton, at the time Director of Statistics, later Director of Requirements and Statistics [January 1915 ?]

3. Mun 5/10/180/17. Conferences of 17th-19th March 1915. See also MM, Vol I, part 2

exclusive employment of fully apprenticed labour on specific operations. The pressures by the Government on the unions to agree to suspension was enormous¹ and the unions fought a rearguard action to maintain as much as was possible of their old status in conditions of a national emergency. The ASE, which was clearly the leader on the labour side throughout the negotiation, which led up to the signature of the Treasury Agreement and its supplementary clauses, insisted on the adoption of various safeguards. Relaxation of restrictions was conceded solely for the war period and only for munitions work. In exchange the Government pledged itself to the restoration of trade union rules after the war and, at the insistence of the ASE, to Government control of profits in Controlled Establishments. The limitation of profits clause was intended to give some semblance to the idea of equality of sacrifice in a national emergency. It was agreed that the sum total of net profits in Controlled Establishments was not to exceed 20% over and above the total net profits made during the preceding two years, while the excess was to be divided between the manufacturer and the Government.² The Treasury Agreement and the additional profit limitation clauses formed the backbone of the Munitions Act of July 1915 and its subsequent amendments in 1916 and 1918. This was the legislative enactment of the dilution policy and the nearest that could be achieved to labour conscription and labour regulation without actual compulsion. According to one writer, one of the positive features of this bargain, to which

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1. Ibid., 9. Lloyd George even appealed to the Socialist principles of the union in his attempt to persuade them to accept the dilution schemes and cited the example of the French unions which had admitted women to munition workshops.
 2. MM, Vol I, part 2, 68-80. Profit limitation could not be applied to small firms or those partially engaged on Government work. Subsequently, at the end of 1915, an excess profit tax scheme was passed in addition to the original limitation of profits clause. Ibid., p 80. The Official history of the Ministry remarks with some astonishment that 'The ASE had made no demands for any profit sharing scheme'. Ibid., 80.

labour was a partner, was that the unions had established themselves as organisations to be consulted and reckoned with in the corridors of power.¹ This, however, was not the view of the rank and file unionists who soon showed that they would not necessarily heed bargains struck at national level.

The agreement which paved the way for dilution was fraught with complications. The policy of preserving skilled men for skilled jobs opened the gates of the engineering industry to the half trained and untrained, unapprenticed labour, posing an unprecedented threat to the craftsman's privileges, even if the suspension of trade union restrictions was said to be temporary. As one of the delegates to the Treasury conference put it in referring to the guarantees for the removal of semi-skilled men after the war, 'Could you devise ways and means of eliminating the skilled knowledge which the semi-skilled men will have acquired?'² The other threat to the skill of craft members came from the greatly accelerated changes in processes and techniques introduced into munitions during the war, and it was for this reason that the ASE insisted that wages of dilutees be based on the 'rate for the job' and not on the nature of the machine on which the worker was to be employed.³ The pledge given by Lloyd George in this connection that new inventions would be considered in the category of war time relaxations was, however, an empty promise in a system of production where greater mechanisation could not in later years be wished out of existence.⁴

1. G D H Cole, Labour in Wartime, . 193

2. Mun 5/10/180/18. Proceedings of the Treasury conference with ASE. 25 March 1915, 29

3. Paragraph 5 of the Treasury Agreement stated: 'Where the custom of the shop is changed during the war by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the rates paid shall be the usual rates of the district for that class of work. The relaxation of existing demarcation restriction or admission of semi-skilled or female labour shall ^{not} affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustment shall be made so that they can maintain their previous earnings.' See Appendix A.

4. Mun 5/10/180/18. Treasury meeting 25 March 1915. Brownlie's question about changed processes changing the type of work in the future and Lloyd George's answer, 30

The Treasury Agreement, negotiated at national level by union executives, was the official but only preliminary step to dilution. The ASE and the other craft unions insisted that the actual content and procedure of dilution be a matter for consultation between employers and labour at the local workshop level,¹ a procedure which both Government and employers abhorred but were more often than not compelled to abide by. The Government acknowledged that this attempt at consultation was the only alternative to outright compulsion of civilian labour over a long period, as a long Memorandum by U Wolff (later H Wolfe) - Controller of Labour Regulation - drafted in May 1917 made plain.² By that time the experience on the Clyde had shown that dilution without consultation could lead to disastrous consequences in terms of lost production. It so happened that one of the sparks that set the Clyde fire alight was the Fairfield strike on the 27th of July 1915 which erupted as a result of unilateral action of employers in substituting plumbers for coppersmiths. On the other hand, the Government was in no position to rely entirely on labour willingness to co-operate in putting the dilution agreements into practice, and opted for a combination of compulsion and consultation. The shortage of labour, the absolute need for continuing and stepping up production, and the pressure of employers to use the big stick made the balancing act a precarious exercise.

The Munitions Acts attempted to provide the compulsion required. They established a system of compulsory arbitration, made strikes illegal and attempted to direct and retain labour where it was most needed through the system of leaving certificates. Munitions Tribunals were set up to adjudicate on grievances on both sides of industry. The leaving certificate was the most prominent source of friction which came up before them. In June 1916, for example, 513 out of a total of 772 cases heard concerned the leaving certificate question.³ The purpose of the leaving certificate

1. Mun 5/346/Hist H 300/2, Memorandum by U Wolff, 21 April 1917
2. Mun 4/3335/Memorandum by U Wolff, 21 April 1917
3. MM. Return of cases heard before Munitions Tribunals 29.11.1916-1.7.1917. Cd 8360, 1916, 3. There were 55 Local Tribunals and 12 General Tribunals to deal with cases in order of their importance. Trade Union members represented the labour side but women members were few. In the Newcastle District Local Munition Tribunal there were 4 women assessors in a labour panel of 73.

system was obvious; it restricted the mobility of labour to the highest bidder in the whole of the munitions sector.¹

In the interests of maximum production skilled engineering workers, who numbered about 1 million, were absolved throughout the war from military service by the various schemes of exemption which were successively introduced.² Some engineering occupations were 'starred' as from August 1915 and workers employed in them were granted complete immunity from recruitment. The 'badge' system, first introduced in February 1916, vested the power of granting immunity to employers and in September 1916 similar powers were granted to the Ministry. In November 1916 the provisions of trade card system granted exemption to members of 25 craft unions, including of course the ASE; later, in March 1917 these provisions were somewhat curtailed by the list of protected occupations drawn up by Government Departments. A more detailed description of the friction and problems which arose as a result of discrimination in favour of the skilled unions will be given in Chapter 8 but the fact that less skilled workers were not exempt from conscription and that the Manpower Board was pressing for 'debadging' of semi-skilled workmen, especially after October 1916, was used as a disciplinary weapon by employers.³ Dilution Officers were empowered to supervise the practice of 'badging'; and from the Spring of 1916 they were asked to 'report all cases where they found badged men who were not occupied three-quarters of their time on important war work or whose work could be done by female or other ineligible labour for whom substitutes could readily be found'.⁴ Ministry Inspectors helped in the process of weeding out those men eligible for military service:

Some of the Inspectors were enthusiasts for women's labour; others appeared to be animated by the desire to send shirkers into the Army.⁵

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1. H. Wolfe, op. cit., 220. The leaving certificate system caused much industrial unrest and was abolished in 1917.
 2. For a detailed account of the various schemes of exemption see MM, Vol IV, part 3, and Vol VI, parts 1 and 2
 3. J Hinton, The First Shop Stewards Movement, . . . 38 footnote
 4. MM, Vol IV, part 3, 66
 5. Ibid., 79

Another instrument designed to ensure a smooth flow of munition production was compulsory wage arbitration. Wage grievances came under two arbitration bodies. For the first two years of the war they were dealt with by the Chief Industrial Commissioner (Board of Trade), and in 1917 were taken over by the Committee on Production, under the chairmanship of Sir George Askwith.¹

In addition to setting up bodies designed to prevent industrial strife, the Government also mounted a campaign of persuasion to achieve the goal of maximum dilution. A trade union delegation was sent to France in July 1915 'in order that they might see for themselves the necessity of increasing and accelerating the manufacture of munitions'.² Lloyd George himself, as Minister of Munitions, was obliged to travel to the Clyde - where he received an extremely rough reception, - at Christmas 1915 and face the anger and the heckling of the Clyde workers.³ A Committee of labour leaders was appointed on 31 March 1915 to promote the relaxation of restrictive practices - the National Advisory Committee on War Output. The National Committee in turn appointed local Labour Advisory Boards to act as its agents, to negotiate with local trade union representatives and to take up cases of bad time keeping.⁴ It was hoped that these local trade union bodies would 'curtail the power of the foreman', though there was no illusion that they could actually avoid trouble on the shop floor.⁵

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1. The Committee on Production was originally appointed in February 1915 to inquire into ways and means of increasing munitions production and to negotiate for the removal of trade union restrictions.
 2. Mun 5/22/242.1/100, NAC minutes, 28 July 1915
 3. MM, Vol IV, part 4, 176, Appendix XIX, Account of the meeting of Lloyd George with the Shop-Stewards at Glasgow on Christmas Day, 1915, reprinted from Forward, 1 January 1916
 4. Mun 5/22/242.1/, October 1915. Memo on functions of Local Labour Advisory Boards. In July 1916 the National Advisory Committee issued a pamphlet recommending the postponement of holidays, which was signed by Clynes, Dawtry, Tillett, Baker, Hill and Julia Varley. The general unions represented on the Committee did not include the Workers Union until 30 January 1917. See Mun 5/22 NAC minutes.
 5. Mun 4/3335, Memo by U Wolff (H Wolfe) on labour regulation, 21 April 1917,

On the Government side no effort was spared to enforce dilution. In 1916 Dilution Officers were appointed for every part of the country and a special journal to publicise and inform employers about advantages of substitutes was published.¹ Where resistance on the part of the workforce was particularly strong Dilution Commissioners were appointed, as on the Clyde and Tyneside. The Labour Regulation Department appointed Investigation Officers to act as 'eyes and ears' of the Department.² The Labour Investigation Department also saw it as part of its function to break up strikes, and not always through the official channels of arbitration. A long memorandum on the subject laid down ←the best way to do so:

Let them blow off steam and then move in with strike breakers from the army and send the strikers back to the trenches as in Liverpool in 1916.³

The combination of all these measures set the stage for a new phase in the engineering industry which included a thorough technical overhaul of the process of production under the aegis of the State and a major revolution, if only a temporary one, in the status of craft unionism through the mass mobilisation of female and male dilutees. The official history of the Ministry of Munitions maintained that in the field of organisation of munitions production;

National factories led the way in dilution and set standards in the percentage of female and unskilled labour employed which could be used with advantage when pressing for further dilution in private workshops.⁴

National factories also served as exemplars for reasonable contract prices and for efficient manufacturing methods. National Projectile and Shell Factories were said to be superior to other firms both in terms of the use of labour resources and in terms of costs of production.⁵

1. Dilution of Labour Bulletin began publication in 1916
2. Mun 5/79/340/1 Labour Regulation Department. Instruction to Investigation Officers, 1917, 7
3. Mun 5/79/340/2 General Memo on the functions of the Labour Regulation Department, 18 June 1917, 10
4. MM, Vol II, part 1, 30
5. Ibid., 39

The reorganisation of munitions production and the dilution agreements paved the way for the large scale mobilisation of women into all Government work and even more significantly into metals and engineering which prior to the war were almost exclusively preserves of male labour. Towards the end of the war, in November 1918, the number of women employed in munitions in its broader meaning of war material, stood at 1,587,300¹ but even more astonishingly 840,300 women were employed in Government work in engineering and metal work in September 1918.² The factors which made this considerable mobilisation possible included, apart from the dilution agreements and the reorganisation of munitions production, an unprecedented programme of technical training for women which is described in Chapter 4. The process of mobilisation which was slow at first, even after the signature of the Treasury Agreement, gathered speed in 1916 as buildings and equipment became available, the opposition of employers diminished and the anti-dilution struggle of male labour became less acute, for a while at least.

1. MM, Vol VI, part 4, 75, Table XVII
2. Ibid., 55, Table XIX

CHAPTER 3

DILUTION

The Enactment of Dilution

The process of dilution signified a remarkable change for women in search of work. For the first time ever perhaps their labour was in short supply and the demand for female hands was reflected in the numbers who registered and obtained work at labour exchanges. The number of vacancies notified, which represented only a partial picture of labour demand, rose in Engineering, Shipbuilding and Chemicals from 5513 in the first quarter of 1915 to 8790, 20,420 and 30,389 for the three succeeding quarters. Between July 1915 and the end of the year the weekly demand for female labour rose from 1087 to 2294 and by August 1916 it had reached 8698.¹ In one year alone, from July 1915 - July 1916, 532,000 new work-hands had been introduced into the production of munitions.²

The proportion of women employed on Government work grew from 25.6% of the total female labour force in July 1915 to 51.8% of the total female labour force by July 1918. In metals and chemicals the proportion of women to total number of women employed in these industries was even higher as the table overleaf shows.

The percentage of women on Government work in the metal and chemical trades accounted for 89.4% of the female labour force in these industries in July 1918 as compared to 33.5% in April 1915. The comparative figures

1. MM, Vol IV, part 4, 17

2. Ibid., 16

Table 8 Females employed on government work, July 1915 - July 1918¹

Industries	July, 1915		July, 1916		July, 1917		July, 1918	
	Numbers Employed on Government Work	Per-centage to Total Numbers Employed	Numbers Employed on Government Work	Per-centage to Total Numbers Employed	Numbers Employed on Government Work	Per-centage to Total Numbers Employed	Numbers Employed on Government Work	Per-centage to Total Numbers Employed
Building	1,000	13.3	6,000	60.0	14,000	70.0	18,000	62.1
Mines	2,000	30.8	3,000	27.3	5,000	41.7	6,000	46.2
Metals	121,000	59.6	259,000	70.0	437,000	83.5	534,000	89.8
Chemicals	9,000	18.7	44,000	50.5	64,000	58.7	66,000	63.4
Textiles	226,000	25.4	220,000	24.2	281,000	31.8	335,000	40.5
Clothing Trades	127,000	20.0	88,000	14.0	97,000	16.9	142,000	25.0
Food, Drink and Tobacco	32,000	15.3	32,000	13.8	38,000	16.8	57,000	24.2
Paper Trades	15,000	10.8	22,000	15.1	35,000	24.4	40,000	28.3
Wood Trades	12,000	25.0	16,000	28.5	30,000	44.1	40,000	50.6
Other Trades	37,000	35.4	44,000	36.2	59,000	42.6	73,000	48.5
Total Industries (under private ownership)	582,000	25.5	734,000	28.8	1,060,000	39.4	1,311,000	47.8
Government Establishments	6,000	100.0	72,000	100.0	206,000	100.0	225,000	100.0
Total Industries (including Government Establishments)	588,000	25.6	806,000	30.8	1,266,000	43.5	1,536,000	51.8

1. Ibid., Vol VI, part 4, 46, Table XIII (b). The figures quoted in this table were said by the Official History to be broadly accurate about the numbers employed in all Government Establishments and in private concerns although, it was pointed out, that 'no comprehensive and continuous inquiry as to the total number of munitions workers employed was carried out by the Ministry of Munitions'. Ibid., 48

for men were 91.2% in July 1918 as compared to 55.9% in April 1915. The number of women increased during the period at a much faster rate than the number of men, from 78,000 in April to 825,000 in July 1918 while the comparable figures for men were 1,009,000 in April 1915 and 2,046,000 in July 1918.¹

The table below shows the percentage distribution of women workers in some of the branches of munitions production by the end of the war where the proportion of women was relatively high.

Table 9 Estimated numbers of women employed in national factories, admiralty dockyards and on government work in protected firms (i.e. where the skilled workers were protected from recruitment), in September 1918²

<u>Branch of munitions</u>	<u>Nos of women</u>	<u>% of women to total workforce</u>
Ministry of Munitions		
gun ammunition:		
manufacture	186,100	49%)
filling	69,600	70) combined 54%
Aeronautical supplies	67,100	33
Optical munitions and glass	4,300	41
Constructional engineering	28,300	26
Gauges, screws and tools	34,400	38.5
Machine tools	6,700	24.5
Inspection	39,900	70
Admiralty	117,500	13

Many of the new women recruits to Government work were girls under eighteen. The following table shows the numerical increase or decrease in the number of girls employed in the various industries during the war years. The relative decline in the number of girls employed in the textile trades by July 1918 and the relatively small increases in the numbers employed in 1916 and 1917 should be noted. The clothing trades suffered even greater losses as from July 1917 while the decrease in the number employed in the paper trades remained more or less the same throughout the period. These trends, when compared to the large increases in the metal, chemical and wood

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1. MM, Vol VI, part 4, 49, Table XIV, Numbers employed in Government Establishments and Government Work in the Metal and Chemical Trades
 2. Ibid., 55, Numbers from Table XIX, and percentages computed out of total for each branch of engineering separately

trades were significant in that they reflected the relative unpopularity of what were, before the war, the traditional women's industries. This phenomenon is borne out further by Table 13 on page 63 which shows the proportion of firms reporting shortages of female labour. It would appear that the greater choice of employment available encouraged greater mobility and migration from traditional to the new industries opened up by the war.

Table 10 Increase in the employment of girls under eighteen, July 1914- July 1918, by trade group¹

Trade Group	Girls				
	Numbers Employed July 1914	Increase (+) or Decrease (-) from July 1914 up to			
		July 1916	July 1917	July 1918	Total in July 1918
Building Trades	1,300	+ 1,400	+ 4,100	+ 4,300	5,600
Mines and Quarries	1,700	+ 1,300	+ 1,400	+ 1,900	3,600
Metal Trades	45,200	+ 37,700	+ 62,700	+ 70,600	115,000
Chemical Trades	11,200	+ 10,000	+ 14,500	+ 13,400	24,600
Textile Trades	215,000	+ 8,400	+ 1,100	- 5,000	210,000
Clothing Trades	140,600	+ 7,200	- 6,000	- 24,200	116,400
Food Trades	48,800	+ 18,800	+ 3,900	+ 5,000	53,800
Paper & Printing Trades	45,700	- 1,300	- 1,700	- 1,400	44,300
Wood Trades	10,500	+ 4,000	+ 9,700	+ 11,500	22,000
Other Trades	26,000	+ 8,300	+ 11,100	+ 14,500	40,000
Total Industries (under private ownership)	546,000	+ 95,800	+100,800	+ 90,600	636,600
Government Establishments (including Arsenals, Dockyards, National Shell Filling and Projectile Factories etc.)	-	+ 3,000	+ 10,000	+ 7,900	7,900
Total Industries and Government Establishments	546,000	+ 98,800	+110,800	+98,500	644,500

In January 1918 a significant proportion or 86,367 out of a total of 520,399 of female workers in Controlled and Government Establishments were girls under eighteen.² While the total does not include all women employed in munitions it is some indication of the proportions involved in the larger munitions works.

1. Ibid., Vol VI, part 4, 35, compiled from Table XI

2. Ibid., Vol VI, part 4, 57, Table XX

Table 11

Analysis of pre-war occupations of women and girls to whom Unemployment Books were issued under the National Insurance (Part II) (Munition Workers) Act, 1916, up to 13th January 1917

Pre-War Occupation

Present Occupation	Same Occupation	Household Duties and not previously occupied	Textile Trades	Clothing Trades	Other Industries	Domestic Service	Other Non-Industrial Occupations	Total stated and classified
Metal Trades	53,249	18,927	3,408	4,635	12,458	12,502	5,449	110,628
Chemical Trades	14,634	52,407	6,226	17,941	20,879	44,438	17,079	173,604
Textile Trades	6,378	4,730	1,377	3,695	2,320	2,531	1,054	22,085
Clothing Trades	38,256	9,334	1,000	8,430	5,745	4,970	3,643	71,378
Wood Trades	4,439	3,764	783	1,490	2,626	3,950	1,196	18,248
Leather Trades	7,682	2,179	695	1,372	1,782	1,311	822	15,843
Rubber Trades	7,897	4,055	1,119	1,561	2,104	2,393	1,030	20,159
Others	4,003	3,115	400	669	1,233	1,897	875	12,192
Total	136,538	98,511	15,008	39,793	49,147	73,992	31,148	444,137

1. B.o.T. Increased Employment of Women during the War in the UK, Cd 9164, 1919, 6, Table III

The remarkable increases in the total number of women employed reveal not merely the entry of women into untypical and new occupations but a substantial abandonment of traditional job opportunities, work and life habits. Unfortunately there is no comprehensive information on pre-war occupations of all the women who came into munitions during the war but information does exist for 444,000 women who applied for unemployment books under the National Insurance (Part II, Munitions Workers) Act, 1916 and includes all the women workers who stayed in munitions work up to the beginning of 1917. Of the 444,000, 380,470 were women over eighteen and 63,667 were girls under eighteen.¹ A detailed analysis of previous occupations of women is set out in Table 11 on page 58.

The numbers tabulated in Table 11, accounting as they do for more than half of the women drawn into industrial establishments up to July 1917, by which date they numbered 720,000,² is sufficiently large for general conclusions to be drawn from them. They show that about 70% of women in these trades were new to their occupations. In the metal trades 51.9% were drawn from other occupations and in the chemical trades as many as 91.6%. In almost all instances the largest source of labour were women classified as unoccupied, or engaged in domestic service.

The following table sets out in detail the proportions drawn from the various pre-war occupations.

Table 12 Percentage of total number of women employed in each group of insured trades who had before the war been employed in the same occupation and of those drawn from other occupations³

Pre-War Occupations	Occupations at January 1917				
	Metal Trades	Chemical Trades	Clothing Trades	Other Trades	All Insured Trades
Same Trade	48.1	8.4	53.6	34.3	30.7
Household Duties and not previously occupied	17.1	30.2	13.1	20.2	22.2
Textile Trade	3.1	3.6	1.4	4.9	3.4
Clothing Trade	4.2	10.3	11.8	9.9	9.0
Other Industries	11.3	12.0	8.0	11.4	11.1
Domestic Service	11.3	25.6	7.0	13.7	16.6
Other non-industrial occupations	4.9	9.9	5.1	5.6	7.0
Total Insured	100.0	100.0	100.0	100.0	100.0

1. Labour Gazette, December 1917, 438
 2. *Ibid.*
 3. *Ibid.*

The pre-war occupations of women in the munitions industries, defined in their narrower meaning of ammunition and war material, varied of course from district to district. In industrial areas where the proportion of women in domestic service compared to women in industry was comparatively small, a larger proportion were recruited into munitions from industrial occupations rather than the home or domestic service. For example in the Leeds area, two engineering firms employing 500 and 2000 women respectively stated that of the new recruits a larger proportion were drawn from textiles and clothing than the national figures quoted previously show. Both firms suggested that something like 28% of the women had been 'unoccupied', 28% were textile workers, 16% clothing and boot and shoe workers and only 14% were previously employed as domestic servants.¹ These figures coincide roughly with the proportions quoted by the 1911 census for the Leeds district which put the percentage of occupied women engaged in the clothing industry at 22%, 13% in the textile trades and only 11% in domestic service.² These figures would tend to reinforce the argument that domestic service had always been the last resort of women workers and that in areas where other occupations existed women tended to take up industrial work.³ It was precisely the absence of alternative employment that accounted for the very high numbers in domestic service in the 19th century.

At Armstrong Whitworth, Newcastle, where 14,683 women were being employed by September 1918, the pre-war occupations for 9190 of these were listed as follows:⁴

	No.		No.
at home	3486	laundry	242
domestic work	2513	printing	93
shop work	1158	brewery	56
factory	924		<hr/>
dressmaking	402	Total	9190
charring	316		

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1. A W Kirkaldy (ed), Industry and Finance, 2 vols (1917 & 1920) Vol 2, 29
 2. Ibid., 29
 3. A M Anderson, Women in the Factory (1922) 239. Adelaide Anderson was Chief Lady Factory Inspector.
 4. IWM Box 150 A Resume of Welfare Work at Armstrong-Whitworth, Elswick Works, Newcastle, 1919, 13

At the HM Factory in Gretna the proportions were similar in that domestic work, charring and 'the home' made up the highest proportion of former occupations.¹

domestic service	36%
at home	20%
in munitions	15%
in factories	12%
laundry, farm work, dressmaking, teaching and clerks	12%
shop work	5%
	<hr/>
Total	100%

In other areas like Birmingham where the proportion of women employed before the war in the metal and rubber industries was already relatively high, the percentage of all women employed during the war rose by 137% in 1917 while the percentage of men rose by 23%. Of the women brought into employment during the war 30% had not previously been occupied.² The occupational structure of female labour in the Birmingham area underwent substantial and logical changes during the war. By November or December of 1916, half the women chain makers of the Cradley Heath area, and above all the younger element were said to have left the trade for munitions work.³

The adventurous flexible and wage earning unmarried women has to some extent gone to higher wages in munitions works and the married more erratic ... woman is in greater proportion in the trade ... The whole chain making and the hollow ware industry is paying the penalty of the past.⁴

Munitions work became remarkably more popular among women than the traditional women's trades whether industrial, domestic or distributive. As early as in May 1915, the Woolwich Pioneer reported that the National Register for women showed the following range of preferences.

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1. IWM Box 147/13, Report on HM Factory at Gretna, 1919, 35
 2. Lab 14/17, Industrial War Inquiries Branch, Report on industries during the war, prepared for the Industrial Survey Conference, March 1918
 3. Lab 2/266/HQ 75, Report of the Intelligence Section of the Ministry of Munitions, November, December 1916, 4, Statement by Thos. Sitch, Member of the Chain Trade Board in 1917 and Secretary of the NFWW at Cradley Heath
 4. Ibid., 5

11,000	volunteers	for	armament	work
9,000	"	"	clerical	work
7,000	"	"	agricultural	work
2,000	"	"	shop	work
1,200	"	"	needlework	¹

The Labour Gazette reported in the summer and autumn of 1916 that the scarcity of women's labour was most acutely felt in the traditional women's industries like clothing and textiles which were being abandoned for more novel employment in metals and chemicals.² The shortage of women in textiles was so acute that some Lancashire textile manufacturers were reported to have asked that the school leaving age be reduced to 12.³ Information collected by the Board of Trade from 1916 onwards showed unmistakably a great shortage of women in industries and occupations in which women were traditionally employed. Textiles, clothing, paper and printing, wholesale and retail drapers were all areas where the percentage of firms reporting a shortage of labour was highest. On the other hand, the metal and chemical trades showed a remarkable ability to fill their needs. Table 13 on page 63 shows the percentage of firms reporting a shortage of female labour during the successive years of the war.

Other non-statistical observations of the war period lend further weight to the evidence that traditional women's trades were not taken up by choice but by necessity. Adelaide Anderson - Principal Lady Inspector of Factories - reported in 1916 that

The difficulty at present is in the replacement of women who have left the so called women's and lower paid industry to take a hand in work formerly done by men.⁴

The surprise and admiration expressed for the strenuous efforts of women in munitions, Miss Anderson charged, was due to a widespread ignorance of 'the heavy and strenuous routine of much of normal pre-war work for women, domestic or industrial'.⁵

1. Woolwich Pioneer, 14 May 1915
2. Edith Abbott, 'The War and Women's Work in Engineering', JPE, July 1917, 660
3. Woolwich Pioneer, 12 May 1916, 7
4. HO. Annual Report of the Chief Inspector of Factories for 1916. Cd 8570, 1916 'Effect of the Third Year of the War on Industrial Employment of Women and Girls', by A M Anderson, 6
5. Ibid., 5

Table 13 Percentage of Firms Reporting a Shortage of Female Labour¹

Occupation	July, 1916	July, 1917	July, 1918
Industrial Occupations			
Metal Trades	5	4	4
Chemical Trades	2	3	4
Textile Trades	38	35	29
Clothing Trades	20	25	31
Food Trades	6	5	6
Paper and Printing Trades	17	16	19
Wood Trades	4	5	5
Miscellaneous Trades	7	6	6
Other Occupations			
Banking and Finance	9	6	6
Entertainment	18	21	12
Professions	10	11	7
Wholesale and Retail Drapers, Haberdashers, Clothiers, etc	24	19	20
Wholesale and Retail Grocers, Bakers and Confectioners	9	6	5
Wholesale and Retail Butchers Fishmongers and Dairymen	15	10	8
Wholesale and Retail Stationers, Booksellers, etc.	14	12	12
Retail Boot and Shoe Shops	22	17	14
Retail Chemist Shops	14	13	10

The Labour Gazette reported in 1917 that 'among women there was a large shortage of workers in the textile trades and domestic service'.² Domestic News - a journal devoted to the interests of domestic servants - extolled the virtues of the profession 'with the exception of nursing the most womanly' while at the same time admitting the realities of war-time depletion:

With the coming of the war domestic workers in large numbers gave up their work for other occupations and it was not all patriotism that prompted them, rather a desire to escape a condition of employment that was distasteful to them on account ... of what may be termed the bondage of domestic service.³

The above statements and statistics contribute to a well substantiated picture of the pre-war occupations of women in munitions and the general popularity of munitions work in comparison to the traditional women's occupations. Two important elements however are missing from the aggregate

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1. MM, Vol VI, part 4, 33, Table X
 2. Labour Gazette, February 1917, 56
 3. Domestic News, April 1918, 4

figures - a detailed breakdown of age and marital status and some idea of class composition. While aggregate and even partial figures are lacking, some inference may be drawn from the fact that so many munition workers were mobilised from a stratum classified as 'unoccupied' or 'at home' (see Tables 11, 12). The strong presumption must be that many, if not most, of these were married women engaged in household duties or married women who in addition to their household duties were engaged in some type of home work or casual labour, which was not officially recorded; it is less likely that those classified as being 'at home' were single girls since single girls on the whole found it easier to find factory work and avoided home work. Now and then, when random figures of married women in factories were collected they showed a high proportion of married women in munitions, in comparison to pre-war figures in industrial occupations (see Chapter 1, page 20). In the National Shell Factory at Derby, for instance, 895 or over one half of the 1707 women employed there were said to be married.¹ Kirkaldy reported that the proportion of married women in munitions ranged from 40-60% of the female labour force and was even higher in some places; '60%, 70% and even 90% being not unknown'.²

Another important aspect of women's munition work which has gone unrecorded but was subject to much amateur speculation, was the class composition of women workers. The well-worn image of the Florence Nightingale type of women taking up patriotic munition work had little basis in fact, though a false impression was certainly given by the publicity afforded to middle class women whenever they took up such factory work. 'Lady Munition Workers', 'Factory Hands arrive in Motor Cars' ran a headline in the Daily News of 1915. The ladies in question

1. IWM Box 150/23, Report of the Welfare Supervisor at the National Shell Factory at Derby, 1919, 1
2. A W Kirkaldy (ed), British Labour 1914-21 (1921) 30. The author significantly assumed from this that 'the supply was in its nature as temporary as the demand ... when the war ended many of these women were glad to go back to their homes'.

who arrived amid much publicity at the Vickers Erith plant included Mrs Greig, Lady Gateacre, Lady Gertrude Crawford, Mrs Pearson, Mrs England, Mrs Charles Susif, Mrs Moir and Lady Colenbrooke. The very appellation of 'ladies' differentiated them not only on account of their title from the rest of munition workers who were commonly referred to as 'girls'. One of the new recruits was reported as saying 'I hope the girls won't hate us ... but we'll soon get to know them and I'm sure we will like them'.¹

At the beginning of the war, before the scale of munitions requirements was fully estimated, it was said that some employers had hoped to obtain middle class patriotic labour for nothing,² but it soon became evident that no comprehensive policy could be carried on such a basis. Although some middle class women did take up munitions work there is no reason whatever for supposing that they ever came to constitute anything but a tiny minority of the total. The patriotic tendency of the suffrage movement tended to drive some of its membership to participate in the war effort but the accounts of middle class women who recorded their war experiences have given a distorted picture of the extent to which they worked on the industrial home front. Monica Cosens was one of the middle class volunteers who recorded her experiences of munitions work. Her estimate of the proportion of middle class workers in munitions was 9%,³ but this was not based on any scientific investigation. Her general impression of her work companions is one of a typical middle class observer faced with a working class factory situation; it is a highly unflattering portrait and suggests almost total isolation of the volunteer worker in an alien surrounding:

Frankly I did not like the look of my companions. They were rough, loud voiced and gave me the impression of being ill natured and having sharp tongues ... These five hundred girls impressed me as they do most people at first sight as being nothing but vulgar little hussies.⁴

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1. Daily News, 20 July 1915
 2. R Smith, 'Women and Munition Work' Women's Industrial News, April 1916, 16
 3. M Cosens, Lloyd George's Munition Girls (1917) 114
 4. Ibid., 17

In view of this patronising attitude it is no wonder, as Miss Cosens reported, that the war volunteers or middle class women were distrusted by the 'khaki girls'.¹ The arrogant tone adopted by other observers in their descriptions of munitions workers betrayed the class origins of the writers as well as that of the object of their scorn:

Tommy's sister usually brings a small leather bag, a penny novelette, or perhaps a lurid 7d novel, a prodigious quantity of sweets, a tiny hand mirror and a powder puff.²

Most of them are flashily dressed; a cherry coloured coat, a black and white check skirt, a satin blouse trimmed with swansdown, a hat ... and downtrodden boots.³

Helen Bentwich, who was employed as principal overlooker at Woolwich in analysing and testing textile components and earning a wage of £4.10s.0d. per week, was told by a superintendent: 'You oughtn't to be among this lot. Aren't you a public school girl?'.⁴

The implication of this remark is not hard to find. Helen Bentwich was a well connected member of Society whose uncle was Herbert Samuel, the Home Secretary, and whose cousin was Edwin Montagu - Minister of Munitions for the latter part of 1916; the superintendent's remark to her was intended to indicate that if she wanted to do patriotic work she could have done it in a more comfortable work place. Indeed middle class and lower middle class women were being successfully employed in supervisory and disciplinarian posts in munitions factories, as Chapter 7 will show. That is why, the two women journalists already quoted were able to report that 'among the 300 girls employed on this shift there are not more than four or five lady workers so the crowd was made up of khaki girls',⁵ which puts the proportion of middle class women at work on the shop floor at well below the 9% quoted.

1. Ibid., 109

2. Hall Caine, Our Girls (1916) 70

3. B Girvin and M Cosens, 'Khaki Girls and Zeppelins', Englishwoman, June 1916, 227

4. H Bentwich, If I Forget Thee, (1973) 80

5. B. Girvin and M Cosens, op. cit., 226

The recruitment of women into munitions was accompanied by an unprecedented geographical mobility which increased throughout 1916, and reached even higher proportions in 1917. In February 1917, 5000 had been mobilised into 8 large munitions centres from 200 different exchange areas. In March 1917 employment exchanges reported that the numbers of women being transferred monthly through their agency to work in other districts averaged 4000-5000. In one West Midlands factory 772 women were brought from other districts as far apart as Aberdeen and Penzance.¹ By 1917, 116,619 women munition workers, out of a total of 318,704 vacancies filled by the employment exchanges had been placed in localities other than the ones they were living in.² Between February and March 1917, 1641 women took up work in a factory in the South of Scotland, having migrated there from 63 different districts, while their number included 228 women from as far away as the Tyneside and 40 recruits from Berwick.³ In March 1918, it was reported that of the 49,500 being placed in jobs through labour exchanges, 9200 were being transferred to other districts.⁴

Considerable numbers of women were said to have left Ireland (Belfast) and their previous employment in the linen trade, domestic service and laundries.⁵ Birmingham munition factories attracted some 15,000 women from other areas.⁶ The Official History of the Scottish Filling Factory at Georgetown reported that some women workers came from Glasgow, but many others from country districts, the West Highlands and Islands and a large proportion from Ireland.⁷

These migrating munition workers incurred in many cases considerable risks and uncertainty but the attraction of munition work seems to have been even greater.

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1. MM, Vol V, part 3, 53
 2. Lab 2/212, Report on Women's Labour, Part II, 1917
 3. Ibid., Migration of women
 4. Lab 2/242/ED 41844/14, Reports sent to Divisional Officers of the Ministry of Labour
 5. A W Kirkaldy, Industry and Finance, Vol I (1917) 123
 6. R H Brazier and E Sandford, Birmingham and the Great War (Birmingham 1921) 137
 7. M of M Official History of the Scottish Filling Factory in Georgetown (1919) 145

Women and girls frequently arrive at munition centres without luggage or any clothing except what they are wearing and without any money; they are often hungry and thirsty having had no food on a long journey. The reasons were poverty or exaggerated reports about free lodging and wages in advance.¹

Some young women, like Rhosina Whyatt alias 'Jenny' left their jobs in domestic service without giving notice, thereby forfeiting a month's wages.² The Workers Union Record reported that one girl had been brought to Coventry from Aberdeen with the promise of 6d per hour and the payment of her fare, but was being employed at 3d per hour and her fare had been deducted from her wage.³

This extraordinary phenomenon of women flocking to take up work in a hitherto untried field, without any assurance as to job security after the war, in work which was neither light nor genteel calls for an analysis that goes beyond the readily available answer of higher wage levels. This analysis will be attempted in Chapters 6 and 9 where the changed social conditions of women munition workers will be discussed.

The work was hard, the hours long, transport facilities inadequate but despite these hardships girls were known to lie about the location of their home which was supposed not to be further than one hour away from place of work.⁴ This alacrity to take up munition work was also reported by the Superintendent at Armstrong Whitworth, Newcastle, who noted that the girls were so keen to be employed that they would give false addresses nearby. Anyone found not to be living within the prescribed area was dismissed.⁵

Patriotic motivation should not be dismissed as a possible reason for this enthusiasm for munition work nor should the gigantic effort of the Government be discounted in mobilising women workers into new occupations

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1. Health of Munitions Workers Committee, Memo No 17, 1917, unpublished, 4
 2. Tape recording made available by Richard Hyman, 2
Rhosina Whyatt, through her war work in an explosives factory became involved in union work and after a time was appointed an organiser in the Workers Union
 3. Workers Union Record, October 1917, 6
 4. Hall Caine, op. cit., 80
 5. IWM Box 150/ A Resumé of Welfare Work at Armstrong Whitworth, Elswick Works, Newcastle, 1919, 11

and new geographic locations. A national campaign to recruit was not content to rely on the existing medium of labour exchanges but resorted to public appeals, special recruiting meetings, 'circulars, announcements at public entertainments, house to house canvas'.¹ The help of the clergy was enlisted when needed,² and the help of civic officials such as Mayors who activated local Women's War Employment Advisory Committees.³ The oratory and publicity value of Mrs Emmeline Pankhurst was also mobilised for the purpose. The well known procession of the WSPU led by her and Annie Kenney in July 1915 was not only prompted but also paid for by the Government at the inordinate cost of £4174. Mrs Pankhurst on that occasion demanded equal wages for women workers but she qualified her remarks by saying 'we want to make no bargain to serve our country'.⁴

Dilution and the extent of replacement of men by women

The policy of dilution, or replacement of skilled labour by less skilled labour became operative in theory at least after the signature of the Treasury Agreement in March 1915, although the expression itself did not acquire currency until 1916. Dilution, as far as women were concerned, meant openings for them in occupations hitherto known as men's work. The process of dilution or the use of unskilled labour in work hitherto reserved for semi-skilled or fully skilled labour, was applied to the production of munitions in its wide sense, in other words of all goods and services necessary for the prosecution of the war. In fact, however, the term 'substitution' of women for men had a more meaningful content in industries like engineering, metals and chemicals where women had hitherto constituted only a very small proportion of the workforce and where mechanical skills which in the past had been the exclusive preserve of men were now being

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1. Lab 2/212, Report on Labour Recruitment, part II, 1917, 1
 2. Lab 2/237/ED 29363/51 September 1918, Report of the Scottish Recruiting Week.
 3. Yorkshire Factory Times, 8 June 1916, 1
 4. Mun 5/70/324/1 WSPU Procession 17 July 1915, 4-7 and Mun 5/70/324/26

imparted to the women. Substitution in work which required no particular skills in trades from which women had in the past been debarred by trade union regulation was another, though less revolutionary phenomenon.

One of the first prerequisites of dilution involved sub-division of labour. This meant the re-equipment of old workshops and the construction of new factories on the one hand and the use of automatic precision machines and machine tools on the other. With increased automation, jobs were split up into a number of simple operations which were performed by women who required little skill but some training, while the more skilled mechanic confined his work to the making of gauges, preparation of tools, the maintenance and repair of machinery, and the supervision and training of unskilled labour. In time, even the work of the skilled mechanic was subdivided into simpler processes, such as tool setting and tool room work, which could be performed by the more skilled operators, who in the course of time became semi-skilled.

Dilution with its injection of a substantial supply of unskilled labour meant upgrading for those with some experience, or even limited skills gained through an incomplete apprenticeship. Skilled fitters and turners were withdrawn from production for supervision and tool room work, while capstan lathe operators became charge-hand tool setters. Millwrights and fitters' helpers undertook greater responsibility in the erection and repair of machines. Rough fitters and machine men were recruited among labourers. Plumbers undertook the work of coppersmiths, and carpenters that of shipwrights. However, until the end of 1915, the employment of women on anything but light repetition work was not envisaged.¹ Lord Derby's military recruiting campaign and the Conscription Act of January 1916 altered substantially the view of the possibilities of female labour. These new developments made dilution synonymous with the introduction of women in a wide range of jobs while the general directive of the Dilution Department of the Ministry of Munitions ran as follows:

1. MM, Vol IV, part 4, 80

The dilution of labour implies that the employment of skilled men should be confined to work which cannot efficiently be performed by less skilled labour or by women; that women should be employed as far as practicable on all classes of work for which they are suitable.¹

The pressure exercised on employers to practice dilution was unequivocal in areas where the Government could afford to impose its own terms. In the later years of the war, for example, shell production was so abundant that the Ministry was able to refuse contracts to firms which failed to satisfy certain standards of dilution. In November 1916 Boards of Management were informed that in future women were required to constitute 80% of the operatives in the production of 2.75" and 4.5" shells. The definition of an operative included labouring work as well as production, setting of tools, the work of charge hands, viewers and staff employed in the repair and maintenance of machinery.²

The results of the policy of dilution through the subdivision of labour, the increase in mechanisation and the suspension of trade union restrictions were a marked fall in the proportion of skilled men in engineering and metal production. These features which were already assuming some importance in pre-war industry came to have a lasting effect partly as a result of the changes which occurred during the war. The post war period in engineering was marked by the rising ratio of semi-skilled men in proportion to the total workforce, a parallel fall in the proportion of the skilled all-rounders (turners and fitters) and a stability in the proportion of unskilled (labourers).

Jefferys gives the following comparisons of skilled and unskilled in the engineering industry for the pre-war and post war period.³

	<u>1914</u>	<u>1921</u>
skilled	60%	50%
semi-skilled	20%	30%
unskilled	20%	20%

1. Ibid., 81

2. Ibid., 78

3. J B Jefferys, op. cit., 134

The trend towards a rise in the semi-skilled was accentuated during the war through the process of dilution. A report on labour in 1314 Controlled Establishments, compiled in January 1917, put the proportion of skilled men employed at 53.6% of the total male labour force and 47% out of the total labour force. The firms sampled were engaged in the production of iron and steel, tin plate, engineering and electrical engineering, shipbuilding, motors and vehicles, tools and cutlery, small arms and scientific instruments.¹ In chemicals and explosives the proportion of skilled men was found to be even lower or 45% of the men and 32.4% of the total.²

The changes in technique and job content make it very difficult to assess respective proportions of women in the three broad categories of work under consideration, i.e. skilled, semi-skilled and unskilled. Quite apart from the difficulty of compilation there was a tendency, as will be shown in Chapter 5, to label any work done by women as women's work and therefore ipso facto unskilled. Statistics do exist, however, which show the number of women engaged on 'work of a kind performed by males before the war'.³ These so-called 'replacement figures' show that the proportion of women substitutes for men was much higher in the metal, chemical and wood trades than in the traditional women's trades such as textiles or clothing. These replacement figures should be read in conjunction with the statistics of women on Government work on page 55-6 of this chapter, since it is in Government work that most of the dilution or replacement occurred. The highest proportions of female labour were found in the National Factories where they accounted for 70-80% of the total of the labour force.⁴ It was in these factories specially built to meet the demands of war production that

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1. Mun 5/100/360/11 Confidential Report on Labour in Controlled Establishments in January 1917, 27
 2. Ibid., 27
 3. MM, Vol VI, part 4, 32
 4. J Hinton, (Ph D thesis), op. cit., 58

substitution was easier to put into practice both because of the new equipment and facilities, and the smaller degree of resistance from labour coupled with greater determination on the management side.

Table 14 Number of females directly replacing men¹

Trade Group	Nos. of Females employed July, 1914	Nos. of Females stated to be directly replacing Males		
		July 1916	July 1917	July 1918
Building Trades	7,000	5,300	10,800	11,900
Mines and Quarries	7,000	3,200	5,800	6,900
Metal Trades	170,000	83,900	172,700	194,200
Chemical Trades	40,000	17,600	33,400	33,700
Textile Trades	863,000	46,300	66,500	65,500
Clothing Trades	612,000	23,300	37,300	45,900
Food Trades	196,000	37,200	51,800	62,600
Paper and Printing Trades	147,500	12,800	19,600	21,200
Wood Trades	44,000	11,700	21,800	25,600
Other Trades	89,500	26,200	43,400	46,000
Total Industries under Private Ownership	2,176,000	267,500	463,100	513,500
Government Establishments (including Arsenals, Dockyards, National Shell Filling and Projectile Factories, etc.)	2,000	69,000	191,000	187,000
Total Industries and Government Establishments	2,178,000	336,500	654,100	700,500

The proportions of women employed in the various branches of munitions production, in the narrower term of the word, varied substantially. In small arms and ammunition women represented by the end of the war 54% of the total work force while in the more skilled branches of the engineering industry, like machine tools, the proportion of women came to only 24.5% of the workforce.²

1. MM, Vol VI, part 4, 32. Compiled from Table IX. It should be noted that the figures in the above table collected by the Board of Trade did not include jobs on which women were employed before the war or where the content of the job was changed or where the work was not done before the war by either men or women. See B.o.T. Increased Employment of Women during the War, Cd 9164, 1919, 4-5
2. MM, Vol VI, part 4, 55. (See Table 9, p 56 above)

Attitudes to dilution

Much has been written about the opposition of working men to dilution during the war and the growth of the shop stewards' movement which was one of the features of that opposition. This labour militancy which occurred during the period of the war inevitably raises the question of anti-feminism in the ranks of organised labour which must be examined in the context of the combined pressures of the Government to 'get on with the job' and those of the employers who after an initial recoil at the employment of women found it a profitable enterprise and an unexpected opportunity to weaken the control of the trade unions over the system and organisation of production. The reluctance of employers to make full use of women's labour was short lived in comparison with the daily struggle of labour at both the shop floor level and national executive level in opposition to the pressure of both Government and management. Nevertheless, in the first period of the war there was considerable employer resistance, as Llewellyn Smith reported in December 1915:

There is a good deal of conservatism both on the part of employers and on the part of workpeople with the result that dilution ... is taking place too slowly.¹

On another occasion it was the Labour Supply Department which reported to the Manpower Board in the following terms:

Dilution is impeded by reluctance of employers to believe in the capacities of women and unskilled workers until these had been demonstrated beyond the possibility of doubt.²

James Hinton confirms this view in maintaining that on the Clyde at the beginning of 1916:

The majority of employers [were] unprepared to accept dilution. This was not because they feared trouble from the men, rather having as yet little faith in the value of women workers they were reluctant to lose scarce labour to other firms.³

Despite their initial qualms at dilution, however, employers soon became aware of its profitability, whatever may have been the protective clauses in

1. Mun 5/49/300/15, Report on Labour Questions by Llewellyn Smith to the Minister of Munitions, 2 December 1915
2. Mun 5/53/300/102, Report by Labour Supply Department about its functions prepared for the Manpower Board [n.d.]
3. James Hinton, The First Shop Stewards' Movement, . . . 144-5

regard to wages or the promises about restoration of trade union custom after the war. The employers' side, with some more cautious support from the civil service, believed that coercion was the best way to achieve results. The tough line attitude adopted by employers was demonstrated in their uncompromising line on negotiations at the shop floor level and their equivocal attitude to the registration of war time deviation from trade union custom. One line adopted by several tough policy advocates was that in a war emergency compulsion could and should have been used. As Lord Weir put it in a letter to Lloyd George criticising the tendency to seek labour co-operation:

The fallacy was the belief that the bargaining spirit was necessary. Accordingly, having been approached in this spirit, the leaders and men accepted the situation as put to them and the bargaining spirit became rife.¹

The writer went on to advocate industrial conscription, the freezing of wages by Government measures to stabilise the cost of living and the demand that unions relinquish any control over industry. Trade union restrictions, according to Lord Weir, 'which in peace time represent merely normal changes, in time of war are impossible without endangering the Empire'.² Sir Alfred Herbert, the director of the well-known Coventry machine tool firm and the Chairman of the Machine Tool Sub-Committee spoke in similar terms:

There is no question that the introduction of women is hampered to a great extent by the necessity for long conferences and discussions with local branches of trade unions as to the particular work to be performed by women. In my opinion these discussions should be swept away and it should be established that women may be freely employed without argument and without opposition on any work which they are capable of performing and for which they are physically fit. As to the former the employer should be the sole judge. The latter is a medical question, purely.³

1. Mun 5/73/324/15/4 Letter from Lord Weir to Lloyd George, December 1915, 5. For a reiteration of his views see also the open letter in The Engineer, 28 May 1915 addressed to the Glasgow and West of Scotland Armaments Committee. William Douglas Weir, created 1st Baron in 1918, was Director of G & J Weir, Cathcart, Director of Munitions in Scotland until August 1915, became Director General of Aircraft Production in Dec 1917
2. Mun 5/73/324/15/4 op. cit., 9
3. Mun 4/534/62/14, 1 November 1916 Letter from Sir Alfred Herbert to Mr Barlow on dilution in the machine tool trade, 1.

Sir Alfred then went on to advocate 'the introduction of women into trades other than engineering'.¹

The approach of the Government was on the whole more cautious because it regarded more seriously the threat posed by dilution to the trade union leadership from the discontent of the rank and file. The Prime Minister (Asquith) addressed a deputation of the ASE Executive on one occasion in a manner that was calculated to win over their confidence:

The Executive have had difficulties with their constituents like other people and no doubt it is a very difficult thing to persuade men who regard what I may call the priorities and privileges of skilled labour as almost Gospel to forgo for the time being those privileges and admit unskilled and semi-skilled men into a class of work which skilled men have been in the habit of doing. They have a fear ... that when the war comes to an end the re-establishment of the old conditions will be impossible and that all these elaborate safeguards ... will be found to be undermined.²

The attitude of the civil service to the rights of labour became on the whole less strident with time. As dilution became more successful the earlier fist-thumping efforts of some civil servants like Llewellyn Smith became more muted through the mediation of civil servants in the field of labour relations. While Llewellyn Smith echoed the employers' tough line in 1915,³ Lynden Macassey took a far more tolerant line in the aftermath of the Clyde Revolt in February 1916: 'The policy of slowly winning over unions to dilution is the only possible course'. Macassey was also anxious to prevent employers from explaining dilution to the unions because they were mistrusted.⁴ Stephenson Kent, Controller of the Wages Department, was aware of the implications of dilution for Labour's future:

Dilution is a very serious menace to the Trade Union movement. In the first place it is conclusively proved that the vaunted skill of the mechanic can be much more easily acquired than the mechanic had given the world to believe ... it lessens the indispensability of the skilled mechanic and weakens the strike weapon which the trade union movement has in the past looked upon as its final and conclusive argument.⁵

1. Ibid., 2
2. MM, Vol IV, part 1, 85, Asquith's address to an ASE deputation on 31 December 1915
3. Mun 5/49/300/15, Llewellyn Smith's report to the Minister of Munitions, on labour questions, 2 December 1915. Llewellyn Smith was General Secretary at the Ministry of Munitions until October 1916
4. Mun 5/73/324/15/6, Memorandum by Lynden Macassey on the effect of dilution on the Clyde, 5 December 1916. Macassey was Chairman of Men's & Women's Wages Tribunals. He was also sent to investigate the Clyde Revolt.
5. Lab 2/252/IR 21128, Memorandum by Stephenson Kent, 6 July 1918

Labour, mainly skilled labour, on the whole continued to oppose dilution at the shop floor level and to extract maximum concessions at executive level, despite the major conciliatory gestures of the Treasury Agreement and subsequent accords on the wages question as set out in the L2 and L3 circulars in October 1915. The moderate labour view that dilution was but 'the result of the proper division of labour, which enables men of special talent or acquired skill to be kept all their time engaged on work for which they are peculiarly adapted',¹ was not one that was in practice acceptable to the rank and file let alone the militants.

It is true that some sections of the active militants - like the Clyde Workers' Committee - looked forward to the day when the dilutees would not be used as pawns in the employers' battle against power of the craftsmen. James Hinton maintains that the ultimate aim of William Gallacher was to build an organisation of all grades² and he quotes John Muir's address to the Clyde Workers' Committee in December 1915 which showed a high degree of realism and a far sighted assessment of industrial conditions;

We regard [dilution] as progressive from the point of view that it simplifies the labour process, makes labour more mobile and tends to increase output. In short it is a step in the direct line of industrial evolution.³

However, opinions which regarded dilution as an industrial phenomenon of unavoidable dimensions was not widely shared by members of the rank and file. The Economist reported that even demobilised soldiers opposed dilution despite their prior resentment about the inadequacy of munitions supply while on active service;

They [the rank and file] have been driven by pressure of legislation and of public opinion to submit to it [dilution] but they have always hated it and they hamper its working whenever they can devise a means.⁴

1. P Alden, 'The Dilution of Labour' Contemporary Review, September 1916, 328
2. J Hinton, The First Shop Stewards' Movement, 129. See also MM, Vol VI, part 2, 29 on the shop stewards' policy towards union amalgamation
3. J Hinton, The First Shop Stewards' Movement, 129. Muir was deported in March 1916 together with Gallacher and Bell for his part in the Clyde Revolt.
4. The Economist, 19 May 1917, 843, 'Industrial Unrest'

The resistance of trade unionists to dilution can be partly explained by the long years of tradition which zealously guarded the maintenance of their hard won rights. The special circumstances surrounding dilution and the equivocal attitudes on the questions of pledges and guarantees in regard to wages and restoration of trade union practices, also help to explain this opposition.

The question of recording data on the relaxation of trade union practices was never entirely or happily resolved in either theory or practice. On the one hand there was the absence of any statutory legislation on compulsory registration of changes in war time job demarcation, except in Controlled Establishments. On the other, there was the ill-concealed satisfaction shown by employers which greeted the break in the traditional systems of trade union control. One of the first overt signs of employers' satisfaction was published in the obscure Scottish Law Courts Record, but was twice reprinted in the famous issues of Forward of 24 April 1915 and 1 January 1916.

Whatever the unions may do and notwithstanding any paper guarantee given, employment can and will never be the same again. The inevitable operation of the law of supply and demand must bring more women and girls into the ranks of our workers. It is only by means of this freedom to hire cheaper labour that our manufacturers can hope to capture or keep some of the German markets in low priced goods of large and widespread sale.¹

The Scottish Law Courts Record was not alone in advocating the use of cheaper labour and dilution by force if necessary. Some sections of the press advocated the suspension of trade union activities except in as far as they performed the functions of Friendly Societies while The Times advocated in May 1915 the extension of martial law to include workshops.²

1. Quoted in MM, Vol IV, part 2, 48. The events that led up to the publication of this inflammatory declaration in such an obscure journal on an issue of national importance may have had some links with the Ministry's request to the Scottish Law Officers in October 1915 for an opinion on possible prosecutions 'against persons attempting to promote a strike on the Clyde'. The Ministry was advised by the Law Officers that incitement to strike actions was liable to prosecution under the Defence of the Realm Act. See Mun 2/27, 16 October 1915, 35
2. MM, Vol IV, part 2, 48

The Glasgow Herald of 4 September 1915 adopted a highly threatening note in the wake of the unrest on the Clyde and advocated, like The Times, the adoption of martial compulsion:

Cost what it may to prevent them, strikes in connection with the work which is demanded for the safety of the State cannot be permitted. The soldier in the trenches has placed himself under military discipline voluntarily. If the munition worker will not give his labour to the utmost of his capacity ... and if the methods of the Munitions Act are proved to be inadequate, then he must be placed under the same discipline as his brother.¹

The spectre of female labour refusing to give up its newly won industrial position was constantly being raised by employers and greeted with approval. The President of the Manchester Association of Engineers put it in the traditional language of political economy:

Surely it is not good economy to employ fully skilled men on work which can be equally well done by semi-skilled men or women. ... Will these women be willing to revert to their former employment after qualifying themselves in doing work for which they have received comparatively high pay?²

The Employers Parliamentary Council expressed the hope that 'the lessons of the war have convinced even the labour unionists responsible for the old and fatal policy that the rules and customs can in the very nature of things never be restored';³ and the Engineering Industries Committee appointed by the Board of Trade reported in 1917:

There will undoubtedly be when peace returns a very considerable shortage of skilled men and it will be impossible for the engineering trades to be carried on effectively unless the new conditions which the war has produced are recognised and accepted by skilled men.⁴

As the History of the Ministry of Munitions pointed out there were two factors which instilled fear into the minds of labour: the practical provisions regarding reinstatement and the feasibility of reinstatement itself.

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1. Glasgow Herald, 4 September 1915, quoted in MM, Vol IV, part 2, 53-54
 2. Inaugural Presidential address by F W Reed, Transactions of the Manchester Association of Engineers, 1916-17, 26-27
 3. Quoted in H J Fyrth and H Collins, The Foundry Workers (1959) 146
 4. BT/55/24/EIC 14. Report of the Engineering Industries Committee appointed 16 March 1916, printed 1917

The Government attempted to allay this apprehension by undertaking that any practices suspended during the war should be restored at its close. But many workmen suspected that this pledge would be evaded ... it was still felt by some that the legal obligation to restore suspended practices was not as strong as it ought to be and others maintained that however the law might stand, innovations endorsed by experience must permanently invalidate the pretensions of the craft unions.¹

The Woolwich Pioneer in an editorial appeal for labour unity voiced the disquiet of the whole labour movement when it wrote of the bias of Government legislation which tended to subordinate the interests of labour to the interests of the employers:

The fact has to be faced that the Munition and Military Service Acts, Dilution and the hundred and one rules and regulations under these Acts and schemes, have enormously increased the power of the employing class. They will not readily forego their war acquired power. The war will close with the position of the workers very considerably worsened. True there are paper safeguards but they are only on paper. With millions of men demobilised at the close of the war and thrown on the labour market the employers will be in a most favourable position.²

Apart from the general import of the legislation, the procedures for recording deviations from trade union custom in order to ensure reinstatement after the war were highly unsatisfactory from the labour point of view. The Ministry only undertook to record workshop changes as from December 1916 but this obligation did not include uncontrolled establishments, of which there were tens of thousands, while the Admiralty was responsible for records in dockyards and naval establishments.³ In the circumstances many activists must have felt that the registration of workshop changes were an empty gesture designed to allay opposition.⁴

1. MM, Vol IV, part 4, 88-89

2. Woolwich Pioneer, 29 September 1916, 4, Editorial

3. Mun 5/91/344/102 & 103, Memorandum on the collection of records to Controlled Establishments, 18 January 1917. In a pamphlet written by G D H Cole and H H Slesser, The Restoration of Trade Union Customs after the War (November 1916) published under the joint auspices of the TUC, the Labour Party and the War Emergency Workers Committee, great dissatisfaction was expressed with guarantees provided by the Government on the question of restoration.

4. Mun 5/22, Minutes of National Advisory Committee meeting, 26 July 1916. The Committee had received a complaint in 1916 that a firm in Bristol had declined to record changes in workshop practice on the grounds that the introduction of women was intended to be permanent.

It is difficult to disentangle in this complicated labour situation the extent of opposition to the introduction of women as compared to the opposition to the withdrawal of customary rights as such. There is evidence that the rank and file feared men dilutees even more than the introduction of women.

This was Cole's view:

Many skilled trade unionists ... greatly preferred the introduction of women under dilution schemes even at lower wages, to that of less skilled men, because they felt that women were likely to be less powerful competitors after the war.¹

There is support for this view in the numerous instances recorded of skilled male workers opposing the introduction of other men.² The Clyde Revolt, the most famous example of rank and file opposition to dilution was in no way directed only at women. Its aims, which form a subject of their own, were part of a strategy of a movement for workers' control over the administration of industrial production and national resources and not only over job content and wages. The Clyde workers did believe that workers' control would ultimately benefit all labour, though in the short run their concerns focussed mainly on skilled labour and the craft occupations. Here is J T Murphy - war time chairman of the shop stewards in Sheffield and an advocate of workers' control in a book written in 1934:

The control of dilution by the workers engaged in industry would not be detrimental to the workers in general and especially the skilled workers whose position is being shattered by dilution.³

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1. G D H Cole, Trade Unionism and Munitions, 219
 2. See for instance Yorkshire Factory Times 4 January 1915, 2, opposition of miners to the introduction of young men. Mun 2/1A 18 December 1915, 2, opposition of skilled men to the transfer of semi-skilled men to work on new machines. Mun 2/27, 4 December 1915, 6-7, opposition in the North West to the training of semi-skilled men. Mun 2/27, 18 March 1916, 10, opposition to the introduction of unskilled men onto gun boring machines. Ibid., 4, opposition to the introduction of boys. Lab 2/260/IC 6438/3 September 1918, opposition to the employment of a conscientious objector at Liverpool. This was a particularly interesting case because it was clearly not based on the opposition to a man who held unpatriotic views, but on the fact that a candidate who possessed a high standard of education was a potential threat to the job security of others.
 3. J T Murphy, Preparing for Power (1934) 120

Nevertheless, to all appearances, opposition to dilution remained to a very large extent in the ranks of the skilled against the encroachment of the unskilled. The ingredients of this opposition included the blank refusal to allow the degradation of job content through mechanisation or sub-division of processes and the fear of an influx of cheaper unskilled labour newly organised in the general labour unions, without parallel industrial control over the organisation of production.¹ The opposition to dilution was based on the well known fear of cheap labour among skilled engineers and on their mistrust of intentions in regard to restoration of trade union custom after the war. Dilution Officers spelt out this fear when they reported on difficulties in installing unskilled men in the North-East:

They [the engineers] fear that the unskilled men introduced during the war will be employed afterwards and will drag down wages since they think that when the Munitions Act becomes inoperative twelve months after the conclusion of peace there will then be nothing to compel a return to pre-war conditions.²

This threat of the unskilled was a constant theme that ran through the war time discussion in the ASE Journal and Monthly Report. The Journal did not show a particularly anti-feminist bias though it did reprint extracts from other journals which referred to the baleful effects of war work on women. One of these was an extract reprinted from The Call which also drew attention to the dangers posed by dilution in conditions where the female labour force was unorganised;

Under all these circumstances [i.e. dilution] the feminisation of industry carries with it grave perils to the race, to the workers as a class and to the women and girls themselves. The employers eagerly seize on female labour, because it is cheap, unorganised and easily depressed into absolute subservience. They have no conscience in the matter. For the sake of profits they would ruin the future of the race.³

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1. Mun 2/1A, 30 October 1915 report stated that trade unions were more favourable to the introduction of women than of unskilled and semi-skilled men who were feared as a greater and more permanent threat.
 2. Mun 2/27, 29 January 1916, 2-3
 3. ASE Journal and Monthly Report - hereafter ASE Journal, September 1916, 71, republished from The Call

One member of the union wrote with derision about the Government propaganda which, in order to encourage dilution, extolled the extent of women's productivity:

Now we have the super-women able to do double or more than double the ordinary skilled man who "poor worm" could only do one day's work in a day. The tremendous possibilities it opens out - battleships in less than half the time, guns, ammunition ... and of course the super woman would be able to have two war babies every nine months.¹

However it was the craft bias of the ASE journal that was far more evident in its pages than its anti-feminist comments; its craft orientation combined with a fear of cheap labour. It was the aftermath of dilution in post war Britain that haunted the best entrenched stronghold of labour power. The logic of the argument ran as follows; if work became slack after the war the unskilled would be the first to be thrown out of work and were therefore bound to present the temptation to the employing class to save on wages. The ASE hoped that 'It will be the duty of the Government ... to find work for the discharged unskilled. The employers will certainly always prefer to keep unskilled workers if they get the chance'.²

The ASE and the other craft unions were of course in a much better position to put pressure and exercise their influence on the Government than the other agencies of the labour movement notably the general unions. The skilled unions were the bodies that carried power and weight in the negotiations. They were the forces to be reckoned with and the Government recognised the need to soothe the grievances which they expressed in no uncertain terms - putting the interests of their own members first and foremost, and it was the craft unions that effectively foiled Government pressure in 1917 to extend dilution to private engineering work.³ At a conference of the Ministry and the trade unions Brownlie - Chairman of the Executive Council of the ASE - proposed that separate Trade Union Advisory Committees should deal with labour

1. ASE Journal, June 1916, 76, letter from W Campbell

2. J D Lawrence, 'The Problem of Restoration', ASE Journal, May 1917, 51

3. MM, Vol VI, part 1, 45-63

problems of the skilled and the unskilled, whilst Dawtry of the Steam Makers complained bitterly about the competition from the unskilled sector:

The skilled workman has suffered most during the last three years and he is now being thrown out ... and pork butchers and Heaven knows what were being employed in the shipyards and engineering shops taking the skilled man's bread out of his mouth.¹

Kaylor of the ASE spoke in the same vein:

The skilled men have stood to lose and have lost all along the line to the advantage of the unskilled men ... These men (i.e. the unskilled) have to get out and it will be for your Department in the Government eventually to assist us towards the end we have in view.²

The problem of wages for diluted labour was obviously central to the question of trade union opposition to dilution and it is dealt with in Chapter 5. The other important aspect was conscription. The skilled tradesmen benefited from 'badging' or immunity from conscription while the unskilled had no such privileges and risked being sent to the front if they could be replaced at the bench by unskilled men or women. An important factor in the anti-dilution struggle was, therefore, not only the animosity of the skilled craftsmen towards dilutees but also of unskilled general labourers against the privileged minority of 'badged' craftsmen. Since the skilled men were at all periods of the war less likely to be called up for military service they guarded jealously the possession of their skills against encroachments by the unskilled. A representative of the National Union of General Workers complained in 1918 about forms of sabotage practised by members of the ASE:

Brother Eccles reported on the difficulties with ASE members at the firm of Dick Kerr and Co., Preston who had decided to force our members into the Army by refusing to grind and set tools for men in grades 1 and 2.³

The friction between the skilled unions and the general unions like the Workers' Union and the NUGW was further exacerbated by new developments in the policy of the ASE and other craft unions. These had relaxed their

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1. Mun 5/71/324/30 Minutes of a conference of Ministry Officials and trade unions, 22 August 1917, 12
 2. Ibid., 32
 3. NUGW, Minutes of the General Council, 16-17 May 1918

membership rules in order to capture the allegiance of the new body of dilutees and were thereby in effect 'poaching' on the potential membership of the general unions. Societies like the ASE, Amalgamated Tool Makers, Amalgamated Smiths and Strikers, Brass Finishers, Electrical Trades Unions, Steam Engine Makers and Brass Workers pledged themselves to mutual co-operative efforts with the NUGW on questions of wages and organisation while at the same time demanding that fully rated and skilled workmen who were members of the NUGW should join their own ranks.¹ This conflict led to refusals by the members of the skilled societies to train or even co-operate with members of the NUGW at the factory bench. In 1916 a member of the NUGW for the Lancashire district reported that:

It was a practice that when a man was put on a machine members of the craft unions refused to show him anything or lend him any essential tools and by direct pressure forced him into joining one of those unions.²

Any analysis of labour's war time opposition to women must take into account not only the official pronouncements of the trade union leadership but also the local daily struggle on the shop floor. Dilution was agreed to at the national executive level but was made subject to local negotiation and enforcement (see Chapter 2) and it was this particular clause that caused a great deal of dissatisfaction among employers (as was shown on page 75) by giving the opportunity to the rank and file on the factory floor to voice its own protest. It was not the sort of protest that was welcome to the union leadership. As Brownlie complained on one occasion to the Prime Minister and the Minister of Munitions, 'Delegates come to London thirsting for the blood of the Executive Council'.³

Opposition was not confined to the shop stewards but also flourished in local executives of the ASE like that in Halifax. In 1915 the Committee in Halifax moved that:

1. NUGW, 16th Biennial Congress 1916, 88, 'Suggested Agreement between the Engineering Craft Unions and the Gasworkers and General Labourers' Union', later the NUGW
2. Ibid., 89, Report by Brother Dukes, Lancs district
3. Mun 5/70/324/3 Meeting of ASE deputation with the PM and Minister of Munitions, 31 December 1915, 10

It viewed with alarm the ill considered action of the EC in lending its weight to any suggestion of Employers for unskilled men to take up skilled men's work. We would warn the EC to beware lest it fail and we press that it uphold the prestige and honour of our society.¹

Even at a later date, in 1916, and long after the signature of the Treasury Agreement a branch meeting in Halifax moved that:

We repudiate the agreement made with the EC and the Ministry of Munitions and we refuse to agree to the dilution of labour unless the Government makes it illegal for any person to be employed in engineering workshops at the conclusion of the war who has not served his time to the trade. (Carried unanimously).²

Unfortunately there is a dearth of detailed documentation for shop floor opposition to dilution which would have made possible a detailed analysis of the extent to which this labour opposition applied specifically to women. Newspapers of the period were on the whole very reticent in reporting strikes in any detail,³ while the Register of Strikes and Lockouts in the Archives of the Ministry of Labour is a very minimal source which provides only the sketchiest information.⁴ Another source is the collection of Secret Weekly Reports to the Munitions Council but here again the information is rudimentary, with reports of the current labour situation in the various localities but without detailed information about the events that took place.⁵ In the above mentioned archives the basic issues of labour unrest are mentioned without details of the background of the particular cases. It is, therefore, impossible to give any precise formulation or to situate in a specific context this sketchy data though several factors do emerge whenever information is given in any detail. In some cases it would appear that the difficulty over dilution centered on the refusal of management to consult labour on the method of its actual implementation. The Ministry of Munitions History also points to this demand for consultation as a key factor in the range of demands posed by labour:

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1. Halifax City Archives TU 1/2 ASE Minute book, Halifax third branch, 11 January 1915
 2. Ibid., TU 1/2 Minute book ASE branch meeting 6 March 1916
 3. For example the famous Barrow strike of 8 July 1916 where 5,500 men struck against dilution received only a paragraph in the Barrow Guardian of 8 July 1916, 8, and was not reported in the Barrow News or the North Western Daily Mail
 4. Lab 34/33-37. Register of Strikes and Lockouts
 5. Mun 2/1A-Mun2/20, also Mun 2/27-28

Great importance was attached by the trade unions to the provision that due notice should be given to the workmen concerned ... and opportunity of local consultation with the men or their representatives should be given if desired ... Many changes however were made without proper notice and consultation and even if they were acquiesced in at the time, they contributed in no small degree to intensify the unrest which broke out in 1917.¹

An example occurred at Messrs Marsh, Jones and Cribb, Leeds, where wood-working machinists struck because women had been introduced without due notice being given. The firm subsequently apologised and the men returned to work.² At Messrs Humber Graving Dock and Engineering Co., Immingham, fitters struck in protest against the employment of unskilled men without formal notice being given of this innovation.³ In 1917, at an unnamed plant, engineers went on strike, one of their grievances being the absence of consultation over the implementation of dilution.⁴ Men joiners struck at an uncontrolled establishment - Newton Heath Sawmill, Manchester - on the grounds that the union had not been consulted over dilution.⁵ It is important to note that the opposition to the introduction of new machinery and dilution, even if it was dilution brought about by the employment of men, was not confined to craft unions. At every level of unionism, wherever the strength of the union permitted it, the organised workforce used the principle of consultation as an inalienable right of labour. In 1916, the NUGW representative for the Northern District reported an unauthorised strike in a munitions establishment at Leeds which lasted for fifteen days, because a new machine and new workpeople were introduced without consultation:

There was in operation an agreement with the firm that no alteration should take place unless it was by arrangement between the men's representatives and the directors themselves. Without any consultation whatever the firm had brought in three machines and these men, and the men were to be paid a less rate ... it was difficult to persuade the men to work alongside blacklegs.⁶

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1. MM, Vol IV, part 4, 89
 2. Mun 2/8, 10 February 1917, 139
 3. Ibid., 24 February 1917, 284
 4. Mun 2/10, 9 June 1917 68
 5. Mun 2/27, 18 March 1916
 6. NUGW, Biennial Congress Report 1916, 64

In circumstances where local bargaining and consultation was accepted the shop stewards gained in importance and influence and grew in number. According to Cole, dilution would have been even more difficult to put into practice without the mediation of the shop stewards who administered it locally.¹ The importance of these representatives was grasped by the Minister of Munitions who subsequently concurred that shop stewards were the only body of men sensibly able to deal with the 'maintenance of discipline and settlement of grievances'.²

The above quoted instances do not of course invalidate the view that male labour was opposed to the introduction of women as such and there are many examples of protest on straightforward, anti-feminist grounds, or what would appear to be anti-feminist grounds. In the records there are many cases of male workers refusing to work with women but a full account of all the circumstances has not survived.³ This type of protest occurred in every branch of the engineering industry; tool setting, sheet metal work, core making and foundry work, shipbuilding. In some cases the non-cooperation of the men clearly hinged on matters of wages. The Hebden Bridge Clothing Operatives Union contended that:

Undoubtedly dilution of labour is necessary now in many trades but not all. Some employers are already trying to place cheap labour in their businesses but unionists must stand shoulder to shoulder for equal pay for equal work.⁴

In September 1917 the Coventry Ordnance Works toolsetters refused to show women how to operate the machines 'in consequence of the dissatisfaction with the women's wages'.⁵ However in March 1918 a struggle against the introduction of women onto a three shift system was being waged by the members of the Workers' Union despite the fact that, according to the employers (Doncaster Wire Mills), the wages were said to be good.⁶ One can only speculate on the men's motives in the last case quoted; the wages may indeed have been adequate but the men may have held traditional objections to women working at night.

1. G D H Cole, Workshop Organisation (1923) 53
2. Mun 5/53/300/91 Meeting between the Woolwich Shop Stewards Committee and the Ministry of Munitions and others, 8 July 1917, 9
3. See Lab 34/33-37 and Mun 2/1A - Mun 2/20, also Mun 2/27-28
4. Yorkshire Factory Times, 3 February 1916, 1
5. Mun 2/11, 1 September, 1917, 15. 6. Mun 4/5005, 8 March 1918, 6

Sometimes protests turned on the availability of alternative male labour, as in a post-war strike in Halifax, where 156 fitters, turners and machinists struck.¹ There were, however, also cases of apparently blank refusal of male workers to cooperate, as in the case of a joiner who refused to sharpen tools for a woman worker in an aircraft factory at Cowes.² At the Coats Machine Tool Co workmen were reported to be preventing women from being employed on setting up their own tools even though they were doing other skilled work at that particular plant.³ At Armstrong-Whitworth, ASE members also opposed the employment of women on tool setting and even more significantly refused to allow women to inspect work not performed by women.⁴ One woman's account of her war-time career in munitions spoke of a general antagonism on the part of the foremen who tended to give her incorrect or incomplete instructions. She also accused her fellow men workers of refusing to lend her tools and of sabotaging her work in small ways - an experience which she said was shared by other girls. The men, she wrote, were possessed of 'the fear that if women became capable of doing their work, they would find themselves in the army'.⁵ This type of practice was also reported by a Dilution Officer who cited an example of men who were guilty of faulty tool setting and whose object it was to discredit the women.⁶ In another context, Miss Poole - the dilution officer cited above - also accused the workmen of being 'Bolshevists and conscientious objectors' who, on one occasion, hustled out a Red Cross collector on the grounds that 'it was the Government's war and the Government should pay Red Cross expenses'.⁷ Despite the fact that Miss Poole eventually became a secret Ministry of Munitions 'demonstrator

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1. Lab 34/37 strike at Halifax 18 January 1919-1 February 1919
 2. Lab 34/36, 13-14 March 1918. 700 joiners struck in sympathy as a result of the dismissal of the rebellious joiner.
 3. Mun 5/71/324/29 Extract from report for week ending 13 July 1918 - restraints on dilution, 4
 4. Ibid.
 5. IWM, Box 147/17, 5-7. An account of the war-time career of Miss Dorothy G Poole and her rise from munition worker to Dilution Officer, written between 1919-1920
 6. Dilution of Labour Bulletin, February 1917, 55
 7. IWM, Box 147/17, An Account of the war time career of Miss Dorothy G Poole 5-7

operative' and later Dilution Officer, and notwithstanding her evident dislike of 'the reign of shop stewards', her experience of the prejudice and opposition she encountered from the men cannot be dismissed as simple anti-trade union bias. Clearly men resented the presence of women on the shop floor and particularly of women invested with any degree of authority. In July 1917 trouble broke out in Halifax when a woman was appointed inspector of 'certain classes of shell work'.¹ In Leeds where women had been successfully installed during the two preceding years as tram conductors, a strike was called when a small number of them were appointed as inspectors.²

Training and supervision was another issue which provoked unrest. The underlying cause was not too difficult to fathom - the fear and reluctance to pass on precious knowledge to a section of the labour force which might be used to undermine the hard won privileges of solidly organised labour.

In December 1915, the Chief Labour Officer for the West of Scotland (J Patterson) reported that trade unions were proving obdurate in lifting restrictions except in the case of shell making. At Langs, women were admitted to unskilled work, if a man was upgraded or a new machine was installed, but they were debarred from even the simplest kind of lathe.³ It should be added that the resistance of men to women working on lathes did not apply everywhere and that eventually this opposition was overcome. Women came to be employed in increasing numbers on this type of machine as Chapter 4 will show.

In a Preston (Lancs) plant in 1918, 300 fitters and turners struck on the issue of supervision and training of women dilutees.⁴ The whole question of training of women was linked to the case against increasing the skill value of a female labour force at the expense of neglecting the male labour force.

1. Mun 2/11, 14 July 1917, 15

2. Leeds Weekly Citizen, 10 August 1917, 2

3. Mun 5/73, Letter from J Patterson, Chief Labour Officer for West of Scotland, 18 December 1915, 6

4. Lab 34/36 strike at Preston, Lancs 12-13 June 1918

In some cases this resulted in the employment of boys rather than of women even at the risk of cutting the employer's costs. For example at Oldham (Lancs), 120 workmen struck because screw cutting was being done by women while boy apprentices were being deprived of acquiring this particular skill.¹ Reports from the Tyneside showed that in 1916 there was no progress in dilution at Armstrong-Whitworth and that the male employees preferred the employment of boys rather than women.² This refusal of skilled men to impart skills was on some occasions clearly based on other factors as in the instance of ASE engineers employed by a firm in the Manchester area in August 1918. The Manchester Engineering Employers Association alleged that the ASE was imposing fines on four of their members who were employed in instructing women at the firm of Naysmith but the reason for this opposition was based on the fact that the men were not receiving instructors' wages.³ Humbert Wolfe - Controller of Labour Regulations from 1917-18 - reported in 1918 in a memo on labour unrest that there was 'resistance to the request that skilled men should teach women and unskilled men',⁴ The refusal to train dilutees does not, however, seem to have proved an insuperable impediment to dilution. Had the opposition to training newcomers been fiercer, dilution could not have succeeded, as the History of the Ministry of Munitions pointed out:

However feasible a scheme of dilution might be technically, it could not succeed unless the skilled men who remained were ready to train newcomers. ... The output of munitions is the surest proof that they did their part.⁵

Another line of opposition to women's employment rested on the contention that the supply of male labour was in any case adequate. The Liverpool Dockers insisted that this was the case in April 1916 and that it constituted,

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1. Lab 34/35 strike at Oldham, Lancs, 23-25 April 1917
 2. Mun 2/3 15 February 1916, 96
 3. Mun 2/27, 12 August 1916, 9
 4. Lab 2/252/LR 21228, Memorandum by H Wolfe on labour unrest, 6 July 1918
 5. MM Vol IV, part 4, 90

in conjunction with the inadequacy of sanitary facilities, a sufficient case against the employment of women.¹ In their opposition to the employment of women the men applied arguments about differences in physical endurance, the importance of protecting prospective mothers and the maintenance of decency. Ben Turner - then Secretary of the Yorkshire Federation of Trades Councils - expressed his concern for 'prospective motherhood' if women's labour was widely introduced.² W Mullin - Secretary of the Amalgamated Association of Card and Blowing Room Operatives - maintained that the employment of women in his trade was 'both unsuitable and dangerous'.³ The Wool, Top and Noil Warehousemen moved that the employment of women on a night shift 'was not good either for morals or for health'.⁴ Alex Wilkie of the Ship Constructors' and Shipwrights' Association objected to women in the shipyards because it was:

Detrimental to the mothers of our future generations and cannot conduce to the raising of a strong and virile race for the maintenance and defence of our country.⁵

W C McStocker of the Brassworkers Union - an organisation which was well known for its opposition to women workers in the trade - moved at the 1916 TUC conference that women should not be employed in work which involved the carrying of weights, or hot and dusty conditions, or work on heavy machinery.⁶ W A Appleton - Secretary of the General Federation of Trade Unions - reported to the War Cabinet Committee that the Scottish Iron Moulders objected to the employment of women on the grounds that foundries were not decent places of work for men and especially not for women.⁷ These arguments which were

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1. Trade Unionist, April 1916, 6. The men's opposition seems to have been effective. Women were promptly taken off the Liverpool docks. See Yorkshire Factory Times, 23 March 1916, 1 'Exit Women Dockers'
 2. Yorkshire Factory Times, 5 August 1915, 5
 3. Ibid., 9 December 1915, 1
 4. Ibid., 23 December 1915, 3
 5. Ibid., 20 April 1916, 3
 6. TUC Conference Report 1916, 374. The resolution put forward was vigorously opposed by Margaret Bondfield but supported by J W Ogden of the Amalgamated Weavers (see also Chapter 8) and carried by acclamation.
 7. War Cabinet Committee on Women in Industry Cd 135, 1919 verbatim minutes 15 October 1917 IWM Box 98/22 C3

partly based on fears of exploitation were also used as devices for the continued exclusion of women from work which had always been the preserve of men. In their campaign the men applied some of the well implanted criteria of decency and suitability so dear to the hearts of many middle class social reformers, described in Chapter 1. A further implicit condition of women's employment was that disabled soldiers be given priority wherever feasible. The Dilution section directed, for instance in 1918, that no women be employed in electrical generating stations unless every opportunity had been given to disabled soldiers.¹

Another source of information for trade union reaction to dilution was the national Commission of Inquiry into Industrial Unrest, which investigated the great outbreak of labour protest in 1917.² This inquiry conducted separately in the various parts of the UK did not mention women as a factor in the general dissatisfaction and protest. The causes of the unrest were said to include disparities in the wage levels between the skilled and the unskilled, the cost of living, housing and distrust of Government pledges referred to as a 'scrap of paper'.³ They were also said to include opposition to the proposals for dilution in private engineering work which were being put before Parliament at the time and a protest against the limitations being placed on the trade card system which had exempted skilled men from military recruitment.⁴ (See Chapter 2.) However the introduction of female labour was not mentioned. The Employers' Memorandum to the Ministry on the causes of industrial unrest stressed roughly speaking the same points, added the factors of 'socialist and syndicalist' propaganda and pointed accusingly to the engineering industry as the refuge of army shirkers. This memo also complained of rank and file militants who described their leaders as

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1. Mun 5/72/324/100 Memorandum No 175 from Dilution Section, 29 July 1918
 2. Commission of Enquiry into Industrial Unrest 1917. Cd 8662 - NE Area, Cd 8663 - NW Area, Cd 8664 - Yorks and E Midlands, Cd 8665 - W Midlands, Cd 8666 - SE Area, Cd 8668 - Wales, Cd 8669 - Scotland, Cd 8696 - Summary of reports.
 3. See above Cd 8663, 19
 4. MM, Vol VI, part 1, 110

'traitors bought by the capitalist' but did not mention the introduction of women as an ingredient.¹

Dilution was, as we have seen hedged in and circumscribed by pledges on wages, tenure, demarcation and it was also confined to the munitions industry. In the war time context of labour shortage and special Government regulation, there were limits to which it could be abused. None of these limiting factors could, however, entirely prevent the exploitation of female labour for purposes of curbing trade union unrest or as a potential of indirect labour discipline. The magazine System reported an instance of labour management in which women workers were clearly being used as instruments in labour control techniques:

At one large manufacturing plant women employees have been used on hand screw machines. The company had labour trouble ... and to get away from this put women on the machines ... When the men see that women can do their work they are less likely to strike for trivial causes.²

An MS record of National Ordnance Factories in the Leeds area (n.d.) reported the following:

Female labour was introduced in November 1915 and so far as I can ascertain for the first time in war munition work. One of the reasons for introducing female labour was the first labour trouble which occurred in the latter end of 1915, on the question of piece work. Every effort was made to meet this trouble ... It did not however prevent a strike, which was of short duration. It was met by the introduction of female labour and the summary dismissal of those men who refused to continue on the piece work terms.³

At that stage of the war, summary dismissal was not a deterrent. There was an abundance of work to be obtained. By August 1916 conscription was the punitive weapon and it was made feasible by the substitution of female labour. In August 1916, it was decided at the Armley factory 'that women should operate machines and all men do labouring work, in fact the men were

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1. Mun 5/53/300/89 Employers Advisory Committee, Memorandum to C Addison on causes of industrial unrest, 21 May 1917
 3. R H Archbald, Record of the National Ordnance Factories in Leeds 1915-18, typescript (n.d.) Account of Armley 4.5" shell factory, 44, Leeds City Library
 2. Anon, 'One Result from Women's Work', System, June 1918, 432

notified that if they objected there was an opening for them in the army'. By that date 1190 men out of a previous total of 1940 were released for the army.¹

Not all work however could so easily be adapted by the management. At the Hunslet Factory in Leeds the following case was cited:

In many instances the only way to enable women to carry out certain operations was to dispense with all the men on the particular operations and let the women learn for themselves work which they were easily capable of doing. Strike compelled the management to stop this practice on 18 lb guns.²

At Greenwood and Batley, Leeds, described by a Ministry source as a firm with a bad record of disputes, dilutees were used as a form of blackleg labour to replace skilled men after the completion of a contract.³

These examples show that the employment of female labour could be and was used in some cases to the detriment of male labour. No wonder then, that despite pledges and equivocal guarantees about equal pay, organised labour continued to treat the female worker with mistrust and fear.

1. Ibid., 47
2. Ibid., 102
3. Mun 4/5005, 8 March 1918

CHAPTER 4

WOMEN'S OCCUPATIONS IN MUNITIONS

War imperatives created for the first time a large scale demand for women workers in industrial occupations while dilution agreements facilitated the massive entry of women into new occupations. Women were conscious of new opportunities for work. A correspondent described as a 'Scottish lady prominently engaged in welfare work among Scottish munitions girls and women' expressed it in a way which showed a resentment of the past in contrast to self-fulfilment brought about the war:

The war has given women the chance for which they have waited for untold generations. During the past two years they have evolved further than they evolved in the two preceding centuries. In the old days women were kept in niggling jobs because they were considered only fit for niggling jobs. They were not given a chance of stepping into men's shoes and doing a man's job. They had to rely on their mother wit not on their proven skill for pricking the bubble of male superiority. The Kaiser handed British women an opportunity which their own fathers and brothers and mothers and husbands had ever denied them.¹

The new opportunities included work as bus and tram conductors, carpenters, commercial travellers, drivers of motor vehicles, mail vans and taxis, police work as well as the many varied jobs in munitions.² Although the sex/job divisions were breached in many occupations, it was in munitions that the breaches were more numerous and more radical in content. While it is true that the so called 'replacement' figures quoted on page 73 of Chapter 3 cannot be taken at their face value, women did gradually take over many of the men's jobs termed for want of a better definition both as skilled

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1. IWM press cuttings box/trade unions (1917), People's Journal, 'Fair Play for Women', 27 June or July 1917
 2. H M Usborne, 'Women's Work in Wartime' (1917)

and unskilled. The intensive and sustained trade union struggle for better and theoretically equal wages (which will be described in Chapter 5), is important evidence for assuming that women were doing men's work. Had women not been recruited into men's work the equal pay slogan, which had so long been on the TUC statute book, would have remained a traditional form of lip service to the labour movement's ideals of justice and equality and in many cases a device for excluding women from men's jobs.

In the early stages of the execution of the dilution schemes and the initial impact of the arms programme women were only envisaged as substitutes for men in unskilled work. Gradually however, as more men were conscripted, many of them advanced to semi skilled and skilled work. By November 1917 women were employed in 500 munition processes, two-thirds of which had never been performed by them before.¹ Some details of the tasks women were engaged in show the extent to which occupation frontiers had been crossed. In October 1917 women were reported to be employed in the rewiring of ships after a training of 6-8 weeks, work which hitherto was considered skilled and some 300 skilled men were thereby released in one shipyard.²

The development of the aircraft industry which gathered pace in the second half of 1916 came to make progressively greater demands on the supply of women's labour. It was reported from Austin's factory in Northfield, where women were not employed before the war, that 750 of them had been recruited for aeroplane construction work. They were engaged in work on bolts to limits of 1/3000", on the making of valves from stamping to finish, on the manufacture of tappet valves and on turning brackets.³ In August 1917 the aircraft industry was said to require 100,000 new recruits - 10,000 skilled men and 40,000 unskilled men, and 50,000 women - though the skills expected of its women workers were not specified in this context.⁴

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1. Mun 5/233/9 Special Intelligence Department, output statistics, 13 November 1917
 2. Dilution of Labour Bulletin, October 1917, 10-12
 3. Mun 2/27, 9 September 1916, 4
 4. MM, Vol VI, part 2, 24

In October 1917 women were reported as performing a variety of fitting, bending up, stamping and assembling while male supervision amounted to one for every forty-five women. In gauge making two girls were reported to be grinding their own tools after a training of three months. Girls were also reported to be checking thread gauges 'a job that requires not only manual skill but also some mathematical knowledge as calculations have to be made'.¹ In a memorandum, Gordon Campbell - the Director of the women's wages section at the Ministry - stated that in one aircraft factory women welders were doing skilled men's work and though men had a wider range of ability it was 'impossible to hold that all the work done by women is semi-skilled and not fully skilled work'.² The penetration of women into the ranks of the semi-skilled and skilled workers of the aircraft industry is of some special interest. This was a new and largely war-oriented industry without a tradition of male domination. A pre-war pioneer of aircraft production was Mrs Hilda Blondeau who jointly with a partner set up in 1911 an aeroplane factory in Luton which employed a workforce of 600, half of whom were women.³ A war-time munitions worker who described her work experience in an aeroengine factory was Miss Dorothy Poole. She did cutter shaping, jig making, tool fitting, drilling and tapping. 'If work was slack I shaped and hardened a stock of tools for the turners ... the only repetition work I had was the hobbing of certain gear wheels that we used'.⁴ By mid 1918 it was claimed by Humbert Wolfe that 15% of the women employed in the aircraft industry were engaged on propeller shaping - a task declared to be skilled man's work by the union representative.⁵

Elsewhere, too, women were mobilised for skilled work. 'Women with a three months training turned out parts of fuses, magnetos, optical instruments

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1. Dilution of Labour Bulletin, October 1917, 23
 2. Mun 4/2213/MF 560 Memorandum by Gordon Campbell, 5 June 1917
 3. IWM Box 147/15 Report on Hewlett and Blondeau, Luton, March 1918
 4. IWM Box 147/17 Testimony of Miss Dorothy G Poole... 3-4
 5. Lab 2/662/LR 142/128 Meeting between the Ministry of Munitions and the National Aircraft Committee 15 July 1918, 8

and all kinds of work, hitherto restricted to highly skilled men'.¹ Women were also recruited for heavy labouring work in brick and limestone works, in retort houses of gas manufacturing companies or as blacksmiths' strikers who wielded 8½lb hammers,² as overhead crane drivers in shipbuilding and other munition establishments,³ as navvies in shipyards in preparing concrete platforms on which the keels of new ships were to be laid.⁴

Despite the fact that aggregate figures of women in the three misleadingly watertight categories of skilled, semi-skilled and unskilled are not available, there is enough scattered evidence to suggest that the progressive decline in the supply of male labour made it imperative to train and employ women in skilled and semi-skilled jobs, as well as in unskilled work. The difficulty here, however, in assessing women's skills is as great as in assessing their numbers. The munitions industry underwent during the war far-reaching technical changes in production which facilitated and intensified ^{the} division of labour. Processes which in the past had been carried out by a single skilled operator were subdivided - for example, the production of tools and gauges 'roughing out' was separated from 'finishing'. The setting up of an automatic machine such as ^a capstan lathe was separated from its operation. If a job required several types of operation it was split up into a number of simple tasks, each process being gauged on completion. It was on these manipulative, repetition jobs that women were first introduced in the second year of the war. However, this subdivision of labour also made it possible by means of a relatively short training to introduce 'the more dextrous' men and women who were not skilled mechanics to 'the simpler forms of tool setting and tool room work'. The official history of the Ministry of Munitions quoted an example of:

1. G A Dewar, The Great Munition Feat, 1914-18 (1921) 265
2. Dilution of Labour Bulletin, October 1917, 53-55, 63, 73
3. L K Yates, The Women's Part (1918) 12. This book contains a detailed list of women's war time occupations. Mrs Beatrice Lee was an overhead crane driver at the Yorkshire Copper Works, Leeds from 1916-18. She said that she was the only woman doing that work among one dozen or so others. See IWM, taped interview with Mrs B Lee, 8 December 1975.
4. IWM Box 150/36, Shipbuilding press cuttings, Daily Mail, 12 June 1918. Report on Furness shipyards.

A factory in Yorkshire, devoted entirely to the breech mechanisms of guns of various types and sizes, the lathes and other machines numbering 175 in all, were operated by women, the operatives setting up their own work and grinding their own tools. The hardening of tools was done entirely by women and the work of fitting and assembling the mechanisms was also very largely entrusted to the hands of women.¹

Frequently the work was reorganised to absorb women; such reorganisation was not always accompanied by a change of technology but necessitated considerable training:

In general engineering, high speed engine and marine and locomotive factories, women have had to take a different line of development owing to the absence of repetition work ... some employers have proceeded on the lines of segregating all work of similar character for the women. For instance one woman will do all plain turning up to a certain limit ... In other words and this involves a much longer initial period of training, women are taught to work a particular machine and to do throughout from drawings any piece of work that the machine is capable of taking.²

By the end of the war then, women performed a variety of skilled work in munitions. This is not to say that they became on a narrow definition skilled craftsmen since war policy dictated a specialised and partial knowledge of the engineering processes and not a general training in the whole gamut of engineering skills. Subject to these limitations women:

made tools and gauges to the finest limits, they set up complex automatics, they machined and fitted the most delicate mechanisms, they inspected the rifling of guns and mastered the use of the micrometer and vernier, they conducted scientific tests in the laboratory, they acted as charge hands and forewomen.³

Despite the fact that women were capable of performing skilled work, they were not accepted as genuine craft workers. An arbitration case which came up in October 1917 pinpointed the fine distinctions that were made between the work of skilled tradesmen and the actual status of skilled tradesmen. Subdivision of labour made it possible and even worthwhile to employ women, while any specialised tasks could be done by a man specifically

1. MM, Vol IV, part 4, 78-9

2. IWM Box 151/ Pamphlet, Ben Morgan, 'Munitions for the Imperial Forces' January 1918, 7

3. MM, Vol IV, part 4, 82

retained for that purpose but that did not make women skilled workers. The arbitrator, J M Irvine, reported that in the

fitting shop, brass finishing shop and the smiths' shop women workers are doing work which prior to the war, was done by skilled tradesmen - additional cost being incurred in the departments for extra setting up and skilled supervision due to the employment of women.¹

Women were also introduced into men's work which had before been considered beyond their physical strength. This was made possible by machinery devised to lighten the operation of old fashioned tools and new weight lifting devices, like cranes and runways.² Instructions to Investigating Officers specified that 'requisite lifting tackle should be supplied where women workers are in need of it'.³

The extent of female substitution

Technological advances in engineering which increased in pace and scale during the war period served to overshadow - and even denigrate in the case of women - the importance of human skills in contrast to the achievements of the machine. The substitution of women for men was accompanied by a panoply of argument and discussion intended to deny that women on men's work did indeed perform men's work since the job itself had undergone a general change of content even if the end product was the same. It followed that the notion of substitution did not actually apply to repetition work in more automated work like shell making, even though before the war it belonged to the category of 'men's work'.⁴ A Ministry report on changes in working conditions of over 12,000 engineering employees recorded that by 1918, 55% of all 'novel processes' (a definition of which included changes in machinery, organisation

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1. Lab 2/259/IC 5613/1917 part 5, Dispute between Messrs Smith and Wellstood Ltd., other iron works and the NUGW, October 1917. Arbitrator's report to Sir G Askwith
 2. MM, Vol IV, part 4, 79
 3. Mun 5/79/340/1 Instructions to Investigating Officers, 1917, 27
 4. Mun 5/73/324/15/9 Definition of dilution by Sir Lynden Macassey in a memorandum dated 29 February 1916

of production and the manufacture of new products) occurred in the production of bombs and shells, while dilution (or substitution of women for men) occurred in only 17% of the cases. On the other hand manufacturing processes which were less susceptible to a radical change in technology like turning and machining (13% of all novel processes were introduced in this branch of engineering) underwent the highest proportion of dilution or 43%.¹ The above records give no information on the proportion of women replacing men on skilled work like turning and machining where dilution can be related to the extent of a changed technology, and these detailed figures suffer from the same defects as the aggregate figures quoted above on page 73. However, bearing this in mind the report does show that 68% of all workers or 10,542 workers were women dilutees while 32% were men, though this does not take into account the changes in technology or organisation of work which could imply that many of the women dilutees were replacing men in unskilled work, while it is known that the most frequent example of male dilution was that of semi-skilled men replacing skilled men.² A detailed breakdown of 10,542 records showed that, on the basis of an admittedly small sample, approximately 41% of the women dilutees were replacing men on semi-skilled and skilled work.

Table 15 Female Dilution - an analysis of 10,542 women replacing male labour on various classes of work³

Type of Male Labour replaced	<u>Skilled men</u>	<u>Semi-skilled men</u>	<u>Unskilled men</u>	<u>Apprentices</u>	<u>Boys</u>	<u>Total</u>
	1357	2968	2916	1184	2117	10,542
Numbers and Proportions	(13%)	(28%)	(28%)	(11%)	(20%)	(100%)

Despite the fact that not all diluted labour replaced unskilled male labour, there was great emphasis in contemporary sources on the belief that women's labour was not substitute labour in the full sense of the word, because of the new techniques and increased subdivision of processes. Many writers

1. Mun 5/91/344/6 Changes in working conditions - an analysis of over 12,000 records, 21 June 1918, 12, 16
 2. Ibid., 11
 3. Ibid., 13, Table XII

emphasised the use of foolproof machinery on which women were introduced. Precision grinding was replacing the customary practice of final scraping, while better equipment could lead eventually to the elimination of the fitter in the production of heavy machinery. 'Not inconsiderable would be the saving due to the elimination of the fitters', was the comment of the trade journal Machinery.¹ Industry could moreover rely on the helping hand of the Ministry which willingly provided capital investment for increased engineering production in order to facilitate dilution, while the Dilution of Labour Bulletin publicised the improved techniques as in this case of 9.2" shell manufacture:

The shells are machined on Philip lathes. The most radical departure from existing practice embodied in the design of the lathes ... the application of hydraulic feed ... all screws and gear wheels are thus done away with and the machines can be operated by turning of a few small valves with the fingers ... the mechanism of extreme simplicity.²

As already noted shell manufacture was the war industry which underwent the most radical technical transformation and highest degree of dilution. At the Derby National Shell Factory, 87% of the work was performed by women dilutees. 'Women were employed on high grade combination turret lathes and on precision grinding in the toolroom'.³

The shipbuilding industry, on the other hand, presented fewer opportunities for women's employment because of the absence of repetition work. Women were employed in relatively small proportions to the total workforce on some automatic and engraving machines, on core making and in general unskilled labouring, clerical work and charring. John Brown Shipyards and Harland and Wolff both reported in 1918 that the number of women employed in proportion to the total was very small.⁴

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1. Machinery, 27 July 1915, 576, 'Elimination of the Fitter'
 2. Dilution of Labour Bulletin, October 1917, 31
 3. IWM Box 150/23, Report on National Shell Factory, Derby, February 1919, 1
 4. IWM Box 150/35.2, Report on John Brown Shipyard, 9 July 1918
Ibid., Box 150/35, Report on Harland and Wolff, 1 July 1918

The frequent pronouncements on the subject of women's war time employment in engineering usually endorsed the view that its prerequisite was a changed technology. A tendency to emphasise the achievements of technology in increasing productivity, and to deprecate human labour and particularly women's labour was particularly noticeable. The fact that in other countries modern techniques were being adopted before the war in conjunction with male labour was frequently overlooked. The Dilution of Labour Bulletin stressed this aspect of Britain's relative retardation in engineering techniques and organisation of production before 1914 and levelled the blame on one occasion on the employers' conservative attitudes.

There is generally speaking no more conservative class than the British employer ... The methods which have now been introduced into our engineering workshops are merely the weapons that our pre-war competitors were steadily applying to male workers in their fight with us for the world's markets.¹

In Britain the technological impetus of the war accelerated greatly changes which were already occurring albeit in a very uneven way, in the three decades before 1914. War needs for accurately produced military hardware on a mass production scale necessitated the injection of a new dimension into the engineering industry. The war had found Britain ill prepared in techniques and manpower in many sectors of engineering to deal with these requirements:

British engineers had neglected repetition work and devoted their attention to more specialised operation with the result that they were unrivalled as builders of ships or bridges, but had neither labour nor plant to deal with the vast quantities of simple turning.²

The Dilution of Labour Bulletin emphasised that at the beginning of the war 'many firms made an actual loss due to the number of rejections turned back on them' and that 'the very meaning of accurate work was not known. There was a good deal of difficulty in getting firms to tender when $\pm .001$ in. was exhibited on a drawing though in drawings today it is a common feature of the landscape'.³ Undeniably the new technology did facilitate the mobilisation

1. Dilution of Labour Bulletin, May 1918, 110-111, 'Female Dilution'
2. E.J., March 1916, 28, From a correspondent 'The Dilution of Skilled Labour'
3. Dilution of Labour Bulletin, June 1918, 124, 'Dilution by process'

of women and male unskilled labour into repetition work, but too often it was assumed that this made any statement about female substitution an impossible task.

Kirkaldy in his report on the Clyde metal trades during the war asserted that female labour was in fact additional and not substitute labour. He supported his thesis by pointing out that the number of skilled men in the Clyde metal industries did not decline during the early war period,¹ but ignored the fact that the Clyde was an area which had been dominated by shipbuilding, an industry which absorbed relatively fewer women than other engineering works. As the war went on, however, from about August 1915 onwards, the munitions industry began to make an impact on Clyde engineering. Shell production was easiest to establish in the short run but other branches of munitions like gun, tank and aircraft manufacture were also developed by the Clyde engineering firms like Beardmore, Lang, N B Loco Co., and the major shipbuilders like Cammell-Laird and John Brown. All these newly established munitions industries required a high proportion of skilled engineering labour.² Nevertheless, by 1918 women constituted 56% of the munitions workforce on the Clyde. At first, no doubt, women provided the additional labour force in shell and fuse making and only later, after 1916, did they graduate to substitution work in other branches of munitions. In peace-time conditions and without the dilution drive, most of the new engineering work on the Clyde would have been performed by men.³ Technological advance, though it facilitated the introduction of female labour could not have been the only ingredient in the vast increase of women workers. Substitution must have occurred in various processes of production though the insistence of so many contemporary observers that female labour was merely additional labour obscured the very questions that needed

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1. A W Kirkaldy, Labour Finance and the War (1916) 101
 2. J Hinton, The First Shop Stewards' Movement, 109-113
 3. W R Scott and J Cunnison, The Industries of the Clyde Valley during the War (1924) 96-98

clarification, namely, a realistic appraisal of the capacities of women for acquisition of skill in the engineering industry.

There is some scattered evidence that women were substituted for men notwithstanding the absence of technical change. Kirkaldy reported female substitution in the Newcastle engineering and shipbuilding industry which had not, by 1916 been much affected by technical innovation.¹ This occurrence of female substitution in the absence of technological innovation was, however, rarely remarked upon in contemporary sources since the more astonishing and interesting phenomenon which attracted attention was the great leap in war-time technology. Nevertheless, it is difficult to imagine that the latest techniques and most modern machinery had the same impact on the thousands of uncontrolled engineering workshops engaged in subcontracting as it did on the large National Factories and Controlled Establishments which were the main beneficiaries of Government investment.

Miss Dorothy G Poole in the account of her career < . . . described how in April 1917 she was sent by the Ministry as a 'demonstrator operative' to a firm in London 'to establish the fact for the benefit of foremen and toolroom hands that a woman was capable of doing skilled work'. She reported with some frustration that 'the good done was quite disproportionate to the labour involved. The girls under me were not given a chance to do good work by reason of the antiquity of their machines and several of them drifted away soon after I left'.²

There is other evidence for this account of old-fashioned equipment and the ability of women to learn to use it. A report on the progress of dilution written in 1918 cited the example of a small tool factory in the West Midlands with old fashioned equipment. Despite this, the Dilution Officer

1. A W Kirkaldy, Labour Finance and the War, 143

2. IWM Box 147/17, Report by Miss Dorothy G Poole, 6

reported 'striking examples of the use of women on small tools, screw gauges and similar work' and 'very accurate work on dies of $\frac{2}{10,000}$ ", of viewing and gauging' being done by women.¹ These skills had been acquired by women workers through a training which ranged from a few weeks to a few months.

Kirkaldy reported in a volume sponsored by the British Association as follows:

In smaller works where the character of the industry has not been greatly changed [my italics, M.K.], substitution is more direct and more nearly complete. Women are to be found taking the place of men on work done by men before the war. In many cases such work is highly skilled, there has been no alteration of processes and the skilled workman who was in attendance in earlier days to set tools etc., is now often dispensed with, the woman undertaking the whole responsibility for her machine. Even in such cases, however, it must be noted that the woman is not as fully equipped or so valuable to the employer as the man she replaces, since being without his training, she cannot be put on to a fresh machine without having to learn something that is new to her.²

The Engineer, in one of its enthusiastic reports on women's work reinforced the suspicion that not all machinery was modified or replaced in order to employ untutored women. It appeared to contemporary observers astonishing that women could actually be taught the skills to work devices formerly operated by men:

Women are now employed in general engineering and operating regular mechanics' machines and tools in such branches as high-speed engine building and machine tool making. They are employed not only at machine tools but for marking off the work at the surface tables and scraping up the parts and fitting them together. At the lathes they can turn between centres and on chucks and can be safely left to look after the setting up of their work and their machines. The design of the machines has in no respect been simplified to suit the limitations which women might be thought to possess. The women have mastered the machines which the men used to work [my italics, M.K.] and if they are anything less of mechanics than the men, it is only in this that they have mastered, as yet, but one machine each, whereas the men probably were masters of several.³

For the jobs described above women received a 5-6 months' training - in contrast to the 5-7 year apprenticeship prescribed for skilled engineers.

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1. Mun 5/71/324/41 Report on progress of dilution for month ending 27 July 1918, by the DA section of the Ministry, 3
 2. AWKirkaldy, Industry and Finance, Vol I, 33
 3. The Engineer, 30 March 1917, 296, 'Skilled Women Mechanics'

The interest of the quotation lies in the fact, however, that this was not an instance of modern technology adapted for the employment of women but a crash training of women to adapt them for new tasks.

The emphasis of contemporary observers on the feats of munitions technology, in its narrow engineering and metal work meaning, has also served to obscure the extent or absence of technological change in other industries and the substitution of women for men in these industries. An exhaustive Home Office report entitled 'Substitution of Women for Men during the War', published in 1919 dealt with a number of industries in great detail though it unfortunately omitted most munitions industries of the engineering kind.¹ However, examples from the heavy clothing industry - a munitions industry in the wider sense in that it supplied the armed forces - showed that in the absence of technological change women replaced men if required to do so, using old fashioned implements hitherto regarded as unsuited to their physique. The report showed, for instance, that women tended to replace men at hand pressing, a task which required the handling of irons weighing 9-16 lbs and normally necessitating a training of 3-6 months.² In this specific example it is disconcerting to note that the emphasis of popular and even academic opinion ran precisely counter to the evidence quoted above. In a volume devoted to labour problems of the period, the British Association laid much stress on the introduction of mechanical devices to accommodate women in all industries including clothing. 'These devices often did away with the need for strength and will make it possible permanently to employ women instead of men. Lighter machinery was introduced ... in the pressing work in clothing factories, which enabled the work to be done as efficiently with women's labour as with men's'.³

1. H.O., Substitution of Women for Men during the War, HMSO, 1919

2. Ibid., 44

3. A W Kirkaldy, British Labour 1914-21, (1921) 10
(ed)

The experience of other industries also quoted in the Home Office report reinforces the view that a changed technology was by no means the only factor relevant to the substitution of women. Passing or viewing in the tailoring industry, not an arduous task but a highly paid one, continued to be confined to men.¹ However, in saw milling, box and packing case manufacture - all of these industries allied to the manufacture of war material - women were being substituted in large numbers in 'operating boring and mortising machines, small saws ... and in the saw sharpening department', despite the absence of any marked changes in technology.²

The evidence is so incomplete that it is necessary to point out once again that despite the overwhelming reasons for supposing that the advances in techniques of war time production facilitated the introduction of women into war industries, this was by no means a universal phenomenon either in engineering and metals or in the other war-linked industries.

For many women who worked in the war industries, technological change and job content and evaluation was of no more academic interest, since the level of their wage rates depended on the designation of the job in accordance with sex or skill. For example in 1918 the women workers at Messrs Frith lodged a complaint that their members who were employed on turning special punches were designated as unskilled in contrast to the men who had done this work before the war. The employers countered the claim with the argument that the factory where the women worked was new, the machinery different and the work, therefore, could not properly be termed men's work.³ This line of argument was frequently used and affected adversely women's wages, as Chapter 5 will demonstrate. At least one women's action group - the Manchester and Salford Women's War Interests Committee - must have been

1. H.O. ... Substitution of Women..., 44
 2. Ibid., 79-81
 3. Woman Worker, May 1918, 5

aware of the reasoning behind wage discrimination. To establish whether 'women are doing the same work as men or have processes been adjusted to suit them' was one of the questions contained in an inquiry conducted by the group and directed to the unions.¹ Unfortunately the answers to this question were either not collected or never published.

Another new feature of the engineering industry which facilitated female substitution was the new organisation of engineering processes which called for new types of labour by making new demands on the pool of labour. The demand for semi-skilled labour which was on the increase even before the war was not directly linked to the absence of male labour and the availability of female labour. It was the trend of specialisation and standardisation in the engineering industry which led to an expansion of semi-skilled jobs at a much faster rate than that of skilled jobs;

Semi-skilled labour is on the whole on the increase and is tending, particularly in the case of the specialised processes and of a few others such as cranemen to displace men either from the higher or the lower grades ... it is worth considering how far the increase of semi-skilled workmen ... has reduced the demand for the artisan.²

The same writer remarked that 'many semi-skilled jobs are quickly and some of them easily learnt'.³ This general trend was intensified in the engineering industry during the war and women were able, with some training to adjust to its needs but it would be incorrect to assume as has been implied by some writers that engineering work in itself was degraded to suit the capacities of women. The combination of official trade union support for dilution and general industrial trends facilitated the substitution of women in men's occupations while in contrast traditional female occupations remained more resistant to these changes. In the cotton industry, for instance, especially in weaving, women were only engaged for part of the job previously

1. J Haslam, 'War Service for Women', Englishwoman, July 1915
 2. N B Dearle, Industrial Training (1914) 156
 3. Ibid., 158

considered to be the man's, and even so replacement was more a feature of unskilled work than of skilled.¹ In the earlier years of the war women took over a well-known blind alley occupation - as piecers in Lancashire mule spinning, work which was considered undesirable from any aspiring man's point of view.² In traditional women's industries where they had been barred from certain jobs, they remained barred during the war period despite the fact that trade union restrictions had been officially lifted. For example, in the lace industry where agreements for the suspension of trade union restrictions had been lifted in January 1917, the employment of women on lace machines continued to be rare because of the men's contention that 'women are not physically fit for the work except in the capacity of assistants to men. Still the fact remains that at Southwell women are employed successfully on the heavier machines'.³ In printing and binding where women were employed in reasonably large numbers before the war there was very little substitution during the war period.⁴ In the hosiery trade which experienced a considerable influx of women during the war, only a quarter took men's places.⁵ In rope and binder twine works, where women were regularly employed in the pre-war ^{period} there was very little substitution because the work was not desirable. 'Low wages ... and the present demand for female labour in better paid occupations not only prevent substitution in many cases but make it difficult to obtain labour to keep machines running'.⁶

The instances quoted above, though selective, suggest that crossing the sex/job threshold was equally difficult in the traditional women's trades during the war as it had been prior to the war. That is not to say that

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1. H.O., 'Substitution of Women ...' 17
 2. J Haslam, 'Lancashire Women as Cotton Piecers', Englishwoman, June 1914 271-5
 3. H.O., 'Substitution of Women ...' 18
 4. JRSS, July 1919, 529, D M Barton, 'The course of women's wages' ↗
 5. Ibid., 519
 6. H.O., 'Substitution of Women ...' 37

exceptions did not exist, as for example in heavy cloth cutting where power and hand knives made it possible for women to take up the work.¹ In contrast, in some of the male dominated industries substitution of women for men was more significant because it was unexpected. In industries inflated by war requirements, like india rubber, where the proportion of women rose from 37-57%, there was a high degree of substitution. The same was true of saw milling, as noted above, where the proportion of women employed rose from 12-29%, the chemicals industry where 'the ratio of replacement is very variable and it is noteworthy that there is a tendency to decrease the number of women relative to the men displaced after the women have been employed for some time'. A similar tendency to female substitution in traditional men's industries occurred in flour and corn milling and the gas industry.²

The conclusion seems inescapable that women found it easier in the untypical conditions of war time labour shortage to cross the sex/occupation barrier in industries which had not already been earmarked as women's trades and where rigid stratification within the industry itself had not already been established. Moreover, and despite the fact that the engineering unions were among the best organised and the most craft oriented, Government pressure for dilution allied to an improved training system made a decisive difference to women's opportunities and shifted the focus of the argument from issues of 'suitability' to arguments in favour or against wage equality in many of the new jobs. The aircraft industry, for example, bears these features of a new, unstratified sector where the question of wages was wide open for bargaining.³ On the other hand, the lace industry bears the marks of a well mapped out occupation where the argument still centered on the capacity of women to manipulate this or other piece of machinery formerly the exclusive preserve of men workers.

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1. H.O., Annual Report of the Chief Inspector of Factories for 1916, Cd 8570, 1916, 6. Constance Smith reported that in a cutting department of a tailoring firm where no women were employed before the war the proportion rose to 43%.
 2. H.O., Substitution of Women ..., 85, 78-9, 89, 128, 132
 3. See Chapter 5.

Government pressure for dilution and training

The initial success of employing women on simple repetition work encouraged the Ministry to intensify its efforts towards furthering dilution in the higher grades of engineering work, through the medium of exhibits, training schemes, and the work of Dilution Officers and women demonstrators. The propaganda was not only effective in making headlines in newspapers but in penetrating gradually the bastions of the employers' engineering journals. The possibilities of using cheaper labour were an obvious incentive to dilution, but many conservative employers with full order books were reluctant to face the technical and organisational readjustments in the short run. The Ministry was therefore obliged to aim its efforts - in the words of G H Baillie who was one of its officials - at 'the violent prejudice against dilution by employers'.¹ This prejudice was, of course, not directed against dilution by men and boys but against the employment of women. One of the arguments used by the Ministry, apart from the overriding one of patriotism, was that women were an army of expendable labour which did not make the same demands as men in terms of career prospects and could therefore be slotted into occupations which did not provide opportunities for advancement.

The Ministry advocated women in place of men, because men were wanted for the army or for work which was unsuited to women and in place of boys because many of the occupations were what were known as blind alley occupations in which boys learnt no trade.²

The first step was the initiation of women to unskilled jobs in engineering and extravagant though perhaps not totally unrealistic claims were made for the success that women achieved in outdoing men on the assembly line. One engineering monthly asserted that 'not only is women's work equal to men's ... there are instances on record where unskilled or newly trained women workers have improved upon the output of men by 20% or even 50-75%'.³ One Government report on dilution recorded that in some

1. Cassiers Engineering Monthly, July-December 1917, 177

2. Ibid.

3. Ibid., 148

shell shops (where substitution of women was highest) output was increased in rare instances by as much as 200%, though smaller increases were common. These increases in output ranged from 35% per employee, in the production of 4.5" shells to 123% in the production of 9.2" shells.¹ The Dilution of Labour Bulletin even claimed that employing skilled mechanics on repetition work had adverse effects on output and that unskilled women achieved better results after minimal training. 'In one instance the complete boring of the shell took 3.16 machine hours by the skilled men and 3.6 by women after one week's practice'.² Having crossed the threshold of the engineering workshop women were gradually promoted in status as suitable material for training in more skilled work. The Engineer, the most important weekly journal in the trade, inveighed in its editorial against the prejudice which precluded the employment of women on any but automatic or semi-automatic machinery:

This idea is being daily disproved ... where some most delicate operations necessitating the exercise of great skill and high intelligence are being performed.³

In 1917, an editorial in the Engineer spoke of women becoming skilled mechanics in large numbers and warned its readers that they were 'no longer to be regarded as being nothing but repetition single-purpose tool minders' but were 'controlling ordinary machines in every way identical with those worked by skilled male mechanics before the war'. The writer of the editorial was, moreover, forecasting the availability of 'regular supply of thoroughly trained women mechanics - turners, fitters, gauge makers ... The woman engineer is not yet but the skilled woman mechanic is with us'.⁴

This and other enthusiastic comments were prompted by the lavish Ministry exhibition of photographs and samples of women's work which toured the country and which was commemorated in a book graced with a preface by Lloyd George.⁵

1. Mun 5/72/324/119, Report on dilution by the dilution section, January 1918, 9, and appendix IV
2. Dilution of Labour Bulletin, October 1917, 40, 'The effect of Dilution in a Shell Factory'
3. The Engineer, 20 August 1915, 181, 'The Employment of Women in Engineering Workshops'. 4. Ibid., 30 March, 294, 'Women Mechanics' editorial
5. L K Yates, The Woman's Part; a record of munition work (1918)

G H Baillie, the Ministry official already quoted was reported as saying that:

Women acquired skill far more rapidly. He could recall no instance in which a boy or an older man had, after a year's training, reached any considerable degree of skill but there were many employers now who would undertake to train women in that time for almost any kind of skilled work.¹

S R Chichester, of the Explosives and Chemicals Department at the Ministry, said that there was no limit to the employment of women except their physical strength.²

Despite the massive Government propaganda traditional prejudice against the employment of women as illustrated below by a letter from a Director of a large Leeds munitions works, was difficult to obliterate:

It may be possible to introduce women on some of the easier tool setting operations so as to replace men. We should not advocate the employment of women on many of the tool setting operations, however, as the nature of the work is too exact to be easily acquired by women and it is only men who had had many years' experience in handling machines and engineers' tools who are reliable for this work.³

In order to overcome this type of prejudice and increase the volume of suitable manpower the Ministry instituted a system of training which served as an important weapon for furthering dilution.

The munitions miracle which women helped to bring about by performing skilled, semi-skilled and unskilled work was partly achieved, as has been shown in the first part of this chapter, by reorganisation of work and the application of modern technology. Industrial training for women, which became increasingly important however, was a new departure in the history of women's work. In the past attempts had been made to confer status on women's work through training schemes in traditional women's occupations like domestic service, midwifery, teaching and the handicrafts sector. Apprenticeship schemes also existed in millinery and dressmaking. The

1. Cassiers Engineering Monthly, July-December 1917, 177

2. Ibid., 179

3. Leeds City Archives. Greenwood and Batley papers, 11/3/83, Letter to L Gordon, Director of the SAA section, Ministry of Munitions, 22 March 1917

engineering industry, however, with its long standing craft tradition provided long drawn out apprenticeship schemes for men only. This system, well known in engineering literature, relied almost entirely on the newcomer's ability to 'pick up' skills from his senior colleagues and to act in the intervening period as a form of cheap labour. The demands of war could not permit such a waste of manpower and efficiency conscious employers adopted structured instruction as an alternative. In the words of G H Baillie:

The apprentice has too often been regarded in the past by the employer as a cheap labourer or handyman. Women, however, are a more expensive form of labour, the employer during the war wanted output from her as quickly as possible so he really taught her and what women had managed to accomplish as a result of this teaching has been quite astonishing.¹

Employers for their part were not slow to realise the potential of formal training as a counter weapon to the control of the unions through the apprenticeship system, just as they had seized on dilution as a similarly useful weapon. A contributor to the Economic Journal reported in 1916 that many of the employers appreciated the value of Government instruction because 'if they can train a sufficiently large number of labourers and women they will be able to defy the unions'.²

Two types of training in engineering were available to dilutees during the war. One was the institutional training for semi-skilled and skilled work in technical colleges and instructional factories run by the Government and local authorities, while the other was the more modest and entirely job-oriented scheme at the factory bench, lasting from two days to a week. While the latter was accepted as part of a system designed to provide human cogs for the industrial machine, the former met initially with opposition both from the employers and the trade unions.

The scheme for training semi-skilled workers in technical school had been started by Addison in July 1915³ but in December 1915 Lloyd George

1. Cassiers Engineering Monthly, July-December 1917, 151
2. From a correspondent, 'The Dilution of Skilled Labour', E.J., March 1916, 28
3. J Currie, 'Industrial Training', Journal of the Royal Society of Arts, 26 March 1920, 300. J Currie was an officer in the Training Department of the Ministry of Labour and before then of the Ministry of Munitions. See also MM, Vol IV, part 4, 59

was still complaining that the results had been disappointing. 'In Russia ... technical handicraft schools have already trained 10,000 workpeople whereas our schools have only trained 1000'.¹ At that point the number of women who registered for training was minute.² Indeed, in a reply to Lloyd George's complaint the prejudices of the employers, unions and foremen were listed as obstacles to training and the placing of trainees, but there was no mention of hostility to the training of women which suggests the absence of any such training at that particular time. The memorandum reported:

Actual hostility to men trained in technical schools ... it has needed much pressure to induce employers to give our men a trial.³

Throughout 1915 skilled trade unionists and trade union bodies such as the National Advisory Committee, viewed technical training as a trespass on their own territory of the apprenticeship system and insisted on the value of practical workshop training as a proper preparation for engineering work.⁴ The Government, however, pressed on with its scheme of instruction, as an effective measure of providing an efficient workforce within a very short space of time. It attempted to neutralise hostile reaction by emphasising, in the case of women workers, the patriotic purpose, the incomplete or partial nature of the training and the very temporary status of women in semi-skilled and skilled engineering work. Lloyd George was reported in the Woolwich Pioneer as pressing for the training of munitions workers in technical schools but disavowing any intentions 'to produce skilled engineers ... such men and women would still be at most semi-skilled workers but they should be far more useful recruits in a munition factory than workers who have never used a tool'.⁵

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1. Mun 5/49/300/16, Memorandum by Lloyd George, 13 December 1915
 2. Mun 4/1299, 27 January 1915. By that date 94 women and 622 men had been trained by the LCC
 3. Mun 5/76/325/1, Memorandum dated 14 December 1915, 3-4
 4. Mun 5/222, NAC minutes 24 August 1915 and 31 August 1915
 5. Woolwich Pioneer, 29 October 1915, 6

Consequently from the outset it was understood that just as the admission of women to the munitions industry was largely a temporary war time expedient, similarly training was regarded as part of a labour policy geared to war needs and specifically designed not to produce all round engineers:

These women were to be trained for the purpose of producing munitions; not for the sake of educating mechanics nor for the sake of increasing the total skill of the United Kingdom, but purely in order to produce more munitions for the war now ... This specialised training was not designed to produce expert engineers or craftsmen but simply persons understanding how to do expertly one particular job. The object was to train women to a complete knowledge of only one machine or group of machines ... thus constituting ... habituated or imitative skill and not a technical or initiative skill.¹

The policy of a limited training scheme was devised not solely on the initiative of the Ministry but was instigated by the large engineering firms whose representatives, as was shown in Chapter 3, were co-opted during the war onto policy making bodies and the staff of the Ministry. At a Ministry conference organised to discuss the training of munitions workers, a representative of Alfred Herbert, machine tool makers of Coventry, recommended that the training of unskilled workers for tool setting be confined to one specific operation, and not to include any general engineering skills. 'The training of the unskilled as toolsetters based on general principles, was in his opinion a mistake, as they would have to be taught something, which they could never be called upon to use'.² This statement shows some of the eagerness with which the employer side seized upon the general industrial trend advanced by war. Increased subdivision of labour reduced the man/skill factor in some areas of industrial production and was adopted by employers as a means of furthering mass production and decreasing the importance of the craft worker. In the long term, this new trend was bound to affect men workers most. In the short term and in relation to women, it meant that they were deliberately restricted to the acquisition of

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1. Mun 2/1276, Report on the training of munition workers in Great Britain made to the Commercial Economy Board of the National Council of Defence by T Z Zimmerman - director of System, 30 August 1917, part 2, 'Women Workers', 1
 2. Mun 5/77/325/105, Ministry of Munitions conference on training of munition workers, 23 January 1917

partial training and confined to 'habituated or imitative' skills - a policy which was only partly dictated by the needs of the war. One instance of this practice was reported by the Engineer in September 1915 in an account of work at the Beardmore factory. There, a team of 300 women who had received a four months' training continued to be employed on single process work in conjunction with sixty men who performed the tool making, setting up and labouring.¹ In another case quoted by the magazine System women were being employed on toolmaking, though the process had been reorganised to require only a partial training:

A manufacturer of screw machine products is getting very good results from girls both as machine tenders and toolmakers. He finds that as toolmakers they are accurate and rapid workers, and that their output is in every respect up to that of men toolmakers. ... To a large extent the women perform only a single operation. In other words toolmaking in this plant has been put on a manufacturing basis. This makes it necessary to teach the women only a single operation, which they learn to do exceedingly well.²

This policy of restricting the scope of women's industrial education was partly the inevitable outcome of the necessity of maintaining a high level of output and partly a result of a firm but new definition of women's work in engineering as both temporary and partly skilled. This policy was also used, as will be shown in the next section, as a justification for concluding that this was the highest level to which women could aspire, that it suited their physical and mental make-up and that it was conducive to their health and happiness. Nevertheless, during the war crisis the aptitude of women for acquiring engineering skills was never denied. Indeed it was stressed by those Government officials whose job it was to pursue the furtherance of dilution and of the systematic training of women workers.

This was the view of G H Baillie:

It was found that women acquired skills more rapidly. He could recall no instance in which a boy or an older man had after a year's training reached any considerable degree of skill but there were many employers who would undertake to train women in that time for almost any kind of skilled work.³

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1. The Engineer, 3 September 1915, 218
 2. System, June 1918, 432, 'Using Women Toolmakers'
 3. Cassiers Engineering Monthly, July-December 1917, 177

Some 40,000-45,000 women received Government sponsored engineering training during the war organised on a strictly practical basis. At certain periods of the war, as in January-July 1918, the number of women in training surpassed that of men.¹ The scale of training, which assumed much greater proportions in the second half of the war, was organised in a new type of establishment as from September 1916. This was the instructional factory which, in time, became far more important than the traditional technical school. The instructional factories were geared to war time needs. Until then, as the History of the Ministry of Munitions pointed out:

Little in the way of specialised training was done for women. But gradually the capacity of women for work in some of the higher branches of engineering was recognised ... Increasing attention was therefore given to the training of the more intelligent and promising women students in tool setting and other operations requiring skill ... A great impetus was given to this movement by the Ministry's policy of encouraging to the utmost the employment of women on gun ammunition and by the great expansion of the programme of aircraft construction, for many processes in which women's labour was not only suitable ... but essential if the programme was to be carried out.²

The period of training in the instructional factories ranged from six weeks to six months. Each trainee received an hour's instruction per day, at the machine, but was not given textbooks or lectures. In its strict adherence to practical rather than theoretical knowledge the training bore the features of the apprenticeship system, with the important difference that it was a crash course without the imprint of trade union bias. Government officials recommended that it be adopted in the post war years for the training of male engineers.³ This training enabled the apprentices, though women were never formally declared to belong to this category, to 'perform quite early in practical work jobs which are not repetitional jobs, which require measurement by micrometer, they also come to do mild setting up ... inspection and assembling'.⁴

1. Mun 5/77/325/107, January-July 1918 training figures

2. MM, Vol IV, part 4, 73

3. Lab 2/544/MWLS 4347 Memorandum from H Purdy to James Currie, Director of Training, 24 June 1918

4. Mun 4/1276, Report on the training of munition workers etc.,

The trainees were carefully picked for the task and were recruited from a better educated group. They were expected to have a high school education, 'mental agility', 'the right sort of temperament and submission to discipline'. The 'pickle type of factory girl' was shunned. It was specified, in the report on training, that the women picked for the training should not be too middle class because that would mean that they were not accustomed to manual work, but that they should be both financially and patriotically motivated.¹

There are certain contradictions in the criteria specified by the directors of training in that they were casting their net for women such as school teachers, governesses, upper grades of the servant class (because 'they are accustomed to long hours'), country girls, but avoiding the most obvious source of labour - the factory girls. The reason for this was that the industrial factory girl - characterised as the 'pickle type factory girl' - presented through her experience of the industrial process a potential source of indiscipline and lack of submission. The bias in favour of admitting the better educated women to training schemes was echoed by Mr Marjoribanks, of the National Employers' Federation. According to him, high school girls were selected 'to do fitting and turning because they have intelligence. You would never dream of putting the ordinary woman who has only got through the lowest classes of the Board School to do fitting and turning. You will put her on labouring or a machine that is absolutely foolproof'.² From this statement one can deduce something of the radical change brought about by the war situation. Work at engineering workshops had acquired a sufficient status so that training could even make it suitable for the better educated girl as distinct from a lady. An ordinary 'woman' however would have to content herself with what she could get - labouring or manipulating a foolproof machine. This low opinion of the average

1. Ibid., 4-7

2. War Cabinet Committee on Women in Industry, Report, Cd 135, 1919, 85

uneducated woman's ability to acquire skills through training, stood in sharp contrast to a Government Official's view of the ordinary woman's capacities. 'The Labour officer for London states that women are easier to train than unskilled men ... in intelligence a girl of eighteen is said to be equal to an unskilled man of twenty-five'.¹

It is not recorded whether the directives regarding the educational level of women trainees were in fact observed though there is evidence that a large proportion of munition workers in general (see Chapter 3) came from domestic service, while individual cases of women and girls from genteel occupations such as school teaching joined the ranks of welfare superintendents (see Chapter 7), without the benefit of any formal training. The proportion of middle class women in munitions was small, about 9% of the total, though this is not a reliable figure (see Chapter 3). The attendance figures at one professional rather than mechanical engineering establishment - The Galloway Engineering College at Tongland in Scotland - showed that as a profession engineering did not hold much attraction for middle class women. The College designed for 300 professional women engineers and described by the Lady's Pictorial as an institution for 'women of good family and education ... not open to female labour of the usual factory class' could boast only sixty students by the end of 1917. During the war it had been adapted into an instructional factory with engineering capacity and admission rules were relaxed to take in local applicants. It operated a forty-four hour week and paid £3 per week to its students, but its lack of appeal may have been due to its isolated situation in the Scottish countryside and its reputation for exclusiveness which had by then been established.² In most other training centres, women received only 25/- per week, and they were later placed in jobs where the wages ranged from 38-45/- per week.³

1. Mun 2/1A, 25 September 1915

2. IWM Box 147/ 17.3, Report on Galloway Engineering College, Tongland, Scotland, December 1918

3. Mun 4/1276, Report on the training of munition workers etc., .

Side by side with the instructional factories - specifically created to fill the needs of war production - existing technical schools and colleges continued to provide training which varied in content and local needs. From November 1915, the Ministry had begun to provide resources for these institutions in order to make better use of their facilities. Courses were set up under the aegis of the Ministry, for the training of semi-skilled workers. These courses varied from 30-100 hours and up to 1916 they were geared for the training of tool setters, for whom there was an unprecedented demand, lead burners, gauge makers, fitters, tool makers, acetylene welders.¹ It was estimated that up to August 1916 some 22,000 students were trained in technical schools of whom 40% were women. The impact of conscription increased their proportion to 59% of the total in the three months preceding August 1916.² Technical schools absorbed many more women during the war than they normally would have done but they were not considered as equal to instructional factories for the training of munitions workers, largely because they were not equipped for the purpose.³

It is evident that the training schemes did provide an avenue for the advancement of those women who benefitted from the facilities provided. An important Jarrow shipyard reported in 1918:

We have very few skilled women who are practically tradesmen and make a man's wage. They come to us from the Rutherford Training College in Newcastle which is run for the purpose of introducing a useful female machinist.⁴

The Woman Worker - ^{the} journal of the National Federation of Women Workers - carried an advertisement in 1916 by a Miss C Griff, consulting engineer, who offered her services as an instructor in engineering, industrial and factory training.⁵ The Woolwich Pioneer complained in March 1916 of an insufficiency

1. MM, Vol IV, part 4, 63-73

2. Ibid., 73

3. Mun 4/1276, Report on the training of munition workers etc.,

4. IWM Box 150/35.3, Report by Palmer's Co, Jarrow, 9 July 1918, 2

5. Woman Worker, January 1916

of training places for women in scientific instrument manufacture despite the fact that jobs were said to be available in this particular field of munitions:

The technical institutes though paid for by rates to which women are forced to contribute have not attempted to cater for women students except as a matter of secondary importance.¹

Though the numbers of women in training increased in the years 1917 and 1918 with the surge in demand for aeroplane production, both the employment and the training of women was regarded by the Government as a temporary expedient geared to war necessities.

While the instructional factories and technical colleges catered for women in the higher grades, the semi-skilled and skilled, most other munition workers received a training on the job, at the factory bench. New recruits were trained for short periods ranging from two days to four weeks.²

In some cases it was only necessary for them to practice for a couple of days in order to become proficient at a more or less easy job.³

The length of training depended on the process that was being taught. A relatively simple task such as the boring of shells took one week's practice,⁴ but a more skilled job like that of overlookers was also taught in the factory itself. The Official History of the Scottish Filling Factory in Georgetown speaks of overlookers being sent to well established munitions works like Woolwich or Armstrong Whitworth for practical training.⁵ On simple repetition work both Armstrong and Vickers were giving a two day training on the machine.⁶

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1. Woolwich Pioneer, 24 March 1916, 7
 2. M.o.M. Official History of the Scottish Filling Factory, 150. 'This was one of the large Government Establishments, employing 10,000 women.'
 3. Englishwoman, October 1915, 25, 'Women Workers and the War', by a civil engineer
 4. Dilution of Labour Bulletin, October 1917, 40, 'The Effect of Dilution in a Shell Factory'
 5. M.o.M. Official History of the Scottish Filling Factory, 147. 'Mrs Elsa Thomas, who had been a Post Office clerical worker at the beginning of the war, was among thirty or so women sent to Woolwich from Leeds in the autumn of 1915 to learn shell making. After a training of 4-6 weeks she returned to the newly constructed Barnbow Shell Factory (Leeds) to become an instructor to others. IWM/Taped interview with Mrs Elsa Thomas, 1 July 1975 and 25 July 1975.'
 6. Mun 4/2840, Vickers Report on Dilution, February 1916

An untypical but interesting example of industrial training of women organised by women was the National Union of Women's Suffrage Societies (NUWSS) financed scheme for the training of women welders which ultimately led to the formation of a union of women welders - the London Society of Women Welders - who subsequently waged a fierce battle for equal wages.¹ In some cases manufacturers found it necessary to supplement a minimal training provided by technical colleges. It was reported in the Clydebank and Renfrew Press that engineering firms who took on women workers trained for a fortnight at the Royal Technical College in Glasgow found the training insufficient and supplemented it with another 4-8 weeks' instruction on the shop floor.²

Prevalent assessment and opinion of women's work capacity

The employment of vast numbers of women in men's work gave rise to renewed speculation about their capacities and potential. All participants in the war effort had of course an axe to grind. By and large the Government organs extolled women's virtues, employers found dilution in munitions profitable whilst trade unions were careful not to appear too blatantly discriminating. Nevertheless, since women's new employments were a startling factor of war time life judgments were persistently being voiced on this or other characteristic. One of the most prevalent notions, deriving from the fact that so many women were being employed on repetition work was that this was only made feasible by advanced technology and subdivision of labour, as has been noted on pages 101-5 of this chapter. It was implied thereby that had it not been for these innovations in industrial technique women would not have been competent to undertake engineering work, whereas in fact both the technological and organisational factors, represented an intensification of pre-war engineering development. While it is true that the war helped to

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1. G A B Dewar, The Great Munition Feat, 266. B McLaren, Women of the War (1917), 125
 2. Clydebank and Renfrew Press, 8 June 1916, 2

usher in profitable methods of scientific management, production and assembly line techniques well known in American industry, these were a by-product of the demand for standardised, mass produced goods and not of a need to accommodate the new and supposedly inferior labour ingredient, i.e. women. These new capital intensive techniques made more efficient use of the labour factor - whether male or female - and made way for a new hierarchy of labour skills. Nevertheless reputable commentators advanced the thesis that the new process of standardisation of production signified the adjustment of the economy to the low quality of labour, rather than the upward adjustment of labour to the needs of the economy:

Lack of adaptability on the part of the semi-skilled workers (both male and female) has forced the firm to produce a standardised article instead of a variety of goods. The introduction of women ... has led to ... simplification of the process.¹

The above represented the opinion of a well known economist and a leading light of the British Association. On the other hand the successful businessman - Sir Herbert Austin - had a better grasp of the advantages of standardisation and seized on the profitable opportunities it offered:

I am so impressed with the possibilities of standardisation that we shall build only one type of car ... After the war ... we shall organise as we do now with skilled labour directing a considerable proportion of women and unskilled workers.²

Yet another writer in a series of pamphlets written for the Engineering Employers' Federation welcomed scientific management, the new organisational basis for industry and the new class of 'national industrial organisers' - a body that would supervise the new class of semi-skilled workers.³ This writer's only fear was whether the workers would accept the new division of labour. Scientific management, he said 'is here already and the war will cause an enormous increase in the number of firms adopting it ... is the

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1. A Kirkaldy (ed), Industry and Finance, Vol 2, 33, 34-35
 2. Herbert Austin, 'How I made Substitution a Success', System, May 1917, 320
 3. H Atkinson, A Rational Wages System (1917) 52

worker going to accept it ... or is he going to resent it and try to fight it as his fathers fought against the introduction of machinery. If he chooses the latter course it means bitter antagonism, suspicion, labour troubles'.¹

Although the war-time changes in work organisation did cause temporary industrial unrest, it became evident with time that the new system would not necessarily displace or debase the men, but would set up a new hierarchy of skills in which women, more often than not, were slotted in at the bottom of the ladder as Sir Herbert Austin had envisaged. From the employers' point of view standardisation was infinitely more efficient. Sometimes it would even reduce the total wages bill by instituting a piecework system for the lower grades and raising the status of the higher grade male worker. An article in System described how this was done:

The substitution policy has taken away his position from no man. It has in fact raised the responsibility, heightened the importance and increased the wages of the man who remains.²

A manager from the Midlands proudly wrote in another issue of System how he had subdivided a job to make best use of a skilled male ^{worker} while the woman employed as an adjunct 'had merely to attend her machine after it was set up ... As a result the man drew nearly 4d an hour extra while the firm paid exactly the same price for the job and had saved eight hours of the skilled man's time, which was therefore free for other work'.³

Some commentators welcomed the new hierarchy in a flush of enthusiasm for women's proven abilities and looked forward to the day when 'from the top of industry to the bottom there will be work for woman suited to her capacity'.⁴ Unfortunately women depended on the judgment of others for an assessment of their capacities. While the report quoted above looked forward

1. Ibid., 48

2. O.N. Manners, 'Substituting Women Workers for Men', System, May 1918, 328

3. System, April 1917, 251, 'Making a Success of Substitution'

4. M.o.R., Women's Employment Committee, Cd 9239, 13

to women taking up the position of managers and top administrators. The Principal Lady Factory Inspector - Adelaide Anderson - recorded in 1917, her 'disappointment ... over the apparently limited extent of substitution of women in the higher posts of industry'. For most part women's supervisory functions were confined to controlling small groups of workers, as charge hands, overlookers or forewomen, welfare supervisors and managers of a lower grade. Only rarely were women put in positions of control over men.¹ In some munitions factories women charge hands did control small groups which sometimes included men and boys.² / ^{Other firms,} Daimler and BSA were quoted to be among them, did not employ women supervisors as a matter of principle.³

Whatever may have been the positive aspects of war work for women, the growth of assembly line work which made its demands for a new army of machine minders, confirmed contemporary observers in elaborating the theoretical stereotype of the nimble-fingered machine operator, tamed and uncomplaining, bereft of initiative or curiosity. At Woolwich, the manager of the cartridge case factory remarked on 'the cheerfulness of the workers when we consider that the nature of the work is principally repetition and consequently monotonous'.⁴ As compensation some factories bestowed small favours, and encouraged the corporate spirit to stir the new recruits to maximum effort. Flowers, music, medals and an efficiency register were instituted in office work because women were said to be 'more affected by their feelings towards business and towards the individual than men'.⁵ Both Government agencies and women's organisations, each for its own reasons, promoted the notion that women's enthusiasm and energy for war work was boundless.⁶ The women, for their part, were, particularly motivated to prove their worth in terms of endurance and productivity.

1. H.O. Factories and Workshops Annual Report for 1917, Cd 9108, 13, 14
2. A M Anderson, Women in the Factory (1922), 238
3. Mun 4/2840, Reports on dilution at Vickers, Armstrong's and others, Feb. 1916
4. IWM Box 148/29, Report of the Manager of the cartridge case factory at Woolwich Arsenal, 30 July 1918
5. H Gilmore, 'Interesting Women in Office Work', System, January 1916, 6-8
6. See for example, Women's Trade Union Review, July 1915, 2 & L K Yates, op. cit., 21

At Messrs Armstrong's ... the foremen have no trouble in keeping them at their machines and if at any time there is a dearth of work the women worry the foremen, until they are set to work again.¹

This zeal of women workers in the new industrial occupations was also interpreted as a sign of social malleability and an absence of trade union tradition. They were said to be 'amenable to discipline, good time keepers and always ready to exert additional effort when extraordinary demands are made.'² However, another more derogatory interpretation was put upon the high productivity of women achieved during the war which bore negatively on their industrial value. This evaluation, which denigrated their potential in any of the more creative or skilled industrial jobs placed them firmly in the role of work drones, cheerful in their labours but devoid of ambition or initiative.

The Superintendent at Vickers was quoted as saying that men 'have a great curiosity ... while girls ... do not enter the factory with the idea of staying more than a few years and concentrate their attention on attaining dexterity in the performance of a particular job'.³ This lack of curiosity and emphasis on an ability to acquire competence in one particular task could only reflect adversely on women's potential. A manager from the Midlands described women as passive attendants, who would wait if a fault occurred, for the tool setter to arrive and find a remedy:

Industrially women are not a marked success outside repetition work. Few if any have that instinctive genius and love for machinery ... women are not half so inquisitive as men.⁴

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1. Mun 2/1A, 16 October 1915, 40
Two women munition workers at Barnbow Shell Factory (Leeds) who were employed in the lower managerial grades described how deeply they were stirred by appeals of their superiors to strive for greater productivity. Mrs Thomas described how she responded wholeheartedly to the manager's entreaty to increase the number of shells per shift. IWM/Taped interviews with Mrs Elsa Thomas, op. cit., and Mrs Elsie McIntyre, 8 July 1975
 2. IWM Box 146/3, Report from the Crewe National Factory, 26 September 1918
 3. Mun 2/1A, 16 October 1915, 40
 4. System, April 1917, 250, A manager from the Midlands

In the eyes of most managers women represented a quantity of supine labour which could be usefully absorbed within a limited range of operations. Far from objecting to routine and dead end jobs, it was asserted, they accepted their lot with good grace because their natural inclinations stopped short of ambition or desire for advancement.

The fact that the policy of women's training in engineering was deliberately geared to candidates who possessed more than minimal standards of education and that the rest were almost automatically relegated to routine operations, was rarely noted as a factor in setting a precedent for future trends in women's work. At Barr and Stroud where in the latter period of the war women's training was suspended, presumably because a fall in demand was being anticipated, the assessment of the potential of women dilutees followed familiar lines:

On repetition work they have proved very successful but on more difficult work they naturally lack skill and they are often found to be lacking in initiative. As a rule they do not appear ambitious of advancing, preferring to stay on in a job they know. Some of the better educated women have done very good work on the inspecting and adjusting of instruments.¹

Sir Lynden Macassey - one time Chairman of the Clyde Dilution Commission and later Director of the Shipyard Department - maintained that 'they [women] seemed temperamentally immune to the deadening effect of monotonous work, to which men on the other hand are particularly susceptible' and that it was precisely in repetition work and on special purpose machines that women could hope for 'growth of employment opportunity'.²

The chorus of informed opinion³ was almost unanimous on the limitations of women's potential and their suitability for blind alley jobs. This was, however, not considered as a cause for regret since it permitted a

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1. IWM Box 150/25, Report on Barr and Stroud, Glasgow, 2 July 1918, 4
 2. Sir Lynden Macassey, 'The Economic Future of Women in Industry', Quarterly Review, July 1919, 81, 84
 3. See for example evidence of Mr Mason - head of the explosives department at the Ministry to the War Cabinet Committee on Women in Industry, Cd 135, op. cit., Verbatim Minutes IWM Box 99, 16 November 1918, L16. AWKirkaldy (ed) British Labour 1914-21, 15, 27-28. W R Scott and J Cunnison, The Industries of the Clyde during the War, 100. IWM Box 147/13 Women and their work during the war at HM Factory in Gretna, August 1919, 32

reorganisation of the industrial process by making better use of the male worker's potential and recruiting women for assembly line work. In the past men had had to carry out work 'of simple tedious and thoroughly unmanly nature, such as calls for no thinking and individuality and very little brain power or effort ... The man in charge of automatic lathes before the war ... should now be a charge hand supervising several women lathe minders'.¹

There is much glaring contradiction in the stress placed in contemporary sources on women's special aptitude for mindless repetition work and it stands in sharp contrast to the skills which women had managed to acquire with the relatively short period of intensive dilution. A 'shipyard expert' was quoted as stating the following:

Strength and endurance alone prevent women from doing all the jobs. They are intelligent enough - more intelligent than many of the men; they work hard; they don't get 'fed up' with doing the same job constantly. Give them a repetition job that makes good pay and they will go on with it week after week quite happily.²

Yet in the same article the reporter described some of the skilled jobs being performed by women in the shipyards which clearly were not repetition jobs. These included hydraulic riveting, complex wiring work, the operation of high speed wood working, drilling and slotting machinery, as well as turret and capstan lathes. The writer moreover labelled these tasks himself as 'non repetition work in very many cases and the women setting up their own tools'.³ The Ministry Secret Weekly Labour Reports confirmed that women were being promoted to non-repetitive work in shipbuilding. The Managing Director of a shipbuilding company in the North-East reported that 'a woman was engaged on a counter sinking machine, counter sinking holes in the ships' plates and after one week was becoming very

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1. System, March 1919. 164. 'What to do with Women Workers'. This article described the war time transformation of a clock factory into a fuse factory.
 2. Daily Chronicle, 9 May 1916 'Women and Ships, Tasks they are doing in Shop and Yard' by a correspondent
 3. Ibid.

proficient and needed no supervision. Two other women were engaged in screwing bolts by the stocks and dies'.¹ In another marine engineering establishment in Newcastle, women were said to be performing work of a non repetition character and setting up their own machines.² At a shell factory in Hull women were 'nosing shells in hydraulic presses ... this is the first time they have attempted such work and it is expected that this type of dilution will enable six of the chief firms in the district to withdraw their demands for skilled men'.³ At a firm in Sunderland women were doing the work previously done by fitters on 'packing and ferruling condensers'.⁴ Nevertheless, since dilution by women was more widely applied to repetition work and was largely accompanied by the reorganisation of work processes and the adoption of special machinery, evidence of high productivity was not credited to women's abilities or skills but to the technological factors. Similar views were expressed about women's work on skilled and semi-skilled work as was noted on pages 103-5 . On repetition work the evidence of increased output in industries where women were employed in high proportion was still not regarded as vindication of their ability but linked uniquely to fitness for the monotony of the assembly line. Despite these pejorative judgments it is nevertheless of considerable interest to note that in numerous cases women's output surpassed both previous records and expectations.⁵ The Woolwich Pioneer wrote in December 1915 that women employed in a Midland railway engineering workshop were surpassing the output of the men.⁶ A manager at the Woolwich Arsenal reported that initially (in October 1916) women were expected to pack 1000 fuses per day but that subsequently they increased their output more than fourfold to 4225 and even 4647 per day. Similarly in stacking $\frac{3}{4}$ cwt boxes, it was said,

1. Mun 2/27, 12 February 1916, 4
2. Ibid., 25 March 1916, 3
3. Ibid.
4. Ibid., 1 April 1916, 3
5. See pages 113-114
6. Woolwich Pioneer, 10 December 1915, 7

that women performed as well as the average man. In the shell painting shop output increased from 60 to 200 per hour with the introduction of a bonus scheme.¹ It should be noted that in none of the cases quoted, all of them on repetition work, was the increased output linked to technological innovation. Armstrong Whitworth reported in February 1916 that 'on light work and small work more is done by women'.² At a Yorkshire plant where women were employed in inspecting, weighing, boring, facing, packing and testing 2" howitzer bombs, they were said 'to do the work better than the men previously employed upon it'.³ In shell making, where dilution combined with new techniques was more advanced than in any other branch of munitions, productivity was said to have risen in January 1918 by as much as 200% in some instances, and frequently ranged from 35% to 123% per employee in copper band shops.⁴ However, women obtained high output even on semi-skilled work like turbine blading. One firm in Southampton reported that 100 women engaged on this work were 'giving immense satisfaction, the output being practically double that obtained by male labour'.⁵

The fact, therefore, that women were capable of turning out the required output made them doubly useful in low grade jobs. The new female ingredient in labour supply made the upgrading of men workers a possibility, thereby allaying to some extent the fears of the unions while at the same time fitting in with conventional prejudices. Solidarity reported a case at the Gramophone^(sic) Co. in London:

Female labour has been introduced in the tool room. The men combatted the idea and told the management they would down tools if women were started. The management modified their original intentions and said that they only desired to put female labour on purely repetition work, which was being done by boys. "The boys would not stick the work for more than a fortnight and they found that females would work on any repetition work however monotonous".⁶

1. IWM Box 146/7, Woolwich Arsenal Report, (n.d.) 2
2. Mun 4/2840, Reports on Dilution at Vickers & Armstrong Whitworth, February 1916
3. Mun 2/27, 16 October 1915, 39
4. Mun 5/72/324/119, Report on dilution by the Dilution Section, January 1918, 9 and Appendix, Table IV
5. Mun 2/27, 1 April 1916, 3
6. Solidarity, May 1918, 8. Solidarity was a journal which supported the Chicago branch of the IWW. In the summer of 1918 its editors were replaced by Jack Tanner - leader of the West London Engineers - and the paper became closely allied to the Shop Stewards' Movement.

Thus war time employment policies which shifted the sex/occupation barrier in a new industrial direction tended nevertheless to place women's future careers squarely at the bottom of the industrial ladder. Whatever may have been the skills acquired by women during the war, whatever their war time status, their role in the post-war world had been earmarked for them. Mr Marjoribanks, of the National Employers' Federation put it this way to the War Cabinet Committee on Women in Industry:

I think it means you will have to have a very high class of workman for doing jobbing work, making the gauges, the jigs and what is wanted to enable repetition work to be done cheaply and quickly. A woman is ideal for repetition work and I call it women's work. Most firms have been doing women's work by men and calling it man's work.¹

Lest this state of affairs be considered unfair it was claimed in justification that women actually preferred mechanical routine work. 'A woman is generally a more cheerful worker and does not feel to the same extent as a man the monotony of performing some small operation during long hours'.² One of the reasons cited for this endurance quality was the well known argument that women did not look upon their jobs as a lifetime career.³

It followed therefore that there was no expectation of long term returns of women's training in engineering which was initiated during the war period and that this experiment represented only a temporary expedient. Future perspectives for women in engineering were to be confined to repetition work - the lowest end of the engineering grades. While the war emergency made women's training necessary, its cessation signalled an abrupt end to such novel policies.

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1. War Cabinet Committee on Women in Industry, Report, Cd 135, 1919, 85
 2. A W Kirkaldy, Credit, Industry and War (1915) 83, 84
 3. E P Cathcart, The Human Factor in Industry (1928), 90

The war period with its inevitable labour shortage had created conditions where women had to be harnessed to tasks other than repetition work but these circumstances were judged as clearly exceptional and only temporary. Even while the emergency endured and women were being trained in semi-skilled and skilled work, the make-shift nature of women's training and the temporary nature of dilution agreements was being stressed. Whatever the compensation of war work in munitions, and these are not to be underestimated, women were treated as temporary and inferior alternatives to male labour in all but the unskilled jobs. Even when they were engaged in semi-skilled or skilled work, it was stressed that they could not regard themselves as equals of men or even as fully fledged skilled or semi-skilled workers;

Now when the terms skilled and semi-skilled are applied to work being done by women in the present exceptional times, it must be obvious that they do not imply the same judgment, training and experience on the part of the woman as they did on the part of the man she had replaced.¹

No doubt it was largely true that women did not possess the same qualifications as the regular workforce, yet neither the partial training nor the supposed lack of initiative prevented them from assuming emergency duties when required. Women were, for instance, organised into the so called 'flying squads' - groups which would undertake unaccustomed work and act as relief and emergency substitutes.² At the Central Ministry of Munitions depot at Bolton, it was reported that 'three of our women workers successfully undertook at a moment's notice the stoking of twenty-eight slow combustion stoves distributed over eleven floors of the establishment, which work had previously been done by the same number of men'.³

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1. A W Kirkaldy, ^(ed) Labour, Finance and the War, ., 75
 2. A W Kirkaldy (ed), British Labour 1914-21, 23. See also Woolwich Pioneer, 24 March 1916, 7. Groups operated in Erith, Newcastle and Glasgow
 3. IWM Box 146/2, 6 August 1918, 5

This type of emergency undertaking is all the more remarkable if one considers that women, even more than the men, were captives of their machines and the piecework system. For most part they were probably ignorant of any but the most rudimentary information in regard to the work they performed. In an interview granted to the journal System, Lady Scott was quoted as follows:

Although many of these girls had been many years on the work, they had never heard of a range finder ... they did not know why the work had to be so accurate and they had never seen one of the complete motors assembled. When they were shown the assembling of the motor, their interest in work increased astonishingly.¹

The dictum which enunciated that workers enjoyed monotonous work was reinterpreted to apply to women in particular. The solution to the war time labour shortage which led to the recruitment of women on a massive scale gave rise to an intense and united campaign which claimed that assembly work was self evidently the proper and suitable slot for them in industrial life. W J Ashley, the well known economic historian, was even prompted to claim that work on the production belt was positively beneficial:

I daresay a certain amount of monotony is good for all of us; and it is wonderful how unfettered the human spirit can sometimes remain while the body is patiently repeating the same unchanging movement.²

During the war certainly, the deadening monotony of the assembly line did not seem to pose the grave social problems that have emerged since. The growth of repetition work, however, and the fact that women were successfully employed on it set a pattern for later development on the course of women's industrial work opportunities.

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1. Interview with Lady Scott, 'Simple Methods that Increased Women's Output', System, June 1916, 413
 2. W J Ashley, 'The Task of the Welfare Supervisor', E.J., December 1916, 451

CHAPTER 5

WAGES AND EARNINGS

The war conditions of labour shortage which brought into the market place the reserve pool of female labour resulted in a predictable rise of women's wage levels. Several new factors, apart from the foreseeable one of increased demand came into play. First there was an exodus from the low paid women's occupations such as domestic service, laundry, dressmaking and similar industries which by 1917 totalled almost one-quarter of a million.¹ Secondly, in munitions production it was the result of pressure of male trade unions, better organisation among labouring women, greater productivity which was the result of more scientific management and the control of the labour process as well as new capital investment and technological advance. Among women munition workers, the new systems of piecework combined with long hours of work helped to increase their earnings which, despite the considerable rise in the cost of living, contributed to an improvement in real wages and increased consumption.² The notion of women as a convenient reserve pool of labour to be called upon when the necessity arose and discarded when no longer required found, on occasion, precise articulation in Government papers. A J Jenkinson - author of the labour section of the History of the Ministry - summed up his war time experience in the following terms:

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1. MM, Vol V, part 2, 113
 2. Cole maintained that increased earnings during the war were the result of speeding up and overtime and were not due to better factory organisation. See G D H Cole, Labour in Wartime (1915) 116. This however is a view which did not take into account the later development of war work, the war advances and training programmes

Owing to the wealth of the country and the restrictions of the trade unions a very large reserve of female labour will probably always be available for transfer to the essential industries in the event of war.¹

For the male labour organisations the reserve pool of labour presented a spectre that could only be laid to rest temporarily by guarantees and wage regulations - a new development in the history of both men's and women's wages and particularly significant in the case of women. Hitherto Government action had been confined to Trade Board activity designed to alleviate the worst excesses of sweated labour while war time arbitration procedures for women were a result of pressure by the combined forces of skilled male unionism and the dictates of war expediency. Women's wages were for the first time determined in relation to men's and therefore from a position of some strength in contrast to previous experience when women's wages came under Government regulations as a result of reformers' pressure and the promptings of charity. The issues raised in women's munitions work were not only minimum rates, whose purpose was to alleviate gross hardship, but also *wage agreements* acceptable to the male trade union organisations.

While the skilled unions pressed for equality, the policy of Government agencies was to reconcile what were considered extremist labour demands with the interests of employers and standard industrial practice. The following quotation represents a compromise solution which sought to satisfy the conflicting interests of the parties and to reconcile the rates payable with the varying conditions of the different districts:

The aims of the women's wages section was not to fix them so low as to injure the men, nor so high as to discourage employers from employing them but paying them a standard rate, both on men's and women's work.²

Though many women munitions workers continued to receive abysmally low wages, the undisputed new reality of women doing men's work opened up new

1. Mun 5/346/Hist H. 300/5 Memorandum by A J Jenkinson, 26 September 1922
 2. Mun 5/79/340/7 A Memorandum on Reconstruction by the Ministry of Munitions to the Prime Minister (Lloyd George), 30 April 1918, no page number

criteria and paved the way for an unprecedented discussion of the issues of equal pay. The scope of the discussion, however, was delineated by the fact that female labour was especially disadvantaged in its bargaining structures. The substantial changes brought about by the war were largely the cause of a modification of the traditional limits of women's work which contributed to a renewed attempt by trade union organisations to raise the issues of equal pay. The principle of equal pay, as a result of substitution, was invoked in the munitions industries in the narrow meaning of engineering and the production of war material, and in its broader term of all industries whose output was destined for the prosecution of the war. However, while the former sector came within the jurisdiction of the Ministry and the Statutory Orders, the latter - which included textiles, tailoring, boots and shoes - were left to negotiations and voluntary trade dilution agreements on the basis of the Fair Wages clauses for War Office contracts.¹ In this chapter the weight and functions of Government regulations, trade union and employers' pressures will be discussed in relation to their respective effectiveness on the level of women's wages.

Part I. Legislation and its results

As was shown in Chapter 3, the assent of organised labour to dilution in munitions in its narrow definition of engineering and production of war material was achieved on the Government's firm pledge that dilution would not involve an attempt to reduce the cost of labour. The basic agreement in regard to women's wages was embodied in the L2 circular issued in October 1915 (see Appendix C). This circular was designed to supplement the provisions of the Munitions of War Act which provided that 'the relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job'. This clause was estimated to provide adequate safeguards for the maintenance of standard time rates where semi-skilled men replaced men of higher skill

1. War Cabinet Committee ... Cd 135,

and to prevent the reduction of existing piece rates if diluted labour - whether male or female - was introduced. However, these provisions did not safeguard women's time rates nor women's piece rates if no customary rate was obtained for the job.

The 'Fair Wages' rule, which in 1909 was deemed sufficient to guarantee the payment of a woman's standard district rate for those engaged on Government work, was not acceptable to organised labour in conditions of labour shortage, high profits and rank and file militancy. Justice as well as expediency demanded wage regulation for women in munitions employed on time work, on unskilled work and for those trainees whose piece work performance did not guarantee them a sufficient wage. The L2 Circular for women,¹ and the L3 for men, were introduced to redress these major anomalies and guaranteed a £1 per week minimum to women time workers, while at the same time they pledged equal pay for women doing the work of fully skilled tradesmen. They reiterated the promise of equal pay for piece work for women dilutees in munitions and the fixing of women's piece work rates for new work on the basis of the men's time rates. The implication of the guaranteed minimum of £1 was, according to the framers of these documents, a starting rate for women learning the job which they could hope to augment when they became sufficiently proficient to undertake piece work. These initial circulars omitted to regulate for women who were on probation while learning a skilled trade, or for women performing a portion of a skilled man's job. While circular L2 dealt in a general way with women on men's work, women munition workers engaged on women's work (fuses, small arms, nuts and bolts) were being paid rates of 11/- or 12/- per week and in July 1916, Order 447 was issued which prescribed a minimum rate of 4½d per hour. Detailed Government regulations of women's wages, though not initially envisaged, soon became a prerequisite of dilution. Because dilution was such a high

1. L2 was not made compulsory until February 1916, although it was first issued as a 'recommendation' in October 1915.

priority, the Ministry was obliged to allay the opposition of the unions by undertaking to regulate wage levels in all munitions production. This undertaking was embodied in the Munitions of War Amendment Act of January 1916 as a result of the pressure which was exerted in the main by the ASE and the Boilermakers' Society (the latter being the main union in shipbuilding). The scope of the Orders for women in munitions included contractors and sub-contractors, rates of wages, hours and conditions.¹ The New Act, moreover, empowered the Minister to constitute special arbitration tribunals to deal with wage questions; in the case of women it meant the creation of a Special Women's Tribunal on women's wages.² The main innovation in the Government's undertaking wage regulation was the granting of the principle of equality but only for women on men's work, while the necessity to control the mobility of the remainder of the workforce compelled it to embody the principle of decent wages in all munitions work.

Circulars L2 and L3 were the touchstone of the skilled unions' economic philosophy while the Special Orders were the result of pressure brought by the National Federation of Women Workers (NFWW) to bring the vast majority of women up to a decent standard. While the circulars proved a departure from tradition the Special Orders provided for the disadvantaged female worker, for the metal trades were among the lowest paid of the women's trades. In the words of the Official History of the Ministry:

In regulating the wages of women when on man's work, the Ministry had in safeguarding the men's established rates of pay, to interpret the principle of equal pay for equal work. In dealing with those women on women's work it had to attempt - though this was less categorically stated - to secure for the workers a "living wage".³

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1. By the end of the war more than one million women's wages were being regulated by Government Orders. See H Wolfe, Labour Supply and Regulation, 295
 2. One of the important obstacles in discussing women's wages is that the papers of this important body are no longer available. The Tribunal's deliberations must have constituted a vast amount of material. Its sittings at one point lasted for ten weeks. See Mun 5/349/Hist H.342/1, First draft of the Munitions History, women's wages section by J C Smith, 15
 3. MM, Vol V, part 2, 7

and L3
 Circulars L2 were intended 'to provide a ring fence or rather (as appeared later) a system of barbed wire entanglements round the skilled workman's standard rates'.¹

The theoretical equal pay principles of the L2 circular left open two important questions - first, the comparatively simple one of the woman's probationary period and secondly, the far more thorny problem of split and subdivided work or women's work which was not identical to men's work in the pre-war period. The ASE and other craft unions like the Steam Engine Makers were adamant in their insistence on a strict interpretation of the L2 circular and demanded equal rates for women based on the nature of the job and not on job content. Until the middle of 1916 and despite compromise arrangements in individual cases the ASE was successful in extracting the important victory of attaining the principle of equal rates for specific work after a probationary period of thirteen weeks.²

This uncompromising position was subsequently made subject by the Special Arbitration Tribunal in January 1917 to a 10% deduction for supervision by the skilled worker and a probationary period of three months.³ In contrast, the unskilled man's rate was not protected in the same way. The £1 per week minimum rate for women with overtime and other allowances in addition was considerably below that of the unskilled man's rate but employers refused to concede that one woman was the equivalent of one man.⁴ In view of the employers' opposition and the relative weakness of the general unions whose female membership did not rise appreciably until 1917, the Ministry was under no pressure to impose statutory rates for women time workers on semi-skilled men's work - also called 'intermediate' workers. However, the increase in the numbers of women engaged in such work and the growing strength of the general unions imposed new imperatives. Throughout

1. Ibid., 11
 2. Ibid., 28
 3. Ibid., 18
 4. Ibid., 12

1917 the rates of women time-workers on intermediate work were settled by local or partial agreements until December 1917 when the Special Arbitration Tribunal laid down time wages of 7½d-8½d per hour - a rate which remained in force and unchanged even by the Consolidated Order 546 of May 1918.¹ It was the skilled unions that wielded the power to set the framework for a new structure of women's wages. This structure included a general rise in the level of wages, but did not include actual as opposed to theoretical equality, except in very special cases. War advances and bonuses, which were intended to compensate for the increased cost of living, were never equal, nor was piece-work or overtime for most women workers which was based on the guaranteed minimum of £1 per week. Nevertheless, the very fact that women were now engaged in new types of work, some of it regarded as men's province, occasioned remarkable changes and concessions.

The very existence of the L2 and the £1 minimum made it possible in July 1916 for the NFWW (with the support of the ASE) to raise the position of women time workers doing intermediate work between that of the craftsman and the lower grade of unskilled work.²

For women munition workers on women's work the wages remained substantially lower. Agreements signed by the Midland Employers' Federation and the Workers' Union (WU) in November 1915 remained applicable in substance for the duration of the war. The time rates prescribed for women of twenty-one and over were raised from 12/- to 16/- per week and from 9/- to 13/- for women of eighteen and over.³ Order 447 of July 1916 extended these rates to areas outside the Midlands and though its provisions were woefully inadequate in comparison to the rates prescribed for other munitions workers, the enforcement of the Order came up against formidable opposition from the Employers. An account of this opposition and the arguments put forward deserve quotation:

1. Ibid., 44-49

2. Ibid., 32

3. War Cabinet Committee ... Cd 135, , 124

The front of the opposition was the Midland Employers' Federation. As far back as May [1916] they tried to forestall the original Order 447 by sending a deputation to meet the Tribunal. One of their main arguments was a recent agreement which they had concluded with women workers in the Black Country. Miss S Lawrence was able to show that for women of eighteen the terms of this agreement were actually less favourable than some of the Trades Boards Orders made from the regulation of sweated industries and she turned the edge of their argument against them with such effect that they departed in high dudgeon ... The Midland Employers' Federation renewed their protest ... They represented that they had not been consulted, that they had recent agreements with their workers; that there was no dissatisfaction; that they would lose on running contracts; and that the wages proposed especially for young girls, would raise trouble among the boys.¹

In the end the Order was applied to about 87% of Controlled Establishments and to about 94% of the women employed in them.² According to the War Cabinet Committee:

The general effect of the Order was substantially to increase the current rates for women in establishments which had always employed female labour. It also applied to the very numerous cases in which women and girls replaced boys and youths - at first the commonest method of dilution.³

In December 1916 this Order was extended to women in ancillary munitions production such as electrical engineering, metal and brass foundries, chemicals, explosives and rubber. Moreover, the effect of this Order was to raise the wages of women in the non-munition sections of the munition firms as well as to raise the general expectations and demands in the traditional women's trades in districts where munitions industries had been established. In the chain trade for example, the wages of women which were regulated by the Trade Boards, though not covered by Orders, rose from 2³/₄d per hour to 4d per hour, but it would appear that the dearth of women in this particular industry forced up their earnings by far more than the Trade Board minimum. According to the Chain Manufacturers' Association at the end of the war women were earning 25/- to 35/- per week.⁴ Munition wages

1. Mun 5/349/ Hist H. 342/1, Sketch of the work of the Ministry in connection with women's wages for the first draft of the History, by J C Smith,

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2. Ibid., 17

3. War Cabinet Committee ... Cd 135, 113

4. Ibid., 125, See also MM, Vol V, part 2, 111

exercised an indirect effect on other areas of women's wages, while the Statutory Orders transformed them into a more nation-wide phenomenon. Wages in rural areas, which had always been lower, became amalgamated in the Consolidated Order 546 of May 1918, though they had been pegged at $\frac{1}{4}$ d per hour below those of urban areas by Order 447. The intensity with which the Statutory Orders were fought by industries like the cutlery trade is an indication of the apprehension in which they were held and the disequilibrium which they threatened to the traditionally structured pattern of women's wages. Up to the middle of 1917 wages Orders were mainly being applied to Controlled Establishments. However, the Munitions of War Amendment Act of August 1917 extended their scope to a considerable number of uncontrolled establishments engaged in the production of munitions material such as nuts and bolts and later ammunitions boxes.¹

It was the more traditional women's occupations, which were either not bound to a particular location or in the proximity of the great munitions centres, which gained least from the general rise in wages. These were, according to the War Cabinet Committee, dressmakers and milliners, laundry workers, pottery workers and knife girls, and kitchen girls in refreshment houses. The low end of the scale also included such skilled women workers as woollen and worsted weavers, while the highest earners were those women who took up such unaccustomed work as skilled munition work, chemicals, explosives, driving, engineering, gas manufacture and, unexpectedly perhaps, relatively unskilled work such as that of railway cleaners, telephonists, railway clerks, lamplighters, railway porters, ticket collectors and bus conductors.² The Consolidated Order 546 of May 1918 (see Appendix D) was the result of the general unions' negotiation on behalf of those women employed on women's work. The Order improved the position of those piece-workers who were not receiving the same guaranteed basic pay as the time

1. MM, Vol V, part 2, 118, 150, 191-3

2. War Cabinet Committee ... Cd 135,

workers, by instituting a 5½d per hour minimum. Moreover, those women employed on women's work who had not been classified as 'intermediary' or semi-skilled but who could claim special skills or additionally laborious duties, could now claim additional payment. In addition the Order revised an interim Order for woodworkers and set standard rates for women sheet metal workers in aircraft factories.

The regulation of women's wages in the aircraft industry deserves closer examination. It presents one of the best examples of the spurious divisions which were created between men's and women's work. The industry itself was entirely new and therefore ungoverned by custom or tradition, and important issues were raised in regard to role allocation and above all wage differentiation. Here the area of bargaining was wide open, as will be shown later, for the conflicting pressures of Government interests, employers' power and trade union leverage. This was a new industry which had not been defined as either men's or women's. It involved woodworking and welding processes which would normally have been considered as skilled or semi-skilled men's work. In normal circumstances of the market economy, the demands it made on labour supply would have raised the rates and earnings of its labour force considerably. Nevertheless, the Government had made its decision to keep down the wage costs of this particular sector and effectively managed to keep down women's wages by issuing a separate Order (No. 621) in October 1916 which fixed their wages at ½d per hour above those of Order 447. The aim of the Government was at any rate clear in this area where its freedom of action was greater, by virtue of the absence of trade union custom. Gordon Campbell - Assistant Controller of the Labour Regulation Department - while acknowledging the vital importance of inducting women into sheet metal work after a 6-8 week training enunciated his Ministry's policy by denying them the equivalent of the rates earned by men:

It is not a practical proposition that they should receive the skilled man's rate although this is skilled man's work, because their wages would come to £3. 4. 6. for a 54 hour week.¹

The Government decreed instead, by virtue of the Consolidated Order, not less than 6d per hour after a probationary and training period, rising to 8d per hour after six months. Moreover, the award of the Special Arbitration Tribunal ruled that in sensitive bargaining areas like welding, there was no question of permanent rights in regard to women's wages in war industries like aircraft. It was laid down in February 1917 that 'The rates and conditions prescribed in this award shall be recognised as war rates and conditions and as due to and dependent on the exceptional circumstances resulting from the war'.²

Aircraft production illustrated, therefore, the point that the female worker, though in urgent demand at the time, was rated separately from the male and that this was neither the result of tradition or skill but part of a deliberate policy of keeping the wages of women down to what was estimated a fair level. Since the women possessed neither traditional bargaining power, nor a tradition of skills in this occupation, the level of their wages was more easily controlled by Government Order and by allocating to them the easier, less skilled and less demanding areas of work. This was done without provoking a sense of injustice among women whose wage level was in any case substantially higher than in the traditional women's occupations, while the male workers who had not acquired a tradition of craft status in the trade were unable to put up a successful equal pay struggle.

Statutory Government Orders were not the sole determinants of women's wages. In cases of dispute between the parties they were subject to arbitration procedures by the Special Arbitration Tribunal or the Industrial Commissioner's Department. The results of arbitration did not always

1. Lab 2/243/142/9, Memorandum by Gordon Campbell, April 1918
 2. Mun 4/4020, Award to women welders on aircraft work by the Special Arbitration Tribunal, 17 February 1917

follow the strict letter of the law. The case of women crane drivers is instructive because it illustrated one of the exceptional trades where clear comparisons of women's and men's productivity could be made. The issue was first raised by a woman crane driver in Darlington whose wages were cut from 32/- to 25/- per week on the grounds that the women,

are unable to go on top of the crane and oil and tend it as the male driver did. Whereas the men drivers previously regulated the brakes, adjusted controls and did work of a similar character this has to be done for the woman by a special man. It appears further that the women are much slower in their work than the men and that they are not interchangeable from crane to crane as the men were.

On these grounds the Ministry advised that the women were not entitled to ^{wages} equal ~~to those~~ of the men they replaced and in the case of disagreement were prepared to investigate the efficiency of any individual woman in comparison to a man.¹ This decision placed the onus of proof on the woman worker; though this was not a procedure adopted in the case of men drafted for such work during the war. The case of women crane drivers was eventually taken up by a deputation of the Federation of Engineering and Shipbuilding workers who further complained that lower rates were being paid to women crane drivers by the device of putting them on time work rather than piece work - the latter being the normal method of payment.² Eventually the combined pressure of the NFWW, the WU and the Woolwich Shop Stewards' Committee at the Arsenal won the case for equal pay for women crane drivers, following the precedent of equal pay being granted at Harland and Wolff, in Glasgow. Earnings were thus revised from 37/- to 52/- per week.³

The control of the level of women's wages by the Government went further than the adjudication of wage rates in this or that industry. An important part of munitions earnings were the war advances granted to compensate the

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1. Lab 2/244/2829. Letter from the Ministry to the British Steel Smelters, Mill, Iron, Tinsplate and Kindred Trades Association, 27 March 1917
 2. Lab 2/244/1907. Meeting with deputation of the Engineering and Shipbuilding Workers, 4 July 1917, 4 & 5
 3. Woolwich Pioneer, 11 January 1918 and 18 January 1918. See also S Lawrence, 'Women and the Trade Unions', in S J Chapman, Labour and Capitalism after the War (1918) 205-30. Miss Lawrence quoted the case of women crane drivers being paid 10^sd and also ^{of} high piece-rates in Glasgow.

increased cost of living. War advances and bonuses were granted to both men and women but at different rates.

Up to the beginning of 1917, war advances or bonuses were granted on a local or district basis and 'trade unions almost invariably asked for lower advances to women than to men. Quite frequently women were classed with youths and boys'.¹ Women employed on the work of fully skilled tradesmen had normally received the time rates with war additions',² but this occurred infrequently. After February 1917 the Committee on Production took over the function of ruling uniform rates for the whole country. From that date, women's war advances were granted separately, at a lower rate, and Order 489 specifically precluded any intention to merge them into the existing time rate which would have meant that some women receiving equal time rates would have received equal advances.³ According to the Ministry's History, the Ministry's policy was based on an attempt to

freeze the system of rates in operation immediately before the introduction of women and thenceforward to maintain a sharp distinction between these rates and any supplementary payments subsequently authorised to meet changes in the cost of living.⁴

The war bonus, therefore, turned out to be an additional, though temporary, method of differentiating the incomes of men and women in munitions, and also other trades which normally followed demands of the engineering industry. Roughly speaking women's advances by the end of the war totalled 11/- whereas the men's totalled 23/6 for men over eighteen and in addition male time workers over the age of twenty-one obtained an advance of 12½d on their gross earnings.⁵

Private exchanges between Government officials show clearly that the system of cost of living advances was a cheaper way of augmenting women's

1. War Cabinet Committee ... Cd 135, 159. This is not a correct assessment of the trade unions' position in the latter part of the war as will be shown in Part IV
2. War Cabinet Committee ..., Cd 135, 117
3. Ibid.
4. MM, Vol V, part 2, 131
5. War Cabinet Committee ... Cd 135, 123. An additional 5/- was granted to women in engineering and allied industries in January 1919

rates than increases in wage rates. One memorandum on the subject of women's wages in National Filling Factories stated frankly that war advances were 'an economical alternative to raising the rate per hour because this latter would probably mean giving a larger sum, overtime and other items having to be taken into account'.¹

While it was the Government's policy to link war advances directly to the cost of living and to differentiate between the different grades of employees, the union representatives achieved a remarkable degree of uniformity for their male members, while in the later stages of the war several unions began to make equal demands for both men and women (see Part IV) while refusing at the same time to accept any system based on the number of dependents.²

To sum up, the principal gains were made by women working on new payment by results systems in which equal pay applied, through a guaranteed time rate to piece workers, and by a new definition of adulthood beginning at eighteen and not at twenty-one as had been the custom before the war. Furthermore, it was claimed by some that the earnings of women in metal and munitions trades rose by 300%,³ as against a rise in the cost of living of about 200%. It has also been asserted that the disparity between men's and women's wages was considerably reduced during the war.⁴ These and other statements about women's earnings will be explored in the next section dealing with women's earnings.

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1. Mun 4/3878, Memorandum about wages in National Filling Factories, 5 February 1917
 2. War Cabinet Committee ... Cd 135, 159
 3. War Cabinet Committee ... Verbatim minutes, IWM Box 97/Testimony of Gordon Campbell, 1-15 October 1918, F14
 4. War Cabinet Committee ... Cd 135, , 124

Part II. Women's earnings in Munitions

While Government regulations and Order had sought to establish an orderly system of rates of pay, ^{an} analysis of what earnings really were is inevitably a more intractable task. Statistics, which were periodically obtained by the Ministry through questionnaires were most representative for women in National Shell and Projectile Factories which by April 1918 employed 12,939 and 20,667 women respectively. The Table below shows the rates and earnings of men and women in Shell and Projectile Factories, listed by grade. The most numerous group among the women in the Shell and Projectile Factories were the machine operators (7,676 and 9,418 respectively) and labourers constituted the next largest group (1,315 and 2,858 respectively). It follows, therefore, that three-quarters of the female workforce in the Shell and Projectile Factories, the machine operators, were earning an average of £2. 2. 7. per week in the former and £3. 2. 5. in the latter establishments.

Table 16. Rates and earnings of men and women in Shell and Projectile Factories Listed by Grade in April 1918¹

Grades.	Shell Factories		Projectile Factories.	
	Rates.	Earnings.	Rates.	Earnings.
<i>Males.</i>				
Foremen	£ 4 16 6	£ 6 13 4	£ 5 5 10	£ 6 12 7
Assistant Foremen	4 5 6	6 3 4	4 11 3	6 5 4
Fitters	3 12 0	5 1 8	3 8 5	4 19 8
Turners	3 9 2	5 1 6	3 1 10	6 2 10
Millwrights	3 7 2	5 5 4	3 9 3	5 5 7
Smiths	3 4 3	4 18 6	3 1 0	5 4 4
Charge Hands	3 5 8	4 19 6	3 10 7	5 10 3
Setters-up	3 7 3	5 0 4	3 0 6	5 2 1
Machine Operators	2 9 9	3 15 0	2 11 7	4 12 8
Labourers	2 9 0	3 10 6	2 12 6	4 2 6
Viewers	2 16 4	3 19 6	2 18 3	3 16 6
Average for Males ...	2 19 3	4 6 6	2 19 1	4 14 8
<i>Females.</i>				
Forewomen	2 2 1	2 10 10	2 9 8	3 4 2
Women in Tool Room	1 12 2	1 14 9	1 11 1	1 19 5
Charge Hands, Toolsetter's Assistants, &c.	2 4 6	2 14 3	2 3 5	3 14 5
Machine Operators	1 12 1	2 2 7	1 14 1	3 2 5
Labourers	1 11 4	1 17 9	1 14 1	2 6 3
Viewers	1 15 2	2 3 5	1 15 8	2 5 2
Average for Females ...	1 12 8	2 2 4	1 14 8	2 16 8

1. War Cabinet Committee ... Cd 135, 121. This Table covered 10,487 women in National Shell Factories and 20,667 in National Projectile Factories

The earnings noted in Table 17 below support roughly speaking some of the facts noted in Table 16. The largest group of women in Filling Factories, or 28,000 were receiving average wages of £2. 2. 0. per week or almost exactly the same as the largest group in the Shell Factories. On the other hand Table 18 shows that in the Explosives Factories the largest group were earning substantially less or an average of £1. 12. 5. per week, although earnings did vary as in the Gretna Factory from 31/6 - 34/6 in the gun cotton section to 39/- in the nitrate department.¹ At the Explosives Factory at Pembrey, earnings varied between 32/8 - 38/9 for a 53 hour week.² One of the reasons why average earnings in explosives were lower may have been because of the absence of piece work or output bonuses in such dangerous occupations. Nobel's - one of the largest explosives firms - were an exception in making piece work a practice.

Table 17. Rates and earnings of women workers in National Filling Factories listed by grade.³

	JULY, 1918.		
	No.	Rates.	Earnings.
		s. d.	s. d.
Forewomen	165	50 5	60 8
Assistant Forewomen	195	47 6	55 9½
Charge Hands	1,749	37 8	44 2
Filling Operatives	27,970	32 7	42 4
Labourers	5,156	32 5½	42 11
Total	35,235		

Table 18. Rates and earnings of women workers in National Explosives Factories listed by grade.⁴

	JULY—AUGUST, 1918.		
	No.	Rate.	Earnings.
		s. d.	s. d.
Forewomen—Process	31	45 1	45 1
Maintenance	1	42 6	46 9
Transport Yard and General	9	40 3½	40 3½
Charge Hands—Process	637	46 10	48 7½
Transport Yard	51	35 8½	36 4½
Power	10	34 11½	35 8½
Process Hands	9,919	30 11	32 5½
Labourers—Maintenance	256	30 5	30 8
Transport Yard	1,294	30 0½	31 11
Power	235	35 6	36 4½
Total	12,448		

1. MM, Vol V, part 2, 102

2. Ibid.

3. Ibid.

4. Ibid.

Table 19 on page 154 sets out the earnings of women and girls in Controlled Establishments. Though more detailed in the enumeration of the different munitions industries it does not provide, unlike Table 16, information on job gradation. However, a comparison of women's earnings on shell making shows roughly the same average earnings as those in the National Factories. For example, item no. 22 shows 1224 women earnings $44/5\frac{1}{2}$ per week and item no. 26 shows earnings of $39/8$ on small arms. In contrast item no. 28 - shell founding - shows a higher average pay of $51/-$. One of the highest paid occupations, according to Table 19, was item no. 17 - motors - which averaged $45-50/-$ per week. The earnings listed on page 154 reflect, as do the figures for the National Factories, the situation in the large establishments where Statutory Orders tended to be better observed.

Table 19. Average earnings in certain Controlled Establishments, April-June 1917¹

	Women.	" Women's Work."			Women.	" Men's Work."		
		Girls.	Time Earnings (Adults).	Piece Earnings.		Girls.	Time Earnings. (Adult Workers).	Piece Earnings. (Adult Workers).
			s. d.	s. d.			s. d.	s. d.
1. Steel Tube Manufacturers	161	110	25 0	30 0	69	16	26 6	36 6
2. Chemical ..	—	—	—	—	12	—	34 0	—
	—	—	—	—	12	—	—	35 0
3. Electrical and Mechanical Engineers	16	5	27 6	55 0	116	—	29 0	—
4. Bombs, etc.	115	40	22 9	43 0	26	5	27 0	34 0
5. Tramways	—	—	—	—	14	—	26 6	36 3
6. (a) Rolling Mills	3,338	—	28 0	34 11	1,143	—	29 3	—
	—	—	—	—	295	—	36 0	—
(b) Ammunition Loading	1,842	—	27 0	32 0	74	—	38 0	—
7. Motor Chains, Shell and Fuse Hole Plugs ..	193	94	27 7	29 5	53	6	30 0	—
8. Elec. Engineers, Shells, Primers, Mines	389	200	22 6	29 7½	25	—	—	44 5
9. Iron Foundry	31	18	{ 16 0 } { 19 0 }	—	147	3	27 0	37 2
10. Engineering and Metal Work	—	—	—	—	17	26	{ 16 0 } { 18 0 }	20 0
	—	—	—	—	39	1	—	45 6
	—	—	—	—	148	3	—	(Skilled work). 39 10
11. Seed Crushing, etc. ..	—	—	—	—	133	—	34 0	(Unskilled W'k) (Skilled Work).
	—	—	—	—	138	39	(Min. for 48 hours).	35 0
	—	—	—	—	—	—	—	(58 hours).
12. Engineers	690	—	—	35 0	84	—	—	28 6
	724	—	—	39 6	—	—	—	—
13. Cycle Works, engaged in Small Arms Ammunition	940	—	25 3	—	—	—	—	—
	1061	—	28 5	35 0	8	—	35 0	41 0
	—	—	—	—	—	—	39 0	—
	—	—	—	—	—	—	23 0	—
14. Tubes	—	—	—	—	10	12	—	24 11
15. (a) Motors	—	—	—	—	317	23	26 6	35 0
(b) Woodwork	—	—	—	—	28	—	26 6	40 0
16. Cycle and Motor Works ..	363	213	33 0	49 0	17	2	—	48 9
17. Motors	—	—	—	—	{ 1,096 } (Semi-skilled). 274	—	—	{ 45 0 } { 50 0 }
	—	—	—	—	(Unskilled).	—	30 0	—
18. Nuts and Bolts	206	217	19 6	24 5	—	—	—	—
19. Fuses	1,589	16	—	35 0	31	—	—	40 0
	—	—	—	—	(Skilled.) 27	—	—	32 6
	—	—	—	—	(Unskilled.) 27	—	—	36 0
20. Chains (Transmission) ..	609	—	—	29 0	4	—	40 0	47 0
21. Engineering (Ordnance Co.)	2,174	192	—	38 6	(Skilled.) 402	—	—	—
	—	—	—	—	(Unskilled.) —	14	35 0	37 0
22. Shells	156	—	—	37 6	1,260	—	27 0	37 6
	1,224	—	—	44 5½	—	—	—	—
23. (a) Cycles and Ammunition	70	—	28 0	—	—	—	—	—
(b)	760	—	29 0	—	2	—	40 0	—
	—	—	—	—	(Skilled Welders). 40	—	6d. per hour, plus 2s. 6d.	—
24. Motors, Engines	—	—	—	—	(Labourers). 91	—	32 0	—
	—	—	—	—	481	—	—	49 7
25. Shells	201	—	—	35 8	1,054	—	—	39 8
26. Small Arms	—	—	—	—	87	—	—	38 3
	—	—	—	—	(Aircraft Worker). 1,712	—	30 0	39 0
27. Engineering	785	—	22 0	29 0	486	50	33 2	—
28. Iron Founding, Shells ..	1,168	59	28 10	51 0	—	—	—	—
	—	—	26 6	—	—	—	—	—

1. MM, Vol V, part 2, Table V, 108-109

The fact that women's earnings could rise well above the minima prescribed, if overtime and bonuses were obtainable and up to date machinery was used can be seen from Tables 20 and 21 below. While the minimum week of 45 hours gave a woman punch grinder only £1. 17. 7., her average weekly earnings could rise to as much as £3. 14. 4. for a 60 hour week. A woman capstan hand could earn, if overtime and output bonus were available, from £1 minimum for a 40 hour week to £3. 1. 6. for a 60 hour week.

Table 20. Rates and earnings of women punch grinders in a fitting shop, for week ending June 30, 1917.¹

Case. (Every fifth quoted)	Normal hours worked at 6d. an hour.	Amount Due.			Overtime calculated in hours paid for.		Amount Due.			Output Bonus.			Time- keeping Bonus.		Total Earnings.		
		£	s.	d.		s.	d.	£	s.	d.	s.	d.	£	s.	d.		
A.	60	1	10	0	18½	9	4½	1	13	5½	1	6	3	14	4		
B.	55	1	7	6	½	3		14	5		1	6	2	3	8½		
C.	60	1	10	0	18½	9	4½	19	0		1	6	2	19	10½		
D.	60	1	10	0	18½	9	4½	1	3	10	1	6	3	4	8½		
E.	45	1	2	6	—	—		15	1		—	—	1	17	7		
F.	60	1	10	0	18½	9	4½	1	6	0	1	6	3	6	10½		

Table 21. Rates and earnings of women capstan hands for week ending June 30, 1917.²

Case.	Normal Hours worked at 6d. an hour.	Amount Due.			Overtime calculated in hours paid for.		Amount Due.			Output Bonus.			Time- keeping Bonus.		Total Earnings.		
		£	s.	d.		s.	d.	£	s.	d.			£	s.	d.		
A.	55	1	7	6	—	—		19	5		—	—	2	6	11		
B.	60	1	10	0	15	7	6	1	4	0	—	—	3	1	6		
C.	40	1	0	0	—	—		4	6		—	—	1	4	6		
D.	48½	1	4	3	—	—		16	0		—	—	2	0	3		

Taken together Tables 16 - 21 provide the material for a sketch of a general picture of women's earnings but they suffer, as do all aggregates, from the general disadvantage of statistical averages. Not only do they conceal the high and low rates of earnings but also, of course, the numbers and proportions of women receiving the various scales of payment. It is for purposes of a more realistic assessment, therefore, that wherever available, numbers and proportions have been indicated and, as in Tables 16 - 18, ^{and} only

1. MM, Vol V, part 2, 100

2. Ibid.

The figures in Tables 20 and 21 were obtained from establishments employing some 12,000 women.

those occupations were used as illustrations if a sufficient number of women were employed for a generalisation to be made. Another way of situating the aggregate averages is by trying to isolate the important separate or interacting determinants of the level of women's earnings. One of the important factors for instance was not only the type or size of munitions establishment but also its location.

A study of women's earnings in Controlled Establishments in different munitions areas in June 1917, and therefore before the Consolidated Order of May 1918 which contributed to a rise in earnings, showed interesting differences. In Yorkshire and the East Midlands, which was a relatively high wage area and included important industrial centres such as Sheffield, Leeds, Nottingham and Leicester, two-thirds of the women employed were defined as replacing semi-skilled or unskilled men, with only a very small proportion doing skilled men's work. The average earnings of two-thirds of the women who replaced men on semi-skilled or unskilled work ranged between £1. 8. 7. - £1. 18. 0., as compared to £1. 6. 1. - £1. 10. 10. of the one-third employed on women's work. Women on unregulated women's work, or those not covered by the Statutory Orders, earned £1. 3. 9. - £1. 4. 9. per week. In the Bristol area, where the general pre-war wage level was low, the earnings of women remained lower than in Yorkshire.¹ On the other hand, the Birmingham and West Midlands area provides an unusually good example of a district with thriving metal industry well established before the war. Because women had been engaged in brass ware manufacture and cycles prior to the war, much of the work they came to do during the war was defined as women's work; 67,693 workers on munitions were said to be employed on women's work and only 11,000 were reported as being employed on men's work.² The figures quoted for the Birmingham area show a trend where work experience and occupational tradition among women did not serve to raise the level of their wages. On the contrary in the case of Birmingham this tradition served to place them even more

1. Ibid., Table IV, 106-7

2. Ibid., 106-7, 104

firmly at the lower end of the earning spectrum even though, unlike Bristol, Birmingham was not a low wage area. The very definition of women's work, even in munitions and in spite of statutory orders contained the built in disadvantage of low pay, and in the Birmingham area the tradition of women's employment in the metal industries did not serve to raise the level of their earnings. On the contrary, women's average earnings on both men's and women's work were lower than in Yorkshire,¹ despite the fact that women in the Birmingham area probably possessed some skills in the light engineering and metal trades acquired in their pre-war employment. It appears, therefore, that previous experience in an industry did not guarantee women a higher level of wages, even in a comparatively high wage area. As already noted, in the case of the Birmingham area, the ready availability of women for the engineering trade served to maintain their earnings at a lower level than that of the women in Yorkshire, who had not been employed previously in the metal and engineering trades.

A great deal of the evidence points to a narrowing of the discrepancy between men's and women's wages, within the general context of a rise in the wages of the unskilled workers in comparison to the skilled. One writer estimated that by December 1918 the wages of unskilled engineering workers in general had risen by 259% in comparison to the 1914 level, while the wages of skilled engineering workers had increased by 193%.² Women's wages were said to have increased from about $\frac{1}{2}$ to about $\frac{2}{3}$ of the men's. Kirkaldy - a prolific writer on the subject of war work - wrote of the 'greater correspondence between men's and women's wages for the same work'.³ A complaint from a delegation of the Federation of the Engineering and Shipbuilding Workers confirmed this new fact; while complaining of the

1. Ibid., 106-7

2. R Spicer, British Engineering Wages (1928) 43, Table IX

3. A Kirkaldy, Labour Finance and the War (1916), 92

inequity of women's wages they significantly estimated their level at 26/6 per week as compared to the men's 34/-38/- per week.¹ The War Cabinet Committee also remarked on the narrowing of differentials. The Committee maintained that this was an artificial phenomenon due to Government regulation the restraints imposed by the leaving certificate and the impact of dilution.² The Committee computed the average women's earnings in industry as a whole at 30-35/- per week, while the minimum for women in munitions, excluding overtime and bonuses was said to stand at 33/- per week in 1918.³ The Engineering Employers' Federation estimated that on piece work women earned 40/- per week or 40-60% of the average man's earnings. The Brass-founders Employers Association stated to the War Cabinet Committee that women were earning as much as £4 per week.⁴ A report from the Gretna Filling Factory stated that by August 1918 the average woman's wage stood at 40/- per week compared to the average man's wage of 63/3.⁵

The narrowing of the differential between men's and women's wages followed a general trend whereby the lower paid workers, such as general labourers and women received proportionately greater increases than the higher paid workers. The reason for this relative increase, as has been said above, was the national regulation of wages, restriction on mobility of labour and the practice of flat rate rather than proportional increases in wages in the form of war advances. Under the extension of the Trade Boards Act of 1918, low wage sectors came under scrutiny in cases where 'no adequate machinery exists for effective regulation of wages throughout the trade'. This proviso went considerably beyond the original Trade Board Act of 1909 which attempted to regulate trades 'where wages were exceptionally low',⁶ and contributed to the general rise in the wages of women though for

1. Lab 2/244/1907, Meeting of the Minister with delegation of Engineering and Shipbuilding workers, with the participation of the NAUL, and NUGW, 4 July 1917, 3
2. MM, Vol V, part 2, 118
3. War Cabinet Committee ... Cd 135, . . . 150
4. Ibid., 123
5. IWM 147/13, Report on the Gretna Filling Factory, August 1919, 36
6. Labour Research Department. Wages, Prices and Profits (1921) 16

most part^{it} did not apply to munitions which were governed by special orders. According to the Labour Research Department's investigation, women on women's work in engineering and shipbuilding earned a maximum rate of 33/- in December 1918, while women on men's work were receiving 35/- for a 48 hour week, though this did not take into account overtime or bonus payments on piece work, but did include war advances.¹

On the whole, the evidence on women's earnings is contradictory and conflicting. Despite the more sober reality, exaggerated reports about women's earnings in munitions received persistent and wide publicity. Even as early as November 1915 The Economist described the munitions industry as the new 'Eldorado'.² The image of the high earnings of munitions workers gained widespread acceptance, even among bodies that ought to have known better. One touching example emerged from the case histories of the Woolwich Board of Guardians who in 1916 ordered a woman munitions worker to pay £1. 7. 1. for the maintenance of her children in care, on the assumption that she was earning £2. 13. 3½ per week, whereas in fact her wages averaged 17/6 per week.³

The author of the History of the Ministry of Munitions confessed her inability to assess women's earnings. She described her study of women's wages as 'a good deal longer because ... the Ministry did so much more for women's than for men's wages ... The weakest part is that about earnings'.⁴ Some contemporary witnesses, and not all of these were trade union activists, disputed the assertions about the narrowing of the differential between men's and women's wages. Dorothea (D M) Barton, a statistician of note, wrote in 1919:

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1. Ibid., 48-9, Table I
 2. The Economist, Vol 81, 27 November, 882, Editorial. 'We hear from all parts of the country of the Board of Munitions asking for munitions workers wages suggestive of the Arabian Nights or some new industrial Eldorado - of boys and girls just from school who are offered within a few days or weeks higher wages than the experienced men and women earn in such occupations as textiles or agriculture'.
 3. Woolwich Pioneer, 16 June 1916, 5
 4. Mun 5/321/B/H2/19. Correspondence about the writing of the History of the Ministry Miss C V Butler to G I H Lloyd, 2 May 1918

The average wages of men employed in munition factories are still about double those of the women and the same proportion is found in most of the advances of wages awarded by the Committee on Production. Even where the right to the same wages has been recognised it has been whittled down by definition, change of process and other methods.¹

Professor Meredith in giving evidence to the Working Classes Cost of Living Committee stated in 1918 that average earnings for men exceeded rates by £1 and for women by 10/-. According to him earnings included all types of incalculable advantages such as uniforms, or cheap canteen facilities but he discounted the widely accepted notion of the prevalence of overtime:

Some get much more than average overtime, others do not get it. It could hardly be treated as a general offset for the whole of the working class.²

A member of the Special Arbitration Tribunal was merely prepared to say that 'the great bulk of women are actually paid by employers the minimum rates laid down in the Orders.'³ Most reports and wages books tend to show far higher average earnings for men than for women, thus bearing out the pattern of Table 16 in the National Projectile and Shell Factories and not the pattern of differentials quoted by the War Cabinet Committee on page 158. Greenwood and Batley, a large munitions firm in Leeds, which employed 2003 women and 627 men in November 1916, recorded the following figures: average for men £3. 5. 2. and an average for women of £1. 8. 7.⁴ A firm in Halifax which listed the net wages of women over a period of over a year showed a rise of 5/- representing a war bonus.⁵

<u>Name</u>	<u>19 October 1917</u>	<u>18 January 1918</u>	<u>13 December 1918</u>
Amy Wignall	£1. 12. 10.	£1. 17. 10.	-
Florence Turner	1. 9. 4.	1. 9. 10.	£1. 14. 10.
Lola Williamson	1. 0. 10.	1. 7. 4.	1. 12. 4.
Joan Morton	15. 2.	18. 0.	1. 2. 4.
Mrs Tate	17. 9.	17. 9.	17. 9.

The unfortunate Mrs Tate finished the war at the bottom of the list, because she was not eligible for a war advance.

1. Dorothea Barton, 'Equal Pay for Equal Work', Women's Industrial News January 1919, 12
2. Lab 2/252/LR 22238. Evidence of Prof Meredith to the Working Classes Cost of Living Committee, 10 July 1918, D21, D24
3. Lab 2/243/142/98, Memorandum by Shaw of the Special Arbitration Tribunal, 10 June 1918, 3
4. Leeds City Archives, Greenwood and Batley, cartridge department
5. Halifax City Archives, Hartley and Sugden, (Atlas Works) Boilermakers, Halifax wages book.

Reports from several Government establishments available at the Imperial War Museum estimated women's wages at a rather higher level. The Woolwich Arsenal quick firing cartridge factory reported the following earnings for women in 1918.¹

Overlooker	£3.	5.	7½
Packer	3.	3.	3
Fuzer	3.	0.	11
Explosive Worker	2.	17.	11

The Arsenal may not have been typical in the comparatively high wages for women quoted above. According to the Woman's Dreadnought of 1916, 'The Arsenal is the show place and far in advance of other factories. Some women doing skilled work in Woolwich Arsenal are actually getting skilled men's pay - ladies of title who have political influence and tendencies towards suffragetism'. However the paper also noted that even in the Arsenal 'and amongst the women doing the most highly skilled work, as Mr Ingleby revealed in the House of Commons on July 6th, the overtime bonus is calculated for women on a day worker rating of £1 and on one of 31/- or more for men'.² Whatever may be the accuracy of the earnings quoted by the Manager of the cartridge factory, it is also true of course that overtime for women was calculated on the basis of the minimum of £1 rate, while the men's extra earnings were based on piece work rates.

Two Airship stations reported substantial discrepancies in the case of draughtswomen. The Kingsworth Airship station reported that one woman calculator was earning £3 per week in 1917,³ while the White City Airship Factory reported earnings of £5 per week.⁴ One commentator suggested that as a general rule women's wages were higher in Government controlled establishments than they were in private factories.⁵ The figures quoted above for the

1. IWM Box 148/29, Report from the Manager (J R Elliot) of the cartridge case factory at the Woolwich Arsenal, 30 July 1918
 2. Woman's Dreadnought, 15 July 1916, 512, 'The Truth', Editorial
 3. IWM Box 147/15.2
 4. Ibid., Box 147/16
 5. M B Hammond, British Labour Conditions and Legislation during the War (NY 1919) 193, 195

earnings in the Arsenal ~~←~~ and in National Factories (Table 16) support ^{assertion,} this/ if comparison is made with the Greenwood and Batley figures and the firm of Halifax Boilermakers (page 160).

Unfortunately no accurate or complete picture of women's wages emerges from the trade union journals, which either tended to report gross inadequacies or great victories in their struggle for better wages. The Women's Trade Union Review confirmed a well known fact when it reported a great diversity in the wages of women, some earning 30/- - £4 per week, while at the other end of the scale wages could be as low as 2½-2¾ d. per hour.¹ The Woman Worker reported in February 1916 that, in Falkirk in Scotland, girls employed on core making for hand grenades were earning 16/8 for an 82 hour week.² At about the same time Mrs Fawcett, one of the NFWW organisers at Armstrong Whitworth, Newcastle, reported with some pride that the wages of girls were being raised to 14/- for a 48½ hour week.³ These low levels applied presumably to girls, i.e. women under eighteen though at the Women's Trade Union League Congress of September 1916, members reported that some earnings were as low as 11/- while other women on piece rates were being paid at the rate of £2. 15. 0. - £3 and were for the first time ever liable for income tax.⁴ One wonders how realistic was Julia Varley's claim that in the Midlands a considerable number of women were earning 50/- per week,⁵ in view of the relatively low wages for the area described above (p 156-7)

The discrepancies between the higher and the lower end of women's earnings can be partly explained by the alteration or adaptation of work processes in munitions production. Sometimes even minimal alteration enabled employers to claim that the women employed on adapted processes were either unskilled or performed women's work. This was done, for example, by one

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1. Women's Trade Union Review, April 1916, 15
 2. Woman Worker, February 1916, 10
 3. Ibid., March 1916
 4. Ibid., October 1916
 5. Workers' Union Record, September 1915, 6

Glasgow firm reported by the Woman's Dreadnought, in July 1916. The work involved the finishing of the nose of 4.5" shells. The work done by the women was identical to that of the men, except that in the case of the women the 'thread' was milled by machine, and resulted in a piece rate far lower than that of the men.¹

As the war went on the scarcity of labour became ever greater and the level of women's earnings rose as a result of statutory order and war advances. The last eighteen months of the war witnessed fewer complaints about inadequate or unfair wages,² partly because of better organisation and regulation enforcement, partly because the abolition of leaving certificates made mobility to better paid jobs more feasible. The NFWW journal cited some notably high earnings obtained for its members, though these may have represented merely sporadic signs of rare achievement. The issue of August 1918 quoted guaranteed earnings at the Standard Motor Co., Coventry, on aircraft work at 35/- for a 35 hour week. 'The women are on piece work on the men's prices and are thus earning considerably more than the above, so that the foregoing rates are only guaranteed minima'.³ From Aberdeen another organiser quoted with pride the new rates at Messrs J M Henderson, where rippers were getting £2. 15. 0. and finished turners £2. 13. 0., whereas previously they had been getting £2.⁴ The March 1918 issue, however, voiced the complaint that the 1917 Orders, which had extended the definition of munitions substantially, did not include workers employed by the War Office. In factories run by the War Office women continued to receive 10/- less, while in Ireland munition workers were still being paid as little as 15/-.⁵

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1. Woman's Dreadnought, 15 July 1916, 512
 2. War Cabinet Committee ... Verbatim Minutes, IWM Box 97/ Evidence of Mrs Blanco-White, Director of Women's Wages Section, 1-15 October 1918, E100
 3. Woman Worker, August 1918, 12. Report from Mrs Givens
 4. Ibid., report from Mrs Paterson, Aberdeen
 5. Ibid., March 1918, 8

While the Labour Research Department report maintained that the lower paid sections of workers gained proportionately more from war time wage increases and while women participated in the benefits of this trend,¹ the wages of women in traditional trades according to one writer remained substantially lower than those of munition workers. Leaving out the case of domestic servants, whose earnings have always proved difficult to calculate, D M (Dorothea) Barton attempted to compute the changes that took place by the end of the war in four traditional women's textile industries.²

Average earnings first 6 months 1914	<u>cotton weaving</u>		<u>woollen weaving</u>		<u>worsted spinning weaving</u>		<u>hosiery</u>	
	<u>earnings</u>	<u>rates</u>	<u>earnings</u>	<u>rates</u>	<u>earnings</u>	<u>earnings</u>	<u>earnings</u>	<u>rates</u>
	-	19/4 $\frac{3}{4}$	-	17/6	12/4 $\frac{1}{2}$	18/9	-	16/6 $\frac{1}{2}$
June 1918 % in-creases over 1914	+60	+54	-	+81	+102	+84	+41 $\frac{2}{3}$	+62
Dec. 1918 % in-creases over 1914	+110	-	<u>Time</u> +104 $\frac{3}{4}$ <u>Piece</u> +89	+101	+129	+117	+54	+84

She showed that while significant rises in earnings were registered as a result of steady employment, in absolute terms these trades, which were among the best organised of women's occupations, compared unfavourably with wages obtainable in many branches of engineering and metal industry where the rates in January 1918 were 40/- for time workers on men's work and 38/- on women's work for a 47 hour week.³ That is not to say that some groups of women in

1. Labour Research Department, Wages, Prices and Profits, 9 and Appendix 1
2. D M (Dorothea) Barton, 'The Course of Women's Wages', JRSS, July 1919, 518
3. Ibid., 543. This however included the January 1919 war bonus of 5/- per week which benefitted the women munitions workers still in employment at the time.

cotton and hosiery industries, who had been substituted for men, did not earn more than the above average. They were the beneficiaries of dilution agreements, in both industries which specified equal rates for the dilutees. However, fewer women were substituted in the better paid grades such as cloth looking and hosiery machining, where wages reached the 50/- per week level, than in the lower grades.¹

Munitions exercised a powerful attraction to women and not merely on grounds of patriotism. The new demand for women's labour had important repercussions on other industries and occupations. The new climate extended the scope of the Trade Boards' framework of reference, as was shown previously. However it is worth noting that in 1916 J J Mallon, a leader of the Anti-Sweating League, opposed the establishment of a national minimum wage because, he feared, it would be pegged lower than women in engineering were able to demand.² Increased trade union membership among women in munitions altered the balance of bargaining power. Not only was the membership of general unions strengthened by women but in diluted occupations where the men were anxiously watching the wage standards they could rely on better support for their claims from their male colleagues. This was not a development that was welcomed by employers. Julia Varley reported that Trade Board regulations served to keep down wages in the low paid trades and that employers found it easier to resist wage demands by agreeing to raise Trade Board minima.³ In a climate of relatively high wages which the war had ushered in Mrs Bamber, representing the Warehouse Workers at the 1917 TUC Conference, opposed a NFWW resolution calling for an extension of Trade Board activity: 'My point is that a Trade Board Act never gave a living wage to

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1. War Cabinet Committee ... Cd 135, 135, 130-135, 151
 2. LP, WNC 30/3/35-38, Manchester, Salford and District Women's War Interests Committee pressed for national minimum wage in November 1916, which Mallon opposed.
 3. Workers' Union Record, September 1916, 1-2

any woman worker', she proclaimed.¹ The war, however, was an unusual time when even the comparatively ill paid and previously ill organised Warehouse and General Workers Union could adopt such an uncompromising line. The munitions industry served as a point of attraction for women workers in traditional and poorly paid trades. Even in the early days of the war, the Women's Trade Union Review reported that 'domestic servants have sought work in munitions factories and dressmakers are naturally ready to leave the needle ... by which they were earning 14/6 or 16/6 per week for piece work averaging 30/-'.² An estimate of 30/- per week on piece work for dressmakers was in any case far higher than the earnings of some women in the trade. Dress-making and millinery representatives to the Committee on Industrial Unrest reported in 1917 that in Scotland women with ten years' experience in the trade were still being paid 13/- per week for 'shocking hours'.³ However, it was not only dressmakers and domestic servants who would have found munitions work financially attractive. Office work was badly paid. An inquiry conducted by the IWM into the salaries of women graduates employed in Government offices during the war showed that most of them had been earning £150-200 per annum, but some as little as £100 per annum. One woman graduate who had been a teacher was earning £2. 9. 0. per week. In the War Cabinet Office, five women refused to divulge their salaries which were so low that they might have prejudiced their future careers.⁴ In routine clerical work, temporary employees in 1916 were being paid 18-20/- per week with the addition of the war bonus.⁵ Women teachers continued to be extremely badly paid. A correspondent complained, in an issue of the Woolwich Pioneer, of salaries which were as low as £35 or £65 per annum.⁶ This may not have been as far fetched as it sounds because by the end of the war women teachers at the Halifax Technical College were on salaries ranging

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1. TUC Conference Report, 1917, 282
 2. Women's Trade Union Review, July 1915, 3
 3. Committee of Inquiry into Industrial Unrest (Scotland), Cd 8669, 1917, 8
 4. IWM Box 93/51-41. This information is borne out in essence by the War Cabinet Committee ... Cd 135, 148
 5. Ibid., Box 93/50.1
 6. Woolwich Pioneer, 23 March 1917, 'Teachers' Salaries' from Miss Cutten

from £115 - £125 per annum.¹ Low wages in traditional women's occupations continued to prevail in highly skilled but unorganised trades such as dress-making or unskilled trades such as distribution but also in/which was skilled and comparatively well organised.² Low wages were common in genteel occupations such as library work; three women resigned from the Woolwich Borough Library to take up war work because they were earning 15/- per week had been refused a war bonus.³ In September 1917 the WU was negotiating with a firm of felt and slag wool manufacturers to increase or maintain the wages of women at 18/- per week.⁴

Statutory wage Orders for women in munitions had indisputably a beneficial effect on women's wages in these women's industries as well as others. They served to correct situations like the one in the Pirelli Cable Factory in Southampton which had been employing women at 7/9 per week,⁵ and similar gross injustices which occurred at Nobel's in Perraporth, in 1915 and the North British Rubber Works early in 1917.⁶ Wage orders served to raise the general level of earnings and evidence for this lies not only by the episodic or even aggregate earnings figures but in the considerable exodus from women's trades specifically into munitions. The fate of the chainmaking industry in the Black Country was said to be precarious in the winter of 1916. Thomas Sitch, Midland Secretary of the NFWW, was reported saying that '50% of the women have left the trade during the war - chiefly the younger element ... Many are working in the Dudley National Projectile Factory. Some 200 went to Wolsey Motors, Birmingham and others are scattered in the various Black Country munition works ... another temptation is the completion of a large munitions factory at Blackheath ... where more women chainmakers may be placed by the Labour Exchanges in

1. Halifax City Archives, Halifax Municipal Technical College. The War Cabinet Committee estimated that salaries of women teachers as ranging from £120 p.a. - £300-£400 depending on grade and type of school. See War Cabinet Committee ... Cd 135, 150
2. Woolwich Pioneer, 13 April 1917, 7 and 20 April 1917
3. Woolwich Pioneer, 24 December 1915, 5
4. Lab 2/260/IC 6742/2 September 1917
5. LP, WNC 30/3/26-34 September 1915, See also strike - Mun 2/1A, 13 November 1915
6. MM, Vol V, part 2, 104-5

work at higher wages'. By that date the wages of women chainmakers had risen from 10/0½ to 12/6 per week.¹ Bearing in mind this state of affairs the Minister recommended an advance to women chainmakers.² It appears that the Dudley National Projectile Factory acted as a powerful magnet for workers in other relatively ill paid trades. It was reported in November 1916 that the introduction of a bonus system there had the unforeseen result of attracting both male and female labour from the adjacent Fire Brick Works.³

In the cutlery trades, on the other hand, employers were more secure in regard to their labour supply and fought fiercely any attempts to raise wages through Order 447 in the cutlery and razor trades. Their aim was to confine the Order strictly to the munition trades - a temporary evil - while any attempt to regulate women's wages in holloware would have upset the well established status-quo. 'The increased wages would permeate the whole place and the burden would be put upon the backs of the lighter trades and it would be a most severe burden', argued one Sheffield employer.⁴ In their eagerness to retain the existing wage structure the employers deployed all manner of specious social and quasi-pedagogic arguments in regard to unmarried women in their employ. The girls performed 'non-productive' tasks such as warehouse work, wrapping, polishing, wiping, varnishing and oiling, at wages of 5/- per week at the age of thirteen rising to 16/-:

They come and learn something which is orderly and useful. They are trained into habits of orderly treatment of goods and therefore orderly treatment of anything else ... the hours are short and everything is healthy.⁵

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1. Lab 2/266/HQ 75 Memorandum by G H B Ward, Intelligence section of the Ministry, November or December 1916, 4
 2. Ibid., Memorandum by J H Jones, 24 May 1917
 3. Mun 4/534 report of a meeting of C Addison, Sir F Black, Stephenson Kent and others, 23 November 1916, 2
 4. Mun 5/81/342/5, Sheffield Engineering Employers' Federation, statements, 28 September 1916, 7. The Sheffield Cutlery Manufacturers' Association succeeded in fact by virtue of an agreement with the NAUL signed in November 1916 in fixing women's starting rates at 12/- for those over eighteen, and for women above twenty at £1, for a 50 hour week. See War Cabinet Committee ... Cd 135, 126
 5. Mun 5/81/342/5, Sheffield Engineering Employers' Federation, statements, 28 September 1916, 4

In the Midlands the employers argued against the extension of Order 447 to non-munition trades on the grounds that a girl was in any case 'perfectly content to work at 14/- per week, since in a laundry she had earned only 10/-'.¹ Distillery firms feared that the enforcement of Orders in regard to the wages of women in the munitions sections of their plants was bound to cause 'dissatisfaction and disturbance' among other women workers who were not engaged in munitions production but employed at the same plant.² Although Mrs Blanco-White claimed in her evidence to the War Cabinet Committee that 'firms who are not covered [by the Orders] frequently ask that the Orders may be applied in order that they may not lose labour to their competitors',³ women's wages remained persistently low in traditional women's industries. Rates did not rise by as much in tailoring and shirt-making, even though some of these became munitions trades in the broad sense. Table 22 below reinforces the supposition that women and girls in some traditional women's trades, in which neither statutory Orders nor dilution agreements applied earned less than women in munitions.

Table 22. Average weekly earnings of women and girls in non-munition trades for 1906 and 1918.⁴

<u>Trade</u>	<u>Nos.</u>	<u>Ordinary week in 1906</u>	<u>Nos.</u>	<u>Last week in each month May-Aug 1918</u>
Cotton	126,466	16/2	38,689	24/1
Woollen and worsted	65,499	12/1	20,274	25/3
Linen	31,954	9/9	22,250	20/4
Jute	11,902	12/5	5,434	24/7
Hosiery	15,623	12/3	8,525	23/10
Lace	3,762	11/7	4,179	19/2
Silk	7,130	9/9	4,670	20/5
Carpet	6,325	11/10	1,049	24/4
Bleaching etc.	10,078	11/0	4,606	24/9
Boot and shoe	12,548	10/6	11,445	22/10
Shirt and collar	32,986	11/4	9,602	21/5
Ready made tailoring	19,033	10/10	12,483	25/8
Printing	10,253	9/8	2,828	21/8
Bookbinding	7,552	10/2	4,228	21/6
Pottery	7,939	10/1	3,139	21/7
Glass	1,090	8/6	1,159	16/10
Food preparation	<u>27,363</u>	10/0	<u>27,430</u>	24/5
Total	397,503		181,990	

1. Mun 5/81/342/4, Meeting of Addison with the Midland Employers' Federation, 13 September 1916, 9
2. Lab 2/555/IC3640, WU case against Gartloch Distillery Co, May 1917. The firm was engaged in the production of spirits of wine which was supplied to Government factories and on the production of carbonic acid gas for the Admiralty. The bye-products such as yeast and feeding stuffs did not fall under the munitions category.
3. War Cabinet Committee ... Appendices I, Cmd 167, 1919, 4
4. M.o.R. Report of the Women's Employment Committee, Cd 9239, Table 22 is computed from Appendix 4.

There is a marked difference in the earnings of women listed in some of the above industries and even those women employed in non-engineering or ammunition trades in Controlled Establishments whose wages came under Statutory Orders. For example, women engaged in soap manufacture in Controlled Establishments came under the Consolidated Order 546 in May 1918. As a result women on women's work received earnings of 26/6-35/- per week and women on men's and youth's work were paid wages ranging from 31/--40/- per week,¹ and therefore substantially more than women in the traditional trades listed above. This was not the only example where the application of Government regulations made a crucial difference to the wage level. Women nailmakers, to whom the same Order was applied in May 1918, were entitled to a wage of 40/3 for a 53½ hour week, in comparison to a pre-war wage rate of 9/-12/- per week.² It follows, therefore, that the application of Government war time regulations benefitted some of the least organised and worst paid industrial women workers, as well as setting higher standards in engineering and allied industries.

Part III. War-time systems of wage payment

One of the most important outcomes of war time changes in munitions production was the extension of piece work to engineering and metals. It was estimated that at the outbreak of the war only about 22.9% of the workers in engineering and boilermaking were piece workers and 4.6% were paid in some form of bonus system. In shipbuilding about one-third were piece workers. By contrast, in the light iron castings industry, the cycles industry and the nails, screws, and nuts trades, about half of the workforce was estimated to be on piece work.³ The prerequisite of the growth of piece work systems was

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1. War Cabinet Committee ... Cd 135, 129
 2. Lab 2/555/WA 3839, Arbitration case between women nailmakers at C & E Roberts and J J Ingham, Hunslet, Leeds, 9 June 1919. The award was granted as a result of a strike in February 1919.
 3. MM, Vol V, part 1, 6. The figures quoted were based on the 1906 wage census.

a massive increase of simple repetition work. This is just what the war did provide in the growth of the armaments industry. Payment by results and in particular the premium bonus system - a piece work incentive scheme - enjoyed the strong support of the Government and employers and made rapid progress. Under the premium bonus system a job was timed and a bonus paid to the workman, or group of workmen, who completed it in less than the time allotted.¹

The premium bonus system did not originate with the war; at Weir's and Lang's it had been practised before the war.² Piece work in all its varieties which had always been part of Taylorist experimentation in the engineering industry even before the war received an undeniable boost from war production. By 1917, it was estimated that about 60% of the workforce in shipyards were on piece work,³ but in engineering the resistance to it persisted everywhere. The great fear underlying this resistance was piece rate cutting and speeding up. 'Some unions forbid their members to accept piece rates ... members are asked to discourage it as much as possible', reported the Engineering Industries Committee.⁴ In the aircraft industry opposition to payment by results was confined to male woodworkers in centres outside Coventry but by September 1917 it applied to 40-50% of the workforce, many of whom were women.⁵

On the whole, payment by results schemes made considerable strides in the munitions industries and by 1917 and 1918 created inevitable anomalies in wage levels between workers 'of a slight degree of skill' and the fully apprenticed time workers.⁶ High earnings were reported among semi-skilled

1. The system which found particular favour among employers was the Rowan system, for which the formula was $\text{bonus} = \text{time saved} : \text{time allowed} \times \text{time spent}$. See MM, Vol V, part 1, 155
2. The Premium System of Paying Wages, Reprinted from The Engineer (1917) Revised 5th ed., 66, 38
3. MM, Vol V, part 1, 144 and footnote. The Ministry was in favour of adoption of payment by results systems, unless they were shown to disrupt work or cause strikes. Ibid., 150
4. BT 55/24/EIC 14. Report of the Engineering Industries Committee appointed 10 March 1916, published 1917, 14. See also Cole, Workshop Organisation (1923) 57-64
5. MM, Vol V, part 1, 144
6. Ibid., 153

piece workers on routine repetition work such as those engaged on the shaping, assembling and filling of shells, particularly in the newly equipped factories, while those piece workers whose rates had been fixed prior to the war, or those who were employed on old fashioned machinery in antiquated workshops were adversely affected. Moreover, skilled time workers - the most vocal and best organised section of engineering workers - also suffered a relative decline in their earnings in comparison with the earnings of piece workers. These anomalies created widespread dissatisfaction and were one of the main factors contributing to the industrial unrest of 1917:

A great extension of payment by results was secured by the activity of employers who had the sympathy and support of the Department; the new repetition work was done mainly on some system of payment by results and some extension of the principle was achieved even with more skilled and varied operations.¹

The premium bonus system enjoyed wide support among employers. In the opinion of the Engineering Employers' Federation, who published a pamphlet on the subject in 1917, it constituted an advance on simple piece work in that it avoided the temptation of cutting rates or speeding up. The alteration of time allotted for a particular job was to depend on the modification of machinery used. The consent of the workpeople was to be sought and the authors of the pamphlet quoted the positive response to the system by George Barnes, as well as its successful introduction at Barr and Stroud as far back as 1902.²

The establishment of piece work systems in munitions also received the wholehearted support of Government agencies,³ though most of these trod carefully to avoid the more extreme forms of bullying recommended by Sir Joseph MacLay - Minister of Shipping - who advised statutory enforcement of payment by results if necessary:

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1. Ibid., 164
 2. The Premium System of Paying Wages, passim. George N Barnes was General Secretary of the ASE until 1908, and in 1917 became a member of the War Cabinet in place of Arthur Henderson
 3. For an attempt to assess the efficiency of the system see Mun 4/6359, Ministry of Labour Enquiry into payments by results and comparison with other methods of payment, June 1919. See also MM, Vol V, part 1, 121-164

Employers' and employees' regulations be scrapped and every one be compelled to work under the instructions of the Government at Government rates ... I think National Service is what we all wanted years ago.¹

A less representative attitude of Government opinion was that expressed by A J Jenkinson - author of the labour section of the History of the Ministry - who in an internal memorandum advised that 'war is no time for industrial reconstruction like payment by results unless it is readily acceptable'.² While Government officials promised to support employers who introduced payment by results systems, they also attempted to persuade them that they had no power to compel workpeople to accept piece work.³

Even though the new work and conditions, the new labour force and new wage systems had a disturbing effect on the time honoured differentials among the many grades of skill, it is not certain to what extent women participated in the general gains of male piece workers. While complaints were being made that machine men engaged on simple repetition operations like shell boring and turning were earning in 1915 and 1916 wages far higher than the skilled trades⁴ there is no evidence in any of the numerous and worried comments by officials that the unduly high piece earnings were equally prevalent among women.

The scope of dilution in the recent war was much restricted by the clauses relating to the wages of dilutees. In particular special care must be given to provisions dealing with split jobs and piece work. It is imperative that a procedure should be devised for revising piece prices; otherwise mass production cannot but lead to such anomalies in earnings as constituted perhaps the gravest and certainly the most continuous cause of unrest in the latter period of the war.⁵

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1. Lab 2/254/ML 2189/8, Conference of Ministry of Labour and other Departments on labour unrest, 19 April 1917, 16
 2. Mun 5/346/Hist H 300/5. Memorandum by A J Jenkinson - author of labour section of the History of the Ministry, 26 September 1922, 11
 3. Mun 5/53/300/84, Minutes of Employers' Advisory Committee, November 1917, 42, 29
 4. MM, Vol V, part 1, 131
 5. Mun 5/346/Hist/H 300/5, A J Jenkinson memorandum,

The anomalies in earnings described in the memorandum above clearly did not apply to women. The word 'dilutees' was being used as applying to men; had it applied to women dilutees this would undoubtedly have been stated. The aggregate average earnings statistics (page 161-160) do not suggest that women participated to the same extent as men in the piece work bonanza although most women munition workers, according to Mary Macarthur, were employed as piece workers or on premium bonus schemes.¹

The question being discussed here is not to determine whether the wages of women on piece work were equal to those of the men, since this was obviously not the case but to establish whether and how the piece work systems contributed to their advantage or disadvantage. The underlying formula of Government regulation must be emphasised here once again; its aim was to reconcile the pledges made to trade unions based on the L2 Circular which promised men's rates, with the interests of the economy of the country and the economy of employers. Government policy was therefore consistent in laying down equal rates on work involving payment by results while ensuring disparities in pay through the retention of lower rates for overtime or night shift, calculated on the basis of women's guaranteed time rates on men's work, with a different rate for that of the men.²

Moreover, premium bonus schemes and piece work rates were complicated structures and employees depended to a large extent on the honesty of their employers in fulfilling their part of the obligation. Intricate 'good time

1. War Cabinet Committee ... Verbatim minutes, IWM Box 97, testimony of Mary Macarthur, 4 October 1918, K61. In *National Factories payment by results was universally introduced*. See H Wolfe, Labour Supply and Regulation, 267

2. MM, Vol V, part 2, 130. In the words of the Ministry's Official History: 'The men's interests were adequately safeguarded if the rates in operation when the women were introduced had not been cut by the time the women went out; bonuses and other adjustments in the interval did not affect the rate and could be left out of account being equally temporary and specifically intended to meet the cost of living ... Thus the Ministry's policy was based on an attempt to 'freeze' the system of rates in operation immediately before the introduction of women, and thenceforward to maintain a sharp distinction between these rates and any supplementary payments subsequently authorised to meet changes in the cost of living'. Ibid., 131

keeping' bonuses 'scrap' bonuses (based on the elimination of scrap) or collective bonuses based on additional output over and above the minimum time rate, proved too much for many women to fathom or to check. A Ministry of Labour report on the implementation of payment by results stated that workers often accepted schemes whose implications they did not understand. The report commented, in the case of women, on the

absence of experience and a readiness to accept any payment which appeared on the surface to be reasonable. As large numbers of women before the war had been earning either less than the wages now offered or nothing at all, the disposition to make careful inquiry was not strong.¹

Mrs Blanco-White, in her evidence to the War Cabinet Committee, stated that a large section of women munition workers on shells and other semi-skilled work who were entitled to equal rates, failed to demand them. Thus they were doubly disadvantaged particularly in the many cases where the work involved defective or old fashioned machinery.²

However, the inexperience of women in demanding their due on complicated bonus systems was not the only or even the primary reason for their unequal earnings. The foregoing section which described the system of war advances noted one reason for the inequalities. According to Mary Macarthur some claims to equal piece rates were won in a strictly limited number of cases, where work could be defined as identical.³ One of these was the claim of the women crane drivers described on page 148. However, even in these unusual cases which were successful, the unequal war advances nullified the effect of equal pay rulings. Moreover, since most piece work could not be proved to be identical to that of the men prior to the war, shells being the most typical example, women's earnings in such cases did not equal those of the men but approximated more closely the earnings of women on

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1. Mun 5/82/342/20, Payment by results, 1919. Confidential Report by the Ministry of Labour, 91, also 28, 32, 34, 59
 2. War Cabinet Committee ... Verbatim minutes, IWM Box 97/1-15 October 1918, testimony of Mrs Blanco-White, E97
 3. War Cabinet Committee ... Appendices, Cmd 167, evidence of Mary Macarthur, 15

women's work such as fuses.¹ The WU deputation to the War Cabinet Committee complained that on collective piece work, where payment by results systems were in force as at the Woolwich Arsenal, the rates of men and women were not equal.² Nevertheless Mary Macarthur did maintain that the main cause of inequality was the unequal war advances which affected total earnings by altering the rate of overtime. She claimed that up to that period (March 1917) a woman worker could earn the same as a man if she produced the same output, 'But now as a result of these awards they may both do their 100 shells and still get the same piece rates but at the end of the period during which they have done the 100 shells the man is so much to the good. That we think is not capable of justification'.³ This line of argument was adopted by most of the trade union representatives who gave evidence to the War Cabinet Committee.

Less apparent and equally discriminatory as a method of evading equal piece rates was the reorganisation of war time production, one instance of which was quoted on page 163 . Male dilutees were guaranteed under the 1915 Munitions Act 'the usual rates of the district' for the class of work performed and these conditions would appear to have been generally observed.⁴ However, female dilutees' wages were governed by the much vaguer promise that their admission into workshops 'shall not affect adversely the rates customarily paid for the job'. In fact large numbers of men, as has been noted, benefitted from the new processes in terms of earnings, and so did women by comparison to their pre-war wage levels but not to the same extent as the men. Nevertheless, high earnings were possible given favourable workshop conditions but there was consternation in Government Departments when women surpassed productivity expectations. Such cases cast a new and disturbing light on the policy of support for the introduction of piece rate

1. Ibid., evidence of Mary Macarthur, 15

2. Ibid., evidence of WU, 42

3. War Cabinet Committee ... Verbatim minutes, IWM Box 97/evidence of Mary Macarthur, 4 October 1918, K45-46

4. J Hinton, The First Shop Stewards' Movement,

work. The Ministry of Labour report, already cited on page 175, mentioned some of the difficulties of rate fixing and quoted the unforeseen productivity rates of women workers. For example the skilled man's average output in 1917 in a National 9.2" shell shop had been about 10 shells per day while 'the inexperienced woman who took his place averaged by the end of her third week 12 shells per day'. In the same factory the copper band department which had increased its proportion of women workers to 72% of the total was producing 393,000 copper bands per month instead of its previous total of 160,000.¹ The report was silent on the vital question as to whether the women in the case quoted benefitted from their increased productivity or whether their rates were cut in order to control their earnings.

Beardmore's were quoted by one source as saying that women doubled the output of men:

In the turning of the shell body the actual output by girls with the same machines and working under exactly the same conditions and for an equal number of hours was quite double that by trained mechanics. In the boring of shells the output was also quite double and in the curving, waving and finishing of shell cases quite 120% more than that of experienced mechanics.²

Such zeal on piece work had always been suspect among male trade unionists, since it inevitably held out the temptation to cut piece rates. The strength of trade union organisation was therefore a quite separate factor from statutory wage regulation which could make all the difference to the level of women's piece rates. The case of women crane drivers is an example of such strength and so is another instance at a Beardmore factory in Paisley, which came before the Industrial Commissioner in 1917. In this latter case the WU insisted and achieved equal distribution of a production bonus, irrespective of sex or skill.³

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1. Mun 5/82/342/20, Payment by results, 1919, Ministry of Labour report,
 2. Mrs ^{M.G.}Fawcett, 'The Position of Women in Economic Life', in Earl of Cromer (ed.), After War Problems (1917) 206
 3. Lab 2/421/IC 5459/2, Arbitration between Beardmore, Underwood Works, Paisley and the WU, 27 August 1917

There is also dissatisfaction over women's wages under the L2 arrangement ... These grievances form a combat field for the machinations of the 'rank and file' movement ... If the employers ... would abstain from cutting piece rates without consulting the men, the union leaders are in a sufficiently strong position to keep the 'rank and file' movement from spreading.¹

Nevertheless, there were signs that the extension of piece work in munitions was a contributory factor to the rise of earnings among semi-skilled women as they were among men. Some women militants feared that they might even increase the opposition and excite the envy of male workers and advised their sisters not to outdo the men. A letter in Common Cause spoke of jobs where women 'can earn more, even double what experienced men who have been working over twenty years in the factory can earn'. The advice proffered to women was to 'resist every temptation to go forward at the expense of other workers'.²

It is doubtful whether male workers were particularly resentful of women's wages although skilled time workers did suffer a relative decline; put in another way the semi-skilled piece workers registered relative gains. In the following memorandum on the subject by Humbert Wolfe there is no mention of resentment against women:

It is doubtful whether the unions with the experience that they have now had would wish to insist again upon this condition [equality of rates for substituted workers] ... In the introduction of less skilled workers under the supervision of the skilled there soon appeared the anomaly of substituted workers, working on piece work at rates previously extorted by the skilled man, making higher wages than the skilled man on the same job (owing to his traditional restriction of production) ever earned and higher rates than the supervisor.³

According to Mrs Blanco-White the women's rate in aircraft factories gave rise to complaints in many districts that this was higher than 'the women's fathers are making ... It has detrimentally affected the men's rates in rural

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1. Lab 2/254/ML 2189/14, Report by W C Bridgeman to the Ministry of Labour on the situation of labour unrest, 26 April 1917, 4
 2. Woolwich Pioneer, ... 12. 1916, 6. Letter published originally in Common Cause of 17 November 1916
 3. Mun 4/3335, Memorandum by U Wolff (H Wolfe), 21 April 1917, D35

districts ... I have had a whole village closed to dilution by a sort of council of the local District Council and the chief employers'.¹

It is quite probable that owing to their relative inexperience in engineering work, women did not adopt immediately the self-preserving tactics of their male counterparts. While men on piecework could be relied on to deploy to the full their industrial experience, commonly known as restrictive practices, to prevent rate cutting and speeding up, women workers did not perhaps share this tradition to the same extent, as some of the examples given on pages 176-178 would indicate. Kirkaldy confirmed this impression,² and so did other observers whose opinions bore the marks of anti-union prejudice:

In quantity of output they were unrestrained by Trade Union habit and usage and being temporary workers they were not influenced by the subconscious harbouring of energy.³

While piece work could prove exceptionally advantageous in the short run for greenhorn labour as described above, 'bad habits' were soon acquired by women, though perhaps not to the same extent as by men. Lady Scott was cited as saying in 1916:

The argument that it was patriotic to turn out as much work as possible seemed to carry no weight whatever It took a long time to dislodge the deep seated union idea that if you exceeded normal output, time limits would be cut down.⁴

In retrospect it was said that women became less 'amenable' when they joined unions; they began to limit output as they came under the influence of men.⁵ Speeding up or another method of rate cutting was a frequent practice,⁶ but minimum time rates on piece work served to promote industrial peace even when such malpractices occurred. One recorded instance of women

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1. War Cabinet Committee ... Verbatim minutes, IWM Box 97/testimony of Mrs A Blanco-White, 1-15 October 1918, E97
 2. A W Kirkaldy, Industry and Finance (1917) 42
 3. W R Scott and J Cunnison, The Industries of the Clyde Valley during the War (1924) 100
 4. Interview with Lady Scott, 'Simple Methods that Increased Women's Output', System, June 1916, 412-413
 5. A W Kirkaldy (ed), British Labour 1914-21 (1921) 88
 6. E Cannan, 'Industrial Unrest', Economic Journal, December 1917, 457

demanding minimum time rates in a non-Controlled Establishment in resistance to piece rate cutting took place at Waring and Gillow in 1917. Here 8,000 women, engaged in the manufacture of haversacks and tents went on strike when the employers attempted to cut rates.¹

John Hodge - Minister of Labour - complained about rate cutting in Coventry and the instance he quoted concerned male workers:

We have discovered in Coventry, as an example, that where a man is making a decent thing out of the premium bonus rate, they stop making it in that particular department and take it to another department ... the two departments being so far separated the firm cuts the price.²

The ASE complained, on another occasion, about time cutting at Bow and MacLachlan, Paisley, where a premium bonus system was in operation. The arbitrator quoted the employers as saying that 'they thought the reduction of time allowance would incite the men to greater effort'.³

Despite the fact that the majority of women were employed on piece work, the grievance that rankled most with women trade unionists and male members of general unions was the inequality of time rates which has been described in parts I and II of this chapter. The fact that so much stress was laid by trade unionists on the Government's failure to apply even a theoretical equality to women on time work is testimony to the fact that even though a smaller proportion of women workers were employed on this basis, unequal time work was regarded as a grave potential threat to men engaged in the vast area of semi-skilled and labouring jobs which were taken up by women during the war and which were not protected by pledges of restitution. While skilled time workers were specifically protected by the L2 circular,⁴ the wages of general time workers remained an unresolved problem open to abuse, no doubt because the workers involved lacked the power to force the issue.

1. Lab 2/422/IC 2819, 21 April 1917, Strike at Waring and Gillow

2. Lab 2/254/ML 2189/8, Conference between the Minister of Labour & other Departments, (Munitions, Shipping, Committee on Production) on labour unrest, John Hodge, 19 April 1917, 5

3. Lab 2/116/IC 5844

4. According to Mrs Blanco-White 5% of women munition workers were getting skilled rates while very few women to her knowledge were actually doing skilled men's work. See War Cabinet Committee ... Verbatim minutes, IWM Box 97/ E103-112

Part IV. Trade Union approach to women's pay

Any account of the trade union approach to women's wages must distinguish between the attitudes of the skilled unions - the ASE being the paradigm of such unions, and the general unions which included the women's union - the NFWW. The politics of ASE in this regard are among the best recorded in the Government archives. In their negotiations at central as well as local level, they were inflexible in their insistence on equal pay for women, on time work as well as piece work. This rigid stance, which has sometimes been criticised,¹ must be briefly summarised. From the very outset the ASE stand was exemplified by the conditions they put forward in exchange for their co-operation in dilution. Brownlie's famous statement in March 1915, much quoted by those who attacked the Government's failure to fulfil pledges in regard to women's time rates, specified that women dilutees were to be paid equal rates on piece work, day work and premium bonus time.² It is important to note the context of that statement; it was made at a time in the war when the bargaining field was still undefined and while the employer side were putting forward their own proposals for dilution. The employers' proposals of February 1915 envisaged that the wages of women 'shall be rated equal to youths' and girls' equal to boys' and that the relaxation of restrictive practices should apply 'to industry as a whole and not to Government work only', while at the same time employers were demanding the freedom to acquiesce or to reject dilution as they saw fit.³ These proposals spoke volumes for the self-confidence of the managerial side but had they been known to the labour side they would have increased the difficulties in the way of a successful outcome of dilution negotiations. However, the combined and prolonged pressure of the labour movement, as well as the

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1. J Hinton, The First Shop Stewards' Movement, 65, 71-73. See also his appreciation of the more realistic approach of the shop stewards, 75
 2. Mun 5/10/180/17, Conference on the Mobilisation of War Industries, 17 March 1915, 28. J T Brownlie was Chairman of the Executive Council of the ASE
 3. Mun 5/10/180/30. Memorandum submitted to the Committee on Production by the Engineering Employers' Federation, 11 February 1915

powerful position of the ASE, ensured that this scheme never became a reality. The pressure was insistently maintained by the central agencies of the ASE, as well as by its shop floor militants through 1915 and 1916. The secret weekly report of the Munitions Council reported in October 1915:

The ASE is causing difficulties about rates of wages and other matters connected with the introduction of unskilled labour ... The Society will not accept the Ministry's ruling as to the wages of unskilled labour.¹

The persistence of ASE attitudes in regard to women's wages is not surprising in view of the Engineering Employers' ingrained view, despite pledges and promises, that female and largely unorganised labour might be profitably used as a general weapon to break the power of the unions. Some of the tactics envisaged have already been mentioned (see Chapter 3),

but they were also based on a similar view of the possibilities of female labour as blackleg labour. Thus The Engineer in a revealing article of October 1915:

The introduction of female labour might be used so as to lead to a lowering of rates of payment for services. The fact of the matter is not that women are paid too little but that men are paid too much for work that can be done without previous training.

As for the future, The Engineer expressed the hope that workshop costs could be reduced in the following manner:

Much depends on the attitude of women themselves. If they can be brought to see the economic advantages to the country to recognise the facts we have put forward and agree to accept a lower scale of wages than skilled men they may, by their preponderance of number be in a position to defy the unions.²

The response of the ASE to such attitudes was quite clear-sighted. A deputation to see the Prime Minister in December 1915 sought to clarify the interpretation of the L2 and L3 circulars in regard to semi-skilled and unskilled dilutees.

1. Mun 2/1A, 16 October 1915, 39

2. The Engineer, 1 October, 319, 'Women's wages and Apprenticeship', editorial 1915

We are very anxious to see that the semi-skilled and unskilled men coming into the shops shall receive the rates of wages set out in this circular, not so much in the interests of the semi-skilled and unskilled but in the interests of the highly skilled men.¹

It is hardly surprising that in face of the threat to wage levels, Brownlie should have insisted, perhaps unrealistically, that women be paid the skilled man's rate even if they only performed part of the job.² At one conference the discussion revolved on the minutiae of the scraping and bedding of lathes and saddles at Lang's but the principle firmly adhered to and spelt out at the same conference ^{was} that in all cases diluted labour should be rewarded at rates previously paid and that the total cost of the job should not be reduced.³ The Minister (Lloyd George) asserted that Kirkwood had conceded that in the case of split jobs, the men performing the more difficult tasks should receive more than the women,⁴ and while Young was less adamant⁵ on the issue of the total cost of the job and more concerned with the skills required this does not invalidate the view that the ASE, whether rightly or wrongly, took up, initially at least, an inflexibly principled egalitarian position on the issue of women's wages.

Faced with two irreconcilables, the Government approach was to skate the area of thin ice which extracted maximum co-operation from the labour side, with promises of compensation for the loss of its hard won freedoms, while at the same time avoiding the ill will of employers. It also necessitated, on occasion, the need to make concessions to the labour side and above all to protect the policy of dilution from the more ham-fisted approach of the employers. The payment of full rates to women dilutees was unthinkable and yet the opposition of the unions had to be overcome somehow.

1. Mun 5/70/324/3. Minutes of the ASE deputation to see the Prime Minister and Minister of Munitions, 31 December 1915, 6
2. Subsequently women's wages were made subject to a 10% deduction for supervision. See page 142
3. Mun 5/71/324/44. Conference between the Minister of Munitions and ASE 24 February 1916, 4-8, 21. The Conference was held in the wake of the celebrated strike at Lang's which revolved on the issue that the scraping of lathes was a skilled process even if women were employed to do the work.
4. Ibid., 13. This point is confirmed by J Hinton, First Shop Stewards' Movement, 151-2
5. Mun 5/71/324/44, op. cit., 23. Robert Young was General Secretary of the ASE until 1918, when he became MP for Newton.

The hammering out of an acceptable solution was, therefore, to be left to individual shop floor negotiations, with the welcome bait of additional wages for workers undertaking extra supervision.¹

It was said subsequently that submission to the demands of the ASE was partly prompted by the fact that the substitution of women for men in skilled work was a completely unforeseen phenomenon of war time munitions experience:

Official and employers' representatives did not give any close attention to these provisions [i.e. L2 provisions in regard to women on skilled men's work] contemplating that there would be little or no introduction of women on to skilled men's work. Dilution was expected to take the course of the substitution of women for unskilled men and boys and the promotion of semi-skilled men to fully skilled men's work.²

Since the payment of equal basic rate was an unexpected event it followed that any subsequent demands for equal wage advances should be resisted with greater tenacity. Nevertheless, the ASE did not relinquish its insistence on equality when war advances became a bone of contention in 1917:

It is no answer to this case [i.e. equality of war^{advances} of advances to contend that the recent National Advances do not form part of the rate and such a contention (if it were put forward) could only be regarded as the merest evasion of the real point at issue, which is the maintenance of a real equality of remuneration. This clearly could only be secured by making all advances granted to skilled men apply also to women engaged on the work of skilled men under dilution.³

The ASE were not the only union organisation to press for equal war bonuses. The Iron and Steel Trades Confederation demanded equality for women members and recalled in their letter to the Ministry a conference 'when we discussed the principle of equal pay for equal work where women had taken the places of men. This obviously should be applied not only to the base rate but also to the bonus added thereto'.⁴

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1. Mun 5/73/324/15/6. Memorandum by Lynden Macassey on the effect of dilution on the Clyde, 5 February 1916, 8
 2. Lab 2/246/MWLR 4917, Memorandum, Wages of women on skilled men's work, no author, no date, but probably sometime in the latter part of 1917
 3. Lab 2/246/MWLR 4917. Memorandum by ASE, 9 October 1917
 4. Lab 2/427/CE 1050/4B/17. Iron and Steel Trades Confederation letter to Minister of Munitions, 25 August 1917, re.wages of women at Whessoe Foundry, Darlington

The Government view on this particular extension of the principle of equal pay was firm and uncompromising. It refused to countenance any notion of the extension of equal pay and claimed that the object of the ASE in putting forward these demands was the sabotage of the policy of furthering dilution. The Labour Committee of the Munitions Council,¹ 'were unanimously of the opinion that the ASE were deliberately adopting a policy which would prevent the employment of women upon skilled men's work ... were the demands of the ASE acceded to, dilution would have to cease'.² Gordon Campbell was also of the opinion that the ASE were demanding equality of war advances in order to put a stop to dilution: 'The undisguised object of the ASE is absolutely to stop dilution on skilled men's work'.³ J C Smith - Director of the Wages Section at the Ministry - was in agreement with his colleagues on the real reasons behind the insistence on equality:

The fact that the skilled unions insisted upon this [equal pay] not because they thought that women were worth the fully skilled rate but because they desired to supplement the general guarantee of restitution [i.e. restitution of normal trade union practices] by making the introduction of women on fully skilled work so expensive that employers would be under no temptation to prolong it after the war. The employers were willing to pay this price because they believed that it would practically never arise.⁴

The foregoing assertions by members of the Ministry reiterated the grievance, long held against members of the skilled unions, that they had in the past used the device of equal pay in order to keep women out of their trades. Eleanor Rathbone, a militant for women's welfare, was one of the contemporary social observers who believed that:

The attempt to establish strict arithmetical equality between them [i.e. men and women] goes further than is necessary to protect the men against unfair competition and really weights the scales against the women ... any bargain that is struck on the basis of equal wages for equal work will prove in practice the equivalent of total exclusion.

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1. The Chairman of the Committee, known as the 'L' Committee, was Major John Hills MP
 2. Lab 2/246/MWLR 4917. Comment of 'L' Committee on the ASE memorandum 16 October 1917
 3. Ibid., Memorandum by Gordon Campbell, 15 October 1917. Gordon Campbell was Assistant Controller of the Labour Regulation Department at the Ministry.
 4. Lab 2/244/1907, Memorandum from J C Smith to the Ministry about union demands for equal wages for women, 15 June 1917, 2

The result according to her was 'a choice between being exploited by capitalists or dragooned and oppressed ... by trade unionists'.¹

The argument that equal pay was being used as a stratagem for exclusion was a convenient device in the hands of the Government for exerting pressure on organised labour to compromise. It was also a useful device for opponents of equal pay to pretend that dilution and the war effort would suffer if equal pay were introduced. In engineering, the very issue of equal pay was a startling new fact of life. It had never arisen before in such stark reality since women had never been employed on any but unskilled or semi-skilled work in the light metal trades, while the proportion of women in the industry as a whole had always been very small. The combined threat of dilution by women and men dilutees was only partially mitigated by promises of restitution. The undisguised delight of employers at the prospect of cheaper labour, as well as the gathering momentum of the new technology and organisation of labour drove the unions to the only weapon of self protection they knew - the maintenance of wage standards. The policy which insisted on restitution and the equal pay policy was part and parcel of a strategy of self-defence and not merely a device for sabotaging dilution. As one member of the staff of the Ministry put it: 'if after restitution any women remain in regular men's trades, the men will see to it that their wages are not undercut'.²

While Government officials asserted in 1918 that 'the agitation for the present increase [equal war bonuses] is men's rather than women's agitation. Its real object in my opinion is so to increase the cost of women's employment both now and after the war that the employers will neither engage nor retain them',³ the real object in refusing to countenance equal

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1. E Rathbone, 'The Remuneration of Women', V Gollanz (ed.), The Making of Women (1917) 109-110
 2. Lab 2/243/142/2, Memorandum by A Garrod on women's wages after the war, 15 January 1918
 3. Lab 2/249/LR 9120. Memorandum by ... signature unreadable on the subject of equal bonuses for men and women, 20 August 1918. The issue had been revived by the granting of equal bonuses to striking bus conductresses.

advances was not exclusively based on their passionate desire to further dilution. The evidence suggests that a great deal of Government opposition to equal war bonuses in engineering was based on other considerations such as the control of women's wages within certain admissible bounds, the fear of upsetting women's wage levels in non-munition industries and a theoretical notion of women's wage earning requirements. A statement of the Ministry's view on the subject deserves full quotation, even though it was made at the end of the war, because it encapsulated the basis of Government policy throughout the period:

From the women's point of view the agitation is unjustified because the wages they now enjoy are extremely high. The average wages of women on munitions work are now not less than 300% in excess of the wages earned by women on the same class prior to the war. The women on skilled men's work receive higher wages than any other women; they have consequently less claim on the merits than any other women ... if they receive the men's war bonus on theoretical grounds, the claims of other women for at least as good treatment would be irresistible. Approximately one million women are employed on Ministry of Munitions contracts. The increase would vary but the average increase would amount on a rough estimate to 15/- per week at least. The increase would inevitably extend to large numbers of women on private work in establishments only partly engaged on munitions work. Few if any of these establishments could bear this charge unless the State were to adopt the principle of subsidising private industry.¹

Furthermore, according to the same official, the rise in bonus to equal levels would lead to 'diminished effort by women who would be guaranteed earnings greatly in excess of their actual needs'.²

In view of this well thought out policy statement, the Government's contention that its opposition to equal bonuses was based on the potential harm it might do to dilution sounds rather hollow. The fact is that concessions towards equal pay were made during the war as part of the price to be paid to obtain dilution and far from discouraging it, these concessions were indispensable to it.

The whole principle of equal pay for equal work was adopted as suitable to war conditions under which any extra cost is borne by the State and represents an obligation on the part of the State to the men from the industry who are serving with the Colours.³

1. Ibid.

2. Ibid.

3. Lab 2/251/LR 19160, Memorandum by an official in the Ministry to F G Kellaway MP, Parliamentary Secretary of the Ministry, on the subject of 'Equal Pay for Equal Work', March 1918

The men regarded equal pay as their strongest safeguard not only in regard to their rates but in regard to job restitution in post war conditions. In the view of one official, women were paid the same 'not to secure fair payment for women but to protect the skilled man's rate and ensure the women's final dismissal from the trade'.¹

This explanation, though no doubt basically correct, must be regarded nevertheless as somewhat simplistic, for it is a fact that during the war union pressure for equal pay was by no means confined to the skilled unions who hoped thereby to guarantee restitution. Restitution had never been as crucial an issue for the general unions who nevertheless adopted equal pay as part of their policy. Their lack of success in achieving equal pay does not detract from their genuine and unprecedented attempts in that direction.

Some of the generalised exhortations of members of the labour movement for a struggle for equal pay sounded familiar and even jaded. J A Seddon addressed the TUC in terms long accepted:

The question of women's labour owing to war conditions is not a passing phase; their introduction into many trades is causing misgivings and in some cases hostility ... the only course to minimise any possible danger is equal pay for equal work.²

The demand for equal pay had been part of TUC policy ever since 1888 but the traditionally weaker general unions had never been able to implement that policy.³ While the unskilled had never exercised the same powers of exclusivity, they were also not able to command the same leverage on Government policy as the craft unions. Nevertheless, their vastly increased war time membership, which included a great influx of women, strengthened their resolve to exercise pressure of which they had not been capable before the war. Many of them like Tom Mann welcomed the entry of women as a positive factor

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1. Ibid.
 2. Woolwich Pioneer, 10 September 1915, 1, J A Seddon at a meeting of the TUC
 3. Mary Macarthur moved a resolution at the 1908 TUC Conference in favour of equal pay, See B Drake, Women in Trade Unions (1921) 66

towards a struggle for a fairer wage structure and the maintenance of a more united labour front.¹

No fair minded man will be other than glad that the women have come to stay in occupations that they can properly fill and desire to fill. The men's task is to enable the women to establish themselves on a right economic basis fair to themselves and their male fellow workers.²

The Scottish District Secretary of the NUGW was uttering traditional trade union exhortations when he enjoined women to organise, but the emphasis on equal pay was given a new reality by war time substitution:

The women must be encouraged to join up and in their own interest as much as in the interest of those who will one day return to their jobs we must see that the principle of equal wages for equal work is maintained.³

The Secretary of the Northern District of the NUGW reported in 1917 a growth of membership of 8,864 over a period of three months which was 'largely due to enrolling the women who have taken the places of our men members' and proceeded to put forward the union's claim for equal pay:

In regard to our claim that all women employed in shipyards and ship repairing establishments are to be paid the same rates that were paid to the men who previously did the work is to be considered by a Special Tribunal shortly. A deputation from the Engineering and Shipbuilding Trades Federation ... waited upon Mr Kellaway with a view to placing women on semi-skilled and labouring jobs on the same terms and conditions as women employed on skilled jobs.⁴

Government attempts at extending dilution to private work aroused a storm of protest, reawakening the dormant grievances of all sections of organised labour. Much of the vigorous opposition was directed at the Government on grounds of non-fulfilment of its pledges in regard to wage equality and the general unions were deeply committed to resisting further dilution on these grounds. Harry Pickard, of the NUGW, declared:

We want to see equal treatment meted out to the women in the shape of the payment of wages as has been promised ... At Parkhead ... they are employing women to do men's work and they are not paying men's wages ... Firms are evading the Act

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1. Woolwich Pioneer, 6 June 1916, 2. Long speech by Tom Mann on the broadening of the base of the trade union movement which included an attack on sectional societies.
 2. Trade Unionist, February 1916, 3, 'After the War the Day for Labour' by T Mann
 3. NUGW Annual Report 1916, Quarterly Report, September 1916, Scottish District 28
 4. NUGW Annual Report 1917, Quarterly Report, Northern District. 30

and pressure is not brought to bear by the Ministry unless great activity is exercised by the trade unions.¹

Another trade union representative opposed further dilution on the grounds that semi-skilled and unskilled women were not receiving equal pay, particularly the time workers:

I know many women who have taken the place of men, are doing the same work, semi-skilled and unskilled, but I do not know of anyone single case where a woman is getting the same rates as the man whose place she has taken.²

It was reported at the NUGW Conference in 1918 that the Union was insisting on equal rates but was not always successful in obtaining its claims:

In all cases wherever possible we have insisted that where women are doing the same class of work the same rates of pay shall apply. We have also insisted upon advances of wages being paid in accordance with the official orders made by the various Government Departments from time to time. One of our greatest difficulties has been to deal with employers who are not federated with any employers' federation nor controlled by the Ministry of Munitions.³

On the question of war advances the WU, a union with one of the largest female memberships, became as determined as the ASE, but only in the latter part of the war. In the early period they had signed agreements with the Midland Employers' Federation (in November 1915), the Manchester District Engineering Employers' Association (in April 1916) and the Black Country Employers (May 1916), which fell far short of what the ASE and the NFWW were demanding. Julia Varley had even defended these agreements on behalf of her union.⁴ In the early stages of the war the WU also shied away from being involved in the dispute between the Government and the NFWW on the question of women being paid less during the period of probation. The WU refused to give its support to the NFWW claim which had the backing of the ASE:

It is not true to say that a woman can be taken into a factory fresh from the home or domestic service and do the higher classes of work ... as men who have had many years of practice.⁵

1. Mun 5/53/300/90, Meeting between Minister and trade union representatives about extension of dilution to private commercial work, 1 August 1917, 67-69
2. Ibid., Mr Charlton, 25
3. NUGW, 17th Biennial Congress, May 1918, 20. ^{Two women} delegates only; Mrs Butler representing London and Mrs Leonora Cohen from Leeds
4. Trade Union Worker, September 1916, 'The Workers' Union and Low Wages'
5. Workers Union Record, November 1916, 8

However in the last two years of the war the policy of the WU took a more uncompromising and egalitarian turn. A letter to the Minister in 1918 made demands for equality in this respect; 'the advances received last year were far below the amounts awarded to the men and we claim the women are fully entitled to the same advances'.¹ Other general unions made similar demands; 'that women engaged on men's work whether skilled, semi-skilled or labourers shall receive the same wages and advances as the men'.² These official representations had followed shop floor demands by branches of the WU at Parkhead,³ and Southampton,⁴ that equal war bonuses of 12 $\frac{1}{2}$ % granted to the men be extended to the women. The London journal of the WU declared its solidarity on the issue by declaring 'We stand or fall together';⁵ and in their evidence to the War Cabinet Committee, members of the general unions reiterated their allegiance to the principles of equal pay.⁶

Skilled unions like the Amalgamated Society of Toolmakers adopted the uncompromising position advocated by the ASE. The Toolmakers organiser (Cruse) urged an audience in the following terms:

They must make the Government toe the line and insist that the moment that a woman went to work she got the same rate of pay as a man. If they advocated that principle there would be no exploiting of the female as against the man after the war.⁷

Despite the far reaching changes brought about by the reorganisation of the work processes during the war, and the increased membership of general unions the obvious point about their relative weakness in comparison to the relative strength of the skilled unions requires some emphasis. Despite the brave words, these unions did not possess the bargaining power comparable

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1. Lab 2/249/LR 9120, WU letter to the Ministry, 1 August 1918
 2. Ibid., Application for war advances for women on behalf of the WU, NFWW, NUGW, NAUL, Amalgamated Gas and Municipal Workers, Dock, Wharf and Riverside Workers, 15 March 1918
 3. Ibid., Resolution of WU women members at Parkhead howitzer shop, 5 December 1917
 4. Ibid., Southampton WU branch resolution for equal advances which included both sexes, 1 December 1917
 5. Trade Union Worker, December 1917
 6. War Cabinet Committee ... Appendices, Cmd 167, 41-43
 7. Woolwich Pioneer, 6 April 1917, 3, 'Woolwich branch of the Amalgamated Society of Toolmakers - dinner'

with that of the ASE. A union like the National Warehouse and General Workers, whose record on the issue of women's pay in any case left much to be desired, demanded wage rates for its women members which amounted to one half of those of the men. And yet even this Union was galvanised in the wake of the 1917 labour unrest to press for equal advances on at least one occasion.¹ Other instances of general unions making lower demands for their women members were recorded, as in the case of the National Amalgamated Union of Labour (NAUL),² though the Union's official policy was in favour of equal pay:

The witnesses maintained that women replacing men should receive equal rates of wages on time and piece work whether they did the whole of the man's job or only a part.³

These impeccable sentiments did not compensate for the general unions' occupational weaknesses. Their increased numerical strength during the war period was not a sufficient safeguard, for instance, for job security. They did not command the power of indispensability possessed by the craft unions and they were by custom habituated to low expectations and minimal demands. The relative weakness of the general unions, despite numerical strength, is well illustrated by the WU agreements in the Midlands and Manchester areas, (see page 143, 191) which fixed the minimum wage for women workers below the £1 level guaranteed by the Government. Yet even these low minima were not being observed and in 1916 the NFWW took up the case of women workers at BSA who were not being paid the WU rate prescribed.⁴

Margaret Bondfield reported in May 1916 that:

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1. Lab 2/555/IC 7166. National Warehouse and General Workers Union, Liverpool v Distillers Co., February 1918, equal demand of 10/- being made. See also Lab 2/555/IC1535, IC8264/2, IC2508 for unequal demands being made by the same union.
 2. Lab 2/551/IC 3906 NAUL v Thomas Owens and Sons, Forth Chemical Manure Works, May 1917
 3. War Cabinet Committee ... Appendices, Cmd 167, 42. Statement on behalf of the NAUL by J Burns, W Cooke, J Tarbit, Mrs Locke and Miss Carter
 4. Lab 2/193/IC 2676. NFWW v Redditch Establishment of the BSA

she had a conference that morning, with a Wages Tribunal in connection with a large Midland firm, on this question of changes that are taking place and where a claim required very drastic revision ... Here was a firm, which since it had taken Government orders had developed automatic machinery, increased the method of subdivision and got their establishment in a town where there was practically little scope for women and they offered wages of 5/6, 6/6, 10/- and 11/- running on an age scale to women of nineteen years of age. And they were prepared to go to the Tribunal and justify paying women of nineteen years of age 10/- and 11/- per week, on the ground that labour was plentiful and cheap in the district and that women had nowhere else to go for employment except to that firm ... In this firm men's rates had been increased and there was a war bonus for the men, who had been already getting the district rate and not a penny piece more would the firm grant to raise the wages of the women.¹

Miss Bondfield insisted that 'it did not matter whether men or women did the job, whoever did it had to get their price'.² Her analysis of labour conditions in the Midlands which permitted sweated wages in a period of labour shortage was substantially correct. The weakness of the WU in signing the Midland Agreements in the first place laid them open to correct but unjustified attacks by the ASE who charged that: 'The Workers' Union is signing agreements at less than the minimum laid down by the Ministry of Munitions or even by the Trade Boards for the traditional low paid trades'.³ It must have been wishful thinking that prompted Julia Varley - the Women's organiser for the WU in the Midlands - to report that the principle of equal pay for equal work is 'practically conceded' in the Birmingham and South Staffs area.⁴ In the light of the subsequent agreements signed by the WU, her letter of August which contained an account of equal piece negotiations in the Midlands and the information that women members of the union were earning 45/- and 40/- per week and some even 49/-,⁵ is hardly credible. In July 1916, The Trade Union Worker admitted that a partial defeat had been sustained by the WU in its Manchester negotiations and declared 'The WU tried hard to get

1. Woolwich Pioneer, 5 May 1916, 'Miss Bondfield on the coming struggle. The influence of women.'
2. Ibid.
3. ASE Monthly Journal and Report, August 1916, "Jack Reader", 'Low Wages and the Workers' Union'. See also ASE protest at Midland agreement in Mun 2/27, 3 June 1916, 8-9
4. Workers Union Record, July 1915, 15
5. LP, WNC 32/4/74, Letter from Julia Varley, 28 August 1915

£1 minimum but could only manage 18/-'. Some consolation was to be derived from the fact that previously women had been receiving 6/- or 8/- per week.¹ A women's organiser noted ruefully in a previous issue of the same journal 'In the past the woman worker has been so downtrodden and underpaid that today when she gets a chance of a man's job at half his wages, she jumps at it and thinks herself well paid'.²

The dichotomy between the theory and practice of equal pay for women members of general unions was never better exemplified than in the WU. Even the low minima exacted by the union were not always observed. An active women's organisation in the Manchester area - the Manchester, Salford and District Women's Trade Union Council - took up the case of women employed on the manufacture of munition boxes who had for two years been earning time rates varying from 14/- - 17/- per week while women on piece work were earning wages that were equally low. Though the Ministry stepped in to prescribe the correct wage rate the firm dismissed twenty-eight women and engaged boys to do the work, justifying its action by claiming that women's labour was 'not efficient at the higher rate'.³

The relative impotence of the WU on the issue of women's wages in the Midlands and Manchester must be seen in relation to the women's situation there before the war and not merely in terms of the union's determination to pursue an equal pay policy. The cycle industry of the Midlands had employed women in large numbers before the war, and now was almost entirely turned over to munitions. The wages of women workers in that industry were so low that the establishment of Trade Boards would have been in order.⁴ During

1. Trade Union Worker, July 1916

2. Ibid., June 1916, 15. 'Dilution of Labour' by Frances Prewett

3. Lab 2/192/IC 6553, Manchester, Salford and District Women's Trade Union Council v Messrs Kay, Minerva Mills, Bank Street, Bolton, 29 Sept. 1917

4. Lab 2/263/TB 10202, Cycle trade enquiry report by Mrs Hiley in the Birmingham area 16 October 1918. Also report by Mrs M Greig, 4 March 1919. In the bicycle shops women and men were doing the same jobs which were given different names. ^{see} Mrs Blanco-White, War Cabinet Committee ... Verbatim minutes, IWM Box 97/ E99

the war the other active union in the area which made considerable headway in organising women was the NFWW, but despite its bitter attacks on the WU compromises it was not always more successful in its own wage bargaining. The dead weight of the past continued to haunt the women in the cycle and other light metal industries; it had been labelled as women's work. For the unions it was a much less rewarding struggle than organising in areas of men's work, where the support of men members was forthcoming. The positive results gained by and for women, as in the case of the women crane drivers, were partly due to the fact that the women had entered the men's work sphere and therefore enjoyed at least temporarily the support of the men's unions.

Even traditionally exclusive male societies like the National Brassworkers and Metal Mechanics Society threatened strike action in support of a claim for equal wages for women oxyacetylene welders, while recognising the usual provisions of the probationary period conditions.¹ The Electricians Union which did not admit women until 1918 initiated a strike in which women participated on the grounds that they were not being paid men's rates.²

The same factors, therefore, which militated against the wages of men organised in the general unions worked also to the disadvantage of their women members. The general unions' declared policy of obtaining equal pay for women was, by definition and by tradition, as well as by Government regulation impossible to enforce in areas labelled as unskilled or defined as women's work. It would have proved impossible for a union like the NAUL to back up a claim with strike action when the firm were confident of holding a well used but effective trump card:

At present rates we are paying as much if not more than the other factories around Liverpool and as proof of this we can get as many workers as we choose to take on at the gatehouse every morning.³

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1. Lab 2/247/CE 5044/4B, National Brassworkers and Metal Mechanics Society v Messrs Roe, Newton Heath, Manchester, 3 September 1917
 2. Mun 4/5005, Report for September 1918, 7. Waddon Aircraft Factory case. Electricians were reported to be very active elsewhere.
 3. Lab 2/260/IC 6742/2, NAUL v Bryant and May, Liverpool, September 1917. A rise of 3/- for men and 2/6 for women was being demanded.

The position of women activists in the one important women's trade union - the NFWW - in regard to equal pay was much like that of the weaker sectors of the trade union movement. Their resolve was firm but their powers were weak.

One of the first organised salvos in the equal pay campaign during the war was the appeal issued to women workers by the WNC in August 1915. 'We appeal to you to uphold the standard of life of the workers of the Nation ... to stand for equal conditions and equal wages.'¹ The appeal was signed by prominent women trade unionists and members of the Labour Party like Margaret Bondfield, M A Gasson, Susan Lawrence, Mary Macarthur and Marion Phillips. It was a resolution drafted as a result of the WNC National Conference on War Service for Women which resolved that the war emergency should not depress the standard of living of the workers, advocated 'the same rate of pay for women' and warned that no woman should be paid 'less than an adequate living wage'.²

The NFWW was, among women workers, the trade union torch bearer of the equal pay campaign. It consistently exhorted its membership in the pages of the Woman Worker throughout the period of the war towards greater efforts to that goal.³

Our munitions workers ought to be proud: Mr Lloyd George has brought out a picture book about them ! ... He says they can do brazing, and soldering, they can make 8" HE shells, they can drill 8 pounder shells and some of them are very successful in making high explosive shells ... If girls are as important and as clever as the men, then they are as valuable to the employer. If this is so it becomes a duty of the girls to see now and always, whether on Government work or not, that they receive the same pay as the men.⁴

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1. LP, WNC 32/4/1. Violet Markham however represented a view more commonly held among members of the WSPU which, for its patriotic flavour deserves quotation: 'In view of the possible economic landslide with which we are threatened we may have to face a general reduction in the standard of wages and living. It seems to me very possible that every class will have to make for greater sacrifice than they have ever done .. if the nation is to survive at all'. Ibid., letter dated 28 August 1915
 2. LP, WNC 35/5/38-49, National Conference on War Service for Women, 16 April 1915, actual minutes in shorthand
 3. Mrs Blanco-White testified to the War Cabinet Committee that it was the only organisation to demand equal pay without fearing dismissals. She also thought that the organisation may have asked for equal pay because they knew that they could not get it. War Cabinet Committee .. Verbatim minutes, IWM Box 97/E105
 4. Woman Worker, March 1916, 4, 'Lloyd George's Picture Book'

The determination of the NFWW on the equal pay issue derived partly from their agreements with the ASE. The Society had pledged its support for the women's union by signing an agreement in June 1915 for joint action in organisational matters while itself it continued to refuse to admit women members. The particular clause which came under the severest criticism from the other general unions was the one that pledged the NFWW to a withdrawal of its members from occupations claimed by the ASE at the end of the war.¹ By virtue of the agreement the NFWW were duty bound to follow the policy of equal pay hammered out by the ASE not only as a matter of independent ideology but specifically in order to protect the man's wage. As Mary Macarthur put it 'every girl doing man's work unless paid the same wages was lessening man's power'.²

The NFWW was also the prime mover among general unions for an equal war advance of 12 $\frac{1}{2}$ % for women time workers in January 1918. Mary Macarthur justified this demand on the grounds of the increased cost of living first and foremost and only secondarily on grounds of equality:

At the beginning of the war, the Ministry of Munitions promised the women munition workers a minimum of a pound a week. Today we are asking little more than 'give us back that pound' ... Our demand is based on necessity in the first place, and on equity as between men and women in the second.³

The fact that the campaign begun in January 1918 by the NFWW for equal war advances was being waged primarily on the grounds of the cost of living may have been a policy decision considered most expedient at the time. In most of the other statements of the NFWW their theoretical position cannot be faulted even if in practice they were insufficiently strong to obtain their demands.⁴ While Miss Macarthur claimed at the 1916 TUC Congress that 'where we are strongly organised and have the backing, of a strong, skilled

1. R Hyman, 'The Workers' Union 1898-1929', (Oxford DPhil 1968) 230, also G.D.H. Cole, Trade Unionism and Munitions, 204

2. Woolwich Pioneer, 13 October 1916, 5. Mary Macarthur's address to the Woolwich branch of the NFWW members, who were said to be few at the time.

3. Woman Worker, January 1918, 3, 4. Mary Macarthur's speech to the Special Arbitration Tribunal on November 30, 1917. 'The long delayed advance. When is it coming'.

4. Workers Union Record, September 1916, 1, 2. Julia Varley reported that an unspecified union had asked for a rate of 13/- for women in the Black Country.

engineers' union we have been able to get equal pay for women for equal work',¹ this could only have applied to the comparatively rare cases of women on skilled work. However, the NFWW was not an organisation representing skilled women only and at the very same TUC Conference, Mrs Wilkinson, an NFWW delegate, quoted cases in Birmingham, Nottingham and Sheffield where women working alongside men and doing exactly the same work were being paid 2½d per hour as against the men's 7d.² At the NFWW biennial meeting in June 1916, a delegate complained that women in Barrow were getting 18/- per week on work for which men were being paid 26/- per week.³ However, in contrast to the WU negotiations on women's claims in 1916 the Federation refused to come to terms with such facts. A strong attack appeared in the Woman Worker against the Government Special Order 447 of July 1916 for women on munitions on work not recognised as men's. The Federation claimed that the minimum of 4½d per hour laid down by the order was in fact a standard rate since many of the women covered by it were day workers to whom piece rates were not applicable. The piece workers, the journal charged, were at the mercy of employers who were at liberty to fix their rates as low as they pleased and make up the difference to the 4½d per hour minimum laid down. The Federation claimed that in the cases which they had brought before the Special Arbitration Tribunal, the Federation had obtained higher rates with additions of 1/3 above the minimum rate for piece workers, Sunday work, holidays and night work:

There is an obvious moral to this. Trade union action can and has done much more than the Government chooses to do. Federation members must not be content with the order. In every case they must press forward and if necessary go to arbitration in order that the extra safeguards may be obtained that proper piece rates and payment for extra time and waiting may be secured.⁴

1. TUC Conference Report, 1916, 233. 2. Ibid., 234
3. Woman Worker, June 1916, 13, Report of the NFWW Biennial Congress
4. Woman Worker, August 1916, 5. It is important to note that the Government while being pledged to regulate minimum wages for women, on the basis of the famous minimum of £1 favoured a system of prescribing standard rates as opposed to minimum rates. This was the subterfuge to which the NFWW objected. See Mun 5/79/340/2, General memo on the functions of the Labour Regulation Dept., 18 June 1917, 19. Great stress was laid in the memo on the promise to pay fair wages, (16), quoting Lloyd George's pledge 'Their wages, he promised, should be fair .. and there should be no attempt to utilise the services of women in order to get cheaper labour'.

The Federation's theoretical case for equal pay was most completely put forward by Miss Macarthur in her evidence to the War Cabinet Committee at the end of 1918. In her statement she rejected the evasive notion of equal pay for identical work, or the policy of comparative equality of cost to the employer of men and women. She maintained that while the former was impossible to define with any precision, the latter opened the way to subdivision and the lowering of rates. She therefore adopted as the fairest and only acceptable formula the motto of 'the rate for the job'. This, in her opinion, would have only excluded women from jobs for which they were not suited:

During the war pressure women have been employed on work which is entirely unsuitable to them and where doubtless they are inferior to men. In normal times women are only employed on heavy labouring work on account of their cheapness. The Federation think this highly undesirable and press for the rate for the job even more strongly in the case where the figures of production show that the woman is undertaking tasks for which she is not fitted.¹

Miss Macarthur also maintained that in cases where women were less productive than men by reason of their inadequate training, this could be overcome by instituting a probationary period 'after which the woman must either be paid the full rate or seek some sphere better suited to her capabilities'.² In the case of jobs being subdivided and by virtue of alteration falling into a less skilled category 'the category into which the new job should fall is decided by negotiations between those concerned. Such demarcation questions have, or should have, nothing to do with the sex of the operator'.³

Miss Macarthur, in her evidence, also proceeded to demolish the other main arguments brought up by the employers in order to reinforce their case against the payment of equal wages. These included the allegedly bad time-

1. War Cabinet Committee ... Appendices, Cmd 167, 15, evidence of Mary Macarthur
 2. Ibid., 15
 3. Ibid., 15

keeping habits of women workers and their unequal value to the employer on account of their shorter working life. The Federation contended that both these factors which might contribute to inequality of productivity could be accounted for by the unsuitability of the job or they could be remedied by the proviso of the probationary period. As for the complaint that the cost of employing women was higher than that of men because of the welfare facilities which were being provided for them, Miss Macarthur maintained that much of the expense was compensated by increased productivity while many of the non-essential welfare facilities were in any case being opposed by women workers.¹

The basic principles put forward by the Federation were reiterated in their essentials by other trade union and labour witnesses to the War Cabinet Committee. The new factor which emerged from their statements was that given an infusion of industrial and organisational strength, organised women were prepared to recommend exclusion rather than accept unequal wages. Mrs Barbara Drake, representing the Women's Industrial Council and the Fabian Women's Group, while recognising that in certain jobs some particularly arduous tasks were being allocated to the men, insisted that the corresponding difference in rate should be subject to trade union control. Apart from that particular exception, she advocated the adoption of the formula of 'one job one rate' even if it meant displacement of women from some work or unemployment. In formulating her principles, therefore, she was still following the traditional line of job protection for men while adopting the new principle of revaluing the true worth of women's work. Mrs Drake

recognises that the principle she advocates may mean displacement of women from industries where they are held to be of lower economic value than men, but she is prepared to face this consequence for the sake of maintaining the worker's standard of living. In most cases where that would occur the occupations are not really suitable for women. There are plenty of occupations in which women have demonstrated their ability. If either sex is to be short of employment it had better be the women.²

1. Ibid., 16

2. Ibid., 17

The views of Mary Macarthur and Barbara Drake coincided in their essence with those of Beatrice Webb, as presented to the Committee in the form of a minority report:

The essential principle which should govern all systems of remuneration whether in private industry or in public employment in manual as well as brain working occupations, is that of clearly defined occupational or standard rates, to be prescribed for all the persons of like industrial grade; and whether computed by time or by output, to be settled by collective agreement between representative organisations of employers and the employed; and enforced but as minima only on the whole grade or vocation. There is no more reason for such occupational or standard rates being made to differ according to the worker's sex than according to their race, creed, height or weight.¹

Mrs Webb advocated strongly the adoption of an equal occupational rate at the risk of exclusion of women from trades for which they were not suited.² Like Mary Macarthur, she charged the Government with non-fulfilment of its pledges in regard to women's time rates during the war, in both the skilled and unskilled trades and the inequity of discriminatory war time advances.³ The general principle of equality at the risk of exclusion was also reiterated by all other trade union witnesses representing the general unions,⁴ the only dissenting voice being that of W J Mosses, one time Secretary of United Patternmakers and Federation of Engineering and Shipbuilding Trades. He alone maintained that the Government pledges, as embodied in the Treasury Agreement, applied only to equal pay on piece work. He also claimed that the omission of any specific mention of 'women' in the clause on substitution, was probably intentional since it was never foreseen that women would be upgraded to take up fully skilled time work. Moreover, the £1 minimum guarantee of the L2 circular was clear indication that women were never intended to receive the same wages as men.⁵

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1. War Cabinet Committee ..., Cd 135, 254. Minority report by Mrs Webb
 2. Ibid., 298
 3. Ibid., 309
 4. War Cabinet Committee ... Appendices, Cmd 167, 41-44. These included the NUGW, WU, NAUL, Dock, Wharf and Riverside Workers
 5. Ibid., 44

G D H Cole also testified at length to the War Cabinet Committee in the same vein as his trade union colleagues. He charged that the Government had not observed its pledges in regard to women's wages and gave his unequivocal support to an equal pay ideology. He justified the possible exclusion of women from some trades on the same grounds of unsuitability as Mary Macarthur:

Men and women should receive absolutely equal treatment in industry, sex being regarded as irrelevant to the question of payment. If this drives women out of some industries and trades (and men out of others) it will be because women are not fitted for some industries (nor men for others).

Cole objected to any deductions for supervision because he thought that 'this principle would be very dangerous to trade unionism'.¹ The ideal which he propounded in line with traditional trade union canon was that of 'blackleg proof trade unionism ... To allow special deductions from the rate on the ground of inferior efficiency is to sacrifice the principle of the standard rate and open the way for women to become blacklegs'.²

The problem which was scarcely faced by any of the trade unionists, and only barely mentioned by others was that the result of the labour movement's intransigence might result in a permanent division of work into women-based and men-based occupations - a continuation indeed of the pre-war pattern of work which the uncompromising dichotomy of equal pay or exclusion implied. The reason for this refusal to face the issue was that the war had transformed the labour market so significantly in this respect that the new conditions seemed to spell out a more permanent change in the sex/occupation divisions. This is why so little attention was paid to cases such as the light metals and engineering industry in Birmingham - a largely female-based industry notorious prior to the war for its low wages but which had received during the war some financial boost in common with other low paid trades. The relative improvement in low paid industrial occupations as well as the impact of women on so many other classes of engineering and other men's trades, served to obscure some of the possible consequences of a policy of encouraging women to

1. Ibid., 45

2. G D H Cole, 'Women in Industry', The Guildsman, January 1917, 3

demand equal rates at the risk of exclusion. In fact it spelt out, in the absence of any other positive steps to redress the imbalance, an exodus of men from low paid jobs and the inevitable entry of women, while the new advances in technology and organisation of work implied the spawning of new but low paid occupations firmly stamped as women's work. These dangers were never properly visualised by theorists like Cole who wrote:

Too often, the advocates of women's rights, while they profess to desire equality, are really claiming special sex treatment. It seems to me that, if women are to enter new fields of industry with the unions' consent, they must come in as workers and not as women.¹

Although he was aware of the implications of a determined struggle to protect the man's rate through the insistence on a standard occupational rate, he was prepared to come to terms with the fact that in the foreseeable future women's work in engineering, at any rate, would be confined to repetition jobs, with low rewards, except in periods of 'trade expansion' when women would be called upon to take up men's jobs. Inevitably this meant that women would continue to represent a reserve pool of labour which only in circumstances of national emergency would be called on to do men's work, while in normal conditions they would continue to be confined to jobs where they represented equal value to the employer:

Wages should not be determined by sex of the worker but according to the class of operation. There was need of more demarcation of occupations, each with its own rate according to the skill required, and in engineering this could only be done by the method of rating the various classes of machines. In certain cases it would be impossible at present to prevent the consideration of sex entering in the fixing of rates. Occupations mainly in the hands of women will inevitably tend at present to be paid at a lower rate because women are in the majority ... In the engineering trade women would be largely employed on small repetition work in specialised factories producing a narrow range of highly standardised products, but not in general engineering work. It would inevitably mean the elimination of large numbers of the women now employed, and this was inevitable if the men were to have their jobs back.²

1. Ibid., 3

2. War Cabinet Committee ... Appendices, Cmd 167, 45, 46, evidence of G D H Cole

The remedy for low wages, according to Cole, was the enforcement of national minima and Trade Board regulations, 'lower no doubt for women's occupations than for men's, though this should not be so on grounds of justice'.¹

A more general redress for women's low remuneration was the well worn attempted solution of more widespread training, apprenticeship system and a monetary compensation in the form of family allowances which was strongly advocated at the time. None of these attempts at remedying the situation took into account the fact that whatever the level of industrial training this could only partially raise the level of women's wages, unless women were employed on the same jobs as men and ^{were} not relegated to the least paid work, as had been the practice.

Positive discrimination in favour of women through a policy of equal wages for unequal work was not on the agenda. Dorothea (D M) Barton was an exception in recommending that 'equal pay must be given for unequal work as well'.² Other social reformers were very pressing in their campaign for family endowments (children's allowances) - an issue which found many ardent advocates at the time. They included reformers like Eleanor Rathbone who opposed the equal pay principle on the grounds that it would merely ensure the exclusion of women from the best paid and most highly skilled occupations. The remedy she proposed was a children's allowance to supplement family incomes.³

1. *Ibid.*, 46

2. Dorothea Barton, 'Equal Pay for Equal Work', Women's Industrial News, January 1919, 6

3. E Rathbone, 'Equal Pay for Equal Work', Women's Industrial News, July 1916, 42. See also report in Yorkshire Factory Times, 17 August 1916, 7, 'Wage Equality'

Part V. Government policy in regard to women's wages and contemporary views on the determinants of women's pay.

Government policy in regard to women's wages has partly emerged from the previous discussion of statutory wage regulations. The Government was concerned not to alienate organised labour, while at the same time its aim was, not surprisingly perhaps, directed towards the non-equalisation of pay. In general, its policy, though fraught by inter-departmental differences but dominated in the field of munitions by the Ministry of Munitions, was remarkable for its ability to maintain an equilibrium between partial compromise without upsetting in any way the well entrenched wage structure embodied in sex-based work divisions. The Government managed to eschew any permanent reform, despite the vastly increased employment of women in men's occupations. Its attention was firmly directed to an overall balance, to the relation of forces in the labour market and naturally enough to economies wherever these could be made. Rising wages in munitions could have paved the way for total disarray in the women's wages field and the Government was mindful of such undesirable consequences:

It is comparatively easy to deal with direct munitions ... but the progress of the war has led to the control of thousands of establishments of the most diverse character, from great firms making armour plates to firms making patent foods for babies. It has brought within the definition of 'munitions of war', thousands of articles of ordinary commercial use, many of which have long been made by women ... To interfere rashly with them would be like sticking a knife into the works of a watch.¹

While sweated wages could not be tolerated on Government work and statutory regulations were to be observed,² decisions on women's wages were still to be guided by reference to pre-war levels:

In aiming at a conclusion in this matter it will be desirable for the officer to be guided by both his own knowledge of the engineering processes, having regard to the practice prevailing in the majority of districts prior to the war.³

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1. Mun 5/83/342/113, Minister's statement prepared for the Press, January 1917
 2. Mun 5/82/342/107, Enquiry into women's wages in Controlled Establishments, 5 March 1917
 3. Ibid.

The Government in theory was in a strong position to regulate and even transform the course of women's wages. The slate was clean in that there were no complicated district wage rates to deal with, as in the case of men. The war brought with it the power to regulate women's wages on a national basis. It was with some sense of pride that Humbert Wolfe reported that the Second Munitions Act made it possible to regulate the wages of women dilutees - an area where 'definite control and definite success was achieved'.¹

The same official regretted such compromises as the pledge not to cut rates², the promise to restore trade unions customs and reallocate jobs,³ and the Ministry by its intervention won many a significant victory against equal wages even in industries where the lack of tradition might have opened the way for such an innovation.

One such example is the way in which the Government tackled the difficult problem of sheet metal workers' wages in the aircraft industry. The employees in the aircraft industry - mostly woodworkers and engineers - had formed themselves into a new pressure group, the London District Committee. The sheet metal workers had declared that their work was skilled and demanded equal wages for women who were being introduced to the job after an 8-10 week training.⁴ The Ministry was faced with a problem: 'it is difficult for the Ministry of Munitions ... to say that the women introduced on to sheet metal work will be employed in a capacity which the skilled man has not arrogated to himself'.⁵ However the same memorandum contended that the payment of skilled rates to women was unthinkable because it would upset the bargains struck in other branches of the aircraft industry where women were not receiving equal wages:

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1. Mun 5/346/Hist H 300/2, Memorandum by U Wolff (H Wolfe) prepared as a basis of discussion between labour representatives and the USA Government, 21 April 1917, 19
 2. Ibid., 18
 3. Ibid., 32
 4. Lab 2/427/HQ 348/1918, Ministry of Labour memorandum on the wages of women sheet metal workers in the aircraft industry, 19 April 1918
 5. Ibid.,

It is an impossible proposition from the practical point of view. The other women of long experience on metal work and woodwork for aircraft would not be content to work at half the wages received by the newcomers on sheet metal work nor would the skilled engineers and skilled woodworkers consent any longer to the employment of women on metal work or woodwork at less than the skilled man's rate if the Sheet Metal Workers trade union had exacted the payment of the full rate.¹

Faced with this dilemma, the solution which the Government adopted was to buy off union opposition with some concessions as to rates by declaring sheet metal work a protected occupation from military service, and by lowering the age of recruitment to those under twenty-eight years of age:

On the important skilled work on which the age is to be lowered the skilled man's rate will be paid to women; on other work appropriate rates will be fixed having regard to the ability of the women and the class of work they are on. These rates will be arrived at on the analogy of the rates paid under the special order applicable to women on woodwork for aircraft.²

It was also recommended that production was to be redesigned in such a way that 'so much as possible will be put on to machines which the skilled men do not claim should carry the skilled man's rate'.³

While the Aircraft Committee - a body which included representatives of all trade unions employed in aircraft work - demanded a starting rate for women of 10d per hour rising after three months to the fully skilled man's rate and while the Special Arbitration Tribunal recommended 6-8d and 9d per hour, and the skilled man's rate for skilled women, the Ministry was not satisfied with such a solution. Mrs Blanco-White reported that: 'We asked our technical section and their reply was that these were far too high and would lead to confusion on the engineering side'.⁴ Gordon Campbell was of the same opinion: 'The Tribunal's recommendations are particularly dangerous in that the rates they propose are from 1½-2d an hour too high. Payment of the rates they propose would completely upset women on engineering work'.⁵

1. Ibid.

2. Ibid.

3. Ibid.

4. Lab 2/662/LR 142/128, Memorandum by Mrs Blanco-White, 16 October 1918

5. Ibid., Memorandum by Gordon Campbell, 10 September 1918

The instance of women aircraft workers quoted above shows once more that the control exercised by the Government was not merely confined to the enforcement of pledges but/.. ^{was committed to} the maintenance of a wage equilibrium which would not give free rein to market forces. The Economist pointed out in 1917 that women's wages were not commensurate with their scarcity value - a fact which the paper ascribed to lack of organisation among women while failing to note the importance of Government control:

Nothing has so clearly shown the lack of organisation in women's labour as the disproportion between the present pressing demand for it and the rate of wages it can command. Although we have already reached the point when it is almost impossible to find a really competent woman in the open market, the wage which she might expect is not in the least commensurate with her scarcity value.¹

There are many industries popularly known as munitions which do not come under the Act at all and where women can still be found to be earning as low as 13/6 per week.²

The evidence that female labour became scarce and even valuable also comes from other sources. The District Bond Controller at Woolwich applied for a rise in women's wages to start at 25/- instead of 20/-. 'Failing this arrangement I fear we shall be forced to revert to the old and far more expensive methods of employing male labour above military age, often "mere crocks".'³ Moreover, in a period of greatly expanding production while employers were out-bidding one another for a limited labour supply, the Government was exercising stricter control over contracts, in cases where wages had in its estimation been unduly increased.⁴

Government control over the level of women's wages in particular should therefore be seen in its proper perspective. It included control over regulation and arbitration procedures, negotiations with labour organisations and a tight rein, later in the day, over contracts. Control also included the Munitions of War Acts which prohibited strikes. Nevertheless the

1. The Economist, 3 February 1917, 177
2. Ibid., 178
3. Mun 4/3922, Memorandum by District Bond Controller at Woolwich, 18 May 1917
4. Lab 2/252/LR 21228, Memorandum by Gordon Campbell on wages in munition industries, 6 July 1918

Government system of control did not operate without certain constrictions being placed on it from the labour side. The Ministry's area of freedom was always significantly circumscribed by the overriding need for dilution and the accommodation of workpeople, above all male workpeople. This created in turn the need for legislating on a basis that was considered acceptable and during the war period the L2 and L3 circulars became the theoretical touchstones of Government regulation, even though in the case of women their 'equal pay' content was circumvented and even deprived of its original intent. Moreover, the importance of dilution and the pressure of organised male labour during the first half of the war and before the growth of women's unionism provided the workers with a bargaining base and served to prevent Ministerial regulation from continuing the minimalist tradition of Trade Board legislation, the only pre-war precedent of Governmental wage action. Throughout the war women's wage orders were administered with reference to men's wage levels. They marked, therefore, a clean break from pre-war Trade Board legislation which differentiated deliberately between men's and women's rates. Mrs Blanco-White summed up this aspect of war-time experience in her recommendations for post-war action:

After the war arrangements should surely, instead of separating off minimum rates for women under a special scheme, endeavour to link up women's wages with men's. It is doubtful whether in certain trades any Trade Board would find itself able to deal with women's wages on a separate footing; even the Ministry under a state of war has come near enough to following the demands of the men's unions.¹

Mrs Blanco-White's view, however, was not shared by other Ministry officials if the Official History of the Ministry is to be taken as the true expression of its war time policy. In concluding the chapter on women's wages, the authors reaffirmed their faith in a return to free collective bargaining and to the establishment of bodies like Trade and Wages Boards. They declared that the war time difficulties arose out of a confusion and conflict of economic reality and some prevailing ideas of justice.²

1. Lab 2/243/MWLR 142/2, Memorandum by Mrs Blanco-White to H Wolfe, 11 January 1918

2. MM, Vol V, part 2, 130-143

The experience of the Ministry affords no encouragement to go beyond the methods of State Control of wages accepted in principle and already in operation before the war. These were to assist collective bargaining and accept its results, merely imposing such minima as the general wealth of the community permitted and public opinion demanded.¹

As already noted, the war had opened up a new range of occupations for women and the new conditions brought into a sharper relief the injustice of the traditionally unequal pay structure. The War Cabinet Committee's point of reference was a discussion of women's pay, and new arguments against equality were put forward in its majority report. The arguments against equal pay included the well-known ones of the higher cost of employing women for reasons of absenteeism, higher cost of welfare provision and the economic disadvantage of state regulation in regard to overtime and nightwork.² In view of this the Committee recommended the adoption of the principle of 'pay in proportion to efficient output',³ on time work which would have the positive effect of extending the area of women's employment without injury to men. The Committee opposed the uncompromising trade union stance of 'equality at the risk of exclusion' and maintained that even if a woman's output was not equal to a man's this did not mean that the occupation was necessarily unsuited for her. 'Four-fifths of a man's production by a woman in such an industry may be of much more value to the nation than would have been her employment in a woman's industry. It was obviously so in the war when domestic servants were boring cannon and may readily be so when the main women's occupations become again overcrowded in peace'.⁴ The view that the level of women's remuneration was dependent on the expansion of women's employment opportunities was also held by the Women's Employment Committee:

The opening ... of new occupations is of importance, not merely because many such occupations are relatively well paid, but also because, in so far as women find employment in them, the rates of wages tend to be raised in other occupations.⁵

1. Ibid., 143

2. War Cabinet Committee ... Cd 135, 188

3. Ibid., 187

4. Ibid., 189

5. M.o.R., Women's Employment Committee ... Cd 9239, . 20

The War Cabinet Committee were confident that in the event of women taking on work where 'some shortage of men had occurred', detailed negotiations on a collective basis by the National Industrial Councils (Whitley Councils) or Works Committees, on which women would be represented could work out a satisfactory formula in each case on the problems of 'equivalent pay'.¹

While the adjudication of equivalent time rates did not, according to the Committee present insuperable problems, the questions of pay for piece work in industries where work had been subdivided also required analysis and re-adjustment. The tendency to subdivide and simplify work, and engineering work in particular, was 'an indispensable element in the natural evolution of industry, on which progress largely depends, that there should be a continual simplification of process, a continual invention and adoption of machines to do mechanically what has previously been done by hand'.²

The Committee recommended that women employed on simplified processes ought to be assigned grades equivalent to the lower skill required of the worker, whether male or female, unless the woman's value could be proved lower than the man's. In cases where a job was subdivided so that the woman ^{could} perform the simpler tasks, she ought to be paid less than her skilled male colleague but the total cost of labour should not be tampered with to benefit the employer.³

In view of the relatively beneficial, though unequal, conditions of war work for women the case against absolute equality could plausibly be made. Winston Churchill, the Minister of Munitions at the time, maintained that a cut and dried equality did not benefit women's interests. Absolute equality 'would end in their being largely excluded from the industrial community. What they want is comparative equality'.⁴ The recommendations of the War Cabinet Committee

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1. War Cabinet Committee ... Cd 135, 189
 2. Ibid., 191
 3. Ibid., 191-2
 4. Woolwich Pioneer, 23 November 1917, 6

represented in a coherent theoretical framework a consensus of employers' practice and Government policies of the war period, as the first and second part of this chapter has shown. Subdivision, suspension of trade union regulations in conditions of abundance of an underpaid and ill organised section of workpeople, had paved the way for a restructuring of the engineering industry. No one foresaw it more clearly or seized upon it more eagerly than engineering employers:

The improvement of machine tools has made the skilled workman unnecessary for many workshop operations ... If girls could learn to get full production from the machine tools at Beardmore's ... youths could do the same. High wages are paid on the false assumption now almost obscured by trade union regulations that it takes long to learn the craft. Everyone knows now as all managers knew long ago that no long period of training is necessary and the whole argument for high wages, based on long training has been carried by the board.¹

Sir Lynden Macassey blamed retardation in the British engineering industry on the unions. The insistence on skilled rates for unskilled men performing unskilled jobs had obstructed, according to him, the modernisation of British industry.² The War Cabinet's Committee's recommendations for proportionate pay for women found, therefore, a ready response among public men and economists. Macassey agreed with the Committee's conclusions,³ and so did Edgworth.⁴ The adoption of the proportionate payment formula was attractive. It appeared to resolve the problem of the coming struggles in the engineering trade which all commentators were forecasting; it purportedly rescued women from their involuntary confinement in the low paid women's trades and conveniently too it could be shown to act as an antidote to the trade unions' monopoly of specific trades. It had been charged that the equal pay demands of the trade unions were often a device for keeping women out of industry. In the war period contemporary observers shared this view:

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1. The Engineer, 1 October 1915, 319. 'Women's Wages and Apprenticeship', editorial. This was not the first time that employers had hailed the introduction of machinery as heralding the end of the skilled craftsmen, (see J B Jefferys, op. cit., 124-5) but the war gave their pronouncements a new relevance
 2. Sir Lynden Macassey, 'Economic Fallacy in Industry', Edinburgh Review, April 1919, 339-340
 3. Sir Lynden Macassey, 'Equal Pay' Quarterly Review, July 1919, 88
 4. F Edgworth, 'Equal Pay to Men and Women for Equal Work', E.J., December 1922, 445

The pressure of male trade unions appears to be largely responsible for that crowding of women into comparatively few occupations, which is universally recognised as a main factor in the depression of their wages ... The oppressive action of male unions should be counteracted by pressure on the part of women workers acting in concert.¹

However, as has been shown in Part IV, trade union representatives continued to opt, by and large, for equal pay without equivocation. Beatrice Webb's minority report to the War Cabinet Committee² also rejected the recommendations of adopting the principle of 'equal pay for work of equal value', because in her opinion it paved the way for the expedient of keeping women on a women's rate:

Even where women are substituted for men there is practically always some alteration in the processes ... which permits the employer to contend that the work done by women is not the same as that previously done by the men. The Post Office has ... on more than one occasion deliberately 'degraded' the tasks on which women clerks are employed, in order to prevent a claim to the men's remuneration.³

Beatrice Webb's recommended safeguard against the dangers of undercutting was the adoption of the twin principles of a national minimum and an equal occupational rate. In justification of her demand for an equal occupational rate she cited the numerous examples about women's superior output in the tasks they undertook and the traditionally egalitarian piece work rates of the cotton weaving industry.⁴

The war years had clearly contributed to a crystallisation of the problems involved in a more equitable system of women's pay. The origin of the re-appraisal of the new industrial situation lay in the novel component of the labour force in an important industrial sector. It was remarked with increasing frequency that the old demarcations between men's jobs and women's jobs were based not on suitability and strength but on sex/wage differentiation.⁵

1. Ibid., 439, 440. See also Garton Foundation, Memorandum on the Industrial Situation after the War (1919) 78-9. 'Equal pay for equal economic value is more workable and a great improvement on the past, while equal pay for equal work and equal pay for equal output will have the tendency of throwing men out of work.'

2. Ray Strachey greeted the minority report with enthusiasm in Common Cause, 16 May 1919, 478

3. War Cabinet Committee ... Cd 135, Beatrice Webb's minority report, 270

4. Lynden Maccassey, 'Equal Pay', Quarterly Review, July 1919, 17

5. Ibid., 274-284

However, it was less widely accepted that 'a double rate of pay for the same work cannot last, and it is the lower one which becomes established'.¹ Belief in the inferiority of woman's labour and her output, her inability to deal with emergencies,² remained deeply embedded. The War Cabinet Committee never even discussed the possibilities of adjusting women's wages to a level higher than that of the men, if evidence showed that their output was higher. Except among trade union activists and progressive reformers it was an accepted fact that women represented lower value to their employers. Another concept used to justify unequal wages was by accepting the notion of the man's 'family wage'. The War Cabinet Committee subscribed to this belief and denied that there was any reliable proof that a woman required a wage to support dependents. 'The average young man does look forward to supporting a family and works with this in view, while the average girl looks forward to marriage and to being supported'.³ The Women's Employment Committee reaffirmed this view: 'A fair wage for a man is reckoned with reference to one who has a family of a normal size ... as regards women, the normal case is not that of women with several dependents'.⁴ When it came to defending the policy of applying lower wage standards to women, the Ministry of Munitions also used this concept as convenient justification:

The lower general level of women's wages is the outcome of one of the most fundamental social conditions, the economic unity of the family. The man's wage is a 'family' wage, the woman's an 'individual' wage.... No Government authority or combination of employers before the war ever adopted the principle that women's wages ought to be less than men's, or consciously based women's rates on their individual needs, men's on a family's needs. Women themselves and men themselves have established the two standards by standing out in each case for a wage that would meet the conventional needs of a normal member of the class.⁵

1. The Economist, 7 September 1918, 293, 'Women's Work and Wages'
2. One much quoted example of women's inability to deal with emergencies was that of women lift attendants who were being paid less on the grounds that they could not deal with breakdowns. It was pointed out by Beatrice Webb and others, however, that even men attendants were expressly forbidden by union rules to repair machinery. War Cabinet Committee ... Cd 135, 281
3. War Cabinet Committee ... Cd 135, 177
4. M.o.R., Women's Employment Committee ... Cd 239, 23
5. MM, Vol V, part 2, 140

The view of the male as a breadwinner with multiple responsibilities and the woman as essentially a worker with responsibility for her own person, guided the War Cabinet Committee to recommend a woman's subsistence wage based on individual needs and the minimal Trade Board standards.¹ Other writers and even those who assessed women's needs in purely individual terms undertook investigations into women's dietary requirements and family responsibilities.² On the other hand reformers like Beatrice Webb did not support the view that a man's wage was inherently a multiple wage and capable of supporting a family.³ She advocated a new system of supporting the family by means of state intervention through children's allowances,⁴ and other reformers too sought a remedy for low wages in supplementary state payments. Clementina Black - a leader of the Anti-Sweating League and the Women's Industrial Council - gave her view of the State's obligations towards the maintenance of children:

Personally I am prepared to say that I think the supporting of the children of the nation out of the wages of the parents is an unsatisfactory way of doing it ... a responsibility which they are perfectly unable to fulfil.⁵

This view was shared by the Family Endowment Committee, which gave evidence to the War Cabinet Committee.⁶ The movement for children's allowances which would appear at first to have been quite unconnected with the equal pay struggle received a new impetus during the war. Its aim was to provide some aid to those women war time workers who would be ousted from their jobs and would either have to rely on husbands' incomes or on their own inadequate wages.⁷

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1. War Cabinet Committee ... Cd 135, . . . 176-181
 2. B S Rowntree, Human Needs of Labour (1918) 117, and B S Rowntree and F D Stuart, The Responsibility of Women Workers for the Dependants (1921)
 3. War Cabinet Committee ... Cd 135, . . . 285-7
 4. Ibid., 305-7
 5. War Cabinet Committee ... Verbatim minutes, IWM Box 97/ Evidence of Clementina Black, 5 October 1918, P10
 6. War Cabinet Committee ... Appendices, Cmd 167, . . . 44-47
 7. The principle of a children's allowance had for the first time been acknowledged by the State during the war through the payment of separation allowances for soldiers' wives and children (see page 255). Subsequently it was also acknowledged in the Out of Work Donation, see Chapter 9.

CHAPTER 6HOURS AND CONDITIONS OF WORKHours of work

The Factory and Workshop Act of 1901 which limited the number of hours of women and young persons to $55\frac{1}{2}$ per week in textile industries, and to 60 hours per week in non textile establishments was temporarily suspended in 1914 and in 1915 the Defence of the Realm Act provided for suspension of restrictions on working hours 'in any factory or workshop in which ... exemption is necessary to secure the efficient carrying out of work in the national interests'. By virtue of this measure employers could apply to the Secretary of State for extensions to overtime and weekend work.

This exemption for Munitions work lasted until October 1916 whereby 'protected persons', i.e. women and girls, and boys could work up to 65 hours per week and in some cases $67\frac{1}{2}$ hours with a maximum of 14 hours in any one day. Day and night work shifts for girls over eighteen were also sanctioned on condition that the workers were not compelled to work them.¹ Two distinct problems were involved in the control of hours in munitions: overtime and Sunday labour and overtime proved a far more intractable problem in the long run. In January 1916 an inter-departmental body - the Hours of Labour Committee - was set up to deal with applications for the suspension of overtime and Sunday work restrictions. This Committee had at its disposal the findings of the Health of Munitions Workers Committee which began to publish reports in November 1915. The task of the Hours of Labour

1. MM, Vol V, part 3, 91

Committee was to reconcile the needs of the munitions supply with the recommendations of the investigating body - the Health of Munitions Workers Committee. Throughout most of 1916 and despite the official ruling about the maximum numbers of hours permitted for 'protected' persons (i.e. women and young persons), the pressure of the 1916 military offensive contributed to exceedingly long weekly hours as well as excessive daily shifts.¹ It was not until January 1918 that the Hours of Labour Committee recommended a maximum 55½ hour week for women and a maximum 13 hour daily shift instead of the prevailing 14 hours permitted. As a result, hours of work were curtailed in 1918 although special applications could still be made for exemptions if war requirements demanded an increased effort. As for Sunday working, there was no generalised prohibition to this effect until April 1917 when it became generally effective as far as women were concerned.²

Despite the fact that the Health of Munitions Workers Committee - a body specially appointed to act as watchdog over health and productivity - had stated in January 1916 that long hours and weekend work were on the whole counterproductive,³ the pressure on munitions supply made the Ministry reluctant to decrease the number of working hours. This reluctance, it was said, was not all on the side of Government agencies or employers. It was claimed that workpeople, or at least male workpeople, found Sunday work at double pay a lucrative compensation for the loss of a free day which they preferred to take during the week.⁴ The case of working women was different. Although overtime remained the normal practice even for protected persons throughout the war it is not known how many women and juveniles were systematically employed on an overtime basis. In Controlled Establishments, in which enquiries were made those women engaged in overtime were said to put

1. MM, Vol V, part 3, 115-6

2. For a detailed account of regulations see Ibid., 87-138

3. M.o.M., Health of Munitions Workers Committee, Memorandum No 7, 'Industrial Fatigue and its Causes', Cd 8213, January 1916

4. MM, Vol V, part 3, 101

in an average of $6\frac{1}{2}$ - $7\frac{1}{2}$ hours per week, in the period between September 1916 - July 1917.¹ The prevalence of the two shift system (see Table 1 in Appendix E) ensured moreover that not only were weekly hours extremely long but that a daily spell or shift, might total $13\frac{1}{2}$ hours for 5 days during the week and 5 hours on a Saturday.²

The ill effects of overwork and long hours were partly being concealed at the time by the countervailing factors of better food leading to improved health but this was not a constant ingredient that could offset the negative effects in the long run. The Health of Munitions Workers' Committee published several studies and in 1916 recommended a reduction in overtime and Sunday work:

The Munitions workers in general have been allowed to reach a state of reduced efficiency and lowered health which might have been avoided without reduction in output, by attention to the details of daily and weekly rests.³

In the case of women in particular, the Committee recommended the limitation of overtime and appropriate distribution of pauses, as well as a new system of three 8 hour shifts instead of a two 12 hour system.⁴ The Committee was convinced that an 8 hour shift system produced a consistently more vigorous effort, fewer accidents and avoided the diminishing returns of the last hours of a 12 hour shift,⁵ but it ~~did not~~ did not oppose night work by women as long as it was confined ~~to~~ to the war emergency period.⁶ In the Spring of 1917, in answer to enquiries conducted by the Hours of Labour Committee it was reported that the suspension of Sunday work reduced absenteeism and improved the health of the employees.⁷ The experiment of discontinuing Sunday work was successfully tried on Tyneside in the middle of 1916 and by April 1917 all Controlled Establishments were advised to cease the practice except on work that was exceptionally urgent.⁸

1. Ibid., 115

2. Ibid., 116

3. Health and Munitions Workers Committee, Memorandum No 7, Cd 8213, See Appendix E Table 2, percentage of workforce employed on Sundays

4. M.o.M., Health of Munitions Workers Committee, Memorandum No 4, 'Employment of Women', Cd 8185, 1916

5. Ibid.,

6. MM, Vol V, part 3, 106

7. Ibid., 107

8. Ibid., 110

The counterproductive aspects of overtime work were again brought under scrutiny in the wake of the upsurge of industrial unrest in the Spring of 1917. It was found that when hours were even drastically cut, in the case of men and protected persons in the production of fuse bodies, this did not lead to a reduction in output. The reverse was true, according to the studies published by the Health of Munitions Workers' Committee.¹ As the war went on and the burden of long hours was seen to have a cumulatively adverse effect, the Committee recommended a further curtailment of maximum weekly hours, whereas in their Memorandum of January 1916 (Memorandum No 7) they proposed that hours be reduced to 65-67 for men and to 60 for women, their October 1917 estimate of a reasonable work load was substantially lower. The Final Report of the Committee which undertook a systematic study of women employed on turning fuse bodies showed that a 50 hour week yielded as good an output as a 66 hour week and a considerably better one than a 75 hour week.² In the same report, Dr Janet Campbell cited cases of increased fatigue among women workers who complained of being 'just done up' or 'dead beat'.³

However, when in January 1918 the Hours of Labour Committee, in consultation with the Women's Trade Union Advisory Committee recommended that the maximum number of hours for women be reduced from 60 to 55½,⁴ this recommendation was not given statutory validity. It was argued that, in factories where a two shift system operated, only five full 'turns' could be worked at night and that this reduction was therefore impracticable in instances where women were working in conjunction with men. From the men's point of view the two shift system was already an improvement on the pre-war single shift system which normally limited the number of weekly hours to 53-34 but which could be augmented at local workshop level to up to 11 hours per day, if pressure of work necessitated overtime. The three shift system, which was

1. H.M. Health of Munitions Workers Committee, Memorandum No 5, 'Hours of Work', Cd 8186, January 1916

2. M.H. Health of Munitions Workers Committee, Final Report, 'Industrial Health and Efficiency', Cd 9065, 1918, 35

3. Ibid., Appendix, 'Reasons for Lost Time', 137

4. MM, Vol V, part 3, 122

warmly recommended from the women's point of view was never adopted to any great extent in munitions, except in chemicals and explosives factories.¹ The employers objected to it on the grounds that insufficient numbers of tool setters and supervisors were available to service three shifts and that the synchronisation of the comings and goings of three sets of women workers in conjunction with two sets of men who preferred the two shift system was an impossibility. The other difficulty was that even when the supply of women workers seemed inexhaustible, accommodation and transport was not geared to coping with the extra numbers in specially constructed works such as Gretna. Accommodation remained a grave problem throughout the war particularly in the large munitions centres such as Barrow, Huddersfield and Woolwich.² In some cases and at certain periods women munitions workers were in short supply. The Woman Worker quoted such cases in Barrow and Erith in May 1916 where insufficient numbers created the need for 12 hour shifts.³ Some women workers opposed the three shift system because of the inconvenience it caused to their domestic arrangements, in addition to the inadequacy of transport arrangements. (See Appendix E for the prevalence of the various types of shift systems in Government Establishments.)

There is no reason to suppose, despite the rare cases of the short shift system being adopted, that the Government would not have given it support had it been at all feasible in the war emergency. Studies undertaken by the Government to investigate productivity indicated that short hours and a three shift system had much in their favour. The three shift time table required only a single meal break and that in itself contributed to higher output. On a long shift there was a considerable drop in productivity during the last hour while in contrast this was not the case on a short shift. Where the work was not mechanised, and therefore more tiring, the results of a short

1. Ibid., 124

2. Ibid., 125

3. Woman Worker, May 1916

shift were even more positive. Long hours and the two shift system contributed to a 3.43% loss of productivity as compared to 0.58% on the short shift.¹ As long as the shortage of women's labour endured a greater flexibility was occasionally shown by employers in their willingness to adapt the organisation of production to suit women's needs. In one case employers were even reported to favour the adoption of part-time work to suit the needs of married women. In 1916 the Ministry reported that:

Some employers recognise that special conditions of employment may be necessary to open the door to many women against whom it would otherwise remain closed and have suggested half-day shifts as a way of meeting the needs of married women.²

As the war went on the amount of overtime hours per employee decreased substantially in some industries, though not in all. Table 23 on page 223 shows the number of overtime hours put in by women and men workers in the period September 1916 - July 1917. In small arms the overtime of female workers diminished substantially from 13 hours to 6.5. However in electrical engineering, shipbuilding, tools and cutlery, scientific instruments, explosives and wood trades the extent of overtime among women remained remarkably stable while there was a corresponding reduction in the overtime worked by men. This would tend to suggest that women took the place of men not only as workers but in the fulfilment of the overtime required.

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1. Medical Research Committee and DSIR. Report of the Industrial Fatigue Research Board, No 2, 1919, 'The Output of Women Workers in relation to Hours of Work in Shell making' by E E Osborne, 9-23
In October 1916, Lilian Barker - the Lady Superintendent at the Woolwich Arsenal criticised the practice of 12 hour shifts for women. 'They have been able to stand the strain because of better food and better clothes but will not be able to do in the long run'. Woolwich Pioneer, 27 October 1916, 1
 2. Mun 2/27, 5 February 1916, 3

Table 23. Overtime 1916-1917 (collated from monthly returns obtained from Controlled Establishments)¹

(a) Average Number of Hours' Overtime gained per Head of Males employed on Overtime

Week Ending	1916.				1917.							
	15 Sept.	13 Oct.	17 Nov.	15 Dec.	12 Jan.	16 Feb.	16 Mar.	13 Apr.	18 May.	15 Jun.	3 Jy	
<i>Trade Group:</i>												
Iron and Steel	14.0	12.5	12.5	12.0	12.0	11.0	11.0	10.0	10.5	11.5	11.0	
Tinplate	16.0	14.5	13.5	14.0	13.5	12.5	15.5	13.5	13.0	13.5	12.5	
Wiredrawing	10.0	9.5	10.0	10.0	10.0	9.5	10.0	9.0	9.5	9.5	10.0	
Hardware	8.0	8.0	7.5	8.0	8.0	8.5	9.0	7.5	8.5	8.0	8.0	
Engineering	12.0	11.0	11.0	12.0	11.5	11.5	11.0	11.0	11.0	11.0	11.0	
Electrical Engineering	13.0	9.5	10.0	10.0	10.0	10.5	11.0	10.0	10.5	10.0	10.0	
Shipbuilding	11.5	12.5	12.0	12.5	12.0	13.0	13.0	12.5	13.0	12.0	12.5	
Cycle and Motor	10.5	10.5	10.0	10.5	9.5	9.5	9.5	9.0	9.0	9.0	9.0	
Railway Carriage and Wagon	7.5	8.5	9.0	9.0	8.0	9.0	8.0	8.5	8.0	9.0	9.5	
Carriage, Cart and Wagon	10.5	10.0	10.0	10.0	10.5	9.5	10.0	10.0	8.0	8.0	9.0	
Tools, Cutlery, etc.	9.5	11.0	9.5	9.5	9.5	9.5	9.5	9.0	10.0	9.5	9.5	
Small Arms	10.5	9.0	10.5	10.5	11.0	10.0	11.5	12.5	8.0	12.5	12.5	
Scientific Instruments	10.5	10.5	10.0	10.0	10.5	10.0	10.0	9.5	8.5	9.0	9.0	
Jewellery, etc.	9.5	10.0	9.0	10.0	10.5	10.0	13.0	9.0	9.5	10.0	11.0	
Other Metals	10.0	9.5	9.5	9.5	10.0	10.5	9.5	9.0	9.5	9.5	9.5	
All Metal Trades	12.0	11.0	11.0	11.5	11.0	11.0	11.0	10.5	11.0	11.0	11.0	
Chemicals	11.0	11.0	11.5	10.5	11.5	10.0	11.5	11.0	11.5	10.5	11.0	
Explosives	13.5	13.5	13.0	14.0	14.5	12.0	13.0	12.5	13.0	12.0	12.0	
Rubber	10.5	10.0	10.5	10.5	10.0	9.5	9.5	8.5	9.5	10.5	10.0	
Wood Trades	8.5	8.0	8.0	8.0	8.0	8.0	8.5	8.0	7.5	8.0	7.0	
All other Trades	10.0	11.0	11.0	11.5	11.5	10.5	10.0	9.5	10.0	9.5	9.5	
TOTAL	12.0	11.0	11.0	11.5	11.5	11.0	11.0	10.5	11.0	11.0	11.0	

(b) Average Number of Hours' Overtime gained per Head of Females employed on Overtime

Week Ending	1916.				1917.							
	15 Sept.	13 Oct.	17 Nov.	15 Dec.	12 Jan.	16 Feb.	16 Mar.	13 Apr.	18 May.	15 Jun.	13 July	
Iron and Steel	9.5	7.5	8.5	7.5	6.5	7.5	6.0	5.5	5.5	6.5	6.0	
Tinplate	—	—	—	—	9.0	11.0	16.0	6.0	0.0	9.0	7.5	
Wiredrawing	7.0	6.5	6.5	6.5	6.0	6.0	5.5	6.0	6.0	5.5	5.5	
Hardware	9.5	10.0	4.5	5.5	6.0	6.0	6.0	5.5	5.5	5.5	5.5	
Engineering	8.5	7.0	8.5	8.0	7.5	8.0	7.5	6.0	7.5	7.5	7.0	
Electrical Engineering	7.5	6.5	7.0	6.5	7.0	7.0	7.0	6.0	7.0	7.0	7.0	
Shipbuilding	8.5	10.0	6.5	8.0	6.5	7.0	7.0	6.0	8.0	7.0	8.0	
Cycle and Motor	9.0	8.5	7.5	9.5	6.5	6.5	6.5	5.5	5.5	5.5	5.0	
Railway Carriage and Wagon	5.0	4.5	5.5	6.0	5.0	5.0	6.5	5.0	4.5	5.0	5.5	
Carriage, Cart and Wagon	11.0	11.0	10.0	9.5	9.5	10.0	9.0	10.5	13.0	9.5	9.5	
Tools, Cutlery, etc.	6.0	6.0	6.5	6.5	6.5	6.5	7.0	6.5	6.5	6.5	6.0	
Small Arms	13.0	9.0	7.5	8.0	6.0	5.0	6.5	8.5	6.0	7.5	6.5	
Scientific Instruments	7.0	6.5	5.5	6.0	7.0	7.0	6.5	7.5	6.0	6.5	6.0	
Jewellery, etc.	7.0	7.0	6.0	7.5	7.0	7.0	7.5	6.5	6.5	6.5	7.0	
Other Metals	7.5	6.5	7.0	7.0	7.5	7.0	7.0	4.0	6.5	6.0	6.5	
All Metal Trades	8.5	7.5	7.5	7.5	7.0	7.5	7.0	6.0	7.0	7.0	6.5	
Chemicals	4.0	6.0	6.0	7.0	7.0	6.0	7.0	6.0	7.5	6.5	7.5	
Explosives	8.5	10.0	11.0	10.5	11.0	10.0	9.5	8.0	8.5	8.0	8.0	
Rubber	6.5	7.0	8.0	6.0	5.5	6.0	6.0	5.0	5.5	5.5	5.0	
Wood Trades	8.0	7.5	7.5	9.0	8.0	7.5	7.5	7.5	7.0	7.5	7.0	
All other Trades	8.5	8.5	8.5	7.5	7.5	7.0	7.0	6.0	7.0	6.0	6.0	
TOTAL	8.0	7.5	8.0	7.5	7.0	7.5	7.0	6.0	7.0	7.0	7.0	

1. MM, Vol V, part 3, Table 1, Appendix III, 190-191

Table 23 on page 223 shows a fall in the average number of overtime hours worked by men and women during September 1916 to July 1917. However, despite this reduction many women were working a minimum 60 hour week while some others a 67 plus hour week. How many were employed on a 67 hour plus basis was not recorded. One Government memorandum of February 1916 estimated that the percentage of women working overtime in the metal and chemical trades was 66% and 48% respectively.¹

In the early part of the war there were numerous reports of women working exceedingly long hours in terms of an average week and a daily shift. In one case the Home Office decided to prosecute a munitions firm in Leeds for employing women on a 70-80 hours per week basis and for keeping other women at the factory for 30 hours at a stretch, with a few hours' rest for meals. Some girls were also said to work 16-18 hours on the Friday to Saturday shift. The case is interesting because the Home Office prosecution was unsuccessful and because of the way in which the Press took up the cudgels on behalf of the firm who were praised for doing their patriotic duty, while the girls (it was said by the Morning Post of 25 May 1915) were extremely happy to be earning 30/- per week. Despite the Home Office contention that long hours were not necessarily productive, the management countered that in that period the output of shells per week rose from 1,305,000 to 1½ million and later to 2½ million. 'The result has been to make these girls as patriotic and as keen as possible about doing this work.'²

The Daily News reported in December 1915 that

a big firm in the North is working women to the full maximum of 72 hours a week allowed by the law as it stands, i.e. 12 hours a day for six days in the week; but this necessitated nearly all the women being away from home for 96 hours a week as only certain trams from the residential quarter may be used. London is a centre of sweated munitions labour. A certain firm known to the authorities has been working its girls, 75, 77 and even 80 hours a week.³

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1. Mun 5/89/343/2. Report on Overtime in metal and chemical trades. 1916
 2. Leeds City Archives, Greenwood and Batley Papers, Box 11/3/72, 25-26 May 1915
 3. Daily News, 14 December 1915, 'Long Hours and Low Wages'. The information for this article was supplied by Mary Macarthur who also said that one of the results of these exceedingly long hours was bad time keeping

In June and July 1916 it was reported by the Woolwich Pioneer that at the cordite cannon factory at Woolwich women were working 7 night shifts of 11 hours and 6 day shifts of 11 hours. At the Abbey Wood Filling Factory, working hours were equally long.¹

Organised labour and women's trade union representatives, unlike some middle class social reformers, consistently opposed long factory hours and night work for women as a matter of principle.² It appears however that not all women found night work equally onerous. It was reported that at Kynoch's chemicals factory in Birmingham older women complained about night work but not the younger girls.³ While practical experience and theoretical principles prompted factory inspectors during the war to recommend shorter hours as an ultimate goal, they reported with surprise that in the short run, at least, the excessive work burdens did not cause commensurate fatigue.⁴ One Factory Inspector is quoted as being

surprised to find so little complaint or ill effect from long hours. She thinks that though this may be partly due to the better standard of living that the overtime money makes possible, it is mainly due to the ideal for which the women are now working.⁵

The evidence that emerges repeatedly from contemporary sources is that the rise in earnings, especially among the lowest paid section of women workers, had an extraordinarily compensatory effect in terms of health and wellbeing among women whatever validity may be given to the argument about 'ideals'. The Final Report of the Health of Munitions Workers Committee also stressed that severe fatigue was less than might have been expected and that this was due to the greatly improved attention to the health and welfare of workers. The greatest strain, as could be expected, told on women who were obliged to work long hours and also fulfil their domestic duties.⁶ The Committee also

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1. Woolwich Pioneer, 9 June 1916, 1 and 21 July 1916, 7
 2. BM, WNC, Executive Meeting, January 1916, Bradford Trades Council resolution. See also Lab 14/23, Hours of Labour Committee, 11 October 1917. Mary Macarthur opposed night work for girls under eighteen
 3. Lab 14/10, Hours of Labour Committee, 12 December 1917
 4. A M Anderson, Women in the Factory (1922) 240-242
 5. Rose E Squire, Thirty Years of Public Service (1927) 153
 6. Health of Munitions Workers Committee, Final Report,

forewarned that moderate weariness would have adverse results in the long run and therefore required greater attention, but there is little evidence to support some of the more alarmist reports on the subject of women's health which appeared in the labour press during the war. There is very little proof for example that 'once strong and healthy girls are transformed into pale, anaemic creatures with no vitality and no joy in living'.¹ Equally invalid are of course the over romanticised descriptions of women workers written by patriotic journalists such as the one below:

Their hard work does not seem to be doing much harm to their health for their eyes are bright, their cheeks are fresh and there is hardly any evidence of fatigue among them.²

Moreover, while it is also probably true that many women took up munitions work in order to supplement family incomes which would otherwise have been inadequate because of the massive rise in the cost of living, the substantial influx of women into war work even in the early period of the war would tend to disprove the pessimistic arguments expressed in Solidarity which maintained that factory work,

would be shunned by many of the thousands of women workers today were it not for the fact that prices of all commodities are outrageously high and also that in the majority of cases (i.e. married women) the dependents are forced into industry in order to exist.³

This was not the view shared by the numerous social and health workers who were engaged in investigating war time factory conditions. While most condemned the long hours for their inefficiency and long term detrimental effects, they also commented with some surprise on the apparently good health of women workers. Dr Janet Campbell and Dr Lillian E Wilson, both members of the Health of Munitions Workers Committee, commented that this was due to the improved diet and the absence of domestic work for young women lodging in hostels or with landladies. Even night work, they claimed, was not disliked if it terminated by 6 a.m. and 'the excitement of doing war work and making munitions added zest'.⁴

1. ASE Journal and Monthly Report, September 1916, 71, quoting The Call

2. Hall Caine, Our Girls, (1916) 24. A description of Woolwich workers

3. Solidarity, June 1918, 3

4. M.o.M., Health of Munitions Workers Committee, 'Industrial Efficiency and Fatigue', Interim Report, Cd 8511, 1917, 118

Absenteeism and Wastage

Any analysis of absenteeism among women munition workers during the war must be set in the context of the working habits of their male counterparts, for much of the investigation undertaken by the Ministry was prompted by the loss of working time encountered among men during the 1914-15 munitions crisis. From August to December 1915 a total of over 4,000 cases were brought before the Munitions Tribunals and most of these involved prosecutions for bad time keeping or absence from work.¹ In March 1915 the Shipbuilding Employers' Federation sent a deputation to Lloyd George alleging that productivity on the Clyde and Tyne had declined in comparison to the pre-war period because the higher wages had led men to drink and idleness.² A report on time keeping in fifteen firms on the Clyde showed that 33% of the men worked less than forty hours per week.³ The indictment of idleness and drink, while insufficiently documented and much resented by the trade unions, prompted Lloyd George to adopt unprecedented control over the liquor trade. The Central Liquor Board was set up in May 1915 for the purpose of curtailing licensing hours and restricting the sale of drink in off-license premises. The Board issued its first orders in July-December 1915 for the main munitions centres - Scotland, the North-East and North West, the Midlands and London. By the Summer of 1916 regulations had been extended to all areas of the country where munitions were being manufactured and opening hours were reduced to 5½ in every 24 whereas they had been as high as 17 or 19 before the war. Restrictions were not uniformly applied for the UK as a whole; in Scotland hours were cut by one half and in England and Wales by two-thirds. Off-license sales were similarly curtailed.⁴ The new regulations had a resounding effect in curtailing alcoholic excess if convictions for drunkenness

1. MM, Vol IV, part 2, 31-32

2. Ibid., 42

3. Ibid., 43. Quoted from Report and Statistics of Bad Time Keeping in Shipbuilding, Munitions and Transport Areas, 1 May 1915, 13

4. For details of regulations see H Carter, The Control of the Drink Trade (1918), A Shadwell, Drink in 1914-1922 (1923)

provide an accurate yardstick. In the years 1914-1917 convictions in England and Wales for both men and women declined dramatically. In the case of men they went down from 87,654 in 1914 to 20,801 in 1917, and for women from 29,835 to 9415.¹

A special study of drinking habits in the Birmingham district undertaken in 1917 failed to find any connection between women's drinking habits and absenteeism. Very few of the 30-40 large employers in the area alleged

Loss of time among women and drink is very rarely reported to cause loss of time or diminution of output ... Witnesses assured the Committee that loss of time among women workers is but rarely attributed to alcoholic excess; time keeping is for the most part good among female employees.²

While refuting charges of excessive drinking among women, the Report did not deny that 'there are a large number of women who frequent public houses',³ thus exposing the frequent contemporary assertions that there was excessive drinking among women.⁴

At the same time Departments of the Ministry were prompted to widen the scope of their studies of absenteeism. The provision of eating facilities in canteens, improved housing and transport were some of the correctives advocated and the relief and replenishment of the exhausted workforce was another. According to the Ministry's history:

The principal immediate cause of lost time in 1915, if not always was sickness ... the average standard of health in the munitions industries was lowered by overwork and the influx of persons of poor physique in place of the young men who had joined the Forces.⁵

The experience of shipbuilding, where the coincidence of absenteeism and long overtime hours was particularly glaring,⁶ prompted later studies, which included women, to relate absenteeism to overtime but omitted to take into account work difficulties specific to women such as their domestic obligations,

1. Central Control Board (Liquor Traffic) Fourth Report, Cd 9055, 1918, 24
2. Central Control Board (Liquor Traffic) Third Report, Cd 8558, 1917, 23-4
3. Ibid., 24. 4. See for instance allegations in Charity Organisation Review, January 1915, 55, Mun 5/92/346/11, Meeting of Ministry officials and Temperance Council of the Christian Churches, 9 March 1916, 7-9. The Church Council alleged that investigations of the Liquor Board ignored 'quiet drinking among women which did not used to exist'
5. MM, Vol IV, part 2, 32. 6. Ibid., 33. In May 1915 overtime hours ranged from 13 hours per week for driller to 18.7 for caulkers

previous occupations and the nature of their jobs. It was assumed as a matter of course that absenteeism could be linked to similar causes among women as among men.

An investigation carried out in May 1916 in 1307 Controlled Establishments employing 600,183 workpeople, of whom about 60,000 were women showed that the highest rate of 'avoidable' lost time, or time lost for reasons other than sickness occurred in shipbuilding which was an industry where the hours of overtime were high, or 7.05 per week. Shipbuilding, however, was an industry which employed relatively few women. In small arms, on the other hand, where the proportion of women normally employed during the war was high and where the average overtime exceeded that of the shipbuilding industry, the average number of hours lost was much lower. While the table below cannot provide any definite conclusions because lost time was not listed separately for men and women, it does point to two facts. First, that absenteeism, for reasons other than sickness traditionally attributed to women workers more frequently than to men, was not an invariable fact of industrial life and second, that for both men and women, lost time could not always be linked to long hours of overtime.

Table 24. Lost time in Controlled Establishments by trade group¹

Trade Group.	Number of Firms.	Total Numbers Employed on March 17.	Average number of hours of normal time lost per employee in the week ending March 17, exclusive of time lost through sickness, accident, or leave of absence.	Average number of hours of overtime worked per employee in the week ending March 17.	Percentage of total number employed who lost 6 hours or more of normal time in the week ending March 17, exclusive of time lost through sickness, accident, or leave of absence.
Iron and steel ..	236	107,867	1.11	3.64	6.26
Tinplate ..	25	6,613	0.04	2.84	0.24
Wire-drawing ..	58	25,602	1.11	4.15	5.15
Hardware, &c. ..	28	7,665	0.83	3.57	4.21
Engineering ..	572	248,648	1.80	5.56	5.12
Electrical engineering..	71	35,782	0.64	5.32	3.17
Shipbuilding ..	83	71,216	4.24	7.05	25.28
Cycles and motors ..	70	39,394	1.31	6.21	4.58
Railway carriages and waggons	10	6,791	1.63	2.39	8.85
Carriages, carts, and waggons	7	1,242	0.73	2.29	2.82
Cutlery, tools, &c. ..	33	6,793	0.72	5.46	3.24
Small arms ..	6	14,750	1.26	14.56	2.20
Scientific instruments..	14	6,194	1.06	4.21	4.00
Other metals ..	94	21,626	1.22	4.58	4.75
Total ..	1,307	600,183	1.74	5.43	7.42

1. Mun 5/91/345/1, Lost Time in Controlled Establishments, 27 May 1916, 4

Another conclusion that may be drawn from the table below is that women (aged under eighteen and over eighteen) on average lost less time for 'avoidable' reasons than the hours of overtime which they put in. The ratio of lost time to overtime was higher for women over eighteen than for women under eighteen, but the same was also true for the men.

However, the table below, which unfortunately does not show the loss of time by trade group and does not cover as many workpeople as Table 24 indicates very definite differences between men and women in relating time loss to overtime. The proportion of women who lost 6 hours or more of normal time for 'avoidable' reasons appears to have been smaller than the proportion of men.

Table 25. Lost Time in Controlled Establishments by age group¹

	Number employed on March 17.	Average number of hours of normal time lost per employee during the week ending March 17, exclusive of that lost through sickness, accident, or leave of absence.	Average number of hours of overtime worked per employee in the week ending March 17.	Percentage of total number who lost six hours or more of normal time in the week ending March 17, exclusive of that lost through sickness, accident, or leave of absence.
Males under 18 years of age ..	75,748	1.26	3.22	5.25
Males of 18 years and over ..	460,963	1.90	6.15	8.31
Females under 18 years of age ..	15,852	0.76	2.86	3.82
Females of 18 years and over ..	45,948	1.37	2.84	3.58

In 89.87% of the 1500 Controlled Establishments investigated by the Ministry, the loss of time amounted to less than 5% of the normal working week; in 4.8% it amounted to 5-7% of the working week and in 2.87% to 7-10% of the working week.²

While Tables 24 and 25 relate only to time lost for reasons other than sickness, i.e. inexplicable absences or taking time off, a subsequent set of figures collected in October 1917 which investigated time lost through sickness and time lost for reasons other than sickness shows a very different picture. The figures collected and shown in Table 26 are not nearly so representative because they covered only 152,650 men and 26,888 women.

1. Ibid., 4

2. Ibid., 5

Moreover, they did not investigate the typical munitions firms where women were employed in large numbers like engineering, small arms, scientific instruments, in contrast to the 1916 studies quoted above, which included all these trades. As they stand the statistics set out below suggest that on the whole women lost more time through sickness and other absence than the overtime they put in. In general this was not true for men, whose overtime exceeded time lost for both reasons stated above. Yet it must be repeated that the trades investigated in Table 26 were not 'typical' war time munitions trades where women were employed in large numbers. Both hardware and the nail, bolt and nut industries were 'old'

Table 26. Time lost through sickness and 'avoidable' causes in 1917, by trade group.¹

Trade Group.	Total Numbers employed in Establishments making Returns.		Percentages of Total Normal Hours worked.								Average Number of Hours of Overtime worked per Employee.		Percentage of Total Number employed who lost 6 Hours or more of Normal Time, exclusive of that lost through Sickness, Accident, or Leave of Absence.	
			Time lost through Sickness, Accident, or Leave of Absence.		Exclusive of Time lost through Sickness, Accident, or Leave of Absence.		Overtime worked.							
	Week ending		Week ending		Week ending		Week ending		Week ending		Week ending			
	June 15th, 1917.	Oct. 12th, 1917.	June 15th, 1917.	Oct. 12th, 1917.	June 15th, 1917.	Oct. 12th, 1917.	June 15th, 1917.	Oct. 12th, 1917.	June 15th, 1917.	Oct. 12th, 1917.	June 15th, 1917.	Oct. 12th, 1917.		
Building—														
Males - - -	5,410	5,729	0·8	1·1	0·8	0·8	9·9	10·9	5·1	5·7	1·5	2·1		
Females - - -	1,658	2,708	1·3	1·3	1·3	6·8	4·2	4·5	2·1	2·3	1·9	2·3		
Limestone Quarries—														
Males - - -	45	41	0·0	0·2	1·6	0·0	1·3	4·1	0·7	2·2	0·0	0·0		
Females - - -	21	21	0·0	1·2	0·5	0·0	0·0	0·0	0·0	0·0	0·0	0·0		
Blast Furnaces—														
Males - - -	22,561	22,644	2·3	3·2	2·2	2·4	4·1	3·1	2·3	1·7	9·0	10·6		
Females - - -	799	1,270	2·1	1·4	1·5	1·4	0·6	0·8	0·3	0·4	8·2	6·8		
Iron and Steel Works—														
Males - - -	71,140	56,960	2·1	1·8	1·8	2·2	5·9	4·7	3·2	2·6	5·4	5·8		
Females - - -	6,076	5,016	2·1	2·3	1·6	2·3	2·0	1·4	1·1	0·7	5·3	5·6		
Iron Foundry—														
Males - - -	20,970	17,213	2·3	2·5	1·8	2·2	7·2	6·9	3·9	3·7	4·9	5·2		
Females - - -	3,397	3,371	1·8	2·4	1·4	1·6	1·7	1·1	0·9	0·6	3·7	4·5		
Tinplate—														
Males - - -	8,573	9,979	0·4	0·7	1·5	1·2	2·2	1·7	1·1	0·9	2·4	3·2		
Females - - -	1,694	2,098	0·6	0·5	0·7	1·3	0·1	0·0	0·1	0·0	1·3	3·0		
Wiredrawing—														
Males - - -	9,811	6,356	2·0	2·3	1·3	1·4	6·7	7·2	3·6	3·8	2·4	3·5		
Females - - -	4,196	3,278	2·7	3·9	1·2	1·2	3·7	6·1	1·9	3·2	2·8	4·7		
Nail, Bolt, and Nut—														
Males - - -	6,336	6,177	1·5	1·8	1·7	1·3	5·3	6·0	2·9	3·3	5·3	3·7		
Females - - -	3,897	3,679	2·5	2·8	2·8	2·8	2·9	2·9	1·6	1·6	10·3	8·6		
Hardware—														
Males - - -	7,774	3,907	1·5	1·0	1·5	1·1	7·5	4·9	4·0	2·6	4·4	2·3		
Females - - -	5,150	3,270	1·6	1·8	1·8	0·8	3·1	1·1	1·6	0·6	3·7	1·5		
Total—														
Males - - -	152,650	129,006	2·0	2·0	1·7	1·9	5·8	4·9	3·2	2·7	5·3	5·9		
Females - - -	26,888	24,711	2·0	2·2	1·7	2·3	2·5	2·1	1·3	1·2	4·8	1·7		

1. Mun 5/91/345/3, Report on time keeping in Controlled Establishments, October 1917, 3, Table 11

trades)

in which women were employed before the war and where wages were traditionally low. In wiredrawing, time lost in October 1917 (5.1 hours per week) did not exceed the overtime worked (6.4 hours), while in iron and steel women's jobs were confined to heavy labouring and unskilled work.

One writer maintained that most statistics collected on absenteeism seriously underestimated time lost 'avoidably', i.e. through sickness. He contended that, in cases where records were carefully kept and time keeping was reasonably good, sickness accounted for more than half time lost both among men and women. In cases where time keeping was generally speaking bad, employers distrusted medical certificates or tended to categorise minor ailments as 'avoidable' absenteeism. In one factory engaged in the manufacture of light engineering products where careful enquiries were made among its 270 men and 290 women employees, it was found that the average percentage ratio of time lost through sickness ^{to total time lost} in June-September 1916, was 65.7 for men and 75.8% for women.¹

It is unfortunate that the fairly detailed reports of welfare officers in National Factories available at the Imperial War Museum do not contain systematic investigations of lost time among women. Casual remarks cannot be regarded as scientific observations. At the Chemicals Factory at Gretna, for instance, it was alleged by the Welfare Superintendent that their time keeping deteriorated the longer they were employed and a surplus of 5-10% over the total labour force had to be engaged in order to compensate for absenteeism.² However, Mr David Gilmour who was Manager of the Gretna Factory for two years stated to the War Cabinet Committee that the percentage of women absentees was only 2% greater than that of men.³ Moreover, he

1. T Loveday, 'The Causes and Conditions of Lost Time', Bureau of Labor Statistics Bulletin, No 230, July 1917, 53-59

2. IWM Box 147/13, Women and their work during the war at the HM Factory at Gretna, 32

3. War Cabinet Committee ... Appendices, Cmd 167, .

also claimed that women's productivity would have increased had their working week been reduced below 48 hours and would have further increased their chances of substitution for men.¹

On the other hand the evidence of women's time keeping presented by the Engineering and National Employers' Federations in 1918 was decidedly adverse though it cannot be taken as conclusive in the absence of data on conditions of employment or facilities. Mr Marjoribanks, representing the Engineering Employers, gave the following information to the Committee on women's lost time during the three weeks prior to November 1918.²

	<u>in a gun carriage shop at Armstrong's</u>	<u>in a small shell dept.</u>	<u>in a fuse filling dept. on a 3 shift basis</u>
Men on day shift	14.7%	18.2%	11.4%
Women on day shift	12.0%	23.0%	24.2%
Men on night shift	6.0%	10.4%	3.8%
Women on night shift	11.0%	15.6%	19.7%

Women's time keeping as shown above was consistently worse . . . than ^{that} of men, except in the case of women day shift workers at the gun carriage factory.

A representative of another engineering firm employing a workforce of 18,000 reported to the War Cabinet Committee that women's absenteeism was more than double that of men's; while men lost 3.4% of normal time women lost 7.1%.³

However, managers of National Projectile Factories contradicted that impression and stated that women were better time keepers than men.⁴ Mr Donald Colquhoun, a working foreman in a large engineering works at Glasgow, stated that 'the time keeping of most women is good. Soldiers' wives and mothers of young children lost most time'.⁵ In a cotton powder factory, where women were employed in the manufacture of cordite and where a 46 hour week was the practice, women's time keeping was said to be good despite the

1. War Cabinet Committee ... Verbatim minutes, IWM Box 99/ Evidence of D Gilmour, L20

2. War Cabinet Committee ... Appendices, Cmd 167, . . . 52

3. Ibid., 53

4. Ibid., 57

5. Ibid., 58

fact that 70% of them were working night shifts.¹ Similarly, shorter hours at Lever's and Crosfield's (soap manufacturers) where the working week ranged from 44-48 hours contributed to improved time keeping. At Crosfield's 'the time keeping of these girls is such that they are late on the average only once in two months and something like 96% of the possible hours are worked',² stated the managers.

Of the 15 firms investigated in the Glasgow area by the Scottish Council of Women's Trades, only a few supplied information on time keeping, and this yielded some interesting if random information. In a timber yard, for instance, where one-third of the workforce were women, their time-keeping compared favourably with that of men and in a Boiler works where women were engaged in driving overhead cranes, their time keeping was said to be superior to men's. In a railway construction yard where women were engaged on various metal processes and also in labouring they were said to keep better time than men and in a locomotive engineering firm their time keeping was said to be excellent.³ While much of the above evidence on women's time keeping is both random and contradictory, some of the contradictions were inherent in the promptings of the investigators. While some studies of time keeping records were motivated by the Government and Managerial drive for greater efficiency, the testimony of trade unionists to the War Cabinet Committee must be placed in the context of demands for equal pay that were being voiced. The difference in motivation must therefore be taken into account in assessing the value of the widely ranging opinions expressed.

1. Ibid., 77
 2. Ibid., 78
 3. Ibid., 25-29

Legal measures were often resorted to by firms to deal with bad time keeping. Prosecutions could be instituted under the provisions of the Munitions Acts before Munitions Tribunals. It was assumed by armaments firms that fines were a successful corrective to slacking. In the early part of the war Llewellyn Smith reported one employer as saying:

With the exception of the incorrigibles upon whom prosecution seems to have had little remedial effect it would appear on the whole that the recent prosecutions have had a very steadying effect ... with respect to discipline in the shops generally. A very gratifying feature of the prosecutions is when they are undertaken at the instance of the Ministry ... it is unfortunate that in some cases a heavier fine has not been inflicted by the courts.¹

The Ministry however, while keeping a check on persistently bad time keepers, normally desisted from taking official action. This policy was based on the belief that too many prosecutions did more harm than good to the cause of industrial relations.²

The highest number of prosecutions for cases of unpunctuality and time loss was recorded in 1917 and totalled 2000 per month.³ Although the records of cases against women were not listed separately a pamphlet published by the Labour Press asserted that firms prosecuted women with the same energy as men. One woman assessor member of a Munitions Tribunal in a large provincial town reported at an unspecified date:

I have seen firms bring up to 20 or 30 women for unpunctuality and loss of time. Constant unpunctuality in coming to work is always severely dealt with. Occasional loss of time in a worker who has a good reputation is not generally severely treated, but the girl who has a record of unpunctuality is sure to get into trouble sooner or later.⁴

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1. Mun 5/49/300/15, Report by Llewellyn Smith on labour questions, 2 December 1915, 7
 2. MM, Vol V, part 3, 140
 3. Ibid., 145
 4. 'Women in Munitions Courts: Hints for Women Workers', Labour Press, 1917, quoted in MM, Vol V, part 3, 145, footnote

In 1916 Local Advisory Boards constituted solely of members of trade unions¹ as district agents of the National Advisory Committee² to help in smoothing out labour friction and maintaining munitions production, were asked to intervene in cases of absenteeism wherever possible. These Local Boards were weak organisations whose brief included minor matters of dilution policy over which they had no executive power but which were referred in turn to the Central body - the National Advisory Committee. In some areas, like Coventry for instance,³ they became quite effective in maintaining good time keeping but this was exceptional. For the most part their ambiguous role in representing workers' interests and at the same time acting as disciplinarians made them suspect. The Coventry Board, for example, wanted to appoint special advisors to help women summoned before Munitions Tribunals in cases of absenteeism. The National Advisory Committee, however, refused to sanction such a move even though the Coventry Board did not include any

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1. These Local Advisory Boards should not be confused with the Joint Armaments Committees also called Munitions Committees, composed of employers, Government officials and trade unionists, which were established in the early Spring of 1915 in various parts of the country. These Committees possessed initially considerable power in effecting dilution and in generally supervising labour munitions problems, including absenteeism. These joint committees withered away, however, in the Autumn of 1915, largely through the non-cooperation of employers and the greater centralisation of Government activity and control. The ASE had looked favourably on these early experiments of local control and proposed their revival in the Winter of 1916 and again early in 1917, but these proposals came to nothing. See G D H Cole, Trade Unionism and Munitions, 75-7, MM, Vol IV, part 1, 75-82
 2. The National Advisory Committee on War Output (NAC) also called the National Labour Advisory Committee was established in March 1915 after the signature of the Treasury Agreement. It was composed of labour representatives and its task was the prevention of work stoppages or curtailment of work and the maintenance of discipline in munitions work. See MM, Vol 1, part 2, 96-7
 3. MM, Vol V, part 3, 150

women, on the grounds that the Coventry Munitions Tribunal included women members.¹ While this was nominally true in the sense that women may have been registered on the panel, that did not ensure that they were called on to sit on the Tribunal's deliberations. Margaret Bondfield complained in 1918 that the local chairman in Coventry was so biased against women that the number of cases for which women were called to serve fell by 90%.²

Prosecution against women absentees by the Ministry, which in any case kept its activity in this sphere to the minimum, being amply compensated by the employers themselves, was dropped entirely in May 1917. The Ministry, on being informed of time keeping deficiencies would pass the information to the Ministry's welfare officers who acted in co-operation with the factory welfare superintendents.³ Women absentees were visited in their homes, admonished and dismissed if it was thought advisable (see Chapter 7). These methods were said to have a very positive effect.⁴ In contrast male workers were not subjected to home visiting when they failed to turn up for work. Measures taken against them may have been harsher but they were also much more impersonal. Men were faced with admonition, or prosecution and even withdrawal of military exemption if occasion demanded,⁵ but their homes remained outside the bounds of official administration.

Several comprehensive studies were undertaken by Government Departments into wastage, i.e. leaving rate, among women during the war. They included some scholarly attempts to evaluate conditions and hours of work, the character of the work place, marital status of women employed and outside factors such as the availability of alternative employment, in relation to length of service, and provided some valuable guides as to the factors that

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1. Mun 5/22/NAC meeting, 26 November 1916
 2. Lab 2/53/MT 145/1, Letter from Margaret Bondfield, 18 March 1918
 3. MM, Vol V, part 3, 140
 4. Journal of the Textile Institute, Manchester, July 1917, 136, 'Some Difficulties encountered on starting welfare work'.
 5. MM, Vol V, part 3, 146

motivated women to remain in or leave their work place. Most of the munition employers gave a very negative view in their evidence to the War Cabinet Committee about the wastage rate among women,¹ some putting the proportion of 'floaters' at 60% of the total number of women employed.² Government studies however, conducted under the auspices of the Medical Research Committee and published after the war brought out aspects of women's employment which shed considerable light on the problems encountered by working women as well as on the special ingredient inherent in war munitions work as such.

One of the important findings, for instance, was the fact that the heaviest loss of workers occurred during the first 2-3 months of employment.³ This fact was broadly confirmed by another study published in 1921, which investigated both married and single women in munitions factories and one biscuit factory.⁴ While the same was true for men in the few instances that were studied alongside, the rate of loss among them during the early period of their employment was much lower than among women.⁵ The reason for this phenomenon was not hard to find. It took a period of six weeks to learn boring, grooving, beading and profiling and twelve weeks to learn rough turning.⁶ No worker could therefore reach average output or an average wage before this period had elapsed and a considerable number must therefore have been sufficiently discouraged to seek alternative employment.

One munitions firm in Leeds attempted to deal with this problem in a way that must, in the long run, have been counter-productive but in the period of unemployment in 1914 still feasible. At that time it was still

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1. War Cabinet Committee ... Appendices, Cmd 167, 232
 2. Ibid., 53
 3. Mun 5/92/346/25. National Health Insurance, Medical Research Committee. A report on the causes of wastage of labour in munition factories employing women by Major M Greenwood, 1918. A Study of a London Factory, 13. This particular study concentrated its researches on three reasons for abandoning work; ill health, other 'sufficient' reasons such as marriage and insufficient reasons
 4. Medical Research Committee and DSIR, Report of the Industrial Fatigue Board, No 13, 'A Statistical Study of Labour Turnover in Munition and Other Factories', by Gladys Mary Broughton, 1921, 14, see also Tables I-XXXVI, 31-64.
 5. Ibid., Tables XXXII-XXXV, 65-67
 6. Ibid., 16

possible to exercise a tight control over women by means of strict financial measures. At a Board meeting of the Greenwood and Batley management,

It was decided that the Managing Directors should consider whether they could not devise a scheme whereby the girls who were learning should receive a day wage for say the first two or three weeks in order to encourage them to stick to the work.¹

While the wastage rate among married women was normally greater than among single women, a factory with a high wastage rate would find that this applied equally to both married and single women. Factories with lax discipline and bad time keeping records were more likely to retain more of their married workers. Flexibility in regard to time keeping may indeed have been one of the possible ways of improving the efficiency of women workers, though this was never tried out on a scale which could provide any definite proof. One London firm was reported to have dispensed with fixed hours and found that output had doubled.²

One report of the Industrial Fatigue Board reported that married women were more prone to the industrial 'death rate' because their work load was not confined to employment on the shop floor. One result of this was that the rate of sickness among married women increased with length of service to a greater extent than it did among single women. The rate of sickness, in general, was more intimately connected with the nature of the job than with either age or marital status; machinists had the highest sickness rate, labourers came next and inspectors and gaugers had the lowest sickness rate.³ Ill health as a factor in the rate of loss of staff rose during the war from 3.7% : 10.2%.⁴

The highest rate of staying power was found among women workers whose previous occupations had been the most depressed; domestic servants, shop

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1. Leeds City Archives, Greenwood and Batley papers Box 11/3/5 Board meeting minutes, 20 October 1914
 2. C Chisholm, 'Making the Business Girl Efficient', System, June 1916, 419
 3. Report of the Industrial Fatigue Board, No 13, 17-19
 4. Ibid., 26

assistants and laundry workers stayed longer than munitions workers and other industrial workers who had probably acquired higher expectations and greater confidence in their industrial capacities.¹ The biscuit factory, which was the only non-munitions establishment included in the above investigation, had the highest overall rate of loss (40.8% of total female workforce) except for one munitions factory where only married women were analysed and which recorded a 53.01% leaving rate for the workforce.² The investigators concluded therefore that the higher 'survival' rates of the munitions factories in comparison to the biscuit factory 'may of course have been due to the higher rates of pay and greater attractiveness of munition work in wartime'. As might have been expected, after the war, when work for women became scarce once again, the survival rate at the biscuit factory went up.³

The greater staying power and stability among munition workers whose previous occupation had been non-industrial was considered as a possible factor of stability by Major Greenwood in what appear to be two different investigations of the same factories. His studies involved a London factory where conditions and welfare facilities were inadequate and a country factory whose workers were recruits from the non-industrial class and where the welfare provisions were said to be very good. While the former had a very high wastage rate running at 1125 out of 2791 of the new recruits in the period of June-October 1916, the country factory could boast a highly stable workforce.⁴ A study of a factory in the Midlands, whose welfare standards were superior to the London factory, lost a great many workers for reasons of health; its rate of wastage was higher than the country factory but lower than the London factory. Major Greenwood concluded that welfare was an important factor in retaining the workforce

1. Ibid., 23

2. Ibid., Tables XII and XXVI, 44 and 58

3. Ibid., 29

4. Mun 5/92/346/25, op. cit., 7-8 and 18-19, and Major M Greenwood, 'Problems of Industrial Organisation', JRSS, March 1919, 193-4

but he also emphasised that it was but one of several variables to be studied in enquiries devoted to the employment of women.¹ A comparison of the 'survival' rates of women at various ages, showed that after nine months of employment a greater percentage of the younger women of the 18-22 age group tended to stay on in both light and heavy work. While the 'survival' rate at the heavy (projectile) factories was a good deal lower than in the light (cartridge manufacture) factories for all age groups, it was still higher among the younger women than in the over 28 age group. On 'lighter' work the difference in the survival rate between the younger and older age group was not nearly so marked as in the 'heavy' factories.²

The provision of food, housing and other amenities

The national emergency necessitated a state directed effort of unprecedented magnitude towards more efficient munitions production. On the one hand compulsion was used and restrictions imposed on the freedom of labour through the provisions of the Munitions Acts. On the other hand considerable efforts were made to improve the condition of labour and maintain it at peak productivity. In the words of the History of Munitions:

The Department's policy with regard to welfare and working conditions was a logical complement to its control of the supply of labour as well as of war material.³

There was a notably increased awareness that public health was linked to diet, working conditions, rhythm of work, housing, transport, even the provision of amusement and in the case of women to a sense of responsibility for their domestic arrangements. The Welfare and Health Department of the Ministry was specifically set up for the purpose and while it applied its skills and investigations to the whole of the labour force, its emphasis was specifically directed to the protection and care of women and girls.

1. Mun 5/92/346/25, supra, 20, 29

2. Major M Greenwood, 'Problems of Industrial Organisation', JRSS, March 1919, 192

3. MM, Vol V, part 3, 166

The drive for better eating facilities, however, was not solely directed towards women's needs but derived partly from the Governmental policy of controlling the nation's drinking habits. The munitions crisis of 1914-15 caused an uproar of accusations about the excesses of drink among the working population and consequent alcoholism, as a result of which restrictions were promulgated (see above). Through its Canteen Committee, the Liquor Board sought to encourage the pre-war efforts of some firms to provide eating accommodation in mess rooms and dining facilities to provide low cost food. The Health of Munitions Workers Committee collaborated with the Liquor Board and concurred in its findings that industrial alcoholism was partly due to the absence of cheap and good food. Moreover, the Committee proposed that 'in certain districts and in special circumstances, there may be a case for the establishment of "wet" canteens where alcoholic beverages could be obtained. The Committee recognised that such canteens will require particularly careful supervision'.¹ The Committee undertook investigations of food requirements, food values, as well as the best methods of constructing canteens and running them. Voluntary Societies, like the YMCA, were enjoined to help in this enterprise. By the end of the war 900 canteens had been established in Controlled Establishments and National Factories and Dockyards which served the needs of one million workers.² Some workers' organisations also became aware during the war period of the importance of community services in relieving the pressures on working women, by providing cheap cooked food. The WEWNC advocated the establishment of Municipal kitchens in order to help women in war time conditions of shortages and rationing. It was reported in 1917 that fifty communal kitchens were in operation besides those run by the Salvation Army and other charitable bodies.³

1. Health of Munitions Workers Committee, Memorandum No 3, 'Industrial Canteens', Cd 8133, 1915

2. MM, Vol V, part 4, 19

3. WEWNC, E.C. meeting, 5 July 1917. Communal kitchens won the approval of the Yorkshire Factory Times for 'liberating the energies of multitudes of women for work of national importance, whose lives are now spent working wastefully for a tiny family circle'. Yorkshire Factory Times, 5 April 1917, 8. The NUR also gave them their seal of approval at the 1918 TUC Conference. TUC Conference Report, 1918, 267

Factory canteen organisers attempted to implement the advice of scientific journals and to provide, despite war time shortages, at least two meals during the day in which protein would be available in the form of eggs, cheap meat (such as tripe) or fish and cheese. Soup, with protein ingredients such as beans or lentils, figured prominently on the menu and so did the traditional pudding.¹ By present day standards the diet still contained very little protein; 5 oz of lean meat per day was considered sufficient for a man working in moderately light munition work,² while the woman's calorific requirements were still considered to be lower than the man's. Science Progress put the working class man's requirements at 3400 calories and his wife's at 2750.³ The Ministry directives to hostel administrators contained the instructions to plan the woman's diet on the basis of 2400-2800 calories per day and the man's at 3000-3500.⁴ The average woman weighed less and was smaller and therefore she was deemed to need less food and this traditional approach persisted until well after the war.⁵ During the war, therefore, women were allocated smaller rations than men.⁶

Despite these preconceived notions, despite war time shortages and failures in the distribution system, food consumption among the population as a whole increased. While the Committee on Industrial Unrest reported a sugar famine in the North East and North West and an unprecedented rise in the price of milk which put it beyond the reach of many working class families,⁷ consumption of foodstuffs per head of population rose during the war. The Working Class Cost of Living Committee reported increased consumption for the following items over the war period.⁸

1. J R Clegg, 'How the Workshop Heroines are Cared For', Millgate Monthly, September 1918, 647
2. Ibid., 648
3. Science Progress, July 1918, 79. 4. Mun 5/93/346/31 Second report on hostels, January 1918. 5. E P Cathcart, The Human Factor in Industry, (1928) 87. 6. Woolwich Pioneer, 17 May 1918
7. Committee of Inquiry into Industrial Unrest, Cd 8662, 1917, North-East Area, 1-3, and Cd 8663, 1917, North-West Area, 14
8. Working Class Cost of Living Committee, Report, Cd 8980, 1918, 10

bread and flour	+	2%
meat	+	no change
sugar	+	6%
tea	+	10%
cocoa	+	13%
rice	+	25%

At the same time, no one denied the steep rise in food prices. The Cost of Living Committee quoted above estimated the rise in food prices at 82-90% above pre-war levels, by July 1918,¹ while the Fabian Research Department put it at 102-106%.² The middle classes were less affected by the rise, not only because they had higher incomes, but because they knew how to substitute nourishing vegetables for meat and because cheaper meat rose more steeply in price than the more expensive cuts.³ Moreover, working women had to face the weary and often fruitless task of queuing for daily necessities, at the end of a long day's work.⁴ Yet despite these unequal hardships the Cost of Living Committee reported better feeding at the lower income levels. In London 'the percentage of children found in poorly nourished conditions is considerably less than half the percentage found in 1913'. Local authorities reported an aggregate fall in pauperism of two-thirds and a decline of four-fifths in the number of necessitous children having to be provided with meals.⁵ While these aggregate social observations and statistics did not single out women as a separate entity there is no reason to suppose, in view of the impressions reported (see pages 252 *etc.*) that women munition workers did not participate in the benefits of increased consumption.

One of the most serious problems facing munition workers during the war was the shortage of housing. Labour migration was widespread and was obviously not confined to women while the situation was further aggravated by the fact that munition areas were concentrated in regions which were experiencing a lack of accommodation before the war. The Clyde, Tyneside,

1. *Ibid.*, 6

2. Fabian Research Department, Monthly Circular, January 1918

3. Frances Wood, 'The Increase in the Cost of Food for Different Classes of Society since the Outbreak of the War', JRSS, July 1916, 501

4. Woolwich Pioneer, 26 October 1917, 4. See also IWM/taped interview with Mrs E MacIntyre, *op. cit.*

5. Working Classes Cost of Living Committee, Report, C.L. 8980, 1918, 9

Barrow, Sheffield, Birmingham, Coventry and also Woolwich were all deficient in housing before 1914. Various Ministries and Departments took part during the war in a concerted effort to provide the accommodation or to help financially in its construction. Cottages, hostels and houses, some of them temporary or semi-temporary, were built with finance or part-finance granted to munitions firms and local authorities. For women the most common form of accommodation constructed was the hostel. Cottages or bungalows were reserved for migrating families,¹ but in some cases where they proved unpopular they were converted for the occupation of women workers.² The Ministry normally undertook all responsibility for clearing hostels, or temporary housing for migrating women, ordinary hostels, 'colonies' and 'townships' where large National Factories were built. The most famous examples were the Birtley colony for refugee Belgian labour and the Gretna township where accommodation consisted of seventy large hostels and $4\frac{0}{1}$ 50 smaller bungalows.³

The accommodation at the hostels was planned on minimal standards of comfort; they were built on emergency lines. The cubicles were exiguous in size and appurtenances; the recommended size of rooms was 6' x 9' with a bed, a chest of drawers and a locker, but central heating was to be provided.⁴ Meals were served in the dining room and while the standards suggested did not indicate luxury, the charges were moderate and compared well with rents charged by local landladies as Table 27 on page 246 shows.

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1. Mun 5/96/346.2/3, Report on housing schemes by Mr Vernon, 16 March 1916
 2. MM, Vol V, part 5, 25. In the cases of Sheffield and Dudley the cottage plan completely misfired because the expected migration of male labour never materialised
 3. Ibid., 77
 4. Mun 5/93/346/31, Second report on hostels, January 1918

Table 27. Weekly hostel rents, local rents and average wages for women¹
[n.d., end of 1917 ?]

<u>District</u>	<u>hostel rent</u>	<u>local rent</u>	<u>average local wages</u>
Scotland	10/7	14/11	25/6
Manchester and North West	14/9	16/0	28/7
Yorkshire and East Midlands	12/8	12/2	31/9
Birmingham and Midlands	14/1	15/1	33/2
Bristol and South West	14/8	14/4	31/11
London and South West	18/6	18/9	41/6
London and South East	15/3	19/5	35/4
London and South East	16/9	18/0	43/9
Average all districts	14/8	16/2	34/1

By May 1917 the Ministry was directly responsible for hostel accommodation for 24,000 women and 22,000 men,² and in addition private munition firms had constructed various types of housing financed partly or entirely by the Ministry, but which were administered by the firms themselves.³

On the whole however, and despite the fact that war time hostels were said to provide 'a much higher standard of comfort than pre-war hostels' there was decided resistance to hostel living. By May 1917 only half of the hostel capacity had been filled, although the occupation rate in hostels provided by private employers was higher at 77%. Munition workers appeared to dislike collective living. The Ministry's 1917 report on hostels acknowledged the newly acquired economic independence of women munition workers which led to a greater freedom of choice in regard to living habits.⁴

Hostels in Scotland and North of England are not generally popular. In Scotland the hostels are associated with the idea of Reformatories and the feeling against the restriction of hostel life is very strong among the rougher class of girls. In England, on the other hand, many workers like hostel life and speak highly of the comforts obtainable in hostels.⁴

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1. Ibid., Table II
 2. Mun 5/93/346/131, Report on hostels, May 1917
 3. MM, Vol V, part 5, Appendix 1, 79-81
 4. Mun 5/93/346/131, First Report on hostels, May 1917

The aim of controlling a bunch of 'rough girls' was never far from the mind of the organisers and it is no wonder that the atmosphere did not endear itself to the inmates. The supervisors and superintendents were recruited for their ability to generate 'improvement in the tone and general behaviour of the girls' while the religious and charitable societies who sometimes helped to run them seized on them as 'an opportunity of extending their social work among girls'.¹ It is no wonder therefore that women rejected the opportunity of captive living while they were in any case obliged to endure captive work discipline. Trade unions also objected to hostels, but above all to hostels run by private firms. The Coventry branch of the NFWW offered vigorous objections and the Ministry reported that 'some agitators have gone so far as to say that a hostel run by a private firm resembles a compound for black labour'.² In London trade unionists were generally opposed to hostel accommodation unless it was organised on commercial lines by a local public body.³ Trade unions feared the concept of hostels because they feared the revival of truck⁴ and the very intimate connection between work and board and lodging. This objection to hostels in general was not as far fetched as it may seem. The Ministry itself reported in 1917 that 'many employers consider the money spent on hostel management is virtually a subsidy to wages and they prefer this arrangement to the expense of raising wages all round'.⁵

The alternative suggested by trade unionists was the establishment of residential communal clubs where women from a variety of trades might organise to keep house on a collective basis.⁶ In the hostels as they were

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1. Mun 5/93/346/31, Second Report on hostels, January 1918
 2. Mun 5/93/346/131, First Report on hostels, May 1917. 3. Ibid.
 4. See Margaret Bondfield's objection to welfare because of the dangers of truck, quoted in Chapter 7, page 291
 5. Mun 5/93/346/131, First Report on hostels, May 1917. This was not of course invariably the case. In Barrow, Vickers refused to contribute to the cost of housing even though the shortage of housing there was said to have contributed to industrial unrest. See Mun 5/96/346.2/3, Housing schemes report by Mr Vernon, 16 March 1916, Vickers employed 35,000 workers in Barrow of whom 6000 were women. See also Committee of Inquiry into Industrial Unrest, Cd 8663, 1917, North West Area. Special report on Barrow, 31-33. In Barrow the housing shortage was so acute that 12/- per week was being charged in 1917 for an unfurnished room
 6. Mun 5/93/346/31, Second Report on hostels, January 1918

run, democratic collectivity was not even remotely contemplated by the organisers. On the contrary the hostel collective was organised in a highly authoritarian way with a pretence that the new collective was reproducing the familiar contours of the traditional collective - the family. The supervisors were described in terms of complaints officers while their function was in fact to supervise and control as efficiently as possible. Matrons, with disciplinarian responsibilities assumed the mantle of motherhood,¹ while their real role was to take charge of feeding, housing and organising the lives of thousands of women. They were invested with authority for the regulations, organising the entertainment and setting up standards of behaviour. On their own initiative they became delegates of Government policy and took it upon themselves to advocate investment in the War Savings Fund.² Private lodging therefore, without strings or fewer strings, appeared as a much preferred alternative even if it meant higher payments for board and room, and often less privacy.

Facilities for working mothers and women

One important consideration in the maintenance of health, welfare and efficiency among working women was the care of children of working mothers. As could be expected, the need for crèches and nursery facilities became a matter of some importance.

In 1917 the Treasury approved grants for 75% of the cost of establishing and equipping nursery facilities for the children of munitions workers, as well as contributing to their running costs. By 1918, £21,000 had been allocated to 41 nurseries.³ In addition, private munition firms

1. IWM Box 147/13, Report on the Explosives Factory at Gretna, 11. 'The Matron of each hostel looked on herself as the mother'.
2. Ibid.
3. MM, Vol V, part 3, 185

came also to recognise the need for infant care facilities which had never received any official state or local authority finance prior to the war.¹ However, during the war the ideological bias against the very notion of officially organised facilities for the care of children was played down because of the acute need for women's labour. Unofficial facilities for the care of the children had always been subsumed into the system of women's employment but during the war the baby minders - the unsung props of other working women - had also taken up munitions work. The Ministry was forced to contemplate an officially institutionalised pattern of baby minding; it investigated the existence of nursery facilities and creches in France and Italy,² while refusing to advocate their establishment in England on a permanent basis. Factory creches, whether on the factory site or even outside the factory territory, did not win anything more than a temporary measure of endorsement. The Welfare Authority Committee of the Ministry regarded them as a retrograde measure necessitated by the war emergency which was bound to have adverse effects on the welfare of children.

A large increase in the number of creches must necessarily neutralise to a large extent the efforts which have been made in recent years to secure a better care of children by their own mother.³

The Medical Officer of Health for Sheffield was quoted as saying that 'the proper place of the child is its home'.⁴ Rose Squire - Deputy Principal Lady Inspector - was opposed to nursery facilities being provided in or near factories on the grounds that dust and heat were an unsuitable atmosphere for suckling children.⁵ Official recognition of mothers' needs in this respect was strictly tied to the needs of the war and theoretical prejudice against their employment was only suspended for its duration.

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1. Lab 2/1220/TWX 660, Memorandum by A M Anderson, 27 November 1917, 10
 2. Local Government Board, A Report on the Welfare of the Children of Women employed in Factories in France, Germany and Italy, 1919
 3. Mun 5/93/346/140, Report on creches, n.d.
 4. Lab 2/1220/TWX 660, Memorandum by A M Anderson, 27 November 1917, 10
 5. Rose E Squire, Thirty Years of Public Service, 187

Whatever the desirability of prohibiting the employment of mothers with young children, all would agree that during the war emergency prohibition was unpracticable.¹

Despite the fact the Women's Labour League had been pressing for the establishment of some type of child care facilities before the war,² Marion Phillips - the League's General Secretary during the war period - was opposed to the creche as a system of supervision at night or by the week: 'This whole method means a very forcible breaking up of the family life of the community' she said.³ Alternative methods suggested by those who were aware of the needs of working women but were opposed to the communality of creches involved the state financing of boarding out close to the family home or of 'minding'.⁴

Despite the reservations baby care facilities were successfully set up even though the scale of the new enterprise was strictly limited as the meagre Government expenditure would suggest. For the first time, however, Government support was given to alternative child care in contrast to the make shift pre-war arrangement of uncontrolled baby minding. At the National Projectile Factory, in Cardonald, Glasgow, a creche was established for 60-70 babies,⁵ and there were two creches at Woolwich where both married and unmarried mothers could bring their children, in addition to a special home for workers' children.⁶ The Welfare Supervisor at the National Amatol Factory in Liverpool advocated a system of placing children on a weekly basis in the neighbourhood of factories where women were engaged on night work.⁷ The best known independent nursery was Sylvia Pankhurst's Mother's Arms in the East End

1. Rose E Squire, op. cit., 186
2. Women's Labour League Annual Report, 1913, 7
3. Ruskin College, Some Problems of Urban and Rural Industry (Birmingham 1917) 40
4. Leeds Weekly Citizen, 13 July 1917, 2. These were methods advocated by Dr Naish, Lady Consultant at the Sheffield Royal Infirmary and a mother of 7 children
5. IWM Box 149/19, Report on National Projectile Factory, Cardonald, Glasgow
6. MM, Vol V, part 3, 160
7. IWM Box 150/26, Welfare Supervisor's Report on National Amatol Factory, Liverpool, 12 June 1918, 13

which enjoyed a great success though it was not directly linked to the Munitions effort.¹ By 1917, 108 day nurseries were said to be providing care for 4000 children.²

Pregnant women, as well as working mothers, became an object of special care and concern during the war. Before the war pregnant women were almost invariably dismissed from their jobs when their condition became apparent. According to the Welfare Supervisor of the National Amalcol Factory, dismissal often led to abortion or the acceptance of alternative ill-paid occupations like rag picking, but during the war pregnant women were permitted to remain in their jobs or transferred to less arduous work. This new policy did not cause miscarriage and proved that healthy confinements were entirely feasible despite the continuation of work at the factory bench. It was found that the maintenance of a steady income during pregnancy was positively beneficial to both the mother and the child.

If the State is to provide for pregnant women so much the better but if their finance is not specifically given then she should be allowed to work.³

At the National Projectile Factory at Lancaster, where 3700 women were employed, special work and improved conditions were organised for pregnant and child rearing women.⁴ At the National Ordnance Factories in Leeds, similar arrangements were made for pregnant women in the seventh month and for nursing mothers and unmarried mothers were provided for.⁵

Baby clinics and ante-natal centres which had already received the support of women's organisations before the war,⁶ were stimulated to new

1. S Pankhurst, The Home Front (1932)
2. M.O.R., Women's Employment Committee, 'Subsidiary Health and Kindred Services for Women', [1919 ?] Memorandum by A M Anderson, 3
3. IWM Box 150/26, Welfare Supervisor's Report, National Amalcol Factory, Liverpool, 12 June 1918, 7-13
4. IWM Box 149/19, Welfare Organiser's Report, National Projectile Factory at Lancaster, 13 February 1919, 10
5. IWM Box 149/18.9, National Ordnance Factories, Leeds, Report on work done for expectant mothers, 1918, 2-6. The above example was also cited in BMJ, Sept 1918, 309-10, 'Expectant Mothers in a Munitions Factory'. See also National Council for Public Morals, Problems of Population (1920), 135 ff. Evidence of Miss A G Phillips, Director of the Maternity Sub-Section of the Ministry of Munitions
6. National Union of Women Workers, Annual Conference, 1915, 64. 600 centres were said to be in existence taking care of 60,000 babies. The North Kensington Clinic and the Bradford scheme, which were municipally financed were some of the best known establishments

activity during the war. Loss of life on the front made the welfare of children particularly important and a high premium was put on their well-being because it was intimately connected with the well-being of the community as a whole.

The war has made infant welfare more important than ever. Infant life has risen in value owing to the immense waste of life going on at the front. It is therefore of paramount importance to take measures to ensure that the children born are brought up in the most healthy way.¹

In 1917 a National Baby Week was launched to promote the interests of children and encourage local authorities to provide better welfare facilities.² Therefore, while women's health and welfare became the subject of study, investigation and even concern because of their unprecedented importance in the labour force, the health of children also assumed a parallel importance as the vital link in the future development of the 'Race'.

Working women's health - the evidence of the war period

It was commonly observed during the war that despite the fatigue of war work and the disorganised conditions of life, especially for women who shouldered the added burden of the household, the nation's health in general and women's health in particular showed a marked improvement. The most obvious contributing factor to this better state of affairs was the regularity and rise in wages. The National Industrial Conference Board reported in 1917 as follows:

After the extremely long work-week early in the war was somewhat shortened, the health of British munition workers was surprisingly well maintained under work schedules that were still unusually long ... The same hours under low wages with no special incentive might have given widely different results.³

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1. Woolwich Pioneer, 8 October 1915
 2. Ibid., 27 April 1917, 2
 3. National Industrial Conference Board (US), Memorandum No 2, Analysis of British Wartime Reports on Hours of Work as related to Output and Fatigue, November 1917, 5

The fact that women's health improved was also widely remarked on. In her evidence to the War Cabinet Committee Dr Janet Campbell asserted that prior to the war malnutrition had been one of the main causes of ill health, anaemia and stunted physique among younger women:

The average wages earned by women before the war made it impossible for them to procure good and substantial food; their diet besides being less in quantity, was less satisfactory in quality than the diet of men in their own position ... Where the wages are insufficient the needs of the father as bread winner almost necessarily come first, those of the children next, the mother's last. Thus we have a large population of under nourished girls and women.¹

Clementina Black - President of the Women's Industrial Council and a leader of the Anti-Sweating League - stated in her evidence to the War Cabinet Committee the unwritten law of working class life where the principal bread winner had to be kept at peak efficiency: 'It is almost a universal rule ... that the father is best fed, the boys next, the girls next and the mother always last'. She concluded that this was the reason why 'girls do come in poorer physical condition than the boys'.² According to Miss Black, lost time was often caused by under-nourishment and quoted the example of women post office workers among whom absenteeism was greater than men's until 'women began to eat solid mid-day meals which they had not done before and ... from that time on their absence owing to sickness diminished markedly'.³

Dr Campbell contrasted favourably the improved health of women workers during the war period, despite the hard work and energy drain:

It may confidently be asserted that if similar demands had been made upon women working under pre-war factory conditions they could not have been met to the same extent, if indeed they were met at all, without causing an immensely greater amount of fatigue and permanent injury to the health of women and girl workers ... As it was ... in many cases their health improved rather than deteriorated.⁴

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1. War Cabinet Committee ... Report, Cd 135, 221
 2. War Cabinet Committee ... Verbatim minutes, IWM Box 97/Evidence of C Black and W J Barton, both representing the Women's Industrial Council, 5 October 1918, P6
 3. Ibid., P25
 4. War Cabinet Committee ... Cd 135, 238

Dr Campbell argued that a relative improvement had occurred in the standards of women's health, despite the arduous work conditions. She based her contention on the findings of the pre-war Report of the Departmental Committee on Sickness Benefit which had for the first time exposed 'an enormous amount of unsuspected sickness and disease' among women in industry who included 'a very large proportion of ill-paid and ill-fed persons'. Mary Macarthur, who was one of the witnesses to the Committee on Sickness Benefit Claims maintained that the greater incidence of sickness among women was due to 'their greater poverty ... long hours, long standing, lack of fresh air, long intervals without food ... and low wages which ... involve insufficient and often improper food'.¹

Munitions work in war time had distinct advantages in other respects over pre-war occupations. Adelaide Anderson - Principal Lady Factory Inspector - remarked in general terms that women shell makers compared their war time jobs favourably to their pre-war occupations in the cotton trade. As a rule even heavy labouring jobs were no more arduous than many pre-war employments.

1. Report of the Departmental Committee on Sickness Benefit Claims under the National Insurance Act, Cd 7687, 1914, quoted by Dr Campbell in her appendix to the War Cabinet Committee..Cd 135, 226. It is of some interest to note that the Charity Organisation Review related the greater incidence of sickness among women to the fact that 'domestic servants of the poorer class seize the opportunity to obtain certificates of incapacity to go to their homes for quite lengthy periods of rest and change'. The Review also commented that women claimed sickness benefit more frequently because 'sick pay bears a larger proportion to the average earnings of a woman than it does to the average earnings of a man'. See Charity Organisation Review, February 1915, 88

None of these except possibly the scaling of boilers, appear to be heavier or more laborious, however, than work done long years before by women in tin plate works, fire proof brick works, in timber yards or galvanising works.¹

Even though hours may have been extremely long, full employment and regular income contributed to a general reduction of sickness among the working population in general. Family incomes were augmented by separation allowances. These payments to married women whose husbands were in the armed forces guaranteed them and their children a basic minimum which ranged from 12/6 for a childless woman and 19/6 for a woman with one child to 31/- for a woman with four children.² Mr H C Barker, superintendent at the London Hospital, who recorded statistics for out patients from 1908-18 confirmed that this was so. He related the rise and fall of monthly attendances at the out-patients clinic and found that the highest level of unemployment coincided with the highest attendance figure in 1908, which fell to almost half in 1915 when regular employment was available.³

The maintenance of the labour force in relative good health, despite the long hours, the transport difficulties and the food shortages was very directly connected with the better health care and welfare extended to the workforce. Generally speaking, the greater awareness of the vital factor of industrial efficiency received not only more attention from Government Departments but also from productivity conscious industrialists.

The stimulus given by the war to industrial research and preventive medicine, the inevitable union between welfare and health and the relation of both to output and to the general prosperity of the nation, were brought out with remarkable force.⁴

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1. A M Anderson, Women in the Factory, 231, 233
 2. This was a scheme to which the husband contributed at the rate of 3/6 per week. See Carter, op. cit., 88
 3. T Loveday 'The causes and conditions of lost time',
(US) Bulletin of the Bureau of Labor Statistics, No 230, 70
 4. IWM Box 149/18.9, Welfare section of the Ministry, Report on work in the National Factories, 1919, 4. See also Mun 5/92/346/7, Memorandum by Sir George Newman - Chairman of the Health of Munitions Workers Committee - who emphasised the preservation of health in the interests of output

Managers came to realise that 'good output was the corollary to welfare methods'.¹ System - a magazine of management - enjoined its readers to follow the advice proffered by the Welfare Department.

Quite shrewdly where concessions as to overtime are allowed the opportunity was taken to enforce special conditions which operate where women are employed ... Employers want regular attendance and on the part of women, a maintained output. It is found that if they are kept in good health and high spirits these can be obtained.²

The writer of the article then proceeded to recommend the installation of cooking, heating and welfare facilities and to advocate the expediency of judicious pauses during the woman's working day. The maximum uninterrupted work spell designed to produce optimum results was 4½ hours, at the end of which a break of half an hour was required.³

Cassiers Engineering Monthly favoured a similar system:

Prudent engineers in introducing or extending the employment of women at the same time introduce such conditions by which their services give the best results ... Provision of aptly calculated spells of rest during work, of some degree of comfort in the periods between working hours, of convenience for meals ... all influence the output as well as the health and temper of the workers ... and according to the experience already recorded ... their cost will be rapidly repaid by the actual improvement in production.⁴

Memorandum L30 issued by the Labour Department of the Ministry gave detailed instruction on how to get the best results from women workers and managers took up the advice offered.

We had occasion some time ago to put some women on machines previously operated by men. The men had always stood up to the machines all day ... consequently the women had also to stand and without realising the cause themselves, grew thoroughly exhausted ... As an experiment the machines were rearranged and seats provided for occasional resting. The improvement in output was undeniable.⁵

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1. Ibid., 2
 2. System, June 1918, 432, 'Greater Output with Women'
 3. Ibid., 432
 4. Cassiers Engineering Monthly, July-December 1917, 149
 5. System, April 1917, 251, quoting 'a manager from the Midlands'

The provision of stools was indeed a feature of war time munitions work and contemporary photographs, such as those in the Dilution of Labour Bulletin, frequently show women sitting on high stools specially designed for boring machines. The rhythm of work was also said to be an important factor in productivity:

Do not expect the girls to work a fever heat. Recommend a steady quiet pace which can be maintained ... The physique of girls varies very considerably and after a time you will find that each girl will adopt a rhythm and method to suit her individual capacity.¹

According to Adelaide Anderson, failure in the successful employment of women was rarely due to 'insufficient care or understanding in adapting and organising to women's needs the conditions and methods of work'.² Women themselves became more aware of the value of their own health and complained more frequently about deficiencies in safety and sanitation.³ Mary Macarthur reported that women resented medical examinations on the grounds that they were too perfunctory and demanded the continuation of the school medical system in factories to be run on a regular and professional basis.⁴ While a rigorous and regular medical care for women in factories was still unknown, some progress was made during the war in acknowledging the importance of preventive medicine. At the Scottish Filling Factory in Georgetown, a system of medical examination for women job applicants was instituted, although it was only of a superficial nature especially in periods of labour scarcity.⁵ At the National Amatol Factory at Aintree the weekly medical consisted of letting the workers file out while 'The factory police control them and take the number of any worker who does not appear to be in his or her normal health and any such workers have to see me afterwards in the Ambulance room'.⁶ Some medical practice was

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1. Ibid.
 2. H.O. Factories and Workshops Annual Report for 1917, Cd 9108, 'Extent and Effect of Substitution of Women and Girls in Industry', by A M Anderson, 10.
 3. Ibid., 11
 4. War Cabinet Committee ... Verbatim minutes, IWM Box 97/ Mary Macarthur's evidence, 4 October 1918, K37
 5. M.H. Official History of the Scottish Filling Factory, 179
 6. IWM Box 150/26, Report of Welfare Officer at the National Amatol Factory, Aintree, December 1918, 4

still barbaric; if teeth were decayed they were summarily extracted.¹ Some of the medical theories being applied were still primitive and others verged on the absurd. Decaying teeth, for example, were considered a likely cause for every imaginable type of disease, as the quotations below from what was intended as an entirely serious book show.

The effects of bad teeth are numerous. One of the worst is indigestion from insufficient mastication, another is anaemia from poisoning of the stomach and subsequently the blood by toxins given off from septic teeth and constantly swallowed.²

Decayed teeth are often tubercular ... such teeth often infect tonsils which in turn infect the glands of the neck whence infection readily spreads to the apex of the lung.³

By a sudden reversal of pre-war criteria (see Chapter 1) outdoor work was being recommended for women; even heavy work in iron and steel works and brickyards was being advocated for its invigorating good health.⁴

Outlandish health theories apart, there is no reason to doubt the veracity of the statement of one welfare supervisor, because it is borne by much other evidence already quoted. This particular superintendent found that women workers' health was often very poor on arrival at the factory but improved in suitable conditions and with a nourishing diet. Her description of the physical condition of the women is plausible because it was also confirmed by Dr Campbell's and Mary Macarthur's evidence quoted on pages 253-5 .

Our usual type of worker is the city type - undersized, badly developed with very bad teeth and often anaemic. About 50% are married ... In spite of these drawbacks after about six weeks' work, and hard work too, if they have the grit to stick it they become more robust. I consider this improvement is due to healthy exercise - well disciplined work, good and abundant cheap food, which they can get in the canteen.⁵

1. Ibid., 2. The Ministry reported with macabre pride that the dentist at the Hereford National Filling Factory was pulling out 1200 teeth per month in March 1918. See MM, Vol V, part 3, 83. This cheap alternative to cure persisted of course until the most recent times
2. B Webb (not Beatrice Webb), Health of Working Girls (1917) 21
3. Ibid., 48. This writer's pet remedy for most of these ills was the chewing of each mouthful 30 times like the late Mr Gladstone - 'no doubt a factor in his longevity'
4. H.O., Factories and Workshops Annual Report for 1917, 13
5. IWM Box 150/26, Welfare Officer's Report for National Amatol Factory, Aintree, December 1918, 2

The crucial factor in women's improved health was undoubtedly the improved diet but the introduction of some form of surgery facilities or first aid rooms must also have been important. Many war time photographs show, for instance, first aid rooms with a nurse bandaging a foot or examining a finger while another patient was taking a rest on the couch. At Renold Chains, Manchester, a doctor paid fortnightly visits to the factory and examined those workers who were feeling faint or unwell.¹ Medicines were dispensed, to those that needed them, at the National Amatol Factory in Aintree.² The Raleigh Cycle Factory in Nottingham was reported to have saved 32,000 working hours in three months through the treatment of 4000 cases in its ambulance room.³

Occupational hazards such as TNT poisoning constituted a different and more serious category of disease and were treated with greater care than the common run of preventive medicine. TNT, a high explosive substance, was being handled by about 50,000 workers at any one time during the war.⁴ It had been comparatively unknown before 1914 and its possible toxic effects were at first underestimated. Even more serious was the fact that its detrimental results sometimes appeared well after the workers had ceased to have any contact with it. During the first two years of the war fatalities due to TNT poisoning were frequent and as a result a Joint Committee was appointed by the Home Office and the Ministry to investigate its dangers and prevent their occurrence. The Committee laid down compulsory regulations for the employment of workers on TNT production, which included clauses about cleanliness, ventilation, washing facilities, the provision of free milk, special uniform and the presence of a full

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1. Documents made available by Renold Ltd., Wythenshawe. Extract from Employment minute 16 May 1917. Regular medical supervision by qualified doctors was impracticable because of the general shortage of doctors. See MM, Vol V, part 3, 68
 2. IWM Box 150/26, Welfare Officer's Report for National Amatol Factory, Aintree, December 1918
 3. Yorkshire Factory Times, 20 September 1917, 8
 4. MM, Vol V, part 3, 69

time medical officer in any works employing 2000 or more workers. Wherever possible a rota system was to be implemented for employees and where possible mechanical devices were to be substituted for the manual handling of the material.¹ As a result of the precautions taken the number of deaths declined as the war went on but the total was not negligible.

Table 28. Incidence of TNT poisoning 1916-1918.²

	<u>illness due to TNT</u>	<u>deaths due to TNT</u>
1916	181	52
1917	189	44
1918	34	10
Total	404	106

The hardships of those struck down by TNT poisoning were of course much greater than this bare account of prevention and cure would suggest. 'Jenny' or Rhosina Whyatt,³ became infected by TNT sometime in 1916, in the course of her work in the 'spinning room' in a munitions factory where she was engaged in testing the springs of fuses. This work caused the spread of dust and chemicals in the air and resulted in the skin of the workers turning yellow; as a result they were commonly known as 'canaries'. This was not all however. 'Jenny's' face, neck and hands swelled up so much that she could not see or walk and had to be bandaged from head to foot. It took weeks and a special diet to cure the swelling and the sceptic, open wounds. Ultimately Jenny had to leave her own factory and TNT work. In her next place of work she met women who were suffering from another type of poisoning caused by the manufacture of 'black powder' which made their skins black and who were therefore known as 'blackbirds'. Occupational health hazards were a particular feature of war work involving chemicals. Arsenic poisoning, anthrax and a revival of phosphorus poisoning

1. Ibid., 73

2. Ibid., 74

3. Tape recording made available by Richard Hyman, 5-6

were dangers to be reckoned with.¹ In 1919 the Factory Inspectors published for the first time statistics relating to the incidence of poisoning by lead, phosphorus, arsenic and mercury and of anthrax. The years covered were 1900-1918 and the cases reported did not differentiate between men and women but the Report showed a gradual diminution of both the incidence of illness and of fatalities from 1915-17 and a dramatic fall by 1918 in cases of lead poisoning and toxic jaundice.² However, where the working conditions were particularly geared to this type of work, the hazards were fewer. In Gretna for instance, where sulphuric acid was being manufactured, the buildings were modern, spacious, and well ventilated and were said to make for safe conditions.³ The hazards of working in chemicals, however, were real enough for some women, who consequently refused to do work involving the danger of dermatitis, and declared 'we are not labour conscripts, we are volunteers'.⁴ Protective clothing, masks, goggles and special footwear were not always practicable and sometimes insufficient to stem infection.⁵ Other unavoidable accidents continued. Fingers were lost and hair caught in a flywheel was an occasional hazard.⁶ In order to protect women against such accidents much effort was spent on the design of protective clothing and headgear. Trousers and dungarees were introduced. It was reported in one case that at first women were 'self-conscious, for there were a couple of thousand other females who were in orthodox attire employed in the same huge works. But now the positions have been reversed to such an extent that the wearing of skirts and not trousers would cause surprise'.⁷

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1. H A Mess, Factory Legislation and its Administration (1926) 130
 2. H.O., Factories and Workshops Annual Report for 1919, Cmd 941, 1920, 65, Table 1
 3. IWM Box 147/13, Report on HM Factory at Gretna, 31
 4. Woolwich Pioneer, 16 February 1917, 5
 5. Tape recording made available by Richard Hyman, 6
 6. *Ibid.*, 10
 7. J R Clegg, 'The Makers of Munitions', Millgate Monthly, August 1918 580

Resistance to headgear, which mostly consisted of a loose bonnet held in position by a band, seems however to have persisted. Photographs of women on the shop floor often show that those who were not engaged on work involving automatically moving machinery preferred to do without their bonnets. Indeed, dispensing with headgear may have been evidence of a higher status.¹ In any case accidents could not always be prevented by protective clothing. Industrial accidents rose in proportion to fatigue. At Renolds more accidents occurred during the night shift than the day shift and fell sharply when a full week end rest was taken.² At the National Fuse Factory at Tipton, which employed 2000 women, accidents were linked to the hours of maximum output of 11 a.m. - 3-4 p.m.³ The total number of deaths among working women reported by the Home Office for the war period was 289.⁴ Explosions took their toll; 35 women perished one night in 1916 at the Barnbow National Shell Factory, Leeds.

Another verifiably injurious aspect of the increased number of women industrial workers was the rise in the incidence of TB. The number of fatal cases rose from 1154 per million in 1913 to 1234 per million in 1916.⁵ This rise applied particularly to women under forty-five and affected urban women more than those in the country. In contrast, during the years before the war, urban women were less prone to the disease than urban men. Dr Campbell concluded from this that:

The improved conditions and amenities ... have not been sufficient to prevent women acquiring and developing the disease and indeed have possibly assisted physically unfit women to continue to work longer than was desirable.⁶

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1. Photographs supplied by Renold Ltd., Wythenshawe
 2. Renold Ltd., documents. First aid report for second half of 1916. Graph shows accidents for the whole year
 3. IWM Box 149/19, Report on the National Fuse Factory at Tipton, 2
 4. IWM Box 150/34.2
 5. War Cabinet Committee ... Cd 135, ... , 227
 6. Ibid., 228

While the purpose of curtailing public hours was not the preservation of public health but the maintenance of uninterrupted and efficient output, the liquor regulations appear to have had a beneficial effect on women's and men's health alike. The war years witnessed a reduction of deaths among women from alcoholism and of fatal cases of cirrhosis of the liver. Whether the decline in the numbers of deaths from alcoholism could be directly and solely linked to the Liquor regulations would seem doubtful especially as the number of deaths among women from this cause was already on the decline in 1914. Nevertheless the decline in the number of fatal cases from both causes was quite remarkable as the Table below shows.

Table 29. Deaths from Alcoholic Diseases and Cirrhosis of the Liver 1913-1917.¹

	<u>Deaths certified as due to or connected with alcoholism (excl. cirrhosis of the liver)</u>		<u>Deaths certified as due to cirrhosis of the liver</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
1913	1112	719	2215	1665
1914	1136	680	2226	1773
1915	867	584	2107	1525
1916	620	333	1823	1163
1917	358	222	1475	808

1. Central Control Board (Liquor Traffic) Fourth Report, Cd 9055, 1918 25, from Table IV

CHAPTER 7

WELFARE AND SOCIAL CONTROL;

THE EXPERIENCE OF MUNITIONS WORK

The influx of women into munitions during the war gave rise to an unprecedented scale of Government and business organisation and control. Wages, as described in Chapter 5 were negotiated at a national level and controlled by the Government; technical training required Government participation. The great number of women recruits to new jobs opened the way for a vast new area of Government intervention which included mobilisation and recruitment, accommodation, health, nutrition, recreation and even a policy of care for dependents, as described in Chapter 6. The new activities of Government Departments were necessitated by the establishment of new munition centres, by the migration of labour into the new centres and by the overriding need to maintain this new labour force at peak efficiency. No recorded migration by women of comparable proportions within such a short space of time had ever before taken place. An unprecedented effort was therefore made to provide facilities, commonly described as welfare facilities, for this new labour force. This Government effort contrasted sharply with the pre-war policy of maintaining regulation at a minimal level of factory legislation while it was left to a few well meaning employers to break new paths in that direction. For the duration of the war the Government adopted the mantle of paternalism by emulating the good works of the Cadbury family at Bournville and the Lever Brothers at Port Sunlight, while retaining a shrewd awareness of the

central aim of the welfare provisions. Miss C V Butler - author of the welfare and wages sections of the Ministry's History - maintained that welfare work stood 'for the recognition of the human needs of labour' and was a 'movement towards efficient management'.¹ At the same time G I H Lloyd - co-ordinator of the History - writing to Wolfe acknowledged openly the nature and purpose of war time labour regulation and control:

It does not seem possible to write anything worth calling a history without envisaging labour administration as primarily concerned with the restriction of the normal liberties of labour ... and the limitation of civil liberty.²

In the case of women, it was less a question of the loss of rights, since women had never acquired the equivalent of men's job control, than the curtailment of liberties they might have gained in their new job situations and encroachments on spheres of work and leisure which men never had to sustain. It was part of the Government's campaign in regard to women's welfare not only to establish new practices in Government establishments but propagate their adoption in all business establishments. Better working conditions became a part of the shrewd businessman's philosophy and the expediency of improved facilities proved its worth. The services provided, however, an opportunity to exercise an insidious degree of control over women workers which was never applied to men.

The philosophy of management during the war included an unambiguous concern for the management of women's lives within the factory as well as outside it. Women were regarded as incompetent in protecting their own health; their neglect of a reasonably balanced diet, for example, was looked upon as a result of ignorance rather than a lack of financial resources. This unfortunate state of affairs now came under the scrutiny of welfare workers and social reformers:

1. Mun 5/321 B/2/41, Memorandum by Miss C V Butler in presenting her scheme for the welfare section of the Ministry's history
2. Mun 5/328, Letter from G I H Lloyd to Wolfe, 11 January 1919. Wolfe had criticised the draft history as being partisan and complained that 'neither Beveridge nor I figure anywhere at all'. His main criticism was that the history had been written by a partisan of labour.

Women are habitually less thoughtful than men in matters concerning their own health and a mixture of mock modesty and ignorance commonly prevents them from consciously considering themselves as potential mothers. Whatever changes may occur, the health of women workers must needs be of paramount importance to the nation.¹

However, a woman's physical health was not the only part of her life that came within the orbit of scrutiny. Her mode of life and her leisure activity was also considered a legitimate area of the employer's concern. The following is a fair sample of attitudes in regard to women workers which had no counterpart in the approach of managers towards male labour:

When she first enters a factory, the average girl is peculiarly helpless and almost lacking in resource ... She is scarcely worth the meagre wage the beginner or untrained worker commands ... To foster ... every right kind of activity and systematically to discourage and circumvent every unwholesome interest and feature outside of working hours no less than within is the only sound policy, especially where female labour is largely used. Women are more susceptible than men to outside influences which enormously react upon the ability of the producer to give the best that is in her.²

The concern of good management went well beyond the factory floor and extended to such personal aspects of women's life as dress and behaviour.

False idea of dress and conduct are gently but firmly discouraged ... the great force of shop opinion is enlisted in the task of moulding workers aright.³

While male workers were assessed in terms of being trouble-makers or co-operative employees, women were looked on as being 'more tractable than their brothers',⁴ but in need of moral guidance. It was thought desirable to get 'the quieter, more refined girls [to come] in contact with the rowdier elements'.⁵ While being regarded as more malleable, they were also considered as more susceptible to and requiring stricter control. By contrast labour regulation during the war in the case of men was confined to

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1. E D Proud, Welfare Work: employers' experiments for improving working conditions in factories (1916) 78. Miss Proud was assistant to Seebohm Rowntree in the Welfare Department of the Ministry
 2. Stanley J Woodward, 'The Training of Women Employees', System, May 1915, 355
 3. Ibid., 359
 4. Ibid., 356
 5. C Chisholm, 'Interesting Women in Factory Work', System, April, 1916, 253

the Munitions Acts, which restricted movement and prohibited industrial unrest. The only other attempts to ensure good time-keeping were restrictions on drinking hours and sporadic attempts to restrict diversions such as racing or fairs but these were never enforced with any degree of energy.

An instance of this was in the North-East Armaments Committee's suggestion in 1915 that racing at Blaydon and the publication of Irish racing news be suspended in order to avoid loss of working time.¹ Investigating Officers of the Labour Regulation Department were instructed that fairs could be prohibited if they 'impede or delay the production, repair or transport of war material. There is no power to prohibit fairs on grounds of lighting restrictions nor public morality'.² However, neither fairs nor racing were ever forbidden in any systematic way. Men's leisure time activities and conduct, except for drinking hours were never considered a proper subject for outside control. In the case of women, all aspects of their behaviour came within the realm of discussion, criticism or approval and sometimes repressive action. Women's conduct came within the realm of what was thought to be the legitimate province and interest of employers. The notion of 'conduct' was important as a separate qualification for work, within a general spectrum of other employment qualifications.

Women, as a class of workers, irrespective of their actual age were in some ways regarded as juveniles. While the new provisions for housing, feeding and child care were wholly explicable in terms of the new exigencies caused by the large scale recruitment of women into munitions, the concern for their non-material welfare went well beyond the bounds of necessity. For instance the Health of Munitions Workers Committee laid down in 1917 a system of organised billeting for women 'to protect them from drifting into unsuitable surroundings'. The Committee also recommended the provision of

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1. Mun 5/9/173/5, Minute book of the North East Armaments Committee, 28 May 1916. Two race meetings were prohibited at Whitsuntide 1916 in the Birmingham area. See Mun 2/27, 10 June 1916, 7
 2. Mun 5/79/340/1, Instruction to Investigating Officers, 1917, 7

'wholesome amusement' and a more generalised system of 'moral' supervision.¹

None of these recommendations were ever suggested in the case of men:

If opportunities of wholesome amusements are not provided, the public houses and less desirable places of entertainment may benefit but everyone else suffers.

Just as in university towns there are proctors and in military centres there are military police, so where large numbers of women and girls are assembled for munition work women police and patrols are desirable.²

The function of women police and patrols who were appointed to supervise general conduct outside the factory will be described in a later section of this chapter; the point to be made here however is that 'conduct' was an important consideration on the factory floor. In the case of women being directed to jobs in areas other than their own, it was recommended by the Committee that 'only normally healthy, clean and wholesome minded women and girls should be exported ... In some instances women of bad character have been associated in lodgings and hostels with respectable women and girls'.³

The criteria of 'conduct', 'respectability' and 'wholesomeness' were used to sift out female job applicants - again criteria never used in the case of men. It was a method which was by no means confined to the private munitions sector but was an accepted rule in the recruiting offices of labour exchanges, which came to play an increasingly important role during the war time direction of labour. Palmer's Shipyard reported in 1918 that recruitment through labour exchanges 'did a great deal to keep out the absolutely undesirables as these women are not fond of investigations that are made with regard to their mode of life when they apply for work to exchanges'.⁴

The work of labour exchanges in keeping out 'undesirables' was supplemented by the firms' individual screening routines, where the traditional practice of

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1. Health of Munitions Workers Committee, Memorandum No 17, 1917. 'Health and Welfare of Munition Workers outside the Factory', 4. This memorandum was not published. See MM Vol V, part 3, 52, footnote
 2. Health of Munitions Workers Committee, Memo. No 17, op cit, 4
 3. Ibid., 4
 4. IWM 150/35.3, Palmer's Co., Jarrow, Shipbuilders, report on the war experience in employing women, 9 July 1918, 1

allowing foremen to engage labour was replaced by new methods of personnel management. At Armstrong Whitworth, the Female Labour Bureau took over the function of hiring and firing:

It was felt that many undesirable characters had been taken on in the Works, who caused deterioration amongst other workers ... the old plan of allowing the foremen to engage their own female employees must be changed in view of the large number of female hands that would inevitably be wanted. It was therefore decided to inaugurate a female labour employment section.¹

While the foremen applied one set of criteria in engaging or excluding women, the employment exchange and personnel manager applied another. The introduction of a new ingredient into management - the welfare superintendent or personnel manager - gradually paved the way for an important innovation. It spelt the end of one of the foremen's traditional functions and extended perceptibly the area of management control. E T Elbourne pointed out in a book published in 1919 that from the management's point of view it was desirable to extend control over the foreman's role of engaging and dismissing labour. 'Foremen were allowed to recommend men but this practice was discontinued as it proved unsatisfactory.'² In the case of women a Lady Manager was appointed to control women workers and foremen who were in charge of women.³ The Lady Managers, also known as Welfare Superintendents or Officers, were therefore destined to become agents of encroachment in areas where a degree of ambiguous power still rested with labour. Whether this new development was part of a grand design of management control is not in question here; it is a fact, however, that the welfare or personnel functions of management enabled them to extend their control over this particular sphere.

The minutiae of women's behaviour and appearance could be counted against them while their general suitability for a job might never have been questioned. One contemporary writer quoted with approval an interview of a heavily made-up girl and the superintendent:

1. IWM Box 150/24, Armstrong Whitworth and Co., Female Labour Bureau report, 24 July 1918, 1. The Bureau was set up in April 1915
2. E T Elbourne, The Management Problem (1919) 32
3. Ibid., 44

You couldn't work ... I don't think you would be a bad looking girl if you hadn't such a dirty face ... all that red stuff and then that hat ... Awful. Go and take it off and have a wash and then perhaps we can do something.¹

It is hardly conceivable that any personnel manager would have commented in a similar way on the appearance of a male applicant for the job. The introduction of welfare supervision facilitated the extension of scrutiny and the imposition of standards conceived by management which had little or nothing to do with work fitness or skills of the women applicants.

It is in the context of this extension of social discipline among women that welfare work, one of the most important and ambiguous war time innovations in industrial life, should be examined. Welfare work, whose main function was to provide better work amenities was theoretically modelled on examples of late 19th century 'paternalistic' factory care provided by the Cadburys and the Rowntrees and even on the earlier precedent of Owenism. Asa Briggs, in his biography of Seebohm Rowntree, stressed that the idealistic notion of 'business as a trust'² was allied to the hard-headed purpose of linking welfare provisions to business efficiency.³ The Taylorist philosophy of more efficient work organisation which included the provision of better welfare facilities impressed Rowntree by its good business sense.⁴ In the USA where Taylorist practice allied to welfare provisions had a much longer history, observers reported even before the war 'increased vigour and efficiency' as a result of such simple and cheap innovations as physical drill at the factory bench.⁵ Rowntree himself, who became the head of the Ministry's Welfare Department in December 1915, laid stress not only on increased output but also on better labour relations which he hoped would be ushered in through the mediation of welfare supervisors:

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1. Hall Caine, Our Girls (1916) 69
 2. A Briggs, Social Thought and Social Action: A Study of the Work of Seebohm
 3. Ibid., 86 Rowntree 1871-1954 (1961), 107
 4. Ibid., 119
 5. Cadbury, Matheson and Shann, op. cit., 98

The services of the Welfare workers are most essential, namely in improving the relationship between capital and labour. A great deal of our low productivity at the present time is due to the fact that instead of getting on with the job we are more or less consciously in a state of hostility and tension ... Cordial co-operation should be the answer.¹

Another important aspect of welfare work was its role as a counter-vailing force to the power of the unions. Rheinhard Bendix made the point that employers introduced welfare measures to undermine the credibility of the unions as organisations which could promote individual advancement, and also in order to discredit the deep seated suspicion that 'employers were the enemies of the working man'.²

During the war the opposition of trade unionists in Britain to welfare work was based primarily on its inherent anti-union bias and its functions as controller and disciplinarian of labour, rather than its effectiveness in maximising efficiency, output and profit. The organisation of welfare departments in the large munitions factories became an ideal instrument for supervision and control of women as well as an agency for the maintenance of women's productivity and their health.

The administrative origins of welfare work

The Welfare Department of the Ministry owed its establishment in essence to the assumption, by the State, of new responsibilities in circumstances when an extraordinary effort was expected from the working population. In the words of the Ministry welfare measures 'aimed at increasing the well being and therewith the efficiency of labour, under abnormal conditions. They were also a recognition (as was the regulation of women's wages) of the duties of a Public Department to those whose labour it employed or controlled on an unprecedented scale.'³ The Department worked in co-operation with the

1. A Briggs, Social Thought... 131. This quotation comes from Seebohm Rowntree's paper to the 1917 Oxford Conference on Welfare Work
 2. R Bendix, Work and Authority in Industry, (Berkeley 1974) 273
 3. MM, Vol V, part 3, 1

Health of Munitions Workers Committee which dealt with matters of fatigue, efficiency, feeding and housing. Under the Munitions of War Act of January 1916, the Minister was empowered to direct firms to appoint Welfare superintendents or to institute welfare facilities. Compulsion, however, was not used; the aim of the Welfare Department was 'to educate rather than to compel'.¹ The only exception to this policy of 'education' was the case of TNT works where regulations were laid down by law (see Chapter 6)

This system of voluntary welfare provisions was aided by financial help from Government funds. The capital cost was usually financed from excess profits while running costs were put down as working expenses.² The first thrust of the new welfare policy was to persuade Controlled Establishments to appoint women welfare supervisors where women were employed in large numbers. The table on the following page shows the extent of personnel and facilities in Controlled Establishments in March 1917, and the extent of pledges towards future developments in that direction.

In conjunction with Factory Inspectors, welfare officers employed by the Ministry were entrusted with making arrangements for periodic visitations to Munitions Establishments. As a general rule, it was found that newly built factories provided the standard welfare requirements, while long established engineering works and shipyards lagged behind.³ The Welfare Department extended its activities in April 1916 to include the care of boys working in munitions, but in the case of men it never attempted to widen its sphere beyond the provision of canteens⁴ which, it was hoped, would provide a counterweight to the lure of drink and a compensation for the restricted drinking hours.⁵

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1. Ibid., 6
 2. Ibid., 21-22
 3. Ibid., 25
 4. Ibid., 12
 5. Ibid., 18-19

Table 30. Welfare staff in March 1917 and provision of welfare accommodation¹

Nature of Appointments.	No. of Factories in which Appointments were :—		
	Made.	Promised.	Under Discussion.
Welfare supervisors	187	19	211
Assistant supervisors	32	6	16
Supervising women or charge hands ..	142	58	153
Matrons	42	10	41
Lady doctors	2	—	—
Nurses	42	6	15
Women with first-aid qualifications ..	81	38	104
Attendants for cloakrooms, etc.	58	27	48

THE PROVISION OF WELFARE ACCOMMODATION.			
Nature of Improvements. Provision made for :—	No. of Factories in which Improvements were :—		
	Effectuated.	Promised.	Under consideration.
Washing—			
(a) new	93	51	49
(b) improved	118	108	146
Sanitary conveniences—			
(a) new	37	18	44
(b) improved	44	46	53
Cloakrooms—			
(a) new	57	46	163
(b) improved	36	34	46
Canteens (per Canteen Committee, Central Control Board) and messrooms—			
(a) new	78	64	178
(b) improved	79	76	19
Rest Ambulance Rooms—			
(a) new	73	53	105
(b) improved	17	14	18
First aid appliances	55	43	44
Seats in workrooms	24	22	59
Supplies of overalls or other protective clothing	89	50	161
Supplies of caps	92	55	154
Supplies of safer pattern caps	8	1	12
Recreation facilities	15	1	5

The Ministry attached a considerable importance to the provision of welfare facilities. The evidence for this can be judged by the abundant files in the Ministry's archives which are the main source of information on the activities of Welfare Officers who toured the country and encouraged firms to raise standards by providing information on clothing, equipment and organisation. The stress, however, was on co-operation with munitions firms and avoidance of threat or compulsion. Inspection was only carried out after consultation with the firms and conditional on permission being granted.² By the end of the war considerable progress had been made in

1. Ibid., 10

2. Mun 5/93/346/116, Memorandum to Welfare Officers, 3 May 1917

providing facilities for women munition workers. It was in regard to women, and not boys, that welfare supervision had made the biggest strides. By the end of the war the number of women's welfare supervisors stood at about 1000¹ while boys' supervisors totalled only 275.²

Who were these lady superintendents and what were their qualifications for the job ?

During the period under discussion there was no organised system of training. Some ad hoc courses were organised at the London School of Economics,³ some others were set up jointly by the Federated Women's Settlements, the YWCA and the Munition Workers Welfare Committee.⁴ In 1916 however Adelaide Anderson remarked on the lack of qualified women to take on the work of supervision.⁵ Rose Squire noted that 'The Ministry of Munitions had a staff of untrained and industrially inexperienced women welfare officers who were enlisted from various callings and professions'.⁶ The absence of recognised professional qualifications and training led the organisers to tap the first available source of uncommitted labour which bore the correct stamp and social class - the wives and relatives of managers who were able and willing to undertake their share of war work.

At Armstrong Whitworth works in Newcastle, it was the wives of directors who first ran the Labour Bureau and the Girls' Club, prior to the appointment of a paid Welfare Supervisor - Miss E B Jayne.⁷ Quite apart from the

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1. MM, Vol V, part 3, 37. Some of these were picked from the Ministry's panel of welfare officers, others were appointed by individual firms, see Mun 5/53/300/98, Circular by W S Churchill on welfare, 27 March 1918
 2. MM, Vol V, part 3, 42
 3. A Briggs, Social Thought ..., 123
 4. IWM Box 149/18.9, 'Course of Training for Welfare Supervisors'. The course lasted six weeks and provided training for twelve women at a time
 5. H.O., Annual Report of the Chief Inspector of Factories for 1916, Cd 8570, 'Effect of the Third Year of the War on the Industrial Employment of Women and Girls' by A M Anderson, 10
 6. Rose E Squire, op. cit., 180
 7. IWM Box 150, A resumé of welfare work at Armstrong Whitworth, Elswick Works, Newcastle, 1919, 4. The ladies involved included Mrs Marjoribanks - the wife of the President of the National Employers' Federations, Mrs Brackenbury and Mrs MacGuckin

fact that these ladies were free to be involved in this type of work they possessed, through the mere fact of their social standing, the correct attributes of class which enabled them to wield authority in a more confident manner than their social inferiors. Rowntree described this authority as 'seldom asserted and seldom challenged'.¹ The fact that in time the pressure of necessity dictated that recruitment take place from outside this narrow social sphere, did not invalidate the perspective of the original model. Professor Mantoux, the well known economic historian for instance, enunciated the belief that welfare supervisors should be 'ladies very carefully selected for the post, of good social standing, high educational qualification and wherever possible expert knowledge of working class life and conditions'.² Miss E D Proud - principal woman representative in the Ministry's Welfare Department and second in command to Rowntree - was in favour of voluntary appointees to supervision jobs because 'their interests are broader'.³ Hilda Martindale - Senior Lady Inspector of Factories who was, of course, a professional in her job - also nurtured the hope that welfare would somehow become an extension of the employer's moral duty if his wife were recruited to help.

More and more I am persuaded of the value of a woman's insight in arranging for the welfare of the workers and I ... find myself wishing that the employer's wife would also inspect it.⁴

By the time the war came to an end employers' wives were playing an insignificant role in welfare work as a whole. Among the best known welfare superintendents were new recruits from business or women's professions who were dedicated managers to the core. Lilian Barker - Superintendent at Woolwich - had been a teacher and nurse; Miss Jayne - Superintendent at Armstrong Whitworth, Elswick, had already made her career as a business woman in a laundry firm.⁵

1. Yorkshire Factory Times, 17 August 1916, 3, 'Welfare Supervisors and their Duties' by S Rowntree
2. Mun 5/92/346/15, Memorandum by Professor Mantoux, 15 February 1916, 2
3. IWM Box 148/18.3-4, Minutes of the Committee for the organisation of women's services, 28 November 1916, 29. This statement is all the more surprising since Miss Proud herself - an Australian by origin - was a trained social worker and a graduate of the LSE
4. Hilda Martindale quoted by E D Proud, op. cit., 66
5. IWM Box 150/, A resumé of welfare work at Armstrong Whitworth,

Supervisors' assistants, next on the rung of the professional ladder, had previously been associated with the more genteel women's occupations. In Woolwich for example, the thirty-one members of Miss Barker's staff stated their previous occupations as follows:¹

5 office workers
 1 welfare worker
 2 nurses
 8 not employed previously
 1 administrator
 2 students
 8 teachers and lecturers
 1 member of the medical profession
 1 artist
 1 voluntary worker
 1 organiser

31 total

At Armstrong Whitworth, the assistants to Miss Jayne had mostly been employed in the nursing and teaching professions and some even had university degrees.² The Lady Superintendent at the Explosives Factory at Gretna (14,500 women), reported that her assistants were educated women, trained for supervision work, who by the end of the war numbered seventy-nine, exclusive of hostel matrons and the like.³ While one tends to doubt the assertion that the supervisors at Gretna were qualified for the job, Gretna which was a National Factory was clearly not an establishment where supervisory staff could be recruited from among the wives of benevolent employers. It is evident that the job of supervision was a new women's occupation which provided opportunities for a new class of women in low managerial positions. Within a short period, therefore, welfare supervisors assumed a different persona and role from the one originally assigned to them. They became paid, though badly paid,⁴ agents of management with duties which went considerably beyond the original one of coaxing management into providing cloakrooms, canteens and first aid rooms.

1. IWM Box 148/29, Welfare at Woolwich Arsenal, Superintendent's report
2. IWM Box 150/, A resumé of welfare/at ^{wor}Armstrong Whitworth, 14
3. IWM Box 147/1, Report on Explosives Factory at Gretna, 1
4. IWM Box 149/19, Reports on welfare management in national projectile and shell factories. Welfare supervisors' salaries were said to average £2-3, per week. Some were paid £4, but this was exceptional. The salary of Miss A Borthwick who was in sole charge of the Scottish Filling Factory at Georgetown with 4,000 employees was paid £225 p.a., see IWM Box 147/13

Miss Eleanor Kelly, who celebrated her 89th birthday in 1973, was a founder member of the Institute of Personnel Management. She described her first welfare appointment in 1905 at the works of a Carlisle manufacturer of tin boxes:

White tablecloths in the canteen were some of the first things she had to apply her energy towards. Washing facilities another ... First aid another: she remembers how two fingers and a thumb were lost during her first week in the factory and there was not even a bandage on the site.¹

Let it be said in parenthesis that white tablecloths were not a privilege granted to all workers. In some factories, the photographs of canteens for office and works 'staff' (men and women) showed small tables for six and white tablecloths, but those of the 'girls' dining room' which was a self service arrangement, showed plain wooden tables seating twelve.²

The aims and practice of welfare work

The job of the welfare workers was to supervise all that Miss Kelly described but during the war it also included duties well beyond the strict or even broad interpretation of welfare. The extension of welfare to include discipline and control of employees was not merely an accidental by-product of the general needs of women munition workers at the time. Rowntree who was, in a manner of speaking, one of the 'theoreticians' of Welfare Policy before the war, advocated at the 1917 Oxford Conference on Welfare Work 'the provision of such supervision in the factories as might be necessary to ensure a standard of behaviour such as would not offend an employee coming from a respectable home'.³ There is no doubt that welfare work was directed to raising the 'moral tone' and setting up a standard of behaviour and respectability, in the aid of greater efficiency. The Ministry's Welfare Department reported in 1918 that a firm in South Wales appointed a supervisor because 'the moral tone was extremely bad'. Thereafter, things were said to have improved. In another factory the report cited an example of 'thirty girls so rough that nothing could be done with them'.⁴

1. The Times, 17 January 1973, Business Diary Page. Miss Kelly's salary at that time was £100 p.a.

2. Photographs supplied by Renold Ltd., Wythenshawe

3. A Briggs, Social Thought, 127

4. Mun 5/93/346/131, Quarterly report on welfare, South Wales Area, January 1918

Miss Cicely Leadley Brown, MBE, who was welfare superintendent at the Dudley Projectile Factory which employed 3,000 women was reported as saying: 'My first concern was to improve the class of workers engaged ... getting rid of the undesirables was a more difficult job'.¹

Rowntree himself thought that one of the functions of welfare was to attract 'the better type of worker',² though to be fair this was not the only benefit which he hoped would derive from welfare work. He deprecated the impersonal atmosphere of the modern factory and the long hours, advocated the provision of better eating facilities and tactful ways of dealing with absenteeism.³ Absenteeism or broken time was a problem that preoccupied many a factory manager and Government Department and Rowntree devised an elaborate system of charts, visits and reprimands to deal with this particular type of breakdown in discipline. He hoped, in short, to usher in better industrial relations with all their benefits, as he saw them, to both management and workpeople. It was the very duality of such an approach, which improved factory work on the one hand and expected commensurate returns on the other, that engendered the opposition of trade unionists and workpeople. Like Taylor, Rowntree conceived of improved discipline as automatically beneficial to both management and labour:

An increase in efficiency is important not only to employers but also to the workers; for there cannot be progressive improvement in wages unless there is progressive improvement in methods of production.⁴

The quest for the maximisation of output found a useful handmaiden in the newly appointed bevy of supervisors and managers of various rank, who could watch over the work discipline as well as supervise general dress and behaviour. The duties for one 'foremistress for general welfare' were wide in scope and were listed as follows:

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1. IWM Box 149/21, Welfare Supervisors' Report on National Projectile Factories, Dudley Report, 3
 2. S Rowntree, 'Making a Success of the Woman Worker', System, June 1916, 409
 3. Ibid., 404-414, 'left to herself a woman always tends to live upon cake' was the judgment of Rowntree. This conjured up visions of working class habits not unlike those held dear by the Ancien Régime !
 4. Yorkshire Factory Times, 17 August 1916, 3, 'Welfare Supervisors and their Duties' by B S Rowntree

To see to it that there is no loitering in the WC's, to see that girls are clean and respectable, to see that helpers do their duty to machines and prevent loitering, to see spools are not overfilled and that there is no waste of twine, to see to general tidiness, to see girls return to work in proper time, to see girls keep to work till bell rings, to receive complaints covering general welfare.¹

The definition of this particular superintendent's powers, went on the record because they caused a protest strike, ^{but} were by no means unusual. At the Aisne National Projectile Factory, in Renfrew, chargehands - a category of forewomen - collaborated with the welfare department 'to report any cases of disobedience or disrespect, or undesirable conduct'.² The Cadbury works at Bournville, the pioneers in welfare innovations, went even further in instilling the work ethic and provided a pattern for other welfare enthusiasts to emulate:

Singing is allowed at definite times during the day; when well done this helps the work ... rowdy songs have to be promptly stopped as they cause too much excitement and interfere with work.³

It was at the Cadbury works too that elaborate records and reports were kept on each employee,⁴ in the interests no doubt of tighter control over the workforce which was in any case being selected with great caution. At Cadbury's job applicants were selected if possible from among members of families already employed and never from other cities.⁵ While munition works during the war could not afford to apply similar selection procedures which confined job applicants to members of one family or locality, other standards of dress and behaviour were applied as was shown. On the shop floor itself the disciplinarian efforts of welfare workers were directed to preventing loss of working time; loitering in the lavatories was, of course, an obvious target.⁶

1. Lab 2/552/IC 1484, Workers Union against Messrs Paull and Co Ltd., Somerset, makers of tent covers, February 1918. The trade unionists active in this particular instance were Matt Giles and Miss Ruby Part
2. IWM Box 149/19, Report of the Welfare Department at the Aisne National Projectile Factory, Renfrew, July 1916-December 1918
3. C Chisholm, 'Interesting Women in Factory Work', System, April 1916, 257
Close supervision was not confined to singing. Isabella Ford in an undated pamphlet probably written before the war, spoke of fines being imposed on women for looking out of windows, laughing, or going upstairs (to the lavatory?) without permission. See I O Ford, 'Industrial Women and how to Help Them', (n.d), 3.
4. System, April 1916, 259
5. Ibid., 258
6. IWM Box 150/23, Grimsby National Factory Report, 4

The presence of welfare workers with a non-working class background who had the ability to impose authority was generally helpful to the maintenance of industrial discipline. One director contrasted favourably this new body of supervisors with the former system of employing working-class forewomen who had been unable 'to control their staff'.¹

For the first time in the industrial history of the nation directors found themselves in a position to put into places of responsibility in factories and Government workshops ... educated women of ability and resource. By reason of their previous life and experience these women were well able and fitted to exercise control, to grasp the wider aspects of business life ... and tactfully to restrain unreasonable discontent. These were accomplishments which the employer had sought in his forewomen for years.²

The 'superior type' of working woman who became available for employment in munition factories during the war, was put in ^a position of authority as overlooker or assistant in management/welfare work. According to the authors of the history of the Scottish Filling Factory, social class gave them the edge of authority which ordinary forewomen did not possess:

In their favour was the decided difference in education, force of character and social position between them and their workers'. These new recruits were by habit and social position accustomed to supervising their inferiors. They contrasted favourably, according to the chroniclers of the history, with working-class women who refused posts involving additional responsibility because they were 'uncertain of their ability to control their equals'.³

While the employment of middle-class women in positions of authority may have been convenient in the short run, this policy did not always make for smooth industrial relations. The ambiguity of the functions of the supervisors, who notionally at least were supposed to be benevolent functionaries, was brought to the fore in the period of industrial unrest in 1917. The class origins of the supervisors, despite the help it provided in wielding authority proved a not unmixed blessing. The Report on Industrial Unrest commented that 'welfare workers are not always drawn from a class that really understands the needs and habits of the girls whose

1. Howard W Chivers, 'How I Made Girl Substitutes into Forewomen', System, May 1917

2. Ibid., 342

3. M.M. Official History of the Scottish Filling Factory in Georgetown,

interests they are appointed to safeguard',¹ and Woman Worker probably with good reason accused welfare supervisors of treating the workers in their charge as inferiors.² Only in rare cases were the workers themselves mobilised to supervise the administration of facilities. One such instance was cited in the 1919 Factory Inspectors' Report; a factory in Wales had adopted a workforce directed 'monitor' system 'after the rejection of a welfare supervisor'.³

In order to facilitate the supervision of inferiors by their superiors, new hierarchies were instituted among women munition workers. Monetary incentives based on collective bonus schemes (see Chapter 5) induced hard work and esprit de corps, new systems of gradation based on stripes and colours of uniform differentiated the sheep from the goats. Three stripes commanded greater respect than one or two and special uniforms singled out those lucky women who were designated as substitutes for the men and were being paid a man's wage.⁴ The point to note here is that while stripes and uniforms were common features of military organisation they were not introduced in male industrial occupations. Nor was the male worker subject to the kind of supervision of dress and behaviour which was exercised in regard to women workers. Whereas men were expected to do their jobs, women's semi-captivity in an employment situation was also used for purposes of education and character formation. The pervasive disciplinarian spirit of welfare work was used to mould women's behavioural and moral standards by setting up certain acceptable codes:

It was felt ... that the women workers of Gretna ... by the refined conditions of life and the many uplifting influences with which they were surrounded were raised to a far higher social status and were immeasurably better fitted to be citizens and home makers of the days to follow.⁵

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1. Committee of Inquiry into Industrial Unrest. Summary of Reports, Cd 8663, 1917 North-West Area, 26. Mrs Pearson, representing the Workers Union was on the Committee and other women witnesses were also called to give evidence to this Area Committee
 2. Woman Worker, December 1917, 3
 3. H.O., Factories and Workshops Annual Report for 1919, Cmd 941, 1919, 44
 4. Dilution of Labour Bulletin, February 1917, 108
 5. IWM Box 147/13, Report on Explosives Factory at Gretna

These uplifting influences included the organisation of entertainment, sport, dancing, classes for dressmaking, Red Cross work, elocution and singing.¹ Recreational clubs were founded, and Gretna was the best known example of such attempts to compensate women for their isolation from ordinary town life. It ought to be said that even in Gretna, a remarkable example of 'frontier' community life, some women were treated as more equal than others. Mr G H Duckworth - an official of the Ministry - recommended for instance that recreation centres be earmarked for 'different grades of persons' by means of a higher subscription rate at some of these and the provision of a 'different standard of decor'.²

In contrast, no welfare worker ever attempted to raise men to a higher social status or to train them to be better citizens and fathers. Labour control and regulation in regard to men was confined to preventing strikes and encouraging hard work. But for women the Committee for the Spiritual Welfare of Munition Workers was set up by the Archbishop of Canterbury to protect them from 'abnormal strain and fierce temptation'.³ Although the Committee may have exercised little real influence it was symptomatic of the attitudes held by its high-minded organisers.

Police Patrols

The disciplinarian functions of welfare workers inside munition factories were supplemented by another newly established supervisory body run by women for the control of women. Women police and women police patrols were a new feature of the social landscape which owed their existence to the lobbying of prominent suffragettes.⁴ Among the leading lights of the new women's police force were two well known suffragettes

1. IWM Box 148/29, Report by Lilian Barker on women's work at Woolwich and Woolwich Pioneer, 11 August 1916, 5
2. Mun 5/92/346/3, Memorandum by G H Duckworth on the proposals for a recreation committee at Gretna, 28 November 1916, 2
3. Rose E Squire, op cit., 185. Miss Adelaide Anderson and Rose Squire were members of the Committee.
4. M S Allen, Pioneer Policewoman (1925) 13

Damer Dawson and Nina Boyle. Police patrols, some of whom were paid employees of the police force, were organised by the National Union of Women Workers, later to become the National Council for Women. More important, however, than the origins of these two bodies were the social promptings of their organisers. M S Allen - Commandant and sub-lieutenant to Damer Dawson - sought to eliminate the undesirable bye-products of war time life, such as the 'sudden appalling increase of drunkenness among women'.¹ Policewomen and police patrols, whose powers varied substantially from district to district,² were assigned in 1916 to supervise munitions areas and munition factories.³ It was the function of such women patrols to search women workers who tended sentimentally and misguidedly to cherish unexploded shells or scraps of cordite.⁴ In co-operation with welfare superintendents the policewomen patrolled factory grounds to discourage 'immorality', prevent 'habitual loitering' or hiding from work. 'Operatives eager to strike were often induced to return quietly to their work or to bring their grievances before the superintendent.'⁵

On the whole the Ministry supported the police patrol system and approved of their work 'in preserving women from indiscreet behaviour and from the indiscretion of others'.⁶ By the end of the war their number totalled 985 but their work was more significant than their number. The broad purposes of the patrols' work were so ill defined as to afford every opportunity for infringements on women's liberty.⁷ The Ministry's own report on women police stated that in Carlisle (an important munitions area)

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1. Ibid., 19. It was not true that drunkenness among women had increased. According to the figures released by the Liquor Control Board convictions for drunkenness, which are one way of assessing the degree of drinking, declined significantly during the war, *See Chap. 6.*
 2. Mun 5/93/346/139, Memorandum on Women's police force, May 1918
 3. M S Allen, *op. cit.*, 60
 4. Ibid., 64. The Chatham division of the Metropolitan police reported that on entering the Naval Ordnance Depot women were searched for matches, pipes, tobacco. See Mepol/2/1745 procedure for searches, Chatham Div., 29 July 1917
 5. M S Allen, *op. cit.*, 66, 73
 6. Mun 5/93/346/139, Report on women police and patrols, 9 April 1918, 20
 7. MM, Vol V, part 3, 67

'their duties consist for the most part in the supervision of the munition workers ... but they do incidentally a good deal of work in connection with non-munition workers'.¹ In Birkenhead their duties included the 'supervision of houses'.²

Home visits opened unlimited possibilities for interference in women's lives. Women in receipt of separation allowances, in compensation for military service by their husbands, were reported if they were found to be living with another man.³ Mrs Edith Smith, who worked as a policewoman in Grantham, reported that,

By regular visitation of certain likely streets and houses with a request to see the lodgers' forms ... fallen women have been identified and either sent out of town to their native place or handed over to the rescue workers.⁴

Mrs Smith also reported to the local education authorities the case of a school teacher who was living with a man who was not her husband. A list of cases dealt with by Mrs Smith in 1916 ran as follows:⁵

wayward girls cautioned	100
larceny	15
drunks	16
prostitutes summonsed	10
prostitutes put in institutions	8
prostitutes handed to parents	10
prostitutes cautioned	50
disorderly houses	2
disorderly houses under observation	20
fortune teller charged	1
women charged re. lodgers' forms	5
illegitimate baby cases	24
black lists in theatres and picture houses	10
dirty houses reported	11

Another target for women patrols were the streets. Girls were discouraged from walking in the streets, from smoking and such was the power of authority that, it was said, they lowered their voices when they heard the patrol approach.⁶ They also snooped in the parks, on the lookout for couples in

1. Mun 5/93/346/139, Report on women police and patrols, Report on Carlisle
2. Ibid.
3. M S Allen, op. cit., 108
4. IWM Box 90/ Testimony of Mrs Edith Smith, first policewoman to work at Grantham, formerly a maternity nurse
5. Ibid
6. IWM Box 89/42.2, Extracts from the reports of women patrol organisers

'disgraceful positions' who were then 'hauled out of bushes'. One writer remarked with good reason that many if not most of the patrols 'were drawn from the comfortably-housed section of our community and had therefore never realised how much the street counted in the social amenities of many of our people, having themselves only used the streets as passage ways'.¹

In Scotland, women patrols scoured the parks for cases of 'unbecoming conduct between boys and girls or prostitutes of both sexes'.² On the other hand it appears that in Scotland patrols did not interfere with the activities of 'regular' prostitutes unless they were found 'using obscene language or violating public decency'.³ The realm of activity of women patrols was infinitely elastic as the example of cinema patrolling shows. While originally women patrols were entrusted with the task of preventing and reporting cases of indecent assault on children, they gradually arrogated to themselves the function of snooping on young women. One patrol reported 'two girls ... there to pick up acquaintances' and another reported 'a few girls singly, in couples or with men of the "Piccadilly Tube" type' and recommended that 'no boxes should be permitted unless they are illuminated'.⁴ In the London area women patrols undertook the duty of 'cautioning for foolish behaviour' and 'moving on' of suspected prostitutes and loiterers.⁵

There was some considerable opposition to the very concept of women police and even patrols and much of it came from within the male police force. The Harrow Road Superintendent of Police was opposed to the appearance of women patrols in court cases involving charges of indecency:

From experience I know that women police are only too anxious to get themselves before Magistrates etc., for the notoriety it brings them.⁶

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1. K C Dewar, The Girl (1921) 94
 2. IWM Box 89/42.3
 3. Ibid.
 4. Mepol 2/1691, Reports of women patrols dated 15 June 1916, and 19 June 1916
 5. Mepol 2/1748, Report of a woman patrol, 1 March 1918
 6. Mepol 2/1708, Report by Harrow Road Superintendent, 7 August 1916

M S Allen wrote in her book Pioneer Policewoman that policemen feared 'that women police would tend to repressive methods and would be intolerant of the rougher forms of enjoyment'.¹ One woman writing to the Weekly Despatch confirmed that repressive methods such as trespassing and prying were used by policewomen:

They have been and are guilty of enforcing illegal restrictions upon the public, especially where women are concerned.²

One policewoman resigned from the force because 'the hard and unkind way in which some of our constables treated the factory girls used to make me quite sick'.³ On the whole, however, the contemporary press showered praise on women police and their fights against drink and vice. Common Cause - the suffragette paper - was particularly enthusiastic about the enterprise.⁴ What is more surprising is that the woman's column of the Woolwich Pioneer - a trade union paper supported by the local labour movement - also gave women police its unqualified approval.⁵ In one of its issues the woman columnist spoke of the need for women patrols:

to give confidence to the timid and have a restraining influence on the boisterous ... girls are ignorant, heedless and emotional and their natural love of excitement leads them into danger.⁶

One reader wrote to the paper in support of women patrols in terms which conveyed unease in witnessing the upheaval in well established social patterns being threatened by new employment conditions:

Much of the present day immorality is due to the fact that numbers of young married women who lack both reticence and discretion are working side by side with young girls who thus hear much that is undesirable.⁷

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1. M S Allen, op. cit., 22. The Sherriff of Hull and Chief Constable of Liverpool however, were said to have expressed their appreciation of the work of women patrols especially in areas which neighboured on camps and barracks. 'Women doing assistant police work have always been welcomed and helped by the regular civil and military police'. See Englishwoman, April 1916, 27, 'Policewomen and Prejudices', Anon
 2. IWM Box 90/44, (Press cuttings) Hilda M K Nield in Weekly Despatch, 22 July 1917
 3. IWM Box 90/44, (Press cuttings)
 4. Ibid.
 5. Woolwich Pioneer, 28 January 1916, 7, Women's Column
 6. Ibid., 29 September 1916, 7, Women's Column
 7. Ibid., 3 November 1916, 6

The favourable view taken by the Woolwich Pioneer towards the supervision of women by police women or by quasi-policewomen, namely patrols, may be contrasted with the concerted opposition of trade union organisations in regard to welfare work. The crucial ingredient in welfare work which triggered off opposition was its anti-union element, while in the case of police work its substance was confined to moral matters and therefore ipso-facto acceptable. No indignation or protest was expressed, for instance in the Woolwich Pioneer at the report of a case when two girls returning from a dance were arrested, medically examined for evidence of venereal disease and subsequently discharged for lack of proof.¹ While women workers, fortified by collective strength, often took matters into their own hands on the shop floor when discipline went beyond the acceptable limits, individual protest in isolation was far more difficult.

Opposition to welfare work

The big munition manufacturers accepted on the whole the necessity for improved conditions of work, especially since the initial costs could be offset against excess profits. Ministry Investigating Officers were directed to recommend liberal financial assistance for the provision of accommodation, cloakroom and other facilities.² Nor did employers oppose the running of welfare schemes³ although they did insist on the fact that the running costs of welfare schemes made women's labour more expensive than men's by about 30-50%.⁴ This was in fact one of the employers' principal arguments in their opposition to equal pay, (see Chapter 5, page 201). Welfare arrangements afforded a convenient form of supervision over female labour, as the first three sections of this chapter have shown, and as such they enjoyed the support of management. By contrast the opposition to

1. Woolwich Pioneer, 4 May 1916, 6

2. Mun 5/79/340/1, Instruction to Investigating Officers, 1917

3. Mun 5/93/346/133, Quarterly report on worker attitudes to welfare supervisors for the Eastern area

4. War Cabinet Committee, Cd 13 5, 84. Evidence of a representative of the Engineering and National Employers' Federation

the philosophy and practice of welfare work came from the women themselves and their trade union representatives.

Miss Jayne - Chief Superintendent at Armstrong Whitworth, Elswick Works - reported the shop floor reaction to her own appointment which took place in the wake of a successful strike by 6,000 women workers:

The girls were flushed with their recent success and inclined to take charge and to threaten another strike with or without the least provocation. Supervisors appeared to them in the light of spies who were going to watch and report to the Management the ringleaders in the trade union organisation and endeavour to weaken their influence, or as goody-goody people who were going to poke their noses into the workers' private affairs and interfere with their liberty and independence.

Miss Jayne went on to say that the first welfare officers who came had to 'face the stare and aloofness of shopfuls of men and women'.¹ She claimed that in the end welfare supervisors managed to win acceptance by the workpeople once it was made clear that her staff would show 'a proper understanding and respect for Trade Union principles'.² Miss Jayne, however, seems to have mistaken the absence of daily opposition for the establishment of a situation of trust and acceptance. A Ministry report of 1918 spoke of a generalised suspicion of welfare supervision by the workers and a specific fear that the increased watchdog activities of management would lead to speeding up in the exclusive interests of efficiency. This report specifically cited the case of Armstrong Whitworth supervisors as failing singularly to win the confidence of the workers and found them guilty of pursuing exclusively the interests of the firm and stemming demands for reforms and improvements.³

Another unfavourable report presented by officers of the Ministry involved a firm in South Wales where, it was said, 'the welfare supervisor has been far from satisfactory, as the woman appointed has adopted the wrong line and must be looked upon more as a task master'.⁴

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1. IWM Box 150/, A resumé of welfare work at Armstrong Whitworth, Elswick Works, Newcastle, 1919, 5
 2. Ibid., 10
 3. Mun 5/93/346/133, Ministry report on attitudes of workers to welfare supervision Quarterly report for the Eastern area, 22 January 1918
 4. Mun 5/93/346/131, Quarterly report for the South Wales area, January 1918

As already discussed, there was an obvious ambiguity in the role of the welfare worker, as a delegate of management on the shop floor entrusted with the dual function of overseer, controller and agent of better conditions and better industrial relations. The view of the supervisor that gained currency was that of a combination of task master and busybody. Attempts to disguise these impressions were unsuccessful on either count.

It is unfortunately the case that welfare supervisors in a factory are often looked upon by the girls as a kind of policeman,¹

wrote a contributor to a volume who on the whole extolled the role of welfare work in alleviating the dullness and monotony of modern factory life. The Committee of Inquiry into Industrial Unrest also reported that the 'proceedings of the welfare superintendents are in many cases considered inquisitorial, personal and unduly interfering'.²

The opposition of trade unions to the systems of welfare was, as far as can be judged, unanimous and vehement, though it only crystallised during the war period. Before the war when welfare work was still a rarity and practised only infrequently in a few paternalistic enterprises, some enthusiasm was expressed in labour quarters for the new experiment. W C Anderson, for instance, had been full of praise for the Cadbury schemes at Bournville which, he claimed, positively encouraged trade unionism and impressed him with their leisure facilities.³ However, during the war period a positive response to welfare from labour quarters was hard to find. Trade union activity was an obvious target for welfare superintendents' interference and as early as 1915 this propensity was evident. The NAC received a complaint that the WU was prevented by the Greenwood and Batley Superintendent from holding a trade union meeting on the factory premises and when the venue was changed to waste ground outside the factory 'the matron in charge of women workers of the firm had intimidated the work-people from attending the meeting'.⁴

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1. K C Dewar, op. cit., 148. The chapter on welfare work was contributed by Gladys H Dick
 2. Committee of Inquiry into Industrial Unrest, Summary of report, Cd 8666, 1917 Report for the South-Eastern Area, 4.
 3. Woman Worker, January 1908, 88
 4. Mun 5/22/242.1/100, NAC Minutes, 12 July 1915

Even at a period when welfare work was in its infancy Madeleine Symons - representing the NFWW - recommended that supervision of conditions of employment be put in the hands of factory inspectors and not welfare officers and that employees' facilities, such as canteens, be democratically administered by the workers.¹

By 1917 welfare supervision had become a considerable irritant to women munition workers. At a special conference on welfare which was called by the Standing Joint Committee of Industrial Women's Organisations in May 1917, Mary Macarthur led the opposition attack on supervision, attacking its school-marm aspects as well as the ambiguous role of its executants:

The bad supervisor disciplines and is always interfering. She interferes if the girls are out at night (especially if they are with a man in khaki), she interferes if boots are dirty, or blouses low at the neck, or stockings thin ... A Manager or superintendent is accepted by the girls as being for the boss and being so recognised all is fair and square; but if a supervisor is said to be for the good of the girls, they are at once suspicious of her.²

Kate Manicom, a Workers Union organiser, was unequivocally critical of wartime welfare work while professing approval for the Rowntree scheme at York:

The time has arrived for us to know exactly where we stand and what the duties of a welfare supervisor are. Is she a works forewoman and as such is she to see that the girls waste no time; or is she a woman appointed to tend the girl when she is sick or to visit her when she is ill? If the former then we know how to deal with her and we shall expect to find her working in the interests of the employer and helping to swell his profits; if the latter then we shall not expect her to interfere in the work of the girls but to act entirely in the interest of their health and comfort.

At the present time we can never place her; yet we find her everywhere. If it is a question of slackness at work, she reports it; if it is a trade union meeting ... it is very often she who will take the news to the employer and intimidate the girls.

Even the meal time does not give the girls the chance to speak freely ... She is supposed to be the workers' friend - and she has become the tool of the unscrupulous employer ... We demand that the position of the Welfare Supervisor be definitely defined, either a forewoman, or a works speeder-up, or as a person to supervise only the health and well being of the women; for she cannot serve two masters ... so long as our present system of wage slavery exists.³

1. IWM Box 148/18.5. Minutes of the Committee for the Organisation of Women's Services, 5 December 1916, 61-63, testimony of Madeleine Symons, delegate of the NFWW
2. Mary Macarthur's address to the conference on welfare work organised by the Standing Joint Committee of Industrial Women's Organisations, 1917, quoted by S Webb, The Works Manager Today (1917) 143
3. Trade Union Worker, June 1917, 7, 'The Welfare Supervisor' by Kate Manicom

The above passage has been quoted at some length because it contains the main grounds of unionist opposition to the institutionalisation of welfare. In addition, the writer of the article also enumerated many other negative features of welfare which were described in the first part of this chapter. Miss Manicom noted that men were not subjected to the same kind of supervision, that women were treated as irresponsible children, that the middle-class type of woman chosen for the job had little understanding of the working-class and 'very little sympathy with women', and that she discouraged trade union activity.¹

A TUC delegation to the Parliamentary Committee on Industrial Conditions which included Margaret Bondfield raised the issue of welfare carrying a danger of truck. Miss Bondfield claimed that the provision of accommodation and canteens be used by employers as a stratagem for paying lower wages in lieu of provisions of such services.² While it is true that this was never done in a systematic way during the war, it had been common before the passing of the Truck Acts in 1909, and the dangers of such a practice might nevertheless have seemed real enough in cases where payment for hostel accommodation was deducted at source, or where employers persisted in claiming that the running costs of welfare work made women's labour more expensive than men's. Miss Bondfield, therefore, opposed welfare supervision systems and favoured in their place factory inspection for the supervision of health and sanitary standards.³ As for the cases of compulsory contributions being deducted for welfare arrangements, however small,⁴ Miss Bondfield rightly remarked: 'I cannot conceive such things as are done at present in the case of unorganised groups of women workers being done in the case of organised miners'.⁵ Mary Macarthur objected to welfare

1. Ibid.

2. HO/45/124596/47, TUC Deputation to the Parliamentary Committee on Industrial Conditions, 23 November 1917

3. Ibid., 23

4. Miss Anderson quoted cases of a compulsory deduction of 1d in the £1 as subscription for recreational facilities. See H.O. Annual Report to the Chief Inspector of Factories for 1916, Cd 8570, 10

5. HO/45/124596/47, TUC Deputation to the Parliamentary Committee on Industrial Conditions, 23 November 1917, 22

provisions because they reinforced the argument that women represented a less worthwhile form of labour and therefore did not deserve equal wages:

We think it is the duty of the employer to provide these amenities for all these men and women. We do not see why the men should not have the canteen and rest room as well as the women. We object to any discrimination between the two.¹

A long memorandum on the subject of welfare work published in the Woolwich Pioneer in 1918, did not condemn the concept of welfare work as such but only what were regarded as its negative aspects. This particular trade union journal supported the system on condition that it should 'aim primarily at promoting the welfare of the workers and not at increasing the workers' output'.² The paper laid down, as one of the conditions of an acceptable welfare scheme, the participation of the workers themselves in the administration of welfare facilities and demanded that 'welfare supervisors should be drawn, as far as possible, from among the workers'.³ This was emphatically not the way in which welfare was envisaged or organised during the war period. The statements of employers themselves were quite clear on this matter, and the social origins of the supervisors also showed barriers against any quest for democratic participation. In instances where trade union participation occurred it took the most trivial forms. In Woolwich, for example, worker participation was confined to the activities of the Local Advisory Committee (the local branch of the NAC) in compiling registers of suitable lodging places and the organisation of recreation in co-operation with the Girls' Clubs.⁴

The biennial conference of the NFWW in 1918 witnessed an animated debate on the attitudes to welfare and voted 'for the abolition of this department'.⁵ One delegate after another rose to condemn its ambiguity, its anti-trade union bias and the interference in the personal appearance and daily life of women workers:

1. War Cabinet Committee, Verbatim minutes. IWM Box 97/ , evidence of Mary Macarthur, 4 October 1918, K10
2. Woolwich Pioneer, 22 February 1918, 3, 'Memorandum on welfare supervision, Constructive proposals'.
3. Ibid.
4. Ibid.
5. Woman Worker, October 1918, 6

Miss Murray of Blackpool stated roundly that the friction in their works could be traced to the welfare worker. They didn't dream to breathe the word 'union' when she was about.¹

The whole discussion showed ... that the workers knew perfectly well what they were talking about. The personnel of the welfare workers and the ambiguity of their status formed the burden of their complaints. Their different attitude towards both the factory inspectors and the officials of the Board of Trade was most marked. In these the workers recognised impartial representatives of the community - in the existing welfare workers merely a reflection of the wishes and disposition of the employer.²

In her evidence to the War Cabinet Committee, Mary Macarthur representing the NFWW, was also highly critical of welfare supervision:

The very word welfare sticks in the nostrils of the women workers ... some provisions of welfare are valuable but there is a great deal in connection with welfare which ^{they} do object to. It is not so much a Trade Union's official objection as a rank and file objection.³

Miss Macarthur then went on to describe the reprehensible methods of the welfare supervisor in stifling the individual's preferences of dress for example. Her critique strikes a contemporary note, even today.

She [~~the~~ welfare supervisor] objects to the clothes which the women may be wearing ... though she herself wears a different one every day. The dress which the women desire to wear is their own method of expressing themselves and they think they are not compelled to consult the taste, whether it is good or otherwise of any welfare lady who may be there. They object to being visited in their home and be inspected and they object to the organisation of amusements and so on as a counter attraction to their trade union meeting. Very often the welfare supervisor resents the entry of a trade union official. One welfare supervisor called the girls together and said to them 'why pay your union 2d per week for doing what I will do for nothing' ... Very often amusements and entertainments are organised by welfare workers as a definite counter attraction to the educational meetings which the trade union may be calling at the same time.⁴

Miss Macarthur summed up her judgment of the ambiguous position of the welfare officer in very similar terms to those expressed by Kate Manicom:

She is not what she appears to be. She claims to be the friend of the worker and she is in the pay of the employer.⁵

Opposition to supervision and control was not, however, confined to the official levels of trade union activity. At the Woolwich Arsenal, women

1. Ibid., 6

2. Ibid., 7

3. War Cabinet Committee, Verbatim minutes, IWM Box 97/ , evidence of Mary Macarthur and Madeleine Symons, 4 October 1918, K9

4. Ibid., K10

5. Ibid., K36

workers boycotted the canteens on the ground that they were inefficiently and badly run.¹ Miss Barker - Chief Lady Superintendent at Woolwich - reported at about the same time that high prices in the canteens led to riot, breakage of windows and a demand for the dismissal of two overlookers who had broken rank during the boycott by using the canteens.² Both Miss Barker and Miss Symons reported the pilfering of canteen cutlery,³ and an incident when an unpopular lady superintendent was hooted.⁴

These random instances of shop floor disobedience and petty larceny give some idea of the discontent and opposition to welfare work, which on more respectable occasions was voiced by trade union representatives.

Despite the fact that the History of the Ministry of Munitions devoted a lengthy section to the marvels of welfare work at Woolwich and elsewhere,⁵ Miss Butler - the author of the welfare and wages volume wrote the following in a private note to the co-ordinator of the history:

My impression is that most of the welfare work in its wide sense in Woolwich as a whole was thoroughly bad or at least inadequate; but it would take much too long to prove this and would involve too many things irrelevant even to the history of welfare.⁶

Helen Bentwich, who worked at the Arsenal in 1916 confirmed this impression of Woolwich in her autobiography, where she wrote in scathing terms about the dirt, rat infestation, the absence of first aid facilities and the inadequate lighting. Her birth and connections gave her the confidence to complain to Miss Barker and even to Rowntree himself but concluded with disappointment that 'welfare supervisors had no authority inside the factories'.⁷ The Factory Inspectorate confirmed in their 1919 Report that the presence of middle-class patriotic industrial workers, like Helen Bentwich, who possessed the confidence to complain contributed in some instances to an improvement in factory conditions. Mrs Shaw (a member of the Inspectorate in Scotland) reported that:

1. Woolwich Pioneer, 24 November 1916
2. IWM Box 148/18.1-2, Committee for the Organisation of Women's Services, minutes, 24 November 1916, 66
3. Ibid., 63-64. See also IWM Box 148/18.5, evidence of Miss Symons, 76
4. Ibid., 77
5. MM, Vol V, part 3, 157-161 and passim
6. Mun 5/330/, Hist H Welfare. Letter from C V Butler to G I H Lloyd, co-ordinator of the writing of the history, 10 May 1919
7. H Bentwich, If I Forget Thee, 86-q

the belief in social betterment which is permeating all classes has been definitely helped by the mixture of classes in the factories. The middle-class worker has demanded a minimum of good conditions and everywhere the pressure for hygienic betterment is increasing and is being recognised.¹

While Woolwich may have been a particularly bad case of an old fashioned factory the conditions in many other similar traditional munitions establishments - not to speak of the small firms - were probably equally bad.²

Detailed evidence, however, has not been recorded. Nevertheless there is no doubt that while supervisors were busy remonstrating with women on their dress and behaviour, factory conditions - which were not designed for women only but for the workforce in general - remained inadequate in most cases. The Factory Inspectors did not attempt to draw up a balance sheet of the general state of affairs and merely concluded their 1919 Report by saying:

Even where little has been actually attempted the ground has been in a sense dug and prepared and even seed sown to a wide extent.³

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1. H.O. Factories and Workshops Annual Report for 1919, Cmd 944, 1420, 36
 2. MM, Vol V, part 3, 165
 3. H.O. Factories and Workshops Annual Report for 1919, Cmd 944, 1420 30

CHAPTER 8

TRADE UNIONS AND COLLECTIVE ACTION

Trade Union Membership

The growth of women's employment in industry during the war was paralleled by remarkable increases in their membership of trade unions, particularly general unions, such as the National Federation of Women Workers, the Workers' Union and the National Union of General Workers. These organisations were not tied to any particular industry but recruited members in occupations that ranged from flour milling to metals and engineering. By the end of the war the total number of women in general unions had grown from 24,000 to 216,000, as Table 3¹ shows. Except for the traditionally large membership in the textile trades, which made comparatively small gains in the same period, membership in general unions represented the largest single concentration of collective organisation among women workers.

The general unions emerged from the war as the most successful organisational base for the disparate, unskilled and semi-skilled occupations in which women were engaged during the war. They included women working in metals, rubber, chemicals, food and tobacco, woodworking trades, general labouring and even in textiles, light clothing, laundry and domestic work. The growth of these organisations was closely connected with women's employment in munitions which accounted for three-quarters of their female membership.¹ The remarkable feature of the new growth of female membership of these organisations was not only the

1. B Drake, Women in Trade Unions (1921) 181

fact that they succeeded in attracting the lower skilled or semi-skilled women in, for instance, the metal industries whose trade societies on the whole excluded women, but that they made substantial incursions on trades which possessed successful industrial unions which did admit women. Such was the case of women woodworkers who on the whole tended to join the general unions rather than the National Amalgamated Furnishing Trades Association.¹ Women employed in the electrical trades joined the general unions and not the Electrical Trades Union despite the fact that in 1915 this society relaxed its rules to admit them.² In the Scotch Tweed Trades where women were not excluded from the men's unions but were unorganised before the war they joined the Workers Union or the National Union of General Workers.³ Even women textile workers outside the great textile centres were organised by general unions and not by the appropriate industrial societies.⁴ Only a few industries remained unaffected by the attraction of general labour organisations; in the boot and shoe, leather, printing and paper trades (except for paper bags) women continued to join the industrial societies created for the purpose.

The most important general union whose relative success in attracting women preceded the war was the National Federation of Women Workers (NFWW or the Federation). It was founded in 1906 as an organisation for women workers who were being excluded from male societies. From 1908 the Federation, under the gifted leadership of Mary Macarthur gained in strength and benefitted too from a series of successful strikes among women at Cradley Heath in 1909, and the foodworkers' and the LCC charwomen's strikes in 1910.⁵ The policy of the Federation, which had a direct bearing on its war time industrial ideology, was based on a commitment to co-operation with male trade unionists. The NFWW did not regard the exclusively female

1. Ibid., 157

2. Ibid., 112

3. War Cabinet Committee, Cd 135, 133

4. B Drake, supra, 118-9

5. Ibid., 45-9

society as the correct instrument to improving women's industrial position. On the contrary, in the pre-war period it acted consciously as a substitute organisation among unorganised women who were excluded from men's unions. It was committed to transferring its members when an appropriate industrial organisation would decide to admit women members. Thus when in 1914 the Amalgamated Society of Bleachers, Dyers and Finishers decided to admit women, the Federation transferred its members to the joint union.¹ The Federation also recruited women engaged in the garment industry especially those working in small shops in the manufacture of women's clothing but wherever possible it encouraged their transferal to the United Garment Workers.² During the war women crane drivers were enrolled in the NFWW, but those who remained in their jobs in 1918 were transferred to the Amalgamated Union of Engine and Crane Drivers when the latter opened its doors to female members.³ Sometimes, the process was reversed if a small number of women workers remained in a particular industry. For instance war time women dilutees in transport services who decreased in number from 30,000 to 3,000 after the war, transferred from the NUR to the ranks of the Federation, as they found work in other industries.⁴ During the war, the Federation's strength relied on its support from women engaged in the engineering munitions trades and also included brass workers, electrical industry employees, nail, nut and bolt, optical and scientific instrument makers, and of course chain makers.⁵ The Federation, like all general labour unions organised primarily the unskilled and semi-skilled but during the war it also included women turners, fitters and welders.⁶

The Workers Union (WU), which by the end of the war had a female membership about equal to that of the NFWW had always focussed its activity

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1. Ibid., 49
 2. Ibid., 141-2
 3. Ibid., 116
 4. Ibid., 147
 5. Ibid., Appendix, Table II
 6. Ibid., 98

on the workforce in the newer and lighter engineering industries of the Midlands. By 1918, 80% of the union's 100 branches were based on engineering and one-third of the union's total membership was employed in the Midlands.¹ With the entry of women into the munitions industry the WU made a successful bid to recruit them in the engineering industries and in the dockyards controlled by the Admiralty.² The WU also succeeded in attracting a disparate group of women industrial workers employed in war time occupations such as rubber, explosives, wood and agriculture, as well as in the more traditional trades such as clothing, gloves, rope and net industry, food manufacture, laundry and domestic work,³ as well as in brewing and malting.⁴

The National Union of General Workers (NUGW), formerly the Gasworkers, recruited women labourers rather than semi-skilled workers in trades similar to those covered by the WU.⁵ It enrolled women in the munition trades and in the tin plate finishing processes,⁶ as well as in the tobacco industry⁷ and biscuit manufacture.⁸

The National Amalgamated Union of Labour (NAUL) had originally established itself among lower skilled workers in the traditional engineering and ship-building centres, in Lancashire, Yorkshire, the North-East, Merseyside and Northern Ireland, among platers' helpers on Clydeside and Tyneside, among iron and steel workers in Sheffield,⁹ and the unskilled foundry workers.¹⁰ During the war the union recruited women workers in the Sheffield cutlery trades,¹¹ and in the breweries.¹² The Dock, Wharf and Riverside Workers

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1. R Hyman, The Workers Union, 43, 98, 108
 2. Ibid., 108
 3. B Drake, *supra*, Appendix, Table II
 4. War Cabinet Committee, Cd. 135, 139
 5. B Drake, *supra*, 183, See also J Hinton, The First Shop Stewards Movement, 72-3
 6. B Drake, *supra*, 116
 7. Ibid., 162, 188
 8. War Cabinet Committee, Cd 135, 138
 9. J Hinton, *supra*, 50
 10. H J Fyrth and H Collins, The Foundry Workers (1959) 91
 11. War Cabinet Committee, Cd 135, 126
 12. B Drake, *supra*, 187

(the Dockers) were traditionally linked to the great ports of the country, and based on the traditional male occupations of portage and riverside transport, but its women members were mostly tobacco workers as well as confectionary trade employees. During the war the NAUL recruited women labourers employed in these trades,¹ as well as in seed-crushing,² flour milling, sugar refining and food preserving.³ The National Warehouse and General Workers Union fulfilled its main role in organising women in the distribution and hotel trades,⁴ as well as women working in soap and candle manufacture.⁵

It is because general unions were most successful in recruiting large numbers of women workers that this chapter largely revolves round their activities and policies. Nevertheless, important areas of information are still lacking for two reasons; firstly because of the non-existence or disappearance of archive material and the absence of secondary works dealing specifically with women workers.⁶ The material that follows, therefore, has been drawn largely from union journals and annual reports and some of it is based on inference from recorded facts. Secondly, the extent of women's membership cannot be accurately measured either in aggregates or separately for the different areas and occupations, because women's membership in mixed unions was never recorded separately. Government sources noted women's trade union allegiance by industry (see Table 32) and not by Union. The one exception is the Report of the Women's Employment Committee (Cd 9239, 1919) which charted women's membership by union but it brought the information only up to 1917 and in comparison with other sources it appears to have been rather conservative in its estimates (see Table 33).

1. Ibid., 181, also War Cabinet Committee ... Cd 135, . 158
2. Ibid., 129
3. A Bullock, The Life and Times of Ernest Bevin (1960), 85-86
4. B Drake, *supra*, 164
5. War Cabinet Committee ... Cd 135, 129
6. Barbara Drake's book is the only source of information written specifically about women trade unionists in that period. S Lewenhak 's exhaustive PhD thesis, 'Trade Union Membership among Women and Girls in the UK, 1920-65', *op cit* does not cover the First World War. While many important and detailed histories of the main trade unions have been published, there is very little information in them about the organisation of women as a separate group. A valuable source of information is contained in Government archives in connection with wage agreements, but this information says nothing about the numbers involved.

Tables 31 and 32 show the aggregate number of women organised in the different types of unions, listed in accordance with their members' occupations. Table 31, which shows the increases during the war years points to the remarkable growth of women's membership in the general unions and to a much slower rate of growth in the metal unions. This tendency can be accounted for by the fact that women in the metal trades were on the whole excluded from the unions active in these industries. The relatively slower growth in the chemical and wood trades is similarly not a true reflection of women's lack of enthusiasm for trade unionism but is due to the fact that women engaged in these trades enrolled as a rule in the general unions. In addition Table 31 shows enormous increases in the membership of women in the transport unions, reflecting the increase in employment in this sector, and also in the tailoring trades. While in general the growth in trade union membership may be traced to the overall increase in employment, there are exceptions to this rule. Both in the cotton and the clothing trades the number of women employed decreased by 66,000 in each occupation, but union membership increased substantially in both. According to Kirkaldy, membership rose from 54% to 71% of the labour force in the former and from 4% to 18% in the latter.¹

Table 31.

Number of females belonging to trade unions at
the end of 1914, 1916, and 1918 classified by industrial group.¹

	Numbers.			Percentage of Numbers in 1914.	
	1914.	1916.	1918.	1916.	1918.
General Labour Unions .	24,000	79,000	216,000	329	900
Unions of Members of Spec- ified Trades or Crafts ¹ —					
Mines and Quarries .	—	3,000	10,000	—	—
Metal Trades	2,000	6,000	11,000	300	550
Chemical Trades . . .	—	1,000	2,000	—	—
Textile Trades—					
Cotton	210,000	224,000	260,000	107	124
Textile Dyeing, etc. .	7,000	16,000	23,000	229	329
Other Textile Trades.	36,000	49,000	135,000	136	375
Clothing Trades—					
Tailoring, etc. . . .	15,000	22,000	89,000	147	593
Boots and Shoes . . .	11,000	18,000	28,000	164	255
Food, Drink and Tobacco Trades	3,000	4,000	7,000	133	233
Paper and Printing . . .	8,000	10,000	39,000	125	488
Wood Trades	1,000	1,000	5,000	—	500
Other Industrial Occupa- tions	5,000	12,000	39,000	240	780
Agriculture	—	—	2,000	—	—
Transport—					
Railways	—	18,000	50,000	—	—
Other Transport . . .	1,000	17,000	18,000	1,700	1,800
Clerks and Shop Assistants	20,000	33,000	83,000	165	365
Teachers ²	106,000	107,000	140,000	101	132
The Civil Service and General Municipal Ser- vices	23,000	30,000	76,000	130	330
TOTAL	472,000	650,000	1,224,000	138	259

1. This classification is in most cases occupational rather than industrial.
2. There is apparently some duplication in these figures, as some teachers belong to two Associations.

Table 32 shows the progress of women's unionism up to 1918, the slow decline up to 1920 and the disastrous fall in all societies and particularly the general unions in 1921, with the exception of the textile trades. While almost all the aggregates in this Table are substantially lower than those in Table 31 they show broadly the same picture of trade union growth during the war years.

1. A W Kirkaldy, ^(ed) British Labour 1914-21, . . . , 86

Table 32. Number and membership of trade unions, classified by industrial groups in Great Britain and Northern Ireland, 1911-1926.1

Group of Unions.*	Female Membership at end of Year.										Group of Unions.*						
	Total No. of Unions with Female Members at end of																
	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.†	1920.†		1921.	1922.	1923.	1924.	1925.	1926.
Agriculture, Horticulture, etc.	2	2	2	472	462	359	1,697	2,073	3,397	3,144	2,211	1,502	1,337	1,045	1,113	992	Agriculture, Horticulture, etc.
Coal Mining	1	10	160	2,300	2,963	2,963	5,436	9,536	6,389	7,245	5,097	4,764	3,702	3,817	3,466	3,276	Coal Mining
Other Mining and Quarrying	4	4	—	—	—	25	53	52	—	582	482	325	315	312	301	257	Other Mining and Quarrying
Pottery, Glass, etc.	2	2	2,200	1,804	2,406	7,270	12,826	20,928	25,754	27,658	21,453	17,514	13,772	12,720	12,366	11,874	Pottery, Glass, etc.
Metals, Machines, Conveyances, etc.	2	2	911	891	924	1,476	2,990	3,188	2,180	1,965	1,564	1,104	1,309	1,053	1,042	1,052	Metals, Machines, Conveyances, etc.
Iron, Steel, Tinplate, etc.	—	—	—	—	—	50	520	1,453	1,364	15,618	8,991	6,700	6,828	6,562	6,760	6,336	Iron, Steel, Tinplate, etc.
Ironfounding, Engineering and Ship and Vehicle Building	2	2	87	1,050	2,461	4,327	5,635	6,636	13,470	17,583	10,555	7,804	8,137	7,615	7,802	7,338	Ironfounding, Engineering and Ship and Vehicle Building
Other Metal Working	4	4	998	1,941	3,385	9,145	11,277	17,014	17,583	425,955	340,946	337,759	348,083	341,541	341,541	341,541	Other Metal Working
Total, Metal, etc.	87	84	214,766	253,297	272,154	258,555	363,402	430,807	499,267	499,624	425,955	376,808	340,946	337,759	348,083	341,541	Total, Metal, etc.
Textiles:—	3	4	4,868	10,915	11,945	17,677	20,670	27,893	33,352	33,234	27,008	24,175	24,130	27,195	27,942	28,942	Textiles:—
Cotton	14	13	8,905	14,472	16,404	21,579	49,695	88,322	111,137	93,228	56,372	46,190	45,041	45,499	45,754	44,895	Cotton
Wool, Worsted and Shoddy	5	3	1,917	2,588	2,689	3,138	3,635	5,998	6,296	6,053	4,693	4,163	4,090	4,100	5,205	5,314	Wool, Worsted and Shoddy
Flax and Jute	3	4	155	568	546	724	1,014	4,717	5,682	5,004	3,793	3,296	3,295	3,858	3,399	3,399	Flax and Jute
Hosiery	7	7	3,257	8,285	9,747	9,879	20,011	766	624	1,235	1,111	920	850	1,023	1,094	909	Hosiery
Bleaching, Dyeing, Finishing, etc.	5	13	6,049	6,254	6,524	6,837	12,152	40,839	60,760	72,187	57,618	48,815	49,050	50,805	54,361	44,208	Bleaching, Dyeing, Finishing, etc.
Other Textiles	—	—	—	—	—	—	—	51	—	—	—	—	—	—	—	—	Other Textiles
Total, Textiles	126	136	214,766	253,297	272,154	258,555	363,402	430,807	499,267	499,624	425,955	376,808	340,946	337,759	348,083	341,541	Total, Textiles
Boot and Shoe	3	4	4,868	10,915	11,945	17,677	20,670	27,893	33,352	33,234	27,008	24,175	24,130	27,195	27,942	28,942	Boot and Shoe
Tailoring and Other Clothing	14	13	8,905	14,472	16,404	21,579	49,695	88,322	111,137	93,228	56,372	46,190	45,041	45,499	45,754	44,895	Tailoring and Other Clothing
Food, Drink and Tobacco	5	3	1,917	2,588	2,689	3,138	3,635	5,998	6,296	6,053	4,693	4,163	4,090	4,100	5,205	5,314	Food, Drink and Tobacco
Furnishing	3	4	155	568	546	724	1,014	4,717	5,682	5,004	3,793	3,296	3,295	3,858	3,399	3,399	Furnishing
Other Woodworking	7	7	3,257	8,285	9,747	9,879	20,011	766	624	1,235	1,111	920	850	1,023	1,094	909	Other Woodworking
Paper, Printing, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Paper, Printing, etc.
Building, Public Works Contracting, etc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Building, Public Works Contracting, etc.
Other Manufacturing Industries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Other Manufacturing Industries
Transport:—	1	2	30	100	2,941	18,580	38,771	43,655	12,751	12,325	5,875	4,981	4,481	4,868	5,664	4,075	Transport:—
Railway Service	1	2	200	150	196	120	150	120	250	839	554	215	185	306	194	180	Railway Service
Water Transport	1	2	460	500	750	16,920	32,781	17,539	12,363	11,311	7,486	4,137	12,060	12,362	12,757	12,050	Water Transport
Other (Road Transport, Dock Labour, etc.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Other (Road Transport, Dock Labour, etc.)
Total, Transport	3	6	690	750	3,827	35,620	71,702	61,314	25,364	24,475	13,925	9,333	16,726	17,536	18,615	16,305	Total, Transport
Commerce and Distribution	4	11	6,426	19,968	21,879	33,325	53,927	100,881	122,227	112,431	56,660	40,173	37,841	33,650	40,938	38,819	Commerce and Distribution
Banking and Insurance	2	16	51	121	66	260	600	706	4,811	8,780	7,611	6,134	5,924	5,427	5,359	5,809	Banking and Insurance
National and Local Government	21	90	21,941	26,204	30,118	37,482	62,704	86,369	90,398	94,737	77,181	68,308	65,737	58,640	61,953	59,678	National and Local Government
Teaching	7	15	50,571	70,169	73,063	78,197	86,464	108,418	123,937	134,483	139,416	144,082	135,641	132,998	128,957	130,597	Teaching
Entertainments and Sport	2	6	677	1,426	1,792	2,438	2,898	4,787	10,948	12,162	9,359	7,343	7,599	6,960	5,470	5,507	Entertainments and Sport
Miscellaneous	14	21	1,232	1,746	1,899	3,197	5,996	12,704	20,476	11,989	7,163	7,066	5,564	3,788	4,102	3,978	Miscellaneous
General Labour	7	2	16,641	22,413	36,413	76,401	103,397	190,840	157,850	161,957	68,710	45,715	40,124	46,373	47,805	46,578	General Labour
Grand Total, All Unions	227	406	334,878	436,679	491,075	625,508	877,864	1,209,278	1,325,683	1,340,941	1,004,013	870,424	815,800	812,497	830,343	807,042	Grand Total, All Unions

* Exclusive of Carpenters and Joiners, for whom see under Building, Public Works Contracting, etc.
 † Other Manufacturing Industries are not separately distinguished prior to 1920, being mainly included with Miscellaneous.
 ‡ Owing to reclassification in conformity, as far as possible, with the grouping adopted for the 1921 Population Census, the figures for individual groups for 1920 and subsequent years are not in all cases strictly comparable with those of previous years. The differences are not, however, important except in the case of the Miscellaneous group. See also Note §.
 § Ministry of Labour. Nineteenth Abstract of Labour Statistics, 1928, 170-1.

The single most important women's union was the NFWW which had grown from a mere 20,000 in October 1915¹ to approximately 75,000-80,000, according to three sources, in 1918.² Here again there is a discrepancy in the figures; the TUC Reports record the union's membership at 20,000 in 1918 and 30,000 in 1920,³ and the General Federation of Trade Unions report 12,309 in June 1918.⁴ On the other hand the Report of the Women's Employment Committee which recorded membership up to 1917 gave the following statistics for the major general unions which included women.

Table 33. Female membership in general unions 1914-1917.⁵

<u>Title of Union</u>	<u>1914</u>	<u>1915</u>	<u>1916</u>	<u>1917</u>
NUGW	4,000	6,000	20,409	30,000
NAUL	176	1,500	6,542	9,452
WU	7,500	10,500	20,000	30,000
NFWW	10,164	17,855	27,781	31,808
National Warehouse and General Workers Union	1,418	2,000	3,200	10,274
Dock, Wharf and Riverside and General Workers Union	500	750	5,000	12,000

Other writers disagree with these estimates. Indeed the figures above, even though they only go up to 1917, seem highly suspect if the 1918 estimates of most writers are correct. Hyman for instance estimates that women's membership of the WU totalled 80,000 by 1918, or a quarter of the total membership of 331,000.⁶ If Hyman is correct, then it is highly unlikely that the union should only have reached the 30,000 mark by 1917. The War Cabinet Committee estimated women's membership of general unions at the end of 1917 to be as follows.

1. NFWW Annual Report 1915. The NFWW Reports do not give statistics for subsequent years
2. NUGW Executive Committee Meeting, 9-10 October 1918, 6-7. See also A Gleason, What the Workers Want (NY 1920) 229, B Drake, Women in Trade Unions, Table II
3. TUC Conference Reports 1918, 1920
4. GFTU, Quarterly Balance Sheet, 29 June 1918, 9. The Unions belonging to the GFTU paid a subscription for 90% of their members but this would still not account for the entire difference. When the NFWW joined the NUGMW in 1921 it had 30,000 members. See H A Clegg, General Union (1954) 13
5. M.o.R., Report of the Women's Employment Committee, Cd 9239, 1919, 105, 102
6. R Hyman, The Workers' Union, 87. See also B Drake, supra, Table II

Table 34. Women's membership in general unions in 1917.¹

NUGW	60,000
NAUL	35,000
WU	60,000
NFWW	60-70,000
National Warehouse and General Workers Union	10,000
Dock, Wharf and Riverside and General Workers	11,000

The increased unionisation of women then, can be largely attributed to the growth of women's employment opportunities in munitions establishments in the context of general union growth. The new occupations altered radically women's work environment by concentrating them in large numbers in large workshops. For the period of the war many women were drawn out of their isolation in outwork or service industries into unaccustomed collectivities and the new work in munitions establishments afforded better opportunities for trade union organisation. The evidence that the new occupations were more conducive to collective organisation may be read from the fact that by the end of the war 80% of female members in general unions were employed in munitions production.² Another important factor in the increased trade union membership was the relatively high level of wages in munitions. By contrast a low paid women's occupation like brushmaking may be used to illustrate the obstacles to trade union recruitment among women who were hampered by their isolation and their low wages:

Female labour is entirely unorganised throughout the trade. The underpayment of female wiredrawers is due to the fact that until recent years the whole of this work was done by female workers.³

It is important to note that the brush making trade was at that time being transformed from a craft into a factory trade. Nevertheless, women were

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1. War Cabinet Committee ... Cd 135, , 158. See also A Gleason, op. cit., 229
 2. B Drake, supra, 181
 3. Lab 2/287/TB 10020/4, Brush making trade report for the reorganisation of Trade Boards by Miss Arnold, 1917, 5

were still being excluded from three out of the four unions operating in this field, and were still being confined to the least paid jobs of 'drawing' and 'cutting'.¹

While dilution was a factor in the successful trade union recruitment campaign it was uneven in its timing and location. London and particularly Woolwich appear to have been especially slow in their recruitment drives. In November 1916 the Woolwich Pioneer reminded its readers that a wages rise which had recently been obtained was a clear indication of the need for greater trade union recruitment and proof of membership as a weapon in negotiations. 'The two local branches of the NFWW should at this time be overwhelmed with applications'.² The NFWW branch at Vickers Erith plant grew from 34 to 500 by January 1916,³ the WU branch at Woolwich increased from 23 to 350 at the beginning of 1917.⁴ Women's union strength varied considerably according to region and according to trade. The conventional and accepted estimate at the time of the total proportion of organised women was one-third of the female workforce. Mary Macarthur confirmed this estimate on one occasion but at the same time pointed out that in Newcastle for instance as many as 75% of working women were union members.⁵

On another occasion Miss Macarthur stated that the membership record at the Woolwich Arsenal was poor but claimed that ^{the} Armstrong Whitworth (Newcastle) membership reached 90% and at ^{the} Barrow works 80%.⁶ In Sheffield, the membership of the NFWW was said to have grown by 1918 from a mere 350 to 5000.⁷

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1. AW Kirkaldy, ^(ed) Labour Finance and the War, , 187-192
 2. Woolwich Pioneer, 17 November 1916, 6
 3. Woman Worker, January 1916
 4. Trade Union Worker, February 1917
 5. Lab 2/243/142/4, Meeting of the Parliamentary Secretary to the Ministry of Munitions (F Kellaway), officials and trade unions which admitted women, i.e. the Dock and Wharf Workers, WU, NFWW, NUGW, NAUL, to discuss administrative measures in connection with women's wages. 14 June 1917. Verbatim exchange, 12-14
 6. Woolwich Pioneer, 31 August 1917, 3, Mary Macarthur at a presentation to W C Anderson
 7. S Pollard, A History of Labour in Sheffield (1959) 271

Even the minimum figures quoted by Mary Macarthur for the rate of trade union membership represented a substantial achievement. They compared well with the level of organisation among men in pre-war Sheffield where the organisation of unskilled workers in engineering was said to have reached a level of 30%, while the best organised skilled engineers claimed only 40-50%.¹

The NUGW reports for the war period recorded gains among women which exceeded recruitment among male workers, or at least appeared remarkably good. The Quarterly Report of June 1916 for the Midland District quoted 718 new members of whom 400 were women.² During the same period 600 women enrolled in Johnstone alone.³ The Quarterly Report for the period ending in December 1916, in the Sheffield and Barnsley District claimed that '4227 new members have been enrolled; this number includes a very large number of women workers'.⁴

It is less surprising to find women joining unions which catered for the traditional women's occupations but remarkable that they joined at a faster rate than the men. The National Society of Woolcombers and Kindred Trades whose total membership at that time was about 10,000 reported the number of women recruits in 1916 at 2144 and the number of men at 1,901.⁵ A reporter for the Yorkshire Factory Times - a trade union weekly which covered the woollen trades - wrote that 'during the past two weeks the Heavy Woollen District have enrolled more than 500 members of whom 400 are women weavers'.⁶ The Secretary of the union in the distributive trades expressed his astonishment at the growth of women's membership in an occupation which was notoriously difficult to organise:

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1. Ibid., 235
 2. NUGW Quarterly Report, 24 June 1916, 23.
 3. Ibid., 24
 4. NUGW Quarterly Report ending 30 December 1916, 26
 5. Yorkshire Factory Times, 8 February 1917, 5
 6. Ibid., report from 'Yarn Spinner'.

Whereas in normal times we thought we were doing well if we enrolled one woman member to five men, the position now is reversed and we are enrolling more women than men.¹

The General Unions reaped considerable successes in areas where women's employment in engineering and munitions had increased. According to one source recruitment in the Midland area up to the middle of 1916 totalled about 30,000 out of a female labour workforce of 200,000. Most of these were members of the General Unions and were distributed as follows: (the numbers are only approximate)

NFWW	8,000 - 10,000
NUGW	less than 1000
WU	6,000 - 10,000 ²

Hinton gives the following picture of general unionism in Sheffield in 1918, where he says this type of organisation was considerably more successful than the ASE in recruiting members in general and also attracted considerable numbers of women.

NUGW	7,000 members
WU	2,000 "
NAUL	2,000 "
NFWW	5,000 women
Total	16,000 ³

On the Clyde, the comparative weakness of general unions in contrast to the strength of the craft societies was reflected in a similarly low level of unionisation among women, at least up to August 1916, when H E R Highton wrote his report. The NFWW, NAUL, NUGW and WU claimed 3,000-4,000 women members between them in shell making and engineering, thereby representing approximately one third of the female workforce.⁴

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1. Ibid., 14 September 1916, 1
 2. A W Kirkaldy, Labour, Finance and the War, 161
 3. J Hinton, The First Shop Stewards Movement, 170-171. Mrs Wilkinson - a local leader of the NFWW - was appointed to the Trades Council Executive in 1918 and subsequently became its first President.
 4. B Drake, Women in the Engineering Trades (1917) 128, Appendix 1. Report on the Engineering Industry in the Clyde District, written by H E R Highton in August 1916

The information listed above while being disjointed and unsatisfactory from many points of view is the only kind that is available on the changed pattern of numerical gains among women in the general mixed unions. The ideology of both men and women in regard to organisation was more clearly enunciated and emerged as a common front designed to protect male labour from the threat of a low paid, unorganised section of the workforce - the women.

Trade union policy

While the engineering and shipbuilding craft unions¹ continued during the war their policy of exclusion the general unions provided women with a natural home. Their dues were low and they asked for no credentials in terms of apprenticeships or length of service. While the craft societies attempted to buy security by exclusion, the general unions' safety lay in growth. The answer to blackleg labour, in the case of lower skilled workers was not to be found in demarcation rules or trade union restrictions which they could not enforce, but in mass support at the base. The danger posed by the war time influx of women's labour could not be neutralised merely by skilful negotiation at the bargaining table with Government or employers. Women had to be incorporated into the organised body in order to provide a credible backbone for members' demands. In the passage below Will Thorne - the President of the NUGW expressed an essential part of NUGW policy in regard to women:

1. The main craft unions in the engineering, metal and shipbuilding trades were:
 ASE, Steam Engine Makers, Amalgamated Toolmakers, United Machine Workers, Scientific Instrument Makers, Electrical Trades Union, National Society of Brassworkers, Associated Blacksmiths, Smiths and Strikers, Patternmakers, Friendly Society of Ironfounders, Associated Iron-moulders, Boilermakers, Shipwrights. The largest and most important was the ASE with 174,253 members in 1914

I do not think we can materially increase our membership during the war /because of military service/ unless we enrol the large number of women who are entering the industrial field. It is almost certain that women workers will remain permanently in a large number of industries and the economic difficulties will become serious when men return ... and are unable to obtain employment ... The organisation of women workers has never been easy, but as a union we are in a position in consequence of our large membership and financial power to benefit women workers to a larger extent than other organisations with whom we are competing.¹

The Scottish District Secretary - J MacKenzie - spoke in a similar vein at the same congress while stressing at the same time the permanent change that was bound to occur as a result of dilution:

These women will not receive the status enjoyed by those whom they displace. This wholesale introduction of women must be faced boldly because it is fashioning a dangerous weapon which may be used effectively by the employers if these women are not organised ... The women have come to stay, the war indeed confirms that.²

The defensive response of labouring men to the challenge of the influx of women industrial workers was echoed by other general unionists and even more significantly perhaps by women unionists and organisers. The thrust of their propaganda was formulated not so much in terms of improving the position of women but rather in terms of strengthening and defending the position of the men. What is astonishing is the degree to which this attitude became part of the credo of women trade unionists who desisted at all times from expressing a distinct set of demands, such as an improvement in wages, without linking those demands to the men's wage levels. The emphasis was constantly placed on the struggle to 'maintain' the male wage level rather than to 'raise' the women's wage level. That is not to say that women's wages were not at all times contingent on the men's. However, the degree of emphasis on a standard of equality and protection

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1. NUGW Quarterly Report and Balance Sheet, March 1916, 9. At the end of 1915 the NUGW membership totalled 133,214, NUGW 16th Biennial Congress, 1916, 106
 2. NUGW, 16th Biennial Congress, 1916, 26

of male rates in a situation where the majority of women had only just emerged from sweated, sub-minimum conditions must have sounded far fetched to many. It was a curious situation indeed where men were being exhorted to join the union for the protection of their own wages and women were being urged to join for the defence of men's wages. Mary Macarthur summed up the prevalent attitude more succinctly than she imagined when she said that 'behind the man striving to maintain his standard was his wife and children', and pledged that organised women would never dream of creating difficulties in the process of job restoration.¹ Marion Phillips declared in 1916 that it was the duty of women to join a union in order to maintain the wage level.² Similarly men activists dwelt on the dangers posed by an unorganised body of women and laid little stress on the need for organisation among women for their own benefit. John Scurr - described by the Woolwich Pioneer as 'one of the Herald men' - was reported as saying:

Unless women are brought into the unions they will become competitors instead of the helpers of the men folk ... we ought all the time have invited them into our trades freely but into our unions first.³

George Shann - first Secretary of the Anti-Sweating League and an active member of the WU - viewed the entry of women into industry with obvious apprehension. He charged women with a lack of solidarity, with tolerance for abysmal conditions and low wages. According to Shann it was the entry of women into an industry which tended to drive out the men and urged his readers to organise women in order to maintain wage levels:

The chief menace comes from the women. Women are notoriously difficult to organise. Every girl expects to be married some day and therefore does not consider her work as a life career. She expects to leave the workshop when she gets married.⁴

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1. Woolwich Pioneer, 31 August 1917, 3, Mary Macarthur at a presentation to W C Anderson
 2. Trade Union Worker, January 1916, 8
 3. Woolwich Pioneer, 3 December 1915, 2
 4. Workers Union Record, May 1916, 2, 'Labour Problems after the War' by G Shann

John Beard - General Secretary of the WU - took the view that women represented an element of potential threat by virtue of their efficiency:

The community has no right to interfere with the occupations of women only on the grounds of motherhood ... the men have too often looked upon women's labour as being of a mere passing character ... whilst all the time the woman was waiting to knock the spots off him and his job.¹

Councillor G F Titt (Manchester) similarly aired his apprehensions and was not the only labour activist who spoke of the necessity of preventing a 'sex war' - an expression in wide currency at the time that was intended to denote job competition. At a conference organised by the Manchester and Salford Women's War Interests Committee,

Councillor G F Titt (Manchester) believed that whatever agreement had been entered into on behalf of the Government in regard to female labour would not be kept. Women were in industrial establishments forever and the only point which concerned them was to avoid a sex war.²

In this situation where the increase in the number of women munition workers was accompanied by labour suspicion coupled with uncertainty about the future, the drive to recruit women was spurred on by men and directed by the larger units of general labour.

As a rule, the mixed unions provided the most stable and successful framework for the organisation of women, the NFWW being the only notable exception. However, even the NFWW which became a mass organisation during the war by campaigning among women labourers and also among women fitters, turners and welders relied to some extent on the support of the exclusively male ASE. The details of this partial dependence will be discussed in a subsequent part of this chapter.

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1. Ibid., July 1916, 6, Triennial Conference of the WU at Birmingham, John Beard's Presidential address
 2. Yorkshire Factory Times, 23 March 1916, 1

The rubber industry is a good example of the failure of women employees to establish their own industrial union. A new impetus was given to the rubber industry by the war which called for the manufacture of such diverse items as tyres, waterproof clothing, surgical and medical instruments, and electrical fittings and cables - all of which were included in the definition of munitions. Although the occupations covered by the manufacture of these goods were mostly unskilled, the large number of newly recruited women were galvanised into joining general unions which catered for them and substantial advances in recruitment were made.¹ By contrast the Women Rubber Workers' Union ceased to exist in 1915. Other exclusive women's societies managed to mobilise but a few thousand members.²

However, while mixed unions offered better established and more stable organisations, they did inhibit to some extent whole hearted participation. The obstacles which were noted by women organisers then have continued to bear on the development of women's unionism up to the present; these will be discussed in the section dealing with problems of organisation. On the other hand in negotiations with employers women found it useful to present their claims together with those of the men. Ruby Part - a WU organiser - complained that in one instance the wage demands of 7000 women employed in Admiralty dockyards and cordite factories were ignored because they were presented separately from the men's.³ In August 1918 a major campaign was mounted by women munitions workers for a rise in women's war advances of 10/- for women and 5/- for girls. There were mass meetings throughout the month at the Woolwich Arsenal and Dockyard in which the WU appears to have played a major role. During the campaign Florence Lunnon - a WU organiser - supported the strategy of mixed unionisation for women and maintained that separate negotiations worked to women's disadvantage.⁴

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1. Lab 2/263/TB 10060/7, Report on the rubber industry, 29 November 1918
 2. B Drake, Women in Trade Unions, 113
 3. Workers' Union Record, June 1917, 7 and July 1917, 7
 4. Woolwich Pioneer, 16 August 1918, 23 August 1918, 30 August 1918

Many employers of course continued to pursue a policy of boycotting workers' organisations and one of the first arguments was to claim that the union did not represent the majority of the workforce. Thus in the course of a dispute at the Portland Forge, Kilmarnock, in which women were represented by the WU, the employers asserted that in the past they had always dealt directly with the workers and denied the Union's right to represent the labour side:

We think that as with other unions whom we had previously come into contact the membership is merely make believe got up by the union agent.¹

In some cases, it was reported by NUGW officials, employers' opposition to unionisation in general hardened and widened its scope as a result of the union's assumption of negotiating responsibility on behalf of women. H Lynas - their Northern District Secretary - reported in 1916:

Our difficulties have been increased by the opposition shown by many employers to our dealing with questions arising among women who have joined the union.²

One way in which employers attempted to combat women's unionism was to refuse to negotiate with women's representatives even though they recognised the men's. These employers tended to encourage 'a weak type of women's organisation - preferably a small "sectional" all women's society'.³ One example of this was the WU dispute in August 1918 in which the employers tried to compel workers to join another weaker union - the Bakers and Allied Confectioners who in 1917 had merely 500 women members⁴ - in order to prevent a closed shop. The strike was settled on condition that WU business was not to be conducted on the firm's premises and that non-union labour was not to be 'molested'.⁵ In the Nut, Bolt and Screw trade, where women had always

1. Lab 2/206/5129, Dispute between Portland Forge, Kilmarnock, and the WU, 11 August 1917
2. NUGW, Quarterly Report and Balance Sheet, March 1916, 19
3. B Drake, Women in Trade Unions, 201
4. M.o.R., Report of the Women's Employment Committee, Cd 9239, 1919, 103
5. Lab 2/428/6500/2, Dispute between the WU (women's representative Emily Weaver) and Messrs Oxford, Burton-on-Trent, Confectioners, August 1918

been employed in low grade jobs of 'tending and feeding the machines', the WU felt sufficiently well established as a result of ^{war-time} experience to oppose the establishment of Trade Boards because during the war the women 'replaced the men and boys', and were subject to Statutory Orders.¹

Trade Board legislation was resisted in some trades after the war by mixed unions like the WU but the NUGW while professing the principle of equal pay was bound to recognise the existence of wage anomalies among its members. A campaign known as the National Movement for Lower Paid Munition Workers² and vigorously supported by the NUGW, was partly motivated by the threat of female competition and partly by a moral obligation to their newly recruited membership:

Support to the principle of the Movement [the National Movement for Lower Paid Munition Workers] was also given by Bro. Glyde who referred to successful organising of women workers at Bradford and urged the need to safeguard the economic position seeing that he knew a munition factory where women were turning out satisfactorily more work than men.³

Labour activists outside the trade union movement also gave their vigorous support to the notion of mixed unions. Arthur Greenwood maintained that separate women's unions were a threat to working men and a potential 'fourth column' of competitors who through war work had moved from ill paid to better jobs. 'Efficiency will be the test of the employment of female workers. It would be disastrous if the women were to form trade unions of their own'.⁴

Thomas Shaw drew lessons for the future by maintaining that:

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1. Lab 2/263/TB 10202/18, Report on the Nut, Bolt and Screw Trade, 1919
 2. The National Movement for Lower Paid Workers, which does not bear that name in Government documents, presumably refers to the campaign waged in 1916-17 by the general unions (NFWW, WU, NAUL and Dockers) on behalf of the unskilled workers in munitions. They demanded equal pay on behalf of unskilled women time workers, on men's work, who were not covered by the L2 circular (see MM, Vol V, part 2, 30-54) and for a regular scrutiny of war advances for male workers, a demand which was won in the Spring of 1917. (See MM, Vol V, part 1, 73-88.) The case for equal advances for women was never won. (See Chapter 5.)
 3. NUGW, General Council Meeting, 13-14 May 1916, 4
 4. A Greenwood, 'How Readjustment may be facilitated after the War', Ruskin College, The Reorganisation of Industry, (1916) 32

Women working along with men in the same organisation can get better wages by far than it will be possible for them in a special women's organisation and I deprecate the tendency of so many people to think that unless a woman represents a woman the women workers cannot get representation at all.¹

The increase in women's membership of the mixed unions was accompanied in some cases by an increase in the number of women organisers and officials. Julia Varley, Kate Manicom and Ruby Part were members of a new band of women organisers in the WU who grew in number from nine in 1916 to twenty by the end of the war.²

The NUGW however rejected a resolution in 1916 to appoint a woman official despite the fact that it had 5000 women members at the time.³ By December 1918 the NUGW had seventeen women branch secretaries⁴ but there were no women organisers at the district level. A resolution put forward at the NUGW Congress in 1918 'that owing to the ever increasing number of females entering into industrial work the time has now arrived for the appointment of a woman organiser to each district' was in effect rejected by the Chairman and the resolution was withdrawn.⁵ This reluctance to promote the organisation of women with a more adequate staff was an obvious index of prejudice in circumstances where local representatives were voicing complaints that other unions were competing more favourably in recruiting women because they employed a greater number of organisers. In the Northern District where the NUGW had 8000 women members out of a total of 33, 224 the local official complained that 'we have a similar union to ours to compete with who have in this district more officials than we have, also two women organisers ... If we had as many officials as our competitors we would be more successful still'.⁶

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1. Ibid., 39, Thomas Shaw was the Secretary of the Weavers Amalgamation
 2. R Hyman, The Workers' Union, 87
 3. NUGW, 16th Biennial Congress, 1916, 106
 4. NUGW, Quarterly Report and Balance Sheet, December 1918, 101
 5. NUGW, 17th Biennial Congress, May 1918, 80
 6. Ibid., 49

The 17th Biennial Congress of the NUGW recorded only two women delegates; Mrs Butler who represented the London District and the well known suffragette and trade unionist Mrs Leonora Cohen who represented Leeds.¹

The policy and ideology of the NFWW, by far the most important women's union and a considerable organisation of general labour in its own right requires some further examination at this point. One of the most important aspects of its war time development was the support that it enjoyed from the foremost male craft society - the ASE. No other general labour union enjoyed this kind of assistance, which amounted to a collaboration in recruiting, while in return the Federation was pledged to protect the men's standards of wages and conditions, and above all to support the restoration of trade union practices and the reinstatement of ASE members after the war. This co-operation originated in an agreement signed in June 1915 whereby the ASE undertook to campaign for the organisation of women workers in the NFWW while in return the Federation undertook quite specifically to withdraw its members from occupations claimed by the ASE at the conclusion of the war.² This agreement incurred the bitter hostility of the other general unions, particularly the WU and the NUGW. Other policy disagreements derived from this ASE/NFWW accord and they affected adversely the relations of the Federation with the mixed general unions, particularly the WU. The industrial composition of the WU differed from that of the NUGW and exacerbated an already tense situation with the Federation. On the one hand the conflict of the NUGW and the ASE was to some extent regularised by the fact that the NUGW had agreed to

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1. Mrs Cohen belonged to the No 1 Munitions branch of Leeds and District. Her membership card shows the following details. Subscription 1916, 3d; 1917, 4d; entrance fee 1/-; unemployment benefit (1d extra) 10/- per week; strike benefit 12/6; dispute grant 10/-; full benefits after six months' membership. Membership card by courtesy of Mrs Cohen
 2. Workers' Union Record, August 1916 and G D H Cole, Trade Unionism and Munitions, 203-4. See also Chapter 5 above. Hinton, The First Shop Stewards Movement, 72, quotes from the ASE Annual Report January 1917. 'In return for the Engineers' agreement to act jointly with them in wage negotiations the NFWW agreed to withdraw its members at the end of the war from any occupation claimed by the ASE'.

transfer their fully skilled members to the ASE and the craft society disbanded its special unskilled section in 1917.¹ The WU on the other hand had entered the war with a sizable proportion of semi-skilled mechanics in engineering and had no interest therefore in transferring their fully skilled members to the ASE.² Moreover the wage bargaining policy of the WU in regard to its women members differed substantially from that of the NFWW as was shown in Chapter 5. The 1916 wage agreements signed by the WU in the Midlands which fell short of the demands put forward by the NFWW caused a rift in the relations between these two bodies. No doubt the higher wage demands of the NFWW were largely prompted by its allegiance to standards set up by demands of the ASE and also perhaps by the fact that the NFWW contained a larger proportion of semi-skilled women workers - fitters, turners and welders - than the WU. The latter represented a large proportion of semi-skilled male workers from the working population of the Midlands where women however had been employed in the metal trades before the war at very low wages.

Other extraneous animosities may have been visited on the NFWW for reasons not directly connected with its trade union policy but with its ASE connection. Both the NUGW and the WU resented of course the greater immunity from conscription which was enjoyed by members of the ASE by virtue of their craft status. Against this background of interunion rivalry, the normal practice of poaching thrived and was intensified, and in the case of the NFWW it was exacerbated by its involvement with the male craft union.

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1. In September 1916 the NUGW and the ASE signed an agreement defining their respective spheres of influence in their recruiting campaign. No such agreement was signed with the WU, despite abortive negotiations in 1915. As a result of this failure to come to terms with ASE policy, the WU was refused membership of the Engineering and Shipbuilding Federation when it applied for admission in 1918. See Hyman, The Workers Union, 120-2
 2. J Hinton, *supra*, 73

In August 1918 the Workers' Union Record editorial spoke of the 'violent opposition of the craft unions to women organised in the general unions' and commented with considerable bitterness on the fact that the NFWW were allowed to affiliate to the Birmingham Joint Engineering Trades Committee on undertaking to withdraw all women from engineering when requested to do so.¹ According to Cole the general mixed unions had refused to give similar guarantees to the ASE,² although it is highly unlikely that the composition of their membership would in any case have made it possible for them to exercise any significant degree of control over job reallocation after the war. By contrast the women's union (NFWW) continued to wear the mantle in which it had cast itself at its foundation in 1906; it continued to act for and on behalf of women workers who could not find a collective home in other established industrial organisations. It catered therefore for a potential female membership which, during the war situation when sex/occupation boundaries had shifted so significantly, could have fitted in equally well in the mixed general unions. Its competitive position therefore in regard to the other unions might in any case have brought the NFWW into conflict with them, as indeed was the case of the inter-union strife of the WU and the NUGW. However, ill feeling against the NFWW was gravely exacerbated by its support for and dependence on the ASE - a traditional target of animosity.

The statement of some women leaders of the NFWW who appealed to the women's collective to abide by male workers' demands for reinstatement were not therefore conducive to smoothing over difficulties and differences. Isabel Sloan (of the NFWW) was not wise to stress this when she said:

I hold for one, that if you get the women into trades now and relax all your rules and regulations, you will never get them out again unless you see that they are all unionists.³

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1. Workers' Union Record, August 1918, 4, editorial
 2. G D H Cole, Trade Unionism in Munitions,
 3. TUC Conference Report 1915, 372

A statement like the one quoted above was bound to imply that the purpose of organising women in the NFWW was to make reinstatement more feasible. However, the issues raised by the NFWW pledges to support reinstatement were subtly but significantly separate from the promises of restoration of trade union customs. While every dedicated trade unionist belonging to an industrial, general or craft union subscribed to the restoration pledge, the reinstatement guarantee - and here it must be pointed out that it meant the reinstatement of members in their pre-war jobs - was a demand that was realistic only in the case of members organised in powerful craft societies where they were being replaced by dilutees. The reinstatement pledge at Beardmore's for instance spelt out the promise by stressing the temporary nature of diluted labour:

Messrs Beardmore of Clydebank are giving to all unskilled men and women who enter their employment a certificate certifying that they will be engaged for the period of the war only.¹

While it was feared by male unionists and labour politicians that the type of certificate quoted above was not worth the paper it was written on, (see Chapter 3), its very existence was proof of the relative strength of skilled men in relation to the unskilled. The pledge to restore pre-war practices was part of the Treasury Agreement which was signed in March 1915 by the craft unions as well as the three most important general unions (NUGW, WU, NAUL, the NFWW was significantly excluded), but its enforcement was clearly not equally applicable to all men. The relevant clauses which pledged restoration as well as reinstatement ran as follows:

No change in practice made during the War shall be allowed to prejudice the position of the workpeople in our employment or of their trade unions in regard to the resumption and maintenance after the war of any rules or customs existing prior to the War.

In any readjustment of staff which may have to be effected after the war, priority of employment, will be given to workmen in our employment at the beginning of the War who are serving with the Colours or who are now in our employment.

1. Mun 2/27, 26 February 1016, 3

The above formula incorporated the essentials of the Shells and Fuses Agreement signed in February of that year and which specifically referred to the temporary employment of female labour:

In the event of semi-skilled or female labour being employed as per the foregoing clauses they shall first be affected by any necessary discharge either before or after the war period.

Subsequently all the provisions of the above Agreements were incorporated into the Munition Acts of 1915 and 1916, but the fear that these pledges would not be observed persisted in the ranks of unionists. W J Davis, of the Parliamentary Committee of the TUC proposed the following resolution in 1916:

In all cases where the trade union rules and customs were relaxed they should be restored after the war, this Congress empowers the Parliamentary Committee to call for the status-quo ante when peace is declared.¹

This call was supported in the debate by the Boot and Shoe Operatives and by W Mosses of the Pattern Makers who called on delegates to be scrupulous in recording 'workshop changes' - a procedure which included the collection of data on departures from trade union practices and on changes in personnel.²

A delegate to the Scottish TUC representing the Operative Bakers obtained assent to a resolution which demanded that:

female or other unskilled labour would be employed during the war period only, or until such time as skilled labour was procurable in the various industries affected.³

On the other hand the London and Provincial Vehicle Workers specifically called for:

a revocation of the order licensing women to act as conductors on omnibuses and tramcars ... that all such licenses issued shall be for the war period only and that on peace being declared all such licenses shall automatically expire.⁴

1. TUC Conference Report 1916, 244
2. Ibid., 246, 247. The obligation to record workshop changes or deviations from trade union practices was initially placed on the employers who proved rather dilatory in the matter. Subsequently, in October 1915, Local Labour Advisory Committees were entrusted with the task but it was not until December 1916 that the Ministry of Munitions made itself responsible for the collection of records. From then on it became a more efficient and routine operation and arrears were made good. See G D H Cole, Trade Unionism and Munitions, 194-5
3. Glasgow Herald, 29 April 1916, 9. Mr Laird representing the Operative Bakers in his address to the Scottish TUC
4. TUC Conference Report, 1916, 301. The resolution was carried unanimously

The delegate's speech ended on a particularly hypocritical note:

So far as their wages and working conditions are concerned, we have done our part by the women; we now have to do something for the men who are away and we desire Congress to pass this resolution ... to get rid of the women after the war, so that the men can resume their work and the women can find better work elsewhere under conditions that will not be so harmful to their moral welfare.¹

The TUC proceeded to implement the resolution and in February 1917 sent a deputation to the Home Office demanding that licenses for women conductors on buses and trams be withdrawn after the war.² In response the Home Secretary proceeded to limit women's licenses to one year and promised that 'if he was in office when the war ended, he would do his best to see that the men had the fullest possible protection'.³

In view of the instances quoted it does not appear that the 'collusion' between the NFWW and the ASE was unique in labour's war time experience, nor was it always as explicit or as prejudicial to women's interests as would seem at first sight. As was pointed out in Chapter 5, the war time alliance between the two organisations was specifically oriented, at least in theory, to an equal pay struggle. Mary Macarthur rightly stressed in the 'restoration' debate of the 1916 TUC Conference the difficulties of a simplistic interpretation of the pledge of restitution in engineering to status-quo ante.

It is a struggle ... between men and women on one side and the employers on the other who use female labour to depress the conditions. This problem is not so simple as it looks ... Many questions will arise when the reduction of wages comes to be considered ... There is for instance the question of all the automatic machinery that has been introduced; an understanding will have to be arrived at with a due regard to that development in the war industries ... The preservation of your standards depends on your foresight and upon your strength to enforce your standards ... Let us organise ourselves and let the men and women determine to stand together in face of the common enemy we shall have to meet.⁴

1. Ibid., 301-2. It should be noted that women tram and bus conductors in London obtained equal wages to those of the men and by 1918 equal war advances. See B Drake, Women in Trade Unions, 92-3. The men's claim quoted above therefore that they had done 'their part by the women' was substantially valid
2. HO 45/10926/124596/44. Deputation of the TUC to the Home Office, 13 February 1917, 10. 3. Daily Sketch, 14 February 1917
4. TUC Conference Report 1916, 247

Earlier, in 1915, Mary Macarthur's analysis of the impediments to straightforward restoration echoed the acceptance of some undesirable realities voiced by J T Watkins - the NUGW delegate - to the TUC Congress in 1915. He made his intervention, which bore directly on the vital problem of restoration, to a debate that was essentially concerned with enforcing a woman's minimum wage of £1:

We are told that the introduction of women into the factories and workshops is only temporary; but we must know, in spite of the statement of the Munitions Minister, that in many cases the women have come to stay, particularly when you remember that the women in the workshops are not directly displacing the men, but are engaged on different work to that which the men were or are doing. I was at a workshop in Manchester, for instance, which employs fitters; and in all that establishment, which now employes a large number of women, there is not one woman who is doing work which was formerly done by men.¹

H Luckhurst, speaking on the same occasion and representing the Scientific Instrument Makers, was similarly doubtful as to the feasibility of fulfilling the reinstatement pledge:

In spite of the statement of the Minister of Munitions as to the men being restored to their former positions after the war, we know that that is practically impossible. The employers will have learnt what the women can do in these various occupations; and once they can know that, it will be difficult to get rid of the women. In fact, it would be unfair to get rid of the women after they had served their country so well in the time of national danger.²

For the duration of the war at least the ASE was helping, largely no doubt in its own interest, to organise women workers in the NFWW even before the signature of the June 1915 agreement (see page 317). The Woolwich Pioneer, which did not represent craft interests, had already reported in April 1915 that Mary Macarthur had begun a recruiting campaign on behalf of the NFWW in Erith, Dartford, Crayford and Woolwich and that 'ASE men have taken up the question vigorously and are doing most effective propaganda among the women employed by their firms'.³ Following the June Agreement, in July 1915, the ASE district branches received the following circular

1. TUC Conference Report 1915, 373
2. Ibid., 373
3. Woolwich Pioneer, 23 April 1915

from the Executive Council urging them to assist the organisation of women in the NFWW and naming the WU specifically as a rival organisation:

The Executive Council draw your attention to the fact that the WU are claiming to represent women workers in certain districts and notify you that they do not accept the claims of the WU and urge you to assist in every possible way the FWW [NFWW] which is formed solely of women workers.¹

While the main dispute between the NFWW and the WU over the question of wages (see Chapter 5) has been well documented,² the struggle for membership embroiled also the NUGW. Quite apart from the fact that the ASE had relaxed its membership rules during the war to include semi-skilled men,³ it also attempted by virtue of its agreement with the NFWW to maintain some control over the Federation's war time policies and its pledge to withdraw women dilutees after the war. During the war the NFWW competed with other general unions, like the NUGW, to recruit the lower skilled - a task in which the indirect influence of the ASE was on occasion apparent. In 1916 the NUGW attempted to regularise its inter-union rivalry with the NFWW by redefining the scope of its recruiting campaign. The accord between the NFWW and the NUGW contained the following points:

1. Recognition of each union's membership and avoidance of pressure for transfers; arrangement for transfers where women were isolated in small groups.
2. Industries recognised as women's trades to be relinquished in favour of the NFWW.
3. Clear majority of either union to entitle it to first claim in organising members, with consultation.

1. G D H Cole, Trade Unionism in Munitions, 204

2. R Hyman, 'The Workers Union 1898-1929' (Oxford 1968, PhD thesis), 224-30, R Hyman, The Workers Union, 92, G D H Cole, Trade Unionism and Munitions, 99

3. B Drake, Women in the Engineering Trades, 85. 'The Society (ASE) forms the nearest approach to an 'industrial' union, covering at least every class of skilled tradesmen or semi-skilled mechanic'. According to J B Jefferys, op. cit., 166 few semi-skilled men had been recruited into the Society until the beginning of the war. The relaxation of rules in 1901 to admit machinists did not lead to an increase of more than 4000 members under this rubric by 1904. The 1912 decision to allow unskilled men to join Section F, was even less successful in terms of numbers and was repealed in 1917.

4. Special consideration where women members were substituting for male members of the NUGW.
5. Joint application for wage claims if either union had a one-third female membership.
6. In case of dispute a joint committee to be set up.¹

This agreement did not appear to have regulated satisfactorily the relations between the two organisations. In 1917 the NFWW 'wrote explaining their actions in sending organising officials to Gretna',² but the poaching continued. Later on in the same year the Northern District of the NUGW pleaded for the termination of the working agreement with the NFWW.³ More serious were the attacks and the vituperation from the Executive Committee of the NUGW:

Reference was made to attacks by the Federation on our organising meetings at Elswick Works, Newcastle, and the Women Workers' Federation complained of a circular issued by our Northern District which appeared to reflect upon them.⁴

Most of the blame however was reserved for the craft unions who, it was said, dissuaded women from joining the NUGW and were promoting the interests of the Federation. The Scottish District reported that:

The outstanding obstacle, apart from ordinary competition in getting the women is due in munitions work etc., to the fact that the craft unions have set their faces against the presence of labourers on the Dilution Committees; indeed we have an instance where some of the shop stewards of one particular union are doing their best to dissuade women from joining our society. The motive underlying this contemptible practice is obvious to the merest tyro in trade union malpractice.⁵

The generalised antipathy against the craft unions who represented rival organisations contained clearly an element of resentment against the protection and patronage extended by them to the NFWW. One NUGW representative on the General Council complained that:

1. NUGW Executive Council Meeting, 21 July 1916, 3
2. NUGW EC Meeting, 19 September 1917, 4, 5
3. NUGW General Council Meeting, 19 November 1917, 10
4. NUGW EC Meeting, 19 September 1917, 4 & 5
5. NUGW Quarterly Report, 24 June 1916, 24

The Steel Smelters and the ASE had threatened to organise unskilled men and labourers in the iron and steel trades and had urged women to join the Women Workers' Federation because of antipathy towards us.¹

In 1918 the Northern District representative complained that 'one so called craft union [not specified] take upon themselves the special care of women workers and do their utmost to influence women to join a women's trade union instead of ours; this union not only uses their official influence but use their shop stewards who are working among women workers to organise them into this women's union'.²

In view of this continued recruitment drive and assistance from the craft unions it cannot be claimed that the NFWW - to all outward appearances a women's organisation - was in fact a valid model for subsequent women's trade unions. It grew and became successful during the war partly as a result of the tremendous growth of women's employment, partly due to the brilliant leadership and political flair of its General Secretary - Mary Macarthur - but its exclusively female composition did not in the end prove to have a substantially greater drawing power than the other general unions. Moreover it could be claimed that it owed its remarkable growth partly to its close co-operation with the ASE and the help it received on the shop floor from the Society's members. Particularly on questions of wages the NFWW was the beneficiary of the negotiating powers of the craft unions which had from the time of the L2 and L3 Circulars undertaken the struggle for women's wages. In some cases indeed the wage negotiations on behalf of the NFWW were conducted jointly with the ASE. The Woman Worker reported in November 1917 a case of a firm refusing to pay women workers the fully skilled or semi-skilled wages as agreed. The Federation jointly with the ASE took the case to arbitration, as a consequence of which the firm agreed

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1. NUGW General Council Meeting, 16-17 May 1918, 3
 2. NUGW, 17th Biennial Congress, May 1918, 49

to 'go through their book' with the ASE official and a settlement was reached. The Federation recorded their thanks to the official in question 'and to the shop stewards who as usual spared neither time nor trouble in the cause of women'.¹

By the end of the war the Federation had 100 organisers among them one man, Charles Sitch, and Miss Macarthur claimed in a book written after the war that the 'FWW has been a good school'. According to her account it gave the women the opportunity for the first time to run a large union - an unprecedented experience in most mixed unions where women were never proportionately represented on executive councils.² On the other hand it could not be claimed that the Federation's policy was unaffected by its union with the ASE. The policy of restoration was always vigorously defended by Miss Macarthur and her colleagues:

Rightly or wrongly certain definite pledges, including the restoration of trade union customs and conditions were given by the Government in consideration of the agreement by the trade unions to their temporary suspension and there can be no doubt that these pledges can only be modified by consent.

Although the women were never consulted when the pledges were given, I cannot imagine that any organisation of women would think of asking they should not be redeemed. I am also certain that no individual woman will desire to retain the job of any soldier or sailor who may return to claim it.³

Mary Macarthur's position on pledges to the men's unions accorded with the consistent support for the rights of the men which was already being enunciated in July 1915 by the veteran women's trade union organising body - the Women's Trade Union League.

Sooner or later vast numbers of men will be returning to normal industry. The position of workers who have voluntarily thrown up their employment to serve the nation in the field must not be prejudiced on their return. It has become an axiom that the substitution of female for male labour must not be allowed to depress existing standards. But from the women who temporarily fill the breach an even harder sacrifice must be claimed - the sacrifice of yielding up the position to its original holder if and when he returns to claim it.⁴

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1. Woman Worker, November 1917, 18
 2. Mary Macarthur, 'The Future of Women in Industry', Marquess of Crewe (ed) Problems of Reconstruction, (1918) 155-6
 3. North Mail, 11 September 1917, 'Women's Work' by Mary Macarthur
 4. Violet Markham, 'Women Trade Unionists and the War', Women's Trade Union Review, July 1915, 14

The significance of the pledge to yield place to the original occupiers of jobs while important in itself is even more telling in that the drive to unionisation was subtly but significantly marked by it. Exhortations to women workers to organise had an unmistakably hollow ring when they were coupled with a call ^{to} be willing to get out when the time came. As a result the prevailing ideology of the NFWW suffered from the subordination of its own interests to those of their male counterparts. The ASE and the other skilled engineering unions carefully avoided the dilemma of having to banish their own members after the war by excluding all emergency workers both male and female,¹ but the NFWW promised to do it for them in the case of their own members. This alliance was therefore an ambiguous source of strength; the backing of the craft unions was a valuable asset in the corridors of power and on the shop floor but it diminished and overshadowed the traditionally weaker partner who had not acquired the ability or the numerical strength to postulate its own demands. In some workplaces the men possessed other, less bureaucratic and more successful means of ensuring their own reinstatement. In the North-East while the engineers were still forcefully opposing dilution, some men at the Jarrow shipyard had found their own, almost foolproof device for the recovery of jobs; women relatives were introduced to do their work.²

The co-operation and assistance of the ASE in the recruitment drives and wage struggle fought by the NFWW did not extend to power sharing on negotiating bodies, shop stewards' committees or conferences and, later on

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1. B Drake, Women in the Engineering Trades, 106. Cole, Monica Ewer and W Mellor in a memorandum commented as follows on the exclusion of women from the ASE. 'The ASE and most of the other [skilled engineering] unions have aimed at excluding from membership as far as possible not only women, but also male emergency workers who have come to the industry during the war. The motive suggested in the main report, i.e., the difficulty for a trade union of displacing its own members after the war holds no less in the case of semi-skilled and unskilled male workers than in the case of women'
 2. Mun 2/27, 29 January 1916, 2-3

in the war, the Works Committees where these had been established. The Ministry reported that there were no women representatives at the shop stewards' conferences that took place in March 1918 in Sheffield or Manchester.¹ Power of negotiation in most cases, was not only withheld from women but also from unskilled male workers. The Ministry of Labour reported in 1918 that:

The General Workers' Unions ... are growing with great rapidity. Meanwhile the skilled unions or federations, e.g. the ASE and the National Federation of Blastfurnacemen raise difficulties, particularly in regard to allowing members of the General Workers' Unions to have seats on Works Committees.²

The Coventry Engineering Workers Joint Works Committee which included representatives from less skilled unions and the NFWW was an exception, as Cole reported:

This ... is comparatively rare - in most districts the shop stewards' organisations consist wholly of the representatives of the skilled workers, the less skilled unions and the women being either unrepresented or having separate stewards of their own who are not included on the Committees. The disunity among the unions makes it impossible to organise Works Committees similar to the Coventry Committee.³

The reason for this remarkably democratic development in Coventry, according to Hinton, was that dilution in the motor car industry there had implanted itself well before the war. The ratio of semi-skilled to skilled workers in Coventry was far higher than in Sheffield, or in Glasgow or in the country as a whole, while the WU had established itself prior to the war as a militant and powerful organisation. In 1916 the WU had twice as many members in Coventry as the ASE without taking the women into account.⁴ It is worth noting that at the Hotchkiss Works⁵ the influence of diluted labour was powerful enough to press for the participation of a woman representative on the Works Committee.

1. Mun 5/53/300/99, M.o.L., report on the history of the shop stewards' movement, February 1920, 12

2. M.o.L., Federation and Amalgamation among Trade Unions (1918), 16 typescript LSE

3. G D H Cole, The Payment of Wages (1918) 97

4. J Hinton, The First Shop Stewards' Movement, 218-20 & ftn 217

5. French machine gun firm which was set up early in 1915

The election of a representative Works Committee of shop stewards at the establishment of Messrs Hotchkiss took place on 26th of April [1917] ... The women workers who did not make any nomination have been asked to elect a representative on the 1st of May.¹

The Coventry labour movement was clearly exceptional in seeking to co-opt women unionists onto their works' organisations.

It has been pointed out that the origins of the strife between the NFWW and the WU lay in this willing subordination of the NFWW to the dictates of the craft unions, notably the ASE.² This however was by no means the only enduring inter-union dispute of the period. While the sharpest attacks in the NUGW reports and balance sheets were reserved for the craft unions, their pages are also peppered with accusations against the WU. The NUGW June 1915 report complained of a WU recruiting leaflet distributed in Oldham which compared adversely their competitors' achievements in regard to wages with their own.³ In 1917 the Executive Committee of the NUGW complained of 'discreditable tactics' being adopted by the WU in organising tweed workers in the border towns.⁴

While the two above instances point to a climate of inter-union strife caused by the recruitment drive of new members among the vast new army of lower skilled employees, the general unions' disputes with the NFWW contained the additional ingredient of animosity against craft workers.

Antagonism of the unskilled towards the skilled was entirely absent among the women because there was no traditional engineering organisation among them. The NFWW recruited members in all grades of munition work and so did the NUGW and the WU; it goes without saying that women were excluded from all craft societies. The one notable exception to the practice of all grades organisation among women was the attempt to establish the Society of

1. Mun 2/10, 5 May 1917, 14
2. R Hyman, The Workers Union, also his 119-20, /PhD thesis, op. cit., 230-32
3. NUGW Quarterly Report, June 1915, 63
4. NUGW Executive Committee Meeting, 19 September 1917, 5

Women Welders. The Society was set up by the National Union of Women's Suffrage Societies (NUWSS) in 1915, in an attempt to train women welders for war work. Its object was to recruit middle class women for munitions work both paid and unpaid. Subsequently the training centre was taken over by the Government,¹ but the women welders formed a union, with some support from the ASE, and by the end of the war it had 500-800 members.² The Society which claimed that their members were skilled workers apparently assumed an exclusive policy. Solidarity reported disparagingly on their inaction in the case of a women filers' strike at the Wells Aviation Works in Chelsea:

Ladies - if not exactly in their own right at any rate in their own imagination and they couldn't see their way to be mixed up in a common factory girls' brawl.³

However, the majority of women oxyacetylene welders who were for most part employed in the aircraft industry were active in other unions such as the NFWW and were vigorously represented on the National Aircraft Committee by Miss Madeleine Symons.⁴

The problems of organisation

In an address to the TUC in 1921, a year of pessimism and discouragement for women's as well as men's unionism - Gertrude Tuckwell, the veteran President of the Women's Trade Union League - referred to women workers as the 'weakest link in the chain of labour'. Her specific appeal to men unionists was a plea to support the new Trade Boards Act 'for the sake of people who are even now having prosecutions carried on their behalf because

1. M G Fawcett, The Women's Victory and After (1920) 91, 92
2. J Blainey, The Woman Worker and Restrictive Legislation (1928) 73
M Lowndes, 'The Little New Trade Union', Englishwoman, April 1917, 20
IWM Box 92/47.2, First Annual Report of the Society of Women Welders, March 1918, President - Ray Strachey
3. Solidarity, January 1918, 5
4. Lab 2/662/LR 142/128, Meeting, 15 July 1918

they are paid at the rate of $\frac{7}{8}$ of a penny per hour'.¹ The year 1921 was one that signalled a definite downward trend in the collective organisation of women thus reversing for the first time since 1911 the steady increases of up to 1914 and the rapid rise from 1915 onwards. However, Gertrude Tuckwell who was an experienced campaigner in legislative reform for working women, clearly believed that it was the fall rather than the rise that was the more typical phenomenon of women's unionism, and that the war period represented an exception in the normal pattern of women's organisation. This pessimism was not shared by women organisers of the war period, even though as will be shown, the spokeswomen of the period regarded themselves as powerless without the support of the men and would appeal for the help of their male comrades in ways similar to Miss Tuckwell's. One reason for this dejection, despite unprecedented growth, was that in absolute terms the preoccupations of women's trade unionism remained at the level of recruitment and numerical strength while the men, during the same period of coercive legislation, exhibited a remarkable degree of control.

Women in war time munitions production were compelled to regard themselves as emergency or temporary substitutes, despite the fact that in many quarters their employment was being used as a threat to working men. The men on the other hand took this threat most seriously. Having been forced to give up an important area of freedom of action, they proceeded to assert their power in a less orthodox but remarkably collective manner.

The very struggle against dilution was a sign of a highly developed sense of collective organisation and it was particularly strong among skilled unionists. In Ireland, the shipyards were the spearhead of the struggle against dilution, because the rest of the movement was far weaker there. A Ministry official on the spot sensed this weakness of the other branches of

1. TUC Conference Report 1921, 226-7

the engineering industry there when he reported that 'It does not look as if we are going to have any trouble in diluting labour save in the ship-yards'.¹

It is in relation to the power and the new development of the male labour movement that the comparative retardation of women's unionism becomes particularly glaring. While women unionists were still largely preoccupied with recruiting members, an important advance guard of the male trade union movement had by then progressed beyond that stage to demand power sharing and control. Inevitably and despite its undeniable growth during the war, women's trade unionism did not exhibit a similar degree of self confidence but it is in terms of the new developments of the men's shop stewards' movement that women's collective organisation has to be judged. The steady advance of the shop stewards movement, initially spearheaded by the Clydeside revolt did not end with its defeat. It became nation wide in 1917 and its progress can be partly charted from the initial refusal of Employers and Government to recognise its spokesmen as valid negotiators in May 1917² to their subsequent recognition as rank and file representatives at a conference in December 1917 at which national officials of the ASE did not even participate.³ The importance of the shop stewards can also be gauged by the fact that employers, Government and the leadership of the ASE all attempted to channel this shop floor militancy into officially constituted and recognised bodies - the Works Committees.⁴

The Secret Weekly Report to the Munitions Council spelt the move out even more clearly:

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1. Mun 2/27, 5 February 1916, 3.
 2. MM, Vol VI, part 1, 120
 3. Ibid., Vol VI, part 2, 31
 4. Ibid., Vol VI, part 2, 31-32. The intention behind the move to set up Works Committees was undisguised: 'The Ministry hoped that the constitution of officially approved Works Committees ... would help to check the more revolutionary tendencies of the shop stewards' movement by bringing it into an ordered scheme'. Ibid., 32

The question of the institution of Works Committees as a means of improving relations between employers and employed is receiving increased attention. The Ministry of Labour has recommended them ... the ASE is again pressing for joint committees of employers and workers. These works committees might serve the useful purpose not only of improving the relations between labour and capital but also of steering the shop steward movement - the strength of which cannot be denied - into constitutional channels.¹

The implantation of shop steward or workers' power in some parts of the engineering industry was so far reaching that some employers were sceptical about the viability of Works Committees - or management sponsored bodies. Allan Smith, a member of the Employers' Consultative Committee was reported as saying: 'You can't have shop committees and shop stewards; the two are mutually exclusive'.²

The other example of successful collective resistance to the combined pressure of Government and management was the campaign of the engineering unions against dilution on private and commercial work which was fought at workshop and executive levels during most of 1917. This opposition was backed by industrial action and was not to be assuaged by promises to abolish leaving certificates.³ Another important and successful campaign by the men was the resistance against piecework and payment by results in the aircraft industry. Not only was the vote of the collective overwhelming on this issue but control in the London District was so complete that dissenting members were actually expelled for breaking rank.⁴ Similarly

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1. Mun 2/10, 16 June 1917, 14
 2. Mun 5/53/300/88, Meeting of Employers' Consultative Committee and Ministry of Munitions, 9 August 1917. See also Lab 2/254/ML 2240/37, 2 May 1917 for an interesting account of the Coventry strikes of May-August 1917
 3. Mun 5/71/324/30, Minutes of meeting between the Ministry and the Engineering and Shipbuilding Unions to discuss the extension of dilution to include commercial work
 4. For details of some of the discussions that took place from August 1917 - March 1918 see Lab 2/246/MWLR 4914. The example quoted from the London district is described in Ibid., MWLR 4914/30

in the engineering and shipbuilding trades opposition to payment by results continued throughout the war despite the fact that it was agreed to at the national level in February 1917.¹

Control over conscription is another instance of craft union power. The trade card system whereby exemption from service in the armed forces was vested ⁱⁿ twenty-five craft unions remained their privilege until the Spring of 1917. Even the subsequent system of protected occupations which was designed to circumscribe the power of the unions in this respect did not withdraw these privileges altogether.

All the above indices of strength were, of course, exclusive to the skilled organisations. The unskilled did not have the same vested interest in protecting their members from dilution nor did they dispose of weapons equal to the task of self-protection. John Beard, President of the WU, at one stage even voiced a general approval of the Munitions Act and maintained that the absence of strikes was a sign of general satisfaction. 'The union has not generally suffered from the Munitions Act', he maintained in December 1915.² It is true that this was not a universally accepted view even in the WU and Tom MacNamara, his challenger for the post of President that year, described himself as an unequivocal opponent of the Act which he attacked as oppressive and ineffective in its aims of increasing production.³ Subsequently, as a result of the severe limitation on the freedom of labour, no trade unionist would have wished to have been recorded as a supporter of the Acts. The clauses which restricted mobility through leaving certificates hit all workers equally and so did the prohibition of strikes and compulsory arbitration in a situation of severe labour shortage.

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1. Lab 2/258/IC 3385, Conference between John Hodge (Minister of Labour) and ASE, and Shipbuilding Trades with Lloyd George present. 6 February 1917, 34
 2. Workers' Union Record, December 1915, 1
 3. Ibid.

But the craft unions proved at all times more recalcitrant to Government attempts at further labour regulation and proved stronger in resisting further incursions on their traditional preserves by opposition to the extension of dilution. It was their coherence as collective entities that provided the militant vanguard in the shop stewards' movement which went well beyond the conventions of day-to-day trade unionism. It was the skilled engineers who vented their dissatisfaction in the general outbreak of strikes in 1917 with remarkably little solidarity or backing from the General Unions. The issues raised by that outbreak of unrest were manifold but one of these was the opposition to Government limitation on the issue of trade cards which exempted members from conscription. The members of the WU had never benefitted from this and the union was therefore opposed to the privileges granted to members of the skilled societies. The Herald announced and supported in January 1917 a WU mass meeting called in protest against this practice. 'We demand equality of treatment for all', ran their slogan.¹ The Workers' Union Record alleged that the trade card system helped the craft societies in poaching members from their own ranks, the Toolmakers being quoted as particularly guilty in this respect.² The WU resented the fact that they had never been consulted on this issue³ and MacNamara voiced his opposition to the trade card system and pledged support for the munitions effort.⁴ In May 1917 when 95% of mechanics at Woolwich were on strike MacNamara wrote to the Ministry:

It is rather hard that the union whose members are out on strike will not lose financially whilst our union who have been loyal will have to pay victimisation benefit.⁵

The women too were bound to suffer a loss of earnings as result of the May strikes. These provoked 'Very strong feeling ... and a recurrence of

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1. The Herald, 20 January 1917, 13 and 27 January 1917, Beard, Dallas and Gibson were to speak at the meeting.
 2. Workers' Union Record, April 1917
 3. Woolwich Pioneer, 18 May 1917, 1. 4. Ibid., 5
 5. Mun 4/2213/ no file number. Reports and correspondence on engineers strike 1917 - report from Woolwich, 12 May 1917

trouble was apprehended¹ when 300 women were laid off at Armstrong Whitworth (Manchester) owing to a shortage of steel caused by the stoppages.¹

It follows from the brief catalogue of well known issues raised by the craft societies that the labour movement was divided in its approach to industrial problems and that these divisions occurred as a result of uneven development. The craft societies had attained a measure of power which they did not hesitate to use while the general unions, which catered for lower grade workers, were still beset with the basic questions of recruitment and the maintenance of numerical strength and recognition by employers. The problems of women munition trade unionists converged in essence with the problems of unskilled union development. Partly as a result of their comparatively low level of organisation and partly as a result of exclusion from the craft unions, they were faced above all with the problem of numerical strength, recognition and pay. Women leaders campaigned to attract new members into collectively recognised channels of labour activity. It was the general unions which provided the vehicle for their absorption.

The stereotyped view of women's inefficacy in organising collectively persisted among some labour activists. Despite the rapid growth in the absolute numbers of women in unions - a process which quickened in pace during the last two years of the war - some forecasts of the earlier period are laden with despondency and couched in clichés in regard to their fickleness, incompetence and unreliability. The following is a passage written by H E R Highton - a Glasgow militant of the war time period - which might just as well have been written twenty years before 1916 or twenty years after:

The difficulties of organising women in industry are notorious. Their weakness in the economic, social and political spheres; narrowed outlook; temporary nature of their industrial life - real and imaginary; inability to pay for efficient organisation;

1. Mun 2/10, 26 May 1917, 13

difficulty of training voluntary workers to officer the branches ... In the words of one of the women's Trade Union organisers 'women learn very slowly the fact that their union is inside and does not consist of an organiser outside. They undertake no duties of shop stewards etc., seldom interview the firm or manager but call in an organiser in every difficulty ... Revolutionary doctrines are being super-imposed on women's minds - but they still keep their old fear and distrust'.¹

The unequal development of women's unionism in comparison to the men's class implantation inspired the vanguard of the men's organisations with fear and suspicion. The most advanced sectors of the working class refused to trust their less well organised fellow workers. J T Walton Newbold - a militant of the socialist movement - spoke disparagingly of the dilutees in general and of the potential of women to organise:

No class of worker is really safe and a general uncertainty aids in the spread of revolutionary ideas on every hand. But again, there is the influence of the dilutees to be reckoned with and a reckoning made of these sinister - if unconscious - elements of weakness and undoing.²

Moreover, ignorance about the true class composition of the vast majority of the army of women munition workers prompted the author to conclude that women dilutees were 'immigrant workers from the ranks of the dissolving middle class ... all these elements weaken us in our battle for economic emancipation'.³

The views quoted above were admittedly those of someone not intimately involved in the daily trade union struggle but they exemplified the mistrust and suspicion of women in engineering because experience had shown that in other circumstances they had been difficult to organise. The history of demands, negotiations and pledges is the reflection of that mistrust. The opposition to dilution, discussed in Chapter 3, was its daily reminder. Indeed there was no reason to suppose that women war workers who were called

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1. B Drake, Women in the Engineering Trades, 129, Memorandum on the Clyde written by H E R Highton in August 1916
 2. Mun 4/5005, Labour Intelligence Report, 7 June 1918, 2 quoted from an article in The Socialist by J T Walton Newbold, left wing member of the ILP and founder member of the CPGB, later MP. The Socialist was the SLP journal
 3. Ibid.

upon temporarily to fill men's jobs would feel any greater sense of obligation to join collective organisations than other millions of unorganised women before them, who for complex reasons had recoiled from any permanent involvement in the union struggle.

The well known exception to the resistance of women to unionisation was the case of textile workers and it was this example that was held up in recruiting campaigns on behalf of the NFWW by activists like Margaret Bondfield who addressed the women at Woolwich: 'She wanted them to tell the girls when they went out to work, "the first thing you have got to do is to ask who is the shop steward, or who is the union secretary and where you have to pay your contributions". In Lancashire the mothers had done that, because they had themselves been in industry. When there a young girl went out into the world, the shop steward went to her and said "Have you got your union card, my lass" and she replied "No", his rejoinder was "Go home and tell your mother you want your union card, she will tell you where to get it" ... She wanted the mothers of Woolwich to realise their duty in this matter.'¹

However, it appears that the campaign at Woolwich did not go well for the NFWW. In another address, at a later date, Miss Bondfield was prompted to use strong language: 'It was not merely negligence but downright selfishness which allowed them to stand aside while others bore the burden of the fight'.²

The long standing tradition of union loyalty among women textile workers had no parallel in other occupations nor did it always survive transplantation to other trades. Woolwich was not the only place where it was difficult to organise women workers. Even in Lancashire where munition workers were often migrants from the textile trades in which they may have been conscientious trade unionists, did not always transfer their loyalty to alien

1. Woolwich Pioneer, 5 May 1916, 3, 'Miss Bondfield on the Coming Struggle'
2. Ibid., 27 April 1917, 1

organisations in alien trades. Women's commitment was not based, it would appear, on an abstract ideal of solidarity but on a long nourished and specific trade oriented communal tradition that did not extend to include theoretical labour loyalties. The Bolton District Weavers and Winders reported in 1917 that:

Numerous members of ours have gone into munition making and many of them have made this an excuse to become non-unionists. We wish to point out that [sic] to those of our members that there is no necessity whatever to leave their trade union except to join another.¹

While traditional loyalties were not automatically transferred to parallel trade union channels, this did not preclude industrial activism by unorganised women, as the section on collective action will show. In view of the numerous cases of potential militancy among women, it is surprising to find that in some cases at least, the organisers adhered to the rule book and refused to act on behalf of non-members. Mrs Fawcett,² a national organiser of the NFWW refused to take up the cause of any who had not fulfilled the subscription requirements. She expressed:

regret at the lack of interest which members seem to have given to what is their own movement and their own business. I have no intention of working for girls who have not got the grit and spirit to be members of their organisation. I welcome all women into the movement and am prepared, on their showing a clear pence card to take up any just case and fight for them. In future the shop stewards of every shop will be authorised to examine a girl's pence card before taking up a case and if the girl is not clear her case will not be considered.³

Mrs Fawcett's strictures were prompted by difficulties encountered in the Newcastle branch where, according to Mary Macarthur (see page 306) the proportion of organised women was in any case high. What is even more surprising is that a strike in the same district (at Armstrong Whitworth) some months earlier had earned the disapproval of the union, which maintained

1. Cotton Factory Times, 20 April 1917, 3, 'Women and Unionism'
2. This is Mrs Harriet Fawcett and not Mrs Millicent G Fawcett - the well known suffragette - who was also sometimes referred to as Mrs Henry Fawcett
3. Woman Worker, February 1918, 3

that the strike could have been avoided had the women been members of the organisation. The leadership claimed that negotiations which involved a demand for 'piece money' or overtime in addition to the basic £1 could have been put in motion and industrial action avoided.¹ The fact that some women did not join the union, as Mrs Fawcett charged, is no reason for supposing that they were unable to organise and act collectively. It is a fact that an important strike took place among the women at Armstrong Whitworth Elswick Works (Newcastle) in March 1916² and as the Welfare Supervisor there subsequently reported (see Chapter 7) in the spring of 1916 the women were 'flushed with their recent successes'. At another Armstrong Whitworth plant at Scotswood (Newcastle) where the women were employed in the manufacture of cartridge cases, NFWW control appears to have been almost complete at least in one section of the works. It was reported in April 1916 that women on one shift staged a sit-in strike in protest against the employment of one non-union worker. The management thereupon transferred her to another shift where the women were not as tightly organised.³

The extent of managerial influence exerted against unionisation is difficult to gauge. As it was shown in Chapter 7, welfare officers did not hesitate to use disuasion techniques, penalising methods or straightforward victimisation. In June 1916 the Amalgamated Society of Carpenters and Joiners was moved to consider strike action because, it claimed, women were being penalised for joining a union.⁴ It was reported in 1917 that in one Controlled Establishment in London three women had been dismissed for joining the NFWW:

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1. Ibid., November 1916, 13
 2. Mun 2/27, 25 March 1916, 8. This strike on the question of wages lasted from 17 March 1916 to 20 March 1916
 3. Mun 2/27, 29 April, 1916, 8. This is an early example of a sit-in strike
 4. Mun 2/27, 10 June 1916, 9. The Society itself did not have any women members who presumably were being organised in one of the other wood-working unions or a general union

The Management had not even the wit to conceal the real reason from them; they were told that their services were to be dispensed with because they wished to attend the union meeting and the firm intended to 'nip trade unionism in the bud'.

The case came up before the Munitions Tribunal and while the firm pleaded that the women were dismissed because the nature of the work was temporary, the Chairman (Sir Robert Wallace) and his assessors 'were satisfied that the women ... had been dismissed solely because they wished to join the trade union'.¹ In another instance where women were represented by the Gas, Municipal and General Workers Union which comprised one third of the workforce, the employers (Buttons Ltd of Birmingham) refused to negotiate a wage demand with the Union and were quoted as saying: 'These are matters we discuss with our employees only and cannot see any reason for departing from this custom'.² A United Garment Workers' representative alleged at a Leeds Trades Council meeting that 300 men and women were being locked out by Burberry's at London and Reading,

for refusing to sever their connection with their trade union ... the employees had asked for a war bonus and were offered one on condition that they severed their connection ... They declined to do this and were ordered out of the factory.³

In the same issue of the Leeds Weekly Citizen which reported the above case, another disturbing occurrence was cited. A trade union meeting was raided by the military authorities as part of the general strategy of checking on men liable for military service. While women were not directly subject to these pressures the journal was of the opinion that:

If such raids take place, the effect on trade union organisation may be disastrous. The feeling has gained ground that probably employers were in this instance using the military authorities to frustrate further organisation of their staff.⁴

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1. Yorkshire Factory Times, 1 March 1917, 1
 2. Lab 2/425/IC 1954. Dispute between the women workers of the Gas, Municipal and General Workers and Messrs Buttons, Birmingham, March 1918
 3. Leeds Weekly Citizen, 2 March 1917, 5. This was the 8th week of the lockout
 4. Ibid., 6

Ben Turner at a Glasgow meeting referred to a similar raid which had been made at a gathering of the Shop Assistants' Union.¹

There is no way of knowing how frequently such raids were made. Indeed both the instances quoted above may refer to the same case, since they were both publicised in Leeds newspapers of approximately the same date. However, the pressure of the authorities could not have been conducive to the daily running of trade union affairs, while at the same time it is clear that it did very little to dampen labour militancy in general.

Employers' active opposition to unionism was not confined to private firms. Helen Bentwich claimed in her autobiography that she was dismissed from Woolwich on account of her activities in the NFWW.² The NUGW Executive reported 'that at Armley (Leeds) Munitions Works and the National Shell Factory, Leeds, (Barnbow) one of the managers threatened the women workers, to induce them not to join the Union'.³

There were additional difficulties, specific to the war period and to the concentration of the workforce in new and unfamiliar surroundings, where mobility into and out of jobs was high and where the instability marked a sharp contrast to the more settled women's industries of the pre-war days, such as the textile industry. The following report was filed by the NUGW Northern District Secretary about the organisation of women at Gretna

Filling Factory:

The class of workers employed there are of a very roving nature, and there are hundreds being employed and leaving every day. There is no accommodation for them to live near the works and they are residing in the various towns and villages round about. Many of them reside as far as 27 miles away ... and they cannot be expected to come out to attend meetings. The works cover an area of 15 miles in extent. Bro. Lowthian has a pass to go over to the works, and as he can only speak to the workpeople during the meal hours, it takes him weeks to visit the different groups of workpeople.⁴

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1. Yorkshire Factory Times, 22 March 1917, 8
 2. H Bentwich, If I Forget Thee, 101
 3. NUGW Executive Meeting, 15 September 1916, 1
 4. NUGW Quarterly Report December 1916, 28

Similar conditions made unionisation at the Leeds Shell Factory (Barnbow) an unheard of phenomenon. Barnbow was one of the first National Factories and was built remarkably quickly in August - December 1915. The works were situated in a rural area between Crossgates and Garforth and by 1917 employed 17,000 women. The workers came from areas as far apart as the City of Leeds, Castleford and Normanton and in most cases they travelled one hour to and from work in special trams and trains. Two women workers interviewed who had worked there during the war had no recollection of a union.¹ The Chief Engineer who wrote a short history of the factory merely reported that 'strikes were unknown at Barnbow'.²

What of the men workers and their response to the need for women's unionisation. The second section of this chapter has given some evidence of a new stimulus towards a drive for recruitment - the fear of cheap labour highlighted by the success of dilution. Men's responses therefore, whatever might have been their feelings about dilution itself, were geared to the organisation of women. This applied to craft societies as well as the general male workers. Isabella Ford, suffragette and labour activist in Yorkshire industrial disputes, spoke of changing attitudes among men:

Men have been short sighted enough in some trades as not to insist on women joining their union. Some even rather despise women (unconsciously of course) and hold themselves so superior as not to think to be members of their unions ... Dilution of labour has altered that and men are recovering their common sense. The women must wake up and stand beside men in the coming struggle for the rights of the workers.³

The awareness of the importance of organising the new membership was reflected in the increased numbers of women trade union officials, despite the fact that women continued to be grossly under-represented on executive bodies. The potential of women's membership prompted the Yorkshire based

1. IWM, Taped interviews with Mrs Elsa Thomas and Mrs Elsie McIntyre who worked at Barnbow from the time it was built until the end of the war.
2. R H Gummer, The Story of Barnbow (1919) 55
3. Yorkshire Factory Times, 26 April 1917, 5

United Garment Workers to appoint for the first time ever a women's organiser (Bertha Quinn), though at a salary below that of her male counterpart - a fact that occasioned much critical discussion in the ranks of local men and women trade unionists.¹

While at the individual level prejudice may have died hard, the collective view of men workers was decidedly welcoming even though it continued to relegate women's interests to a secondary place in the traditional scale of male concerns. At the personal level, short sighted prejudice continued to make itself felt as one correspondent testified in a letter to the Trade Union Worker. In his letter to the editor he wrote that men 'do not seem to like their own women folk to belong to the Unions'. One man was reported by him to have objected to a fiancée joining the union 'because she had too many fellows talking to her'. 'I have heard men say "we welcome the women into our own unions" but they are not thinking of their own women'.²

The persistence of prejudice is not surprising in view of some of the prevailing ideas of decency, morality and suitability that continued to persist among working men and unionists. The craft unions fought dilution because they feared the erosion of their rights and privileges. Other trades, by contrast, based their opposition to the very idea of women's employment on well worn ideas of suitability, decency and morality. Even in traditional women's industries like textiles the women's sector of the trade was rigidly earmarked for them and the crossing of these boundaries was sometimes vehemently opposed on grounds of morality and decency. Jim Billington - Secretary of the Preston Operative Cotton Spinners - opposed the employment of women on mule spinning because it ran contrary to accepted ethics:

1. Ibid., 20 January 1916, 6

2. Trade Union Worker, January 1917. Letter to the editor by F Palmer

There are jobs that females can do and plenty of them that they ought not to be allowed to do and this is one of them; and the coal mine is another place ... Whatever may be said about girls in the spinning rooms either way, one thing is beyond dispute and that is that it cannot possibly improve their sense of refinement or delicacy; and there are people still living who do not desire to see that sense deadened or killed outright even amongst girls of the 'common people'.¹

Mr Billington did not cease his campaign against the employment of women in the mule rooms and even maintained that 'I would sooner see my daughter dead than do such work'. The reasons for his opposition, he said, were so delicate that he could not bring himself to discuss them publicly: 'The real objection on moral and physical grounds were such as could not be discussed publicly but all who were acquainted with the conditions of a spinning room knew them very well'.¹ These unmentionable objections involved none other than the light clothing required by the heat and the damp conditions in the company of men. Similarly the Woolcombers of Yorkshire faced with an unprecedented labour shortage agreed ^{but only} with great reluctance to the employment of women on nightwork because of the supposed moral dangers involved. In the end the Union - the National Society of Woolcombers - conceded to the demands only on condition that there should be 'adequate supervision' on night shifts.³

There was opposition too from the NUGW to the employment of women in retort houses on the grounds that the work was 'unsuitable and degrading to women workers'.⁴ The Executive Committee of the Union instructed its districts 'to take such steps as they may deem advisable to secure the elimination of female labour from carbonising departments'.⁵ It is clear that the burden of the work load was not the only consideration involved.

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1. Yorkshire Factory Times, 10 August 1916, 5, 'Girls in Cotton Mills'
 2. Cotton Factory Times, 18 May 1917, 3, 'Women in the Mule Rooms'
 3. Yorkshire Factory Times, 5 October 1916, 8, also 19 October 1916, 8
 4. NUGW General Council Meeting, 16-17 August 1918, 5
 5. NUGW General Council Meeting, 16-17 August 1918, 5

Women were being successfully employed in London in the South Metropolitan Gasworks where their output and efficiency were said to be remarkable, even in heavy labouring jobs. The opposition of the NUGW to their employment in such work was not based on wage undercutting by the women; on shift work some women were paid equal time rates where their output was said to equal that of the men. On piece work, in the trimmers' gang where about fifty women were employed, their earnings were said to equal those of the men and ranged between £4-5 per week. However the heat and oppressive atmosphere of the retort houses required light clothing in the company of men. It was this particular aspect of the work that antagonised some members of the NUGW. The opposition of the Union seems to have paid few dividends in the end and it appears that the company stepped in to organise their own company union. 'Labour matters are regulated partly by the Co-Partnership Committee who managed the profit sharing scheme and there are women among the delegates elected by the workpeople'.¹

Firm ideas about women's true mission in life came from the President of the Weavers Amalgamation. He maintained that despite the attraction of munition work for 'badly paid, overworked ring winders, reelers and learners' it was not an occupation that in his opinion was suitable for women. Moreover, despite the large proportion of married women in his own trade he still believed that 'in the main ... the sphere of women especially married women is in the home'.² The President of the Association of Tramway and Vehicle Workers opposed the extension of women's war time employment in the transport sector to include driving. He based his opposition on grounds of public conduct and behaviour:

In all probability the soldiers ... returning from the front would require something of home life and would not like their wives or intended wives to put up with the snubs and hardships that conductors had to put up with.³

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1. War Cabinet Committee ... Cd 135, 143
 2. Cotton Factory Times, 30 March 1917, 3. J W Ogden, President of the Weavers' Amalgamation, 'War's Effect on Women'
 3. Yorkshire Factory Times, 25 May 1916, 1

It is relevant to remark on the extent to which a moral code which was fashioned over the years had been accepted and internalised by working men. It was a code that differed from that of their social superiors but was nevertheless coloured by it and one of its noticeable features was the subtle exclusion of women from public life. Trade union activism ~~in contrast~~ in contrast to trade union membership was still not entirely acceptable; nor were occupations like transport which involved dealings with the public at large. While middle class policewomen felt no qualms at taking on responsibility and authority, working class men resented the idea of women bus conductors being involved in daily public exchange. The conflict between the ideal of complete participatory trade unionism and the code of women's work and behaviour held dear by working men remained unresolved. Women were besieged by calls for collective action but were also met with a set of rules not only in regard to their suitability for certain kinds of work but also in regard to their conduct. This double standard did not of course lead to a total abstention of women from trade union affairs nor was sanction for women's pressure groups automatically withheld. At the collective level, under the umbrella of joint organisation instances of women forming their own pressure groups are recorded. Women members of the General Union of Textile Workers formed themselves into a Women's Guild. This particular union raised no objection to this move - on the contrary, the Huddersfield District Committee welcomed this development:

Since women had begun to organise in large numbers, it would give encouragement to them to be able to meet together from time to time and formulate the woman's point of view whenever joint action is decided upon. There is no intention to sectionalise, but the formation of the Guild is intended as an auxiliary force designed for the purpose of giving additional strength to the general organisation.¹

The Guild was described as follows:

It is a part of the business of the sex war that is going on. It is not meant to be a sex war but a sex defence organisation. The objects are to assist the organisation of women workers.²

1. Yorkshire Factory Times, 27 July 1916, 1
2. Ibid., 28 September 1916, 5

In 1917 the Guild began a campaign in the Huddersfield District for equal bonuses and mill meetings were held. The Union executive 'decided to recommend that meetings of women members be held ... so as to get at the full opinion of the thousands of women members now in the union'.¹ There was no suggestion that the Women's Guild ever became a disruptive force or in fact anything more than a supportive pressure group inside the main body of the Union.

In other cases too women continued to support and sometimes do more than their share of organisational trade union work. Tom Shaw reported that women members of the Colne Weavers Association came into the breach when the men collectors were called up:

Fortunately for us the women members came at once to our assistance when we appealed for collectors and we have nothing but appreciation for the way they have done their work.²

There was very little criticism on the part of the women organisers of the way trade union affairs were run but some difficulties which applied to women in particular were pointed out. Julia Varley - an experienced organiser first for the NFWW and then the WU - maintained that mixed branches were more effective because women members felt less isolated but she complained that mixed meetings were shunned by them when they were held in pubs.³ Kate Manicom, another WU organiser, complained that women lost interest in branch meetings because these tended to be dominated by men.⁴

Strikes and collective action

Documentation and source material for women's collective action during the war is severely limited in providing material as to the impetus and ideology of women's strike activity. It is true that Government departments,

1. Ibid., 29 March 1917, 1, 'Women want more Bonus'
2. Ibid., 19 October 1916, 5
3. Workers' Union Record, July 1915, 15 and August 1915, 4
4. Trade Union Worker, November and December 1916

through dilution and information officers, kept a careful watch on the labour scene and the information was channeled back to the Munitions Council and even the Cabinet.¹ However, the reports themselves have not survived and the Secret Weekly Reports, which are the main source of information, are extremely sketchy, even though it is evident that the Government used every possible direct or indirect agency to obtain information. For instance, during the 1917 wave of industrial unrest, Vickers supplied the Government with information obtained from a private detective and verbatim reports from apprentices who would spy on 'ringleaders'. The Chief Constable of Coventry reported to the Director of the Coventry Ordnance Works that 'all meetings have been covered'. The Chief Constable of Manchester kept in close touch with the Director of Beyer, Peacock and Co there and was reported by them 'to be in a much better position than ourselves to give the names of the ringleaders'.²

However, the information that survives contains almost exclusively the rudimentary facts that were useful to the Ministry or the Cabinet in assessing the labour problems and in maintaining war time production. The reports available are therefore not very revealing about motivation, attitudes or the politics of strikers and disputants. Contemporary newspapers, normally an invaluable source of information on the activities of working men and women refrained at some periods of the war from reporting for fear of incurring seizure of their journals. This was particularly true of labour papers such as the Woolwich Pioneer, Cotton Factory Times, Yorkshire Factory Times and of course Forward which had on several occasions been impounded as a result of its militant line. For instance there is an almost complete lack of newspaper reporting of the May 1917 Engineers' strikes, called by the Joint Engineering Shop Stewards Committee and this absence of newspaper information is confirmed by the History of the Ministry of Munitions.

1. Mun 2, GT, and Lab 34

2. Mun 4/2213, no file number. Reports filed on 14-17 May 1917

Since newspapers published no news of the strike and subsequently only official information, the strike leaders were further handicapped although the Government also suffered from the utter scepticism which the press censorship produced.¹

At the same time self censorship was being observed by printers: 'It was hardly possible to get posters or handbills printed', reported the Official History of the Ministry.² Another possible source of information on women's struggle on wage questions might have been contained in the archives of the Special Arbitration Tribunal (see Chapter 5) but its papers have not survived in the archives of the Ministry. The only other collection of material with information on women's industrial demands is scattered in the individual disputes which were brought to the arbitration office of the Industrial Commissioner.

On the trade union side the material does not seem to have survived at all. The records of the mixed unions which included a large proportion of women are no longer in existence. The extent of women's industrial action culled from official sources and brief items in the newspapers is therefore frustratingly incomplete and difficult to evaluate in any but the most general terms.

Labour militancy in general as has been pointed out in the third section of this chapter was highly developed during the war. This does not mean necessarily that the number of strikes or the number of days lost through strikes was particularly high. On the contrary compared to the year 1912 for example, the number of days lost throughout the war never totalled more than 15 million in comparison to about 40 million in 1912 alone. While strikes were numerous, especially in 1915, 1917 and 1918, the number of people affected by them was not as high as in 1911 and 1912. Nevertheless, in taking

1. MM, Vol VI, part 1, 110

2. Ibid., The following circular for instance was stopped by the printer. 'You have by your apathy allowed yourselves to be robbed of rights and liberties which you possessed prior to the war ... If you are to succeed at all you must of necessity adopt unconstitutional methods, seeing that your constitutional bodies are shackled beyond all hope of action.'

the average of the years 1910-14 and 1914-18, the rate of strike activity was surprisingly high, bearing in mind the fact that strikes were officially prohibited and compulsory arbitration was theoretically the order of the day. The table below shows the official statistics of industrial unrest for that period.

Table 35. Trade Disputes 1910-1919¹

<u>Period.</u>	<u>Number of Disputes.</u>	<u>Number of Workpeople Affected.</u>	<u>Total number of working days lost.</u>	<u>Workpeople Continuously out at 300 days to the year.</u>
1910	531	515,000	9,895,000	32,983
1911	903	962,000	10,320,000	34,400
1912	857	1,463,000	40,915,000	136,383
1913	1,497	689,000	11,631,000	38,770
1914 (Jan. - July)	<u>793</u>	<u>414,000</u>	<u>8,540,000</u>	<u>28,037</u> [*]
<u>1910-4</u> [*] (Average)	<u>1,029</u>	<u>868,000</u>	<u>17,612,000</u>	<u>58,707</u>
<u>1910-4</u> [*] (excluding 1912)	<u>1,079</u>	<u>719,000</u>	<u>11,786,000</u>	<u>39,287</u>
<u>1905-14</u> [*] (Average)	<u>742</u>	<u>539,000</u>	<u>10,933,000</u>	<u>36,443</u> ^{**}
1914 (Aug. - Dec.)	206	34,000	1,188,000	19,509
1915	707	483,000	3,040,000	10,133
1916	578	281,000	2,581,000	8,603
1917	803	885,000	5,809,000	19,363
1918 (Jan. Oct.)	<u>1,194</u>	<u>928,000</u>	<u>4,845,000</u>	<u>18,861</u> ^{**}
<u>Aug. 1914 - Oct. 1918</u> (Average)	<u>821</u>	<u>607,000</u>	<u>4,109,000</u>	<u>13,697</u>
1918 (Nov. Dec.)	106	214,000	1,467,000	29,740 ^{**}
1919	1,413	2,575,000	34,903,000	116,343

* Calculating the figures for the full year at the same rate as for the seven pre-war months.

** Calculated at rate for full year on basis of months affected.

Labour militancy, as described in the previous section of this chapter was most highly developed among men. However, instances of women's industrial action must not go unnoticed even though their background, in those cases which can be documented, did not exhibit a consistent character and consciousness which was such a remarkable feature of the men's struggles. The less coherent nature of the women's struggles was not lost on

1. N B Dearle, The Labour Cost of the World War to Great Britain 1914-22, (New Haven, 1940) 122

the managers. It gave all the appearances of being more easily contained, given full employment, but threatened to explode in less favourable conditions. In a telling letter to the Demobilisation Committee of the Ministry of Reconstruction, Miss Lilian Barker, the Welfare Supervisor at Woolwich, urged the Women's Sub-Committee to provide satisfactory employment to women in order to prevent labour unrest on a major scale:

I can foresee a great menace in the fact that large scale bodies of women will be unemployed and therefore open to great moral danger, besides being rather in the state to imbibe dangerous and revolutionary theories ... This propaganda they have already met in the factories, as put forth by propagandists and ILP members but were too busy to heed much.¹

While it is true that women during the war, were less directly and politically organised or militant than the men, their activism should not be underestimated only because it happened to assume different forms. Whereas their dissatisfaction did not include a struggle for industrial control or against the encroachment on traditional rights, their shop floor militancy included issues of wages, dismissals, speeding up and straight-forward solidarity. While their demands therefore did not affect the industrial scene as vitally as the men's struggle, the level of their militancy corresponded as closely to the level of their organisational development as that of the men. Their sporadic and less consistent activism led some Government officials to underestimate it. On one occasion these optimists were admonished by a Clerk to a Local Munitions Tribunal in Cheshire who wrote:

I am afraid that your Department do not realise the very large number of females who are employed on Munitions in this district and that some of them are getting rather out of hand.²

One way of looking at women's collective activity is by separating union inspired protest from the more spontaneous militancy of unorganised groups, which sometimes led to the formation of a union branch. Another

1. Lab 2/1223/TW 153, Letter from Miss Barker to the Women's Sub-Committee of the Demobilisation Committee, 1 December 1918
2. Lab 2/49/MT 119/1, Letter from the Clerk to Local Munitions Tribunal in Northwich, Cheshire, 12 March 1917

important impetus to action was solidarity with the men. Examples of these various types of protest will now be briefly mentioned.

A new feature of war time women's strikes was the involvement of thousands rather than tens or hundreds of women. This was a new feature characteristic of the munitions trades where the concentration and size of the female workforce was often so much greater than it had been in the traditional women's trades. Examples include for instance a strike of 2500 'girls' at the Greenwood and Batley cartridge factory in Leeds. The cause of the strike was a wage demand for £1 minimum with supplementary pay for night work. The strike involved both the WU and NFWW who in the end compromised by accepting the Birmingham district rates.¹ (See Chapter 5.) Greenwood and Batley were a plant which was noted for particularly bad labour relations and relatively low pay scales (see Chapter 5) as well as insensitive management. In February 1917, 300 women called a strike there in support of their demands for eliminating the differences between the women's rates on men's work and women's work, and for higher piece rates and war advances. The numbers involved in this particular case were remarkable because as the Ministry investigation officer reported 'the women are at present almost entirely unorganised'.² Another example which indicates the large numbers involved in munition strikes was that at the National Projectile Factory at Lancaster. In September 1916, 2000-3000 women declared a strike there in protest against the dismissal of a girl for alleged 'misbehaviour' with a male employee who by contrast did not suffer any reprimand.³ The significance of this industrial action lay not only in the numbers involved but in the issue of the strike itself. It pointed to a considerable degree of concerted

1. Mun 2/27, 4 March 1916, 7

2. Mun 2/8, 3 February 1917, 4, and Ibid., 10 February 1917, 17

3. Mun 2/27, 30 September 1916, 13

solidarity against the right of management to sit in judgment on a woman's conduct and to absolve the man from any responsibility. Other large scale strikes may be cited. In July 1917 the National Cartridge Box Factory at Newport experienced unrest which involved 2000 workpeople on an issue of women's wages.¹ In May 1917 an eruption of major proportions broke out at the National Filling Factory in Georgetown, which involved 12,000 workpeople. The women began a 'stay-in' strike on the 20th of May in support of a demand for an advance of 4/- per week under the provision of the L85 Circular. The union involved in subsequent negotiations - the WU - did not initiate the strike and even expressed its regret at the cessation of work which was contrary to its advice,² but the pent up dissatisfaction exploded for two days into the streets of Glasgow. This is how the Glasgow Herald described the scene:

A section of the women munition workers employed at a Government Factory in Renfrew decided not to start work yesterday afternoon. Several hundreds of them returned to Glasgow by train in the evening and on arrival at the Central Station they organised a demonstration ... They took possession of a number of luggage barrows wheeling them recklessly about the station ... The rowdiness was continued at intervals as further batches of the workers returned to the city but ultimately the crowds were dispersed. Discontent among a section of the women engaged at the factory has lately been prevalent.³

An obvious reason for dissatisfaction related to the inadequate wages, but an even more significant though perhaps less frequent cause of industrial action among them turned on solidarity with their fellow workers and on a refusal to put up with victimisation, unfairness or objectionable management practices. Let it be said that this type of mutual loyalty by groups of working women was not exclusively characteristic of munition workers. Time

1. Mun 2/11, 7 July 1917, 15

2. Mun 2/10, 26 May 1917, 13 and Ibid., 2 June 1917, 14, This was perhaps one of the earliest examples of what is now called a 'sit-in' or occupation, though there is no indication that the women involved actually tried to take over the factory. No reference to it was found in the house journal of the Georgetown Filling Factory - the Georgetown Gazette - which abstained altogether from reporting shop floor discontent.

3. Glasgow Herald, 26 May 1917, 5 and 28 May 1917, 8

and again one finds in the Government archives instances of touching loyalty even among the most depressed and least organised workers, like the collar workers in Londonderry¹ or the rag sorters of Bristol.² At Greenwood and Batley, 2147 women tool setters and machine minders took strike action as a result of an incident which involved the 'maltreatment' of a forewoman, which caused the dismissal of one culprit.³

The ringleader of those concerned in the assault was requested to apologise to the forewoman, which would have settled the matter but she refused and was paid off ...⁴

On some occasions the unions would take up the case of a member's right to work and contest blatant victimisation. At a firm in Swansea, three women were dismissed because they demanded wages due to them under statutory orders and refused to accept a compromise. The union contested the dismissal and as a result of arbitration the award was paid and the women reinstated.⁵ At Beardmore a serious and long drawn out dispute in November 1917 was caused by a dismissal of four women. The source of the problem involved an issue of restriction of output - in itself a new and interesting example of collective action. Here the trouble began in September 1917, when Beardmore reported a serious shortage of 18 pounder shells and accused the employees - most of them members of the NFWW of deliberately restricting output.⁶ Subsequently in November 1917, 400 women went on strike and stayed out for two weeks⁷ in protest against the dismissal of the four alleged shirkers. While the Federation vehemently denied the allegation claiming that two of the women were sick and two were losing time because they lived too far away from their workplace,⁸ the

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1. Lab 34/33, 68, 25 November - 7 December 1915
 2. Ibid., 86, 6-10 August 1915
 3. Lab 34/35, 8-9 January 1917. 2776 women were affected by the strike
 4. Mun 2/8, 13 January 1917, 13. More than this was involved in the strike. The firm complained of shirking and the women/about canteen arrangements
 5. Lab 2/424/IC 6689. Dock and Wharf Workers against Superheater Units, Swansea, 22 October 1917
 6. Mun 2/11, 1 September 1917, 16
 7. Lab 34/35
 8. Woman Worker, December 1917, 11

employees argued that the target was set so high that they could not hope to fulfil it.¹ W C Anderson took up the case of the women² and they obtained nominal reinstatement but were in fact removed to another department of the Beardmore plant. Removal of activists to other work was a tactic often used by management to deal with rebellious workers. At about the same date as the above incident, Beardmore countered a Federation wage claim by dismissing 170 women workers who were however allowed to obtain work at another plant belonging to the firm.³

Other strikes exemplifying feelings of solidarity for victimised fellow workers can be quoted.⁴ In 1917, the NFWW called a strike in support of a wage demand by an elderly member who could not keep pace with the rest of the workforce. She was being paid 17/9 per week and the employers claimed that 'she is satisfied with this wage'. The strike provoked the firm into declaring a lockout but the records do not reveal the results of the dispute.⁵ Some of these solidarity strikes inspired militancy also among the men. There is a record for instance that in July 1918, about 1200 engineers came out to support a woman worker who had been dismissed and they succeeded in obtaining her reinstatement.⁶ There is evidence too for the reverse process. Whereas the major industrial upheavals of 1917 among the male engineering workers did not involve women,⁷ Pollard says that some Sheffield strikes late in 1917 enjoyed their support.⁸ In March 1917, 300 Vickers men at the Barrow plant came out in protest against rate cutting and were followed by all the women in the shell department thereby involving 15,000 workers.⁹

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1. Lab 2/213/IC 205, 3, Memorandum by Mr Millar Craig, 2 January 1918
 2. Glasgow Herald, 21 November 1917, 9
 3. Woman Worker, December 1917, 11
 4. Lab 34/35, 27-28 March 1917, London 1561 workers, Lab 34/36 25-26 January 1918, Chester, Lancs, 198 workers
 5. Lab 2/421/IC 4591/2, Stephens Bros and Martin and the NFWW, 23 September 1917
 6. Lab 34/36, 12.17 July 1918, Newcastle
 7. Mun 2/10-11, Secret Weekly Reports for 1917
 8. S Pollard, A History of Labour in Sheffield, 274
 9. Mun 5/53/300/99, Ministry of Labour Report on the history of the shop steward movement, February 1920, 12

Women took a militant position on questions which neither affected them economically nor raised issues of reciprocity. These were the issues which related to discipline, control and self respect. The Woman Worker quoted in October 1916 cases brought by women to a local munitions tribunal. In one case charges were brought against a foreman for abusive language which provoked a sit-down and refusal to work.¹ A case in 1917 involved 275 women in Newcastle who demanded the removal of a tool setter for behaving 'objectionably'.² In November 1917, some 400 women in Bradford came out on strike against a new forewoman who was responsible for introducing stricter regulations.³ In February 1918, some 900 aircraft workers vented their resentment against a welfare superintendent by demanding her resignation.⁴ Even more remarkable, though by no means confined to the First World War, were the isolated strikes of small and sometimes large groups of women who were entirely unorganised and who acted without the help of the normal channels of trade union leadership. There were also cases of those who belonged to unions but who took action without union authorisation and in face of leadership opposition. A small group of unorganised women fire-brick workers in Scotland called a strike in 1916 when some of their number were dismissed by employers who had been obliged to grant a wage rise.⁵ Unorganised women employed in the manufacture of oilskins and waterproof material nominated three representatives to put forward wage demands before the Industrial Commissioner.⁶ Unskilled and unorganised women employed in Government work in Dublin who were earning miserably low wages of 8/- and 12/- - 13/- per week wrote to the Industrial Commissioner: 'We protest

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1. Woman Worker, October 1916
 2. Lab 34/35, 17-18 December 1917, Newcastle
 3. Ibid., 8-10 November 1917, Bradford
 4. Lab 34/36, 28 February - 2 March 1918, Aircraft Factory, Hayes, Middx
 5. Glasgow Herald, 10 July 1916, 5. Strike at Silica Brickworks, Airdrie
 6. Lab 2/424/IC 6296, 27 September 1917. Janet Wilson of Ardrossan, Crissie Dunnan and Lizzie Taylor of Salcoats, Ayr represented their fellow workers in a dispute with Alex Ramsay, Glasgow

against the sanction of such wages in Ireland when they are not tolerated in England'.¹

Unorganised canvas makers (166 women and 12 men) working in London and represented by a Mrs Barber called a strike in support of a wage claim of 1d per hour.² The case of a tenters' strike in Belfast, which threw 15,000 factory girls out of work for a period of eight weeks, focussed on the isolation of a vast army of underpaid women workers who were ignorant not only of the recognised channels of collective organisation but unaware of their rights under the statutory orders. Mrs M Byrne in a letter to the Woman Worker summed up their situation:

Owing to want of organisation these girls, even in pre-war times, were only able to secure a bare subsistence for skilled weavers and winders were paid on an average a weekly wage of from 10/- to 14/-, whilst top knot warpers and damask weavers ranged from 20-25/- ... What may be asked is the reason that the Belfast factory workers do not combine to force a demand for a living wage? A want of knowledge of the existing conditions of other workers is the reply. A vague hazy notion of the good times enjoyed by the Lancashire and American women workers filters into Belfast factories, but it never materialises. Some detached groups may unite, but they are not numerically strong, and are therefore nearly useless for progressive ideas. But the tenters' strike has had one good effect - that of awakening the women workers to the only means of redressing their undoubted grievances, by a Federation of Belfast women workers. Belfast is a city run mainly by a vast army of women workers. Yet will it be believed that only one woman factory inspector is assigned to all Ireland.

Mrs Byrne concluded by appealing to male trade unionists for help in organising their 'sweated sisters'.³

Ireland was not the only instance where unorganised women in traditional occupations included during the war within the definition of munitions, became aware of their rights and combined in order to exert collective pressure. At James Templeton, Ayr, women knitters who included an insignificant number of

1. Lab 2/424/IC 6375. Arbitration case against Messrs Ray Curled Hair Factory, Dublin, 30 November 1917. The arbitrator refused to sanction more than a 60% increase.
2. Lab 2/259/IC 7588, November 1917, Strike at Messrs G Groom, London
3. Woman Worker, December 1917, 6. See also Lab 2/159/IC 7637. The Irish Women Workers union had a membership of 2000 in 1917, See M.o.R. Report of the Women's Employment Committee, Cd 9239, 1919, 94

unionists, called a strike in April 1918, but were persuaded by the NFWW who took up the negotiations to go back to work pending arbitration.¹

At Waring and Gillow, London - a firm who became suppliers of tents to the armed services - 6000 non-unionised girls went on strike in May 1918. This strike action led through the process of arbitration to fusion within the NFWW.² In July 1918, women workers at the Gainsborough National Filling Factory, which was still in the process of construction, were represented by a Mrs Cutts in their demands for rates obtainable in other local engineering and aircraft factories.³ At the firm of Messrs Piggott, Bishopsgate, both men and women workers were represented by Miss Alice Pavitt (Bethnal Green) who succeeded in obtaining for them a war advance of 6/- per week in addition to their exceedingly low wages of 6/-.⁴

The cases cited above are not intended to suggest that collective activity among unorganised women was greater than among women in trade unions, but it is nevertheless remarkable that some women in the least paid and worst organised trades should have acted so vigorously. Some strikes were called in disregard of union instructions and despite union refusal to sanction them. At the Bradford Aircraft factories, eighty women went on strike in 1917 for a 44 hour week and 6d minimum, encouraged by the fact that Leeds aircraft workers were being better paid than they. The Ministry official who was dealing with the case (C S Hurst) refused to negotiate with the strike leaders, who were all men, and advised negotiation by 'recognised trade unions who no doubt will negotiate with the firms themselves'.⁵ In 1918 when women bus and tram conductors went on strike for an equal bonus and were later joined by 1000 tube workers, J H Thomas, for the NUR, refused to open negotiations until they returned to work.⁶ Despite the refusal of the

1. Lab 2/148/IC 2396

2. Lab 2/259/IC 21973, Strike at Waring and Gillow, May 1918

4. Lab 2/552/IC 7043, 4 September 1918

5. Lab 2/246/MWLR 4914/5, 21 November 1917

3. Lab 2/251/LR 17279, Memorandum by Gainsborough National Filling Factory, 4 July 1918

6. Mun 4/5005, 16 August 1918, 1, and 30 August 1918, 3

union to sanction the strike a remarkable degree of solidarity was reported.¹ This instance of collective action was particularly important at the time because the Ministry was involved in negotiation with women munition workers for an advance of 10/- per week and equal bonuses which coincided with strikes in aircraft factories.² The Herald voiced its support for the unauthorised strikes of the women transport workers:

The strikers are not so bad as they are painted. The whole system agreed to first by the NUR of differentiating between the wages of male and female labour is vicious and we confess to our surprise that the women have endured it so quietly.³

The transport workers' strike was one of the most successful of the war and resulted in equal wages in the industry. Success in this sector had beneficial repercussions on munitions workers, as was shown in Chapter 5. The militancy among women workers was of course part of a generalised and active discontent among men and women at the time, which also found scope in other forms of activity, such as rent strikes and food riots.⁴

The substantial gains made in women's trade union recruitment during the war were gradually whittled away by post-war dismissals from munitions industries and subsequently shattered by the depression of the 20's. All groups of organised labour suffered severe reversals but women were unique in being shunted off from the centre of the industrial scene to the outer fringes of the service industries, to the isolation of domestic and home work and relegated to the penury of the Trade Board industries. While their temporary war time employment in male occupations invested them with a new importance in the world of labour, the post-1920 loss of employment in male occupations eroded the gains that had been made. The NFWW annual report for 1919 was eloquently silent on recruitment drives in industry and reported instead the progress made in domestic and laundry work.⁵

1. Ibid.

2. Ibid., 18 August 1918, 4, 23 August 1918, 1, 30 August 1918, 7

3. Mun 4/5005, 30 August 1918, 3

4. MM, Vol V, part 5, 87 also Mun 5/96/346.2/24, Leeds Weekly Citizen, 26 January 1917, 5, description of a food riot

5. NFWW Annual Report, 1919, 16-17

CHAPTER 9

DEMOBILISATION

The longer term developments in women's occupations can partly be traced to the influence of war time munitions industry but the post-war redeployment of war workers was never part of a nationally organised plan. In the short run women faced dismissals in their thousands. Government estimates of the extent of women liable to be thrown out of work ranged from 591,000 employed in munitions, in its narrow meaning,¹ to 1½ million on Government work as a whole.² The redundancies came thick and fast and by April 1919 considerable numbers of women had been dismissed. The Table below shows the most notable reductions in Government Establishments, and in the war industries engaged in the production of metals, chemicals and building.

Table 36. Employment in Industry in November 1918 and April 1919: Estimated Numbers Employed and Percentage Changes for Females.³

OCCUPATION.	Numbers Employed in		% Change Between Nov., 1918, & April, 1919.
	Nov., 1918	April, 1919	
<i>Industries</i> (under private ownership)			
Building	31,000	14,000	- 54.5
Mines and Quarries	12,000	12,000	- 4.0
Metals	596,000	300,000	- 49.6
Chemicals	103,000	69,000	- 33.0
Textiles	819,000	798,000	- 2.5
Clothing	559,000	569,000	+ 1.8
Food, Drink, and Tobacco	231,000	247,000	+ 7.1
Paper and Printing	141,000	143,000	+ 1.5
Wood	83,000	68,000	- 18.3
Other Industries	151,000	134,000	- 11.2
TOTAL INDUSTRIES	2,726,000	2,354,000	- 13.7
Gas, Water, and Electricity under Local Authorities			
	5,000	3,000	- 42.3
Government Establishments, Dockyards, Arsenal, National Factories, etc.			
	246,000	40,000	- 83.7
TOTAL INDUSTRIES AND MUNICIPAL AND GOVERNMENT ESTABLISHMENTS	2,977,000	2,397,000	- 19.5

1. M.o.R., First Interim Report of the Civil War Workers' Committee, Cd 9117, 1918, 4
2. Ibid., Fifth Interim Report of the Civil War Workers' Committee, Cd 9192, 1918, 21 (ed)
3. A W Kirkaldy, Industry and Finance, Vol II (1920) 103

Nevertheless, as Table 37 shows, by July 1920 the total number of women in the metal and chemical industries notably was higher than it had been in July 1914. This was true to an even greater extent for men, whose total in these industries had increased substantially in comparison with 1914. By contrast there was a decrease in the number of males occupied in textiles and clothing, while the short lived post war boom of December 1919 - Summer of 1920 contributed to an increase in the numbers of women employed in the textile industry in particular.

Table 37. Numbers of males and females respectively employed in July 1914, November 1918 and July 1920, with percentages of females to total number of workpeople employed.¹

OCCUPATION.	No. of Males Employed.			No. of Females Employed.			Percentage of Females to Total No. of Workpeople Employed.		
	July, 1914.	Nov., 1918.	July, 1920.	July, 1914.	Nov., 1918.	July, 1920.	July, 1914.	Nov., 1918.	July, 1920.
<i>Industries.</i>									
Building	920,000	438,000	796,000	7,000	31,000	10,000	1	7	1
Mines and Quarries	1,266,000	1,039,000	1,323,000	7,000	13,000	9,600	1	1	1
Metal Industries	1,634,000	1,876,000	2,104,000	170,000	597,000	303,000	9	24	13
Chemical Industries	159,000	161,000	195,000	40,000	103,000	70,000	20	39	26
Textile Industries	625,000	408,000	560,000	863,000	818,000	884,000	58	67	61
Clothing Industries	287,000	181,000	238,000	612,000	556,000	569,000	68	76	70
Food, Drink and Tobacco Industries	360,000	247,000	359,000	196,000	231,000	242,000	35	48	40
Paper and Printing Industries	261,000	158,000	253,000	148,000	141,000	166,000	36	47	40
Wood Industries	258,000	173,000	245,000	44,000	83,000	65,000	15	32	21
Other Industries (including Gas, Water and Electricity under Local Authorities)	456,000	305,000	447,000	90,000	156,000	137,000	16	34	23
TOTAL PRIVATE AND MUNICIPAL ESTABLISHMENTS	6,226,000	4,986,000	6,520,000	2,177,000	2,729,000	2,456,000	26	35	27
Government Establishments (Government Dockyards, Arsenals, National Factories, etc.)	76,000	277,000	113,000	2,200	247,000	6,300	3	47	5
TOTAL INDUSTRY, including MUNICIPAL AND GOVERNMENT ESTABLISHMENTS	6,302,000	5,263,000	6,633,000	2,179,000	2,976,000	2,462,000	26	36	27
AGRICULTURE IN GREAT BRITAIN (PERMANENT LABOUR)	800,000	578,000	725,000	80,000	95,000	85,000	9	14	10
<i>Transport.</i>									
Railways	660,000	546,000	781,000	12,000	66,000	29,000	2	11	4
Municipal Tramways	57,000	37,000	70,000	1,200	19,000	3,200	2	34	4
Tramways and Omnibus Services (other than Municipal)	39,000	22,000	46,000	400	9,300	2,700	1	30	6
Docks and Wharves	100,000	73,000	100,000	Number of Females Employed insignificant.					
Other Transport	305,000	180,000	254,000	4,600	21,000	11,000	1	10	4
TOTAL TRANSPORT	1,161,000	858,000	1,251,000	18,000	115,000	46,000	2	12	4
<i>Finance and Commerce.</i>									
Banking and Finance	176,000	100,000	156,000	9,500	75,000	56,000	5	43	26
Commerce	1,225,000	746,000	1,111,000	496,000	880,000	794,000	29	54	42
TOTAL FINANCE AND COMMERCE	1,401,000	846,000	1,267,000	506,000	955,000	850,000	27	53	40
Hotels, Public Houses, Cinemas, Theatres, etc.	199,000	116,000	168,000	181,000	222,000	241,000	48	66	59
Hospitals (Civil and Military)	—	—	—	33,000	80,000	37,000	73	82	75
Teachers under Local Authorities	53,000	33,000	50,000	142,000	154,000	149,000	73	82	75
Other Professions (persons employed by Accountants, Solicitors, etc., mainly Clerks)	127,000	69,000	100,000	18,000	40,000	39,000	12	37	28
Municipal Services (excluding Teachers, Tramways, Gas, Water, and Electricity)	323,000	218,000	346,000	54,000	75,000	74,000	14	26	18
<i>Civil Service.</i>									
Post Office	189,000	109,000	171,000	61,000	121,000	67,000	24	53	28
Other Civil Service	54,000	73,000	105,000	5,000	107,000	54,000	8	59	34
TOTAL CIVIL SERVICE	243,000	182,000	276,000	66,000	228,000	121,000	21	56	30
TOTAL FOR ABOVE OCCUPATIONS	10,609,000	8,163,000	10,816,000	3,277,000	4,940,000	4,104,000	24	37	28

N.B.—All figures are shown to the nearest thousand, except where too small for this to be desirable; as a result, totals are not always exactly equal to the sum of the separate items.

In the short run women were always first to be thrown out of work. Temporary disruptions in the supply of raw materials had already caused unemployment among them in January 1918 when filling factories were put on short time.¹ In February 1918, the Ministry sent out instructions to cut down on overtime and night shifts and by the middle of March some 18,000 women had been dismissed.² The Woolwich Pioneer reported at the time, however, that a total of 40,000 had been dismissed from Government work, while many of those whose overtime had been reduced protested against this measure which affected their incomes.³ The pre-armistice expectations in regard to dismissals were of course over optimistic. A Ministry memorandum of March 1918 forecast that 66,638 women were liable to be displaced from filling, explosive and shell factories, of whom 26,369, it was thought, would be reabsorbed in similar occupations.⁴ This Ministry prediction was soon reassessed to the level of $\frac{1}{2}$ million. While unemployment among dilutees of both sexes was fully expected, the Ministry appeared to have concurred in the employers' forecast of full employment for skilled men whose scarcity had been so acutely felt during the war period.⁵ The full impact of the rundown of war industries, however, was not felt until after the armistice. When one considers the enormous concentration of women's labour in war factories, one is struck by the disruption it must have wrought in communities and even regions. In Woolwich, for instance, women workers staged a mass

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1. MM, Vol V, part 2, 118
 2. Ibid., Vol VI, part 2, 78
 3. Woolwich Pioneer, 15 March 1918, 6. The Fabian Research Department's Monthly Circular also reported wholesale discharges of women munitions workers, in March 1918, 61
 4. Mun 5/98/350/1, M B Dewar, Memorandum on the number of workers liable to be displaced, 12 March 1918
 5. Mun 5/98/350/2, Memorandum on the number of workers liable to be displaced, 9 April 1918

demonstration in November 1918 headed by Mary Macarthur and made demands for gradual phasing out of dismissals and an unemployment benefit of £1 per week.¹ Women at the Arsenal were in fact more fortunate than many in other munitions establishments; the Arsenal was to be retained as a permanent munitions factory and a number of women was to be retained there for gun repair work. By February 1919, some 9,000 women were still being employed there in comparison to 24,360 before the armistice² but by March 1920 only 2,000 remained.³ On the conclusion of the war 8,000 women had been dismissed from the Aintree Aircraft Factory in Liverpool, and 2,000 were reported to be queueing at the labour exchange in November 1918.⁴ The Georgetown Filling Factory discharged 15,000 women at about the same time.⁵

The potential social disruptiveness of unemployment on such a vast scale could not be ignored. There is evidence, for instance, that in all Government circles there was fear of industrial unrest and its potential consequences for the stability of the economic system. These aspects of Government policy will be discussed later on in connection with the unprecedented institutionalisation of the principle of unemployment benefit as a counter-measure to possible labour insurgency. At a less radical level administrative measures were taken to bring some order to

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1. Glasgow Herald, 20 November 1918, 7. This demonstration was widely reported in the newspapers.
 2. Mun 4/6668, Memorandum on Labour Position in National Factories, 21 February 1919
 3. IWM Box 148/29, Report from Woolwich Arsenal, 30 July 1918
 4. Glasgow Herald, 26 November 1918, 5
 5. Ibid., 29 November 1918, 4

the chaos of demobilisation. The Ministry of Reconstruction had been set up under Addison in 1917 and its numerous committees attempted to establish a viable policy for effecting a post war readjustment. One of the first priorities was the drawing up of an order for dismissals for women workers. First on the list were the slack time keepers; second those who prior to the war had not been employed in industry or those who were willing to withdraw voluntarily; third those women who could easily be reabsorbed into their pre-war occupations and fourth those who had not served a given length of time and had migrated into munitions work from other districts.¹ On the larger issue of the principle of the right to work, women munitions workers were not regarded as having any recognised a priori claims. A Ministry of Reconstruction memorandum of October 1918 recommended, for instance, that an inquiry be conducted 'as to whether they are dependent on employment for their livelihood',² thus making future employment conditional on other factors than the right to work.

The group identity of the first victims of the dismissal procedures soon became apparent. In Leeds they included a group of local women who were 'unwilling to consider employment in domestic service'. At the Shepherds Bush branch of Waring and Gillow - manufacturers of tenting equipment for the army - elderly or married women were the first to be dismissed and they found it very difficult to get alternative employment.³ The above

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1. Lab 2/269/HQ 14064/1918, Labour Resettlement Committee, Memorandum No 2, 4 April 1918, 3
 2. Mun 5/100/350/17, Secret Ministry of Reconstruction Memorandum to War Cabinet, October 1918, 2
 3. Lab 2/269/HQ 14064/1918, Labour Resettlement Committee Memorandum No 2, 4 April 1918, 5

examples spotlighted at least two groups of women workers who had been attracted and persuaded to take up war work and who were going to find it difficult to adjust to peace-time circumstances; they included the married or elderly women and those unwilling to enter or re-enter a typical women's occupation - domestic service. In contrast to the apparent inclinations of the women themselves, the direction of Government policy turned to traditional channels of alternative employment, including domestic service. A list drawn up in March 1918 by a senior official of the Ministry of Labour Scottish Office suggested the following alternatives for the employment of women: clerical work, tramways (in Paisley), cotton and jute weaving, hosiery, tailoring and shirtmaking, laundry work, nursing (mental) and teaching (mainly in England).¹ The occupations listed above, with the exception of tramway work, bear of course a remarkable similarity to standard pre-war opportunities available to women. The war experience did not appear to have contributed to a broadening of the scope of employment possibilities despite the highly successful experience of women's training in instructional factories and other establishments. Moreover, while growth was predicted in industries such as agricultural machinery, motors, railway wagons, cutlery, sheet metal work, watch making, brick making, pottery and glass,² retraining schemes for women were never envisaged to include these trades.

At Woolwich direct pressure was used even before the armistice, urging women to leave as soon as possible in order to take up domestic work. 'All those women who had a trade in their hands and could return to it were asked to do so ...'. At the same time the positive aspects of domestic work were described in the most alluring terms:

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1. Mun 5/100/350/18, Memorandum by J Patterson, 5 March 1918
 2. Mun 5/98/350/7, Memorandum and tables relating to labour statistics, 30 October 1918

Domestic service was not what they had known it to be before the war. Mistresses ... had learnt to appreciate good maids and to treat them with consideration ... they were advised to consider the fact that if they accepted such employment, their food and accommodation at least would be assured ... A Registry office was opened and ... enormous numbers of girls returned to this employment, everyone being helped to find a good situation.

The women and girls were made to realise that they were expected to be as splendid in this problem of demobilisation as they had been throughout the war.¹

In the short run, however, the women at the Arsenal remained impervious to the much vaunted attractions of personal service. By December 1918, only 600 women previously employed there had taken jobs in housework.²

Contrary to all fears and expectations among members of craft unions the restoration of trade union practices proved to be a relatively smooth process. The Restoration of Pre-War Practices Act was passed in August 1919, embodying the provisions of the Treasury Agreement of 1915, the verbal pledges made at different dates by the Prime Minister and his Ministers, and the provisions of the Munitions Acts, and was applied to all industries which had departed from trade union customs during the war. Effective restoration was being put into action even before the passing of the Act, which remained in force for one year, and the number of prosecutions against employers for its non-fulfilment was exceedingly small.³ According to Cole, one of the reasons for the easy transition was the eagerness of employers to return to full peace-time production without causing further dislocation. Another reason was the application of war-time mass production techniques in conjunction with the employment of unskilled labour, which were not in the short run suited to immediate post-war needs.⁴ The remarkable similarity in the proportional increases of women's and men's post-war employment, contained in the 1921 census figures, further illustrated the wholesale exodus of women from trades which were temporarily manned by them during the war period.

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1. IWM Box 148/29, Report from the Woolwich Arsenal, 30 July 1918
 2. Glasgow Herald, 18 December 1918, 7
 3. G D H Cole, Trade Unionism and Munitions, 195
 4. Ibid., 196

The aggregate number of women in industrial employment in 1921 compared to 1911 came to 5.7 million or an increase of 5.1% over 1911 even though the proportion of employed women to the total numbers declined (see page 418). The number of men employed in 1921 was 13.6 million or an increase of 5.6%.¹ While the restoration of trade union practices removed one long standing fear harboured by members of trade unions it also removed the problem of women's labour from the forefront of public debate. The Labour Research Department's Monthly Circular almost ceased to discuss issues affecting women's employment after restoration had become a fait accompli.² Effectively restoration meant the disbarment of women from the more skilled and better paid industrial work which necessitated training or an apprenticeship; neither of these was ever contemplated by the Government in its activities to re-accommodate redundant women workers. Women were widely commended for the docile way in which they retreated from the labour market in which they had so recently been made to feel indispensable. As Adelaide Anderson put it:

Women had behaved very well in the unselfish spirit in which they had gone out from their interesting temporary occupations.³

Translated into hard reality this meant that women had entered war work without any guarantees or promises about subsequent employment. They were thrown out after the war onto the labour market to fend as best they could and pressed to take whatever was offered, with a particular emphasis on the free availability of employment in domestic service.

The labour exchanges came to play a vital role in re-accommodating women to peace-time conditions. Apart from their role as the intermediaries between work seekers and job suppliers, the exchanges also administered the Out of Work Donation and later unemployment benefits, a function described

M.o.L

1. Nineteenth Abstract of Labour Statistics, Cd 3140, 1928, 3
2. See Labour Research Department, Monthly Circular, June 1919, March 1920 and thereafter
3. A Anderson, Women in the Factory (1922) 282

below. Their relationship to clients was coloured by the fact that their aim was to achieve reabsorption at all costs. In the case of women work seekers they acted as speedily as possible to propel them into the normal channels and therefore traditional women's trades. Moreover, while doing so they never attempted to lay down standards of wages or conditions. The evidence of labour exchange documents negates the view of one writer that the agencies were custodians of wage standards.¹ As early as April 1918, and in conditions of almost full employment, women dismissed from the Nobel plant at Ardeer were being directed by the local exchange to poorly paid work in the fisheries at Oban.² The Ministry of Labour report on labour exchanges published in 1920 specifically stated that they were not empowered to demand or enforce wage standards which may have been agreed by employers and trade union representatives. This was particularly true in the case of the ill-organised women's trades where standards either did not exist or could not be enforced by labour organisations, although in principle Trade Board minima had to be respected.³

The most obvious outlet for women's labour was domestic service, which in the first six months of 1920, accounted for 67.2% of the total number of 26,383 vacancies filled every month.⁴ In the North-West division (Lancashire, Cheshire and Derbyshire) in the period May 1919-April 1920 during the short lived boom and before the onset of the depression, most of the women's vacancies filled were in cotton and clothing although a small number were recorded in metals and electrical work.⁵ Nevertheless even in this area famed for its high proportion of

1. J B Seymour, The British Employment Exchange (1928), 145. 'The employment exchange helps to secure them higher wages and to improve conditions of their employment. It takes a definite stand against bad forms of employment refusing to offer women work which investigation has shown to be injurious to health or morals'.
2. LP, WNC 21/2/88, Letter from WNC Secretary, 10 April 1918 to the Minister of Labour, G Roberts in protest against this practice.
3. M.o.L., Report of Committee of Enquiry into the Work of Labour Exchanges, Cmd 1054, 1920, 16
4. Ibid., 8
5. M.o.L., Report of the Committee of Enquiry into the Work of Employment Exchanges, Evidence, Cmd 1140, 1921, 344. Work for women in the engineering trades included jobs for capstan hands, metal machinists, electrical work and work on automatic machines.

women textile workers, domestic service in all its varieties which included private homes, hospitals, hotels and charring accounted for 40% of jobs found in the division.¹ The Ministry of Labour official for the North-Western division repeatedly cited women's decided preference for factory work:

Many women who come to us express a real preference for factory work; that does not exist to any extent. Then they consider what appeals to them next. Institution work or hotel work appeals to them rather more than private domestic service.²

They want factory work when they know it is not to be had in their own district at any rate, they are more willing to consider domestic work than formerly.³

Miss Fraser, the Ministry official in charge of the Northern division reported that antipathy to domestic service was gradually being surmounted, although she too repeated that girls preferred factory work because they had based their ideas on factory work they were doing during the war, which was of course often done under the best circumstances. They were disinclined to accept domestic service.⁴ Nonetheless, the aversion of women to domestic work remained a powerful factor especially in areas where other work could be obtained and particularly among younger women. While the depression drove an increasing number of women into this sector, the proportion of women employed in it decreased in the 20s. The evidence of London as an area where alternative employment for young women was relatively more plentiful is significant. Here, there was a steady decline in the number of the younger domestic servants, between the ages of 15-25, but at the same time a tendency was registered for the elderly over the age of 45 to enter or re-enter domestic service in greater number.⁵

1. Ibid., 355

2. Ibid., 348

3. Ibid., 349

4. Ibid., 350

5. H Llewellyn-Smith (Director), The New Survey of London Life and Labour (1930-35) Vol II, 429-30

Policies for reabsorption

The demobilisation of women from civilian war jobs was not an unexpected event. Unlike women's mobilisation into munitions in 1915, which was a totally unforeseen development, demobilisation occupied a prominent place in public discussion as well as in Government departments well before the armistice. The issues appeared fairly straightforward; they involved some 1½ million women who were being employed in what was known as Government or war work. The plight of these women presented an uncomfortable moral dilemma to Government authorities who, through the war effort, had become the largest single employer of labour. Women had been engaged for war work through a vast and concerted design of Government agencies but these same agencies were unwilling to take on the task of providing employment in peace time. Within the terms of the existing political and economic system the only acceptable solution was not the continued provision of employment but a series of administrative measures which were designed to soothe the public conscience and prevent dangerous industrial unrest. In the end the only meaningful form of discharging obligations was the payment of an unemployment benefit. The attempt to palliate the impact of decreased employment through a retraining scheme, never had the smallest chance of success. The numerous reasons for its failure will be described later but the most obvious factor was the inability of the Government to link the training programme with the provision of work.

Vague plans had at one time been mooted about adapting National Factories to peace-time production but these were never seriously taken up. The Ministry of Reconstruction went through the motions of recommending that plans be drawn up without making any promises about their implementation.¹ As could be expected there was strong opposition within the Ministry itself to any plans of 'nationalisation' of the National Factories. E S Montagu -

1. Mun 5/98/350/5, Ministry Memorandum to the Civilian War Workers Demobilisation Sub-Committee, 20 May 1918, section 7

who in 1917 was appointed executive head of the Reconstruction Committee - wrote on a Memorandum which recommended nationalisation: 'I profoundly disagree with these arguments'.¹ The desirability of Government intervention in the economic system was acceptable but it was expected to proceed on certain very definite principles. In November 1918 it was remarked again that the transformation of National Factories for peace-time production posed difficulties because 'the manufacturing community' expected the Government 'to concentrate its efforts on the setting of private industry on its legs again'.² Tawney in his well known analysis of the post-war dismantling of all Government controls over economic activity dated the Cabinet decision to withdraw from competition with the private sector to January 1919.³

In other words Government economic intervention was desirable but only as long as it benefitted business interests. The Trade Facilities Act of 1921, which was subsequently extended but eventually dropped in 1927, was indeed such a measure. It granted credit facilities for the modernisation of British industry but was made available only to efficient manufacturing concerns and not aimed at providing jobs.⁴ No commitment to alleviate unemployment was ever made to the labour side. Trade Union representatives found the Government totally unresponsive when they lobbied for reassurances about the provision of jobs after the war. Delegates of the Triple Alliance, most of whose members were not covered at the time by the National Insurance Act, failed to extract any promises on the re-employment of their members after the war. Their demands that alternative work be guaranteed to war-time workers was called 'hopelessly impracticable'.⁵

1. Mun 5/79/340/7, Labour Regulation Department Memorandum to the PM (Lloyd George) on Reconstruction, 30 April 1918, 6
2. Mun 5/98/350/9, Council Committee on Demobilisation and Reconstruction, 4 November 1918, Serial No 236
3. R H Tawney, 'Abolition of Economic Controls 1918-21', Economic History Review, 1943, 16
4. B. Gilbert, British Social Policy 1914-39 (1970) 46
5. Mun 5/91/344/3, Notes prepared for the PM when he received a deputation of the Triple Alliance to discuss restoration of trade union practices, 3 August 1917, 2-3. In an earlier meeting with members of the Triple Alliance Beveridge had already made the point that while unemployment benefit was negotiable the demand for 'full maintenance by the State was clearly extravagant', See Mun 5/100/350/24, Deputation of the Triple Alliance, 3 August 1916, 3

In comparison with the vast social problems of demobilisation of the workforce, the disposal of Government surplus and outstanding contracts was a simple matter.¹ The future organisation of the armament establishments, were dealt with at the level of cost, efficiency and general arms strategy.²

As far as the Government was concerned, its departments would have been content with a continuation of women's employment in light engineering which had been initiated before the war and had received such a powerful boost from war time munitions production. Despite this policy of continuing dilution, it does ^{not} appear from the records that the Ministry's Labour Regulation Department intended to renege on its promises of restoring trade union practices. In a collective memorandum to the Prime Minister (Lloyd George) on the subject of demobilisation, this Department expressed fear about the possible consequences of the non-fulfilment of pledges, with a general strike being mentioned as a danger. The officials counselled the PM that 'even if honour permitted their violation [of the pledges], expediency would not ... it is essential that the spirit as well as the letter of such pledges should be observed'.³ Nevertheless, it is clear from other statements originating from Government quarters that the continued employment of women in engineering was envisaged. The Engineering Industries Committee which was convened in 1916 and published its report in 1917, looked forward to women's continued employment after the war in light engineering on repetition work, in operating automatic and semi-automatic machinery. It has already been pointed out in Chapter 4 how both employers and Government authorities emphasised the suitability and potential of women for monotonous and repetition work. The advantages to employers were made up of several factors which included higher productivity through the more widespread use

1. MM, Vol II, part 1, Supplement

2. See for example, T McKinnon Wood Committee of Enquiry into the Royal Ordnance Factory at Woolwich, Cmd 229, 1919

3. Mun 5/79/340/7, Labour Regulation Department Memorandum on Reconstruction, 30 April 1918, 4

of mechanical devices and mass production techniques. It was calculated that this would achieve two ends both considerably advantageous to employers; it would loosen the grip of craft unions in engineering by diminishing the labour intensive character of the engineering industry and lower the cost of labour through the employment of women. The Engineering Industries Committee endorsed the employers' view in supporting a policy which favoured the re-organisation of the industry in ways which would give better training opportunities to male apprentices by leaving the bulk of repetition work to women workers:

There is no doubt that most employers will be anxious to continue to employ female labour on lighter repetition work ... It seems to us that the continuance of a certain amount of female labour is both necessary and desirable. So many boys have been undertaking men's work that 'boys will be men and girls will be boys'.¹

The Board of Trade Committee report on the engineering trades, published in 1918, re-emphasised two important policy considerations noted in Chapters 1 and 4. First, it subscribed to a brief but committed statement on the brevity of women's lives in industry; secondly, and following on that proposition, it advocated women's employment in unskilled repetition work. Such an arrangement would enable male youths to acquire better training and experience and liberate them from the drudgery of mechanical process work:

We do not look upon female labour in the Engineering Trade as likely to be permanent or that many will be permanently employed. The feeling of the working man has always been the honourable one of desiring to support his wife without requiring her to earn and marriage has always been, and we trust will always be a reason for the discontinuance of factory work by women.

As marriage will in most cases take them out of engineering work it is of very little use for them to spend time acquiring all round knowledge at the expense of the increased output attained by confining them to one or a few operations only. This appears also to be in accordance with their natural inclinations ... One advantage to the boy apprentice would accrue from giving women a larger share of small repetition work; it would free him for the general work that affords the proper training for the skilled man.²

1. B.o.T., Departmental Committee appointed to consider the Engineering Trades after the War, Cd 9073, 1918, 16

2. Ibid.

The Ministry of Munitions, which had been the moving force of women's employment in engineering, continued to disseminate information about its successes and to publicise the advantages of the new trends. Despite the fact that the Ministry's employment programme was geared to war needs, its officials envisaged the continuation of women's employment after the war. Mr Kellaway - Parliamentary Secretary to the Ministry of Munitions - who took charge of the widely shown exhibition of women's work asserted that:

After the war women will remain a feature of British industry. There is no prospect of their going back to the occupations or want of occupations of the days before the war. They have come to stay ... He was sure there would be room and need for every pair of hands, male and female, if we were to rebuild our devastated wealth.¹

Other numerous advocates of scientific management and mass production in engineering - both managers and reformers - counselled the continuation of women's employment. They reasoned that the progress of dilution would benefit the nation in the long run with its new regime of greater efficiency. It is no surprise to find Sidney Webb among those who recommended the continuation of war-time production methods. He based his view on economic and industrial realities, which included doubts about the feasibility of restoring trade union practices and a belief in the benefits of mass production to the nation as a whole. Though Webb based his argument largely on the assumption of employers' opposition to restoration, there was more than a hint of satisfaction in his pamphlet in regard to the industrial system ushered in by the new methods:

It is doubtful whether the Government, if it decides simply to adhere to its plighted word, can enforce on the employers the status quo ante; ousting many tens of thousands of women and labourers and scrapping the machines constructed for them.

We cannot afford to permit ... anything in the nature of limitation of output, or restriction on the best possible use of machinery or new materials or processes, or hindrance to the employment of any individuals or classes for any work, of which they are capable.²

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1. Dilution of Labour Bulletin, June 1918, 123
 2. S Webb, Restoration of Pre-War Conditions
(1917) 14, 16

Sidney Webb foresaw:

entrance into occupations hitherto monopolised by skilled craftsmen of women and other new workers and the great extension of the piecework which is an element in what is known as 'scientific management'.¹

Webb belonged to that important group of businessmen and Government officials who supported the reorganisation of British industry on the basis of greater mechanisation, increased use of unskilled labour and a system of piece rates which would be equitably fixed and supervised.

Despite the optimistic forecasts from Government, business and economists that in the long run some demobilised women would be reabsorbed in the engineering and manufacturing industries, no effort was ever made to facilitate this transition, either by actual creation of employment or by training. That is not to say that the problem of unemployed women workers went unobserved. On the contrary it was feared that surplus female labour drifting about the streets was an additionally dangerous element in the charged political situation. In order to stem the tide of this discontent some direction of female labour was necessary. Predictably perhaps the administrators endeavoured to solve this problem by channeling them back into traditional occupations. Stephenson Kent who in 1918 took on the job of Controller General of Civilian Demobilisation and Resettlement recognised the dangers and recommended the solution. In 1918 he wrote as follows:

Gravest unrest which exists at the present moment among women munition workers who are aware that discharges are taking place in great numbers ... Owing to the existing deadlock in respect of the war pledges they must all sooner or later be dismissed and room must be found ... within the boundaries of the trades which were earmarked as women's trades before the war.²

1. Ibid., 20-21

2. Lab 2/413/ED 30488/1918, Labour Resettlement Committee, Memorandum No 16. It should be remarked here that the policy of redirecting women to their pre-war occupations was by no means confined to Government circles. Mr J G Newlove - General Secretary of Post and Telegraph Clerks Association was reported as saying that he believed that women after the war should find work in suitable occupations, such as those documented by previous censuses. See Ruskin College, Women in Industry (1917) 53

The Ministry of Labour feared serious public disorder 'owing to the general unrest and to the presence of strikers, demobilised soldiers in the streets' and as a provisional measure recommended the repatriation of women and girls to their home towns.¹ From October 1918 the Ministry of Labour took charge of labour resettlement and co-ordinating committees set up by the Ministry of Munitions and the Ministry of Reconstruction to deal with problems of demobilisation. Its function was to co-operate with labour exchanges and to suggest schemes for the reabsorption and retraining of labour.²

Training was looked to as one of the keys to reabsorption but industrial training, despite the successful experiments in this field during the war, was not acceptable. In June 1918, in a memorandum on women's training, Miss Durham criticised the inadequacy of training facilities for women even in women's occupations such as clerical work and cited the availability of a mere 550 places in technical and trade schools in London for a population of 35,000 female school leavers. Miss Durham commended the experience of war-time women's training as a possible model for future schemes provided that training was geared to the demands of industry and that the trainees' pay was protected by law. Mr Butler - an official of the Ministry of Munitions - commented on her report that it was unnecessary for the State to provide training for women which could be provided by employers wishing to employ them. D J Shackleton - Permanent Secretary to the Ministry of Labour - had the last word on the scheme when he said:

There are more women trained for industrial occupations through special war effort than are likely to find post-war employment and their only hope lies in the return to ... their ordinary domestic work.³

In October 1918 the war-time schemes for women's training were terminated. Stephenson Kent considered it unwise to give women industrial know-how which they could not use in post-war work. Women's careers in engineering came to an abrupt end:

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1. Lab 2/555/ F(DR) 103, Ministry of Labour Memorandum, 22 February 1919
 2. MM, Vol VI, part 2, 81-84
 3. Lab 2/1224/TW 538, Memorandum by Miss Durham, nd., probably around May 1918, Document No 108, Comments by Butler 1 July 1918 and D J Shackleton 2 July 1918

I think it both unwise and unfair to accept women at this moment as pupils under our present scheme. The resultant effect must inevitably be to increase the number of women who, having had a taste of higher earnings and industrial conditions may find themselves unable to continue in such occupations ... It is altogether undesirable that we should increase what is already in all probability an unabsorbable quantity.¹

In December 1918, a Ministry of Reconstruction sub-committee on women's vocational training recommended that training schemes should be strictly practical in character and geared for occupations in which an ascertained demand for labour existed.² Facilities were set up in the Central Committee for Women's Employment workrooms - an organisation originally set up to relieve women's unemployment during the first phase of the war - and in factories with the Ministry contributing to the costs. These training opportunities were quite clearly circumscribed by a circular issued by the Ministry of Labour in April 1919, which spelt out what the Ministry intended to do for demobilised women. The training which was made available did not offer a free choice of a trade or profession but was confined to an area of employment delineated by women's pre-war work:

Women will only be trained in normal women's trades and the processes in those trades which were known as women's processes before the war and in which recent inquiry has shown there to be a need for such workers and a reasonable prospect of employment. In this connection domestic service will be included as a normal women's occupation, for which training is necessary.³

At the same time an appeal was issued by the Ministry to the 'Women of Britain' exhorting them to go back to home work, paid and unpaid. Since it was feared that housework of either sort did not hold much attraction, the call was couched in terms of rousing patriotism:

A call comes again to the Women of Britain, a call happily not to make shells or to fill them so that a ruthless enemy shall be destroyed, but a call to help renew the homes of England, to sew and to mend, to cook and to clean and to rear babies in health and happiness, who in their turn shall grow into men and women worthy of the Empire.⁴

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1. Lab 2/544/MWLS - 347, Memorandum on technical schools by Stephenson Kent, 25 October 1918
 2. Lab 2/1221/TWX 680, Memorandum of the Women's Advisory Committee of the Ministry of Reconstruction - sub-committee on the co-ordination of vocational training for women, Chairman: Susan Lawrence 11 December 1918, 6
 3. Lab 2/1222/TW 116, Ministry of Labour Circular LAC 64, April 1919
 4. Ibid., Leaflet advertising training facilities issued by the Ministry of Labour, April 1919

Judged in terms of an expanding demand, domestic service possessed all the attributes of an occupation capable of absorbing demobilised women. Rose Squire, wrote in her book that 'would-be employers tumbled over each other in their eagerness to secure the services of trainees'.¹ Despite the factory meetings however, by which 'it was sought to stir the imagination of the women to come forward for the national service of building and staffing homes',² women were not so readily convinced about the attractions of this occupation as a career. The numbers trained were disappointing. Between June 1919 and March 1921 a total of some 7000 women were trained through Government schemes of whom 2000 included domestic service and nursery work trainees.³ One writer noted a 'noticeable lack of responsiveness on the part of women to the opportunities for training offered by the courses'.⁴ Efforts to raise the status, wages and popularity of such work were rooted not only in the ideology of homework as a fitting occupation for women but also in the continuing availability of such work. This was not the first time that the attempt was made to raise the status of housework as a fitting occupation for women; similar attempts were made before the war (see Chapter 1) and the post-war unemployment witnessed another such revival. The notion that wages in domestic work were low because it was an occupation in which the workers were untrained died hard among those who attempted to promote it as 'the most suitable [occupation] for a large section of women workers of the nation'.⁵ Women unionists like Harriet Fawcett (NFWW) however were sceptical about the utility of domestic training for women who 'would in any case consider that they had acquired an adequate knowledge of house-keeping at home'.⁶

1. R Squire, op. cit., 194

2. Ibid., 193

3. Lab 2/1222/TW 116, Training of Unemployed Women in Great Britain. One writer put the estimated number of women trained between 1921-7 at 50,000 at a cost of £1 million. See R C Davison, The Unemployed (1929) 246-7

4. J B Seymour, op. cit., 149

5. M.o.R., Report of the Women's Advisory Committee on the Domestic Service Problem, Cmd 67, 1919, 10, 13. The Report recommended a two year training in domestic service to remedy the low status of the work.

6. Lab 2/413/ED 30488/1918, Labour Resettlement Committee, minutes, 31 January 1919, 7

Marion Phillips also disagreed with the general conclusions adopted by the Committee quoted above and asserted that the reason why servants were so difficult to obtain lay not in the absence of training facilities but because the long hours and low wages made service exceedingly unpopular.¹ Madeleine Symons (representing the NFWW) and her colleague Dorothy Jewson supported this view in their evidence to the Committee of Inquiry into the Scheme of Out of Work Donation:

It is hardly ever the case that they [women] simply dislike domestic service itself, it is practically always because the wages are low or the conditions bad.²

Tailoring and dressmaking, for which 1600 and 1700 women respectively had been trained by 1921 fared little better as an answer to unemployment. Quite apart from the fact that the number of women trained was derisory in relation to the problem of women's employment, these trades did not even offer a solution in individual cases. In Newport trained dressmakers could not get work and others could not obtain union rates in the trade.³ Opposition to the training of women in the Yorkshire textile trades was encountered from employers who preferred to recruit young girls straight from school.⁴ Training facilities in the Oldham velvet weaving industry had to compete with card room work in which women were being paid, at one stage, at the rate of 34/- per week, as well as with shop floor instruction from employers.⁵ In January 1920 the Committee on Women's Training resolved that opportunities should also be made available for the middle grade professions in elementary school teaching, higher branches of clerical work and even in medicine and law.⁶ Nothing came of this proposal however. By 1921, some 400 women clerks had been trained but no reference has been found to trainees in any of the other professions.⁷ One determined war widow, aged 25, demanded a full secretarial

1. Lab 2/413/ED 30488/1918, Labour Resettlement Committee, minutes, 31 January 1919, 12
2. M.o.L., Committee of Enquiry into the Scheme of Out of Work Donation, Cd 407, 1918, Evidence of M Symons and D Jewson, 132
3. Lab 2/1224/TW 1821/1920, Memorandum about the Newport dressmaking and sewing class, 26 April 1920
4. Lab 2/1224/132/1920, Letter from the Yorkshire Department of the Ministry of Labour, 12 January 1920
5. Lab 2/1224/TW 548, Velvet weaving scheme at Oldham, 24 January 1920
6. Lab 2/1220/TW 629, Meeting of the Committee on Women's Training and Employment, 8 January 1920.
7. Lab 2/1222/TW 116

training but was denied the opportunity beyond the statutory six months covered by the Out of Work Donation. She was advised to get a job as a junior clerk or typist and to continue her training at evening classes.¹ Yet higher secretarial jobs were precisely the kind in which employment was available for women after the war. As one Ministry of Labour official testified in 1920, there was a dearth of:

High skilled [clerical] workers; it is the unskilled or semi-skilled clerk that is difficult to deal with at the present moment; the person who has been created during the war.²

To sum up then, the post-war Government efforts at retraining were not planned on a scale that was designed to reach the thousands of women seeking jobs in the labour market. The contrast with the war period when effective facilities and instruction were made available within a short space of time, was striking. Equally significant was the emphasis on a drive for a return to the customary trades and in particular - to domestic service which since the 1890s had become increasingly unpopular. Isolated voices of middle class women protested at this state of affairs. Lady Parsons complained at the unfairness of withdrawal of employment opportunities and pointed an accusing finger at the trade unions and the Labour Party:

Now boys and men are benefitting from the methods that proved so successful with women ... Great hopes were entertained by women that a new profession was open to them, where they could earn good wages and where they would have the same scope for their skill and intelligence. But all such pleasant hopes were destroyed, the training schools were closed to women, the trade unions reminded employers of the Government pledge to restore trade union rules.

The Labour Party while demanding full political equality for women ... will not grant to women industrial equality by permitting them to work on the same job as men, to have adequate representation on committees or to enter the higher ranks of those industries which the war has shown they are perfectly fitted to work.³

Lady Parsons pursued the matter further. In 1920, in a discussion at the Royal Society of Arts, she pressed J Currie - war-time head of the

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1. Lab 2/1221/TWX 3044, The case of Mrs Freeman, March 1921
 2. M.o.L., Report of the Committee of Inquiry into Labour Exchanges, Evidence, Cmd 1140, 1921, 353
 3. North-East-Coast Institution of Engineers and Shipbuilders, Transactions 1918-19, 232

Government Munitions Training programme - with the question 'why women were not being trained in engineering, rather than domestic service'. Mr Currie replied that 'it was not his business to ask these questions'.¹ Alix Strachey and Miss A H Tynan, representing the women welders recorded bitterly in 1918 that:

the information which the girls get from the employment exchanges is that there is no skilled work for women and it is useless for them to think of it and they all better go into domestic service.²

The policy of propelling women back into domestic service in post-war conditions of job scarcity served another economic and social aim - that of reinstating the ideology of motherhood and home care as the highest calling open to women. Not for the first time were these well entrenched priorities to be linked to domestic employment as the most suitable preparation for women's ultimate vocation - in Adelaide Anderson's definition 'the primary claims of home and motherhood and the spiritual care of the race'.³ In conditions of dire job scarcity domestic service was also held up as the most useful preparation for women's true calling. 'If girls are really to be home makers, there is no better profession in which they could serve a better apprenticeship', said one writer.⁴ The call for a return to wifedom and motherhood was widely heard. Social engineers who proselytised for 'race regeneration' in the aftermath of the slaughter and the continuing fall in the birth rate⁵ were joined by those organisations and committees who sought to facilitate post-war economic readjustment by diminishing the supply of women in the labour market. Thus the drive for motherhood and home care was imperceptibly linked to the problems of job scarcity. At the same time there was a new recognition of the need for monetary compensation for those married women who were being asked to forego their wage earning activities.

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1. Journal of the Royal Society of Arts, 26 March 1920, 310
 2. M.o.L., Committee of Inquiry into the Scheme of Out of Work Donation, Cd 407, 1918, 160
 3. Cassiers Engineering Monthly, July-December 1917, 179
 4. K C Dewar, The Girl (1921) 165
 5. See the numerous publications of the National Council for Public Morals, for example, The Declining Birth Rate (1916), The Ethics of Birth Control (1925), Problems of Population and Parenthood (1920), Youth and Race (1923). Leading advocates of birth control, Neo-Malthusians and Eugenicists participated in the deliberations of the Council.

In Government Committees and reformers' lobbies the principle of family allowances, or the more limited 'mothers' pensions' was being proposed.

The Women's Employment Committee in its report published in 1919 concurred in the general assumption that women's working lives were in most cases brief interludes 'owing to the fact of marriage'. The Committee also supported the general contention that full time housewifery was beneficial to the community at large.

In so far as the feeling against the employment of married women is based on the view that home and children should be the woman's first concern, it is in line with the interests of the community.¹

The Committee based these views on two assumptions. First, that the superabundance of women on the labour market lowered the level of wages and secondly, that while there was no evidence that the employment of women with children was detrimental to their health, the employment of married women outside the home was not to be encouraged.² The Report's signatories were of the opinion that married women, especially those widowed or deserted, were inherently handicapped in demanding a decent standard of remuneration. The solution therefore was to remove them from the labour market - where they tended to depress wage levels - and to compensate them for the loss of earnings by a system of 'Mothers' Pensions'. This measure 'would enable widows and deserted wives (including wives of men serving long terms of imprisonment) to remain at home and care for their children without impossible economic sacrifice'.³

The movement for 'mothers' pensions' and children's allowances at the time was supported by the precedent of separation allowances. It found advocates in many quarters - among champions of women's rights who campaigned for it as a socially desirable measure and as a way of reducing the number of women in search of work. Mrs Mills, an NFWW delegate to the 1917 TUC

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1. M.o.R., Report of the Women's Employment Committee, Cd 9239, 1919, 21
 2. Ibid., 51-58
 3. Ibid., 55

Conference - feared that the female labour market would be saturated by married women to the detriment of single women. This fear was based on the long accepted notion of a fixed demand for female labour, which it was thought had only temporarily been expanded by the absence of men and Mrs Mills advocated the provisions of pensions to married women in order to keep down the female labour supply.¹ Her voice was added to all those who advocated the payments of a married woman's allowance in order to ensure an improved standard of health of future generations.

The War Cabinet Committee on Women in Industry recommended, broadly speaking, the same type of allowances as the Women's Employment Committee, for widows, or wives of disabled men. Beatrice Webb, in her minority report to the War Cabinet Committee urged that the question of financial provision for maternity and childhood urgently required investigation by a separate body.² Ellen J Smith, in her book Race Regeneration published after the war, recommended family allowances of 5/- for every child:

The State has hitherto declined to recognise any obligations towards those who provide it with children. The time has now surely come when this injustice should be removed and family life made more economically desirable.³

In an ideal State a wage-earning mother would be an anomaly.⁴

The idea of children's allowances was not a new one. May Tennant - at that time a member of the Factory Inspectorate - advocated the extension of the bar on the employment of women after childbirth, as far back as 1908, and a policy of children's allowances.

Gradually the proper balance would be restored; the mother would serve her children and her husband by her presence in the home not by her presence in the factory. The State should pay for her children and the wages system should be transferred from the employer to the State.⁵

The movement for children's allowances, however, received renewed attention during and after the war. Maude Royden - Assistant Pastor at the City Temple

1. TUC Conference Report 1917, 257
2. War Cabinet Committee ... Report, Cd 135, 1919, 7 and 255
3. E J Smith, Race Regeneration (1918) 98
4. Ibid., 71
5. May Tennant 'Infantile Mortality' in G Tuckwell (ed) Women in Industry (1908) 90

in London and a vigilant moral reformer - spoke in the following terms at a Huddersfield conference called to discuss reconstruction problems:

Motherhood would have to be regarded as a great state service and provision made for it ... She would like every mother to be endowed by the State so long as she looked after her children. She would like that great service of motherhood to be paid and paid at the same rate in all classes.¹

Eleanor Rathbone in her plea for family allowances was essentially engaged in the same campaign for better parenthood, although she approached it from a different point of view. Miss Rathbone opposed a wage system which relied on what she called the 'multiple personality' of the male parent to finance motherhood in a hit or miss fashion.²

His wages in short are the channel by which the Community indirectly and only half consciously pays for the continuance of its own existence and the rearing of fresh generations.³

She campaigned for family allowances and a wage rate based on the number of dependents because she did not believe that equal pay was either fair or practicable and that women and children should not be forced to depend on the man's ability to support them.⁴ Mary Stocks called Miss Rathbone's campaign 'the answer to the equal pay impasse: to the anti-feminist conception of motherhood as an occupation without independent economic status'.⁵

In 1917, Eleanor Rathbone, Kathleen Courtney, Maude Royden, Mr and Mrs Emile Burns, Mary Stocks and H N Brailsford founded the Family Endowment Committee, which under the spiritual leadership of Miss Rathbone launched a campaign for family allowances. The fact that her lobby did not win at the time greater support from trade unionists and Labour Party supporters⁶ can partly be explained by the fact that her campaign was couched in terms of despair in regard to women's work opportunities. Indeed Miss Rathbone used the 'Home and Motherhood' argument as a device for reconciling women to the fluctuating low economic and social value placed on their labour:

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1. Leeds Weekly Citizen, 21 December 1917, 2, 'The State of Motherhood'
 2. E Rathbone, 'The Remuneration of Women' in V Gollancz (ed) The Making of Women (1917) 113
 3. Ibid., 114
 4. E Rathbone, The Disinherited Family (1924) 84
 5. M Stocks, Eleanor Rathbone (1950) 77
 6. Ibid., 95-96

The one thing that might reconcile the woman worker to a continuance of the present limitation upon her industrial opportunities, to meagre earnings and to monotonous work would be the belief that her sacrifice was a necessary part of a social system upon which the maintenance of family life, the welfare of future generations depend. For after all the majority of women workers are only birds of passage in their trades.¹

In her well known book, whose main theme was the advocacy of family allowances, Miss Rathbone later elaborated her contention that equal pay for women was but a pipe dream which had finally been laid to rest by the depression.²

Women militants however refused to acquiesce to women's exclusion from the labour market through the simplistic assumption that women served the community best by carrying out their home caring functions. B L Hutchins in her discussion of the problem of child neglect did not subscribe to the widely accepted belief that women's work was by its very nature injurious to children :

It may be quite true that women are more valuable to the community when taking care of the home than when working for an outside employer for a more or less inadequate wage, but domestic statements of this kind are useless to women faced with the practical problem of sustaining life.³

The Women's Industrial Council conducted its own study of 'Industry and Motherhood' in January-June 1918 which covered over 900 cases of working mothers. The inquiry concluded that the quality of child care and maternity was not adversely affected by women's paid outside work:

All were agreed that worrying about ways and means, trying to make an inadequate income fit the family appetites, seeing the children go short of food and clothing had a far worse effect upon maternity than any industrial employment was likely to cause.⁴

The findings of the Women's Industrial Council were basically supported by the experience of Approved Societies in their reports of the incidence of sickness among women. It was remarkable that the growth of women's employment during the war caused a decline in women's sickness claims and

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1. E Rathbone, 'The Remuneration of Women' in V Gollancz (ed) op. cit., 120
 2. E Rathbone, The Disinherited Family, 135
 3. B Hutchins, Conflicting Ideals of Women's Work (1916) 34
 4. Charity Organisation Review, September 1918, 57. A resumé of the Women's Industrial Council report on Industry and Motherhood.

even during the influenza epidemic of 1918 the number of claims was lower than in 1913-14. The reappearance of excessive sickness and disablement claims among women coincided precisely with the onset of post-war unemployment in 1921 and it rose particularly among unskilled workers and in areas where unemployment was most serious.¹

The dismantling of war-time industry and the banishment of the majority of women from jobs they performed during the war, was paralleled by the dissolution of the elaborate structure of wage regulations which had been built up over the war years in munitions work. The post-war policy by contrast aimed at persuading women to return to their pre-war occupations without providing safeguards of wage rate protection. As Sir George Carter of the Labour Resettlement Committee put it: 'something must be done to induce the huge numbers of women now out of employment to return to pre-war occupations at reasonable rates'.² The concept of 'reasonable rates' for women in traditional women's work was altogether undefined. Clearly in the better organised trades where legal minima were in force, such as in clothing, textiles or paper trades, women could rely on the support of the unions in the well organised districts. The Wages (Temporary Regulation) Act of November 1918, which extended the duration of the Munitions Statutory order until September 1920, empowered the Interim Court of Arbitration to lay down minima for the lower paid trades.³ In March 1919, for instance, a standard wage order was issued for women working in laundries with wages of 28/- for those over eighteen, and 12/- for girls of fifteen-sixteen. Enforcement of the order in conditions of labour surplus was altogether another matter; the labour exchanges regarded themselves a neutral suppliers of labour and in no position to demand minimum rates.⁴ The Trade Boards Act of 1918 was

1. B B Gilbert, op. cit., 286

2. Lab 2/413/ED 30488/1918, Labour Resettlement Committee, minutes, 31 January 1919 under the chairmanship of Sir Robert Horne, Minister of Labour, Memorandum No 2, 7

3. M.o.R., Report of the Women's Employment Committee, Cd 9239, 1919, 22

4. Lab 2/500/ED 20083/9, Wages Temporary Regulation Order, 24 March 1919

designed to act similarly in setting minima for trades in which 'no adequate machinery exists for the effective regulation of wages'. The regulations under the new Act were quickly put into effect without undue opposition and by the end of 1921, 63 Boards had been set up¹ covering three million workers of whom 70% were women.² Industries included in the new Trade Board regulations included the distributive and clothing trades, the flax and hemp industry, as well as laundry work mentioned above. However the depression of 1920 led to a virtual collapse of Trade Board regulation and a disregard of the standards they had set for women's wages.³ In 1920 employers were offering women wages below the Trade Board minima or the alternative of dismissal.⁴ According to trade unionists' evidence presented to the Industrial Conference in 1919, 40% of women workers in the sugar and confectionary trades were receiving less than 10/- per week. In the hollow ware trade a strike was called in support of a demand for 10/- for a 54 hour week.⁵ By 1923 straightforward evasion of Trade Board rates was rife, particularly in depressed trades like dressmaking,⁶ or alternately prescribed rates were circumvented by dismissals of women in favour of juveniles or learners.⁷ In these circumstances of generally falling wages, especially after the collapse in mid 1920 of the short lived post war boom, and widespread lack of work the payment of an unemployment benefit was an important innovation. The legal institutionalisation of the benefit in post-war Britain did not however automatically guarantee its application in practice, as the section below will show.

The Donation and the Dole

The Out of Work Donation (the OWD), the forerunner of the Dole, was adopted as an emergency measure by the Government, apprehensive about the possibility of industrial unrest that would ensue from sudden demobilisation. Dissatisfaction and disaffection among women was feared, within a general context of labour unrest.

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1. H F Hohman, The Development of Social Insurance and Minimum Wage Legislation in Great Britain (NY 1933) 385
 2. S Lewenhak, PhD thesis, op. cit., 275
 3. Hohman, op. cit., 387
 4. S Lewenhak, op. cit., 282
 5. Industrial Conference, Report of the Provisional Joint Committee, Cd 501, 1920, Appendix, Memorandum on Causes and Remedies of Industrial Unrest presented by Trade Union Representatives: Cole, Henderson, Bramley, V
 6. D Sells, The British Trade Boards System (1923) 194
 7. Ibid., 217

Sir Basil Home Thomson, Assistant Commissioner of the Metropolitan Police who took over the charge of intelligence activities from the Ministry of Munitions in 1916, warned the Cabinet in December 1918 about the persistence of revolutionary ideas among working men.¹ The experience of war-time resistance among the rank and file to legalised control and direction of labour added an even more threatening aspect to the tide of unemployment. Immediate palliatives were called for to keep at bay the spectre of rebellion and to provide a convincing response to the Labour Party's demand for 'work and maintenance'.

At the end of the war only about $3\frac{3}{4}$ million workers were covered for benefits under the National Insurance Act and the 1916 National Insurance (Part II) Munitions Workers Act, thus leaving some 10 million without any support.² The existing scheme of contributory insurance was therefore quite inadequate to meeting the problem of economic distress among civilian workers. In October 1918, the Civilian War Workers Committee recommended an out of work donation for those who had been employed in munitions for five months prior to the armistice,³ - a benefit equal to that paid to demobilised soldiers with additional allowances for dependents. For the first time ever, the unemployment donation or dole was conceived to represent maintenance for an unemployed worker and not merely a supplement to his or her savings. The OWD represented a grant for thirteen weeks initially at the rate of 24/- for men and 20/- for women over eighteen, with 6/- for the first child and 3/- for all others. Boys and girls between the ages of 15-18 were to receive half the adult rate. Subsequently the OWD was extended for another thirteen weeks at a reduced rate of 20/- for men and 15/- for women.

1. B B Gilbert, op. cit., 20, see also chapters 1, 2

2. Ibid., 59

3. M.o.R., Second, Third, Fourth and Fifth Interim Reports of the Civilian War Workers Committee, Cd 9192, 1918. The original schedule specified employment in munitions of three months prior to armistice.

It should be said in parenthesis that the comparative generosity of the OWD was partly the result of the fact that the contributory national insurance scheme which the Government had been contemplating since 1917¹ was not completed when Armistice was declared. Moreover the level of the donation had not been contemplated at the level which was finally agreed. As late as June 1918, Addison (Minister of Reconstruction) was suggesting a donation of 15/-.² What is even more astonishing is that labour representatives had originally been much more modest in putting forward their demands for post-war unemployment compensation. In February 1918, for instance, a deputation from the War Emergency Workers National Committee (WEWNC or WNC) which included Susan Lawrence, Ben Turner, and B Williams went to see the Minister of Labour (G Roberts) to protest against discharges of munition workers and to demand on their behalf a month's pay and a free rail ticket to return home.³

In the absence of a coherent scheme for a contributory unemployment insurance scheme, the OWD was described as an emergency measure, pending a more permanent policy. By the time that the OWD was terminated, some £22 million had been spent on civilian workers and some £34 million on ex-servicemen and women. The numbers claiming the benefit rose from 450,000 in January 1919 to nearly 1,100,000 in May 1919 and fell to 224,000 in April 1920.⁴ In March 1919, 530,000 women were drawing the benefit but by November the number had fallen to 60,000.⁵ It is highly probable that some

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1. See PIN 7/9 and PIN 7/18
 2. Mun 5/100/350/27, Memorandum by Addison, 3 June 1918
 3. LP/WNC 21/2/77, Letter and deputation, 28 February 1918
 4. Lab 2/492/ED 4453/1920, OWD Scheme. Brief History. The far higher figure paid out to ex-servicemen can be accounted for by the fact that while the civilian scheme lasted only a year, the scheme for ex-servicemen and women remained available for 2½ years until March 1921. See B B Gilbert, *op. cit.*, 63
 5. A W Kirkaldy, British Labour 1914-21 (1921) 107. Kirkaldy put forward the view that women were drawn back into industries which had become depleted during the war and that an exceptionally high proportion of women who had worked in munitions were married.

unemployed women were not granted the benefit because the donation was not a right that was paid unconditionally. Applicants were obliged to prove that they were seeking work and they were not at liberty to refuse suitable employment. Briefly three conditions had to be satisfied in addition to proof that an applicant had been on war work for five months prior to the armistice. An applicant was not at liberty to refuse a vacancy made available through a trade dispute, or a job in the district where he or she had resided before the war at a lower rate than that which he or she had last obtained, or a job in any other district at a wage lower than was customarily recognised in that district.¹ Clearly these provisions would have made many women worse off in paid employment than in drawing the OWD. Madeleine Symons and Dorothy Jewson complained to the Committee of Inquiry into the OWD that women were being deprived of their rights not only because they were ignorant of their rights but because they refused to accept employment at 15/- per week.² Alix Strachey and Miss A H Tynan complained to the same Committee about attempts 'to force skilled women into unskilled occupations. We have a case in which a woman with a skilled trade learned during the war ... has had her benefit stopped for refusing the very lowest grade of domestic work'.³

In effect, women were being asked to return to their pre-war occupations and by the same token, to accept wages well below their war-time levels. A wage of 15/- per week was by no means the lowest that women were being offered. In February 1919 at a meeting of the Labour Resettlement Committee, Mrs Simm asked 'whether no regard was to be paid to the wages which had been offered for work when its refusal led to a stoppage of unemployment donation'. She instanced a girl who had been a dressmaker apprentice and who had worked in munitions for eighteen months. She had been offered on demobilisation work at an 'open fruit shop' at 10/- for a 60 hour week. She refused to

1. Ministry of Labour schedule. Out of Work Donation - Civilian Workers. Summary of scheme, D15
2. M.o.L., Committee of Inquiry into Scheme of OWD, op. cit., 132, 134
3. Ibid., 158

accept this work and her donation was stopped.¹ In April 1919 the Manchester Domestic Workers' Union issued a vigorous declaration protesting at the policy of the labour exchanges of withholding the donation from women who refused to take up domestic work at the sweated wage of £12 p.a.² In July 1919 an NFWW deputation attended on Sir Robert Horne - Minister of Labour - to protest about women being refused the donation because they would not accept work at 12/- per week. Their leaders remonstrated that the refusal to take on domestic employment was not based on antipathy to such work but because it was badly paid and interfered with family obligations.³ Other witnesses recorded in Government archives testified to the fact that in some areas women were willing to accept low paid work rather than register for the donation. The Wages and Arbitration Department's Investigating Officer for the West Midlands reported as follows in December 1918:

It is notorious that the number claiming out of work benefit does not nearly approach the numbers we know to have gone from their war occupations.

Women are too prone to undertake employment on work which is not now munition work (such as brass stamping) at a very much less rate than the prescribed rate for that work namely 5½d per hour plus 11/- per week advance. One notable case was the offer of one woman to start at 7/6 per week. It is difficult to circumvent this exploitation of the surplus female labour now available if the women themselves under-rate themselves.⁴

While in theory the OWD could rightfully be claimed by all civilian workers, in practice it was stigmatised as a charity and shamefully administered as the 'dole'. Alix Strachey and Miss A H Tynan, who have already been quoted, complained of 'the unfortunate attitude on the part of the employment exchange officers who persistently treat the applicants as though they are recipients of a charity and entirely without rights in the matter'.⁵ Nothing can illustrate better this well known attitude which

1. Lab 2/269/HQ 14032/1918, Labour Resettlement Committee, Memorandum 26, 14 February 1919, 5
2. Manchester Guardian, 16 April 1919
3. Bromley Times, 4 July 1919
4. Lab 2/1779/MH Est 1012/2, Wages and Arbitration Department Report from the West Midlands area, 11 December 1918
5. M.o.L., Committee of Inquiry into the Scheme of the OWD, op. cit., 158

prevailed not only among labour exchange officers but among the so called custodians of women's welfare - the lady superintendents described in Chapter 7. This is Miss Lillian Barker - the chatelaine, mother superior and lady superintendent combined of the Woolwich Arsenal:

At Woolwich I had between 27,000 and 30,000 women and when demobilisation came about it was realised that it would be a very calamitous thing if all those 30,000 women thought they could go on the unemployment donation without further parley, so I went round to every factory and pointed out to women ... that if they took 25/- a week and gave nothing in return they were impoverishing the country ... We persuaded nearly 3000 women to go back to domestic service ... several hundreds came to Lyons.¹

Miss Barker favoured the denial of the OWD to those women who had domestic service experience but who refused such employment. As for married women - these she thought should be deprived of their benefit if their husbands were gainfully employed.² The very principle of a maintenance grant found numerous critics who questioned its basic assumption as an unconditional right.³ The role of the Employment Exchanges in administering the OWD was quite crucial. In their cheeseparing efforts they were aided by the Local Employment Committees, composed of employers and labour representatives, and by the Women's Sub-Committees who 'rendered valuable service ... in the review of claims made by applicants of the OWD'.⁴ It has already been noted above that the Labour Exchanges as suppliers of workhands played an important part in propelling women back into domestic service; as paymasters of the Donation they were invested with an added incentive to save money. Other prominent participants in Government deliberations supported these endeavours. Sir Herbert Austin - director of the famous motor car firm - who was not averse to using women on simple repetition work in other circumstances (see Chapter 4) looked to domestic service as providing a solution in the short run:

1. Ibid., 136

2. Ibid., 140

3. Charity Organisation Review, March 1919, 57-8

4. M.o.L., Committee of Inquiry into Employment Exchanges, Report, Cmd 1054, 1920, 6 and 17

It was wrong to try and provide women with new types of work. What was necessary was to get them back to their pre-war occupations ... If the employers agreed to some rise in wages for domestic service and the women refused to accept employment, they should lose their right to the OWD. As long as they were entitled to 25/- a week ... it would never be possible to get them back to domestic work.¹

The Donation was supplanted in November 1920 by the National Insurance Act. Its provisions contained compulsory contributory insurance for all workers except those in domestic service, agriculture, railway work and public employment at salaries of over £250 p.a. Originally the Act provided 15 weeks' benefit for every twelve weeks of contributions. Women workers and their employers paid in 2½d per week² and were to receive a benefit of 12/- per week, on conditions that were similar to those imposed in connection with the payment of the OWD. When the new Insurance Act was put into effect in November 1920, the economic depression had already bitten deeply into the economy, with 1½ million unemployed on the books, many of whom had never worked long enough to qualify for benefit payments.³ This was particularly true for women many of whom had in the wake of post war dismissals been cajoled or compelled by their circumstances to take up domestic work and were thereby disqualified from insurance provisions.

Because the principle of the right to maintenance had been socially and politically established by the institutionalisation of the OWD and the new Insurance Act, the plight of the unemployed who had exhausted their benefits under the provisions of the new Act could not be ignored. While the Poor Law Guardians continued to supplement the basic provisions of the Act in cases of destitution, the Act itself went through several transformations during the depression period in order to provide for the new and unforeseen circumstances of the vast armies of unemployed. As early as 1921 the Act was amended to provide for 16 weeks' 'uncovenanted' benefit

from March 1921 - November 1921 and another 16 weeks from November 1921 -

1. Lab 2/413/ED 30488/1918, Labour Resettlement Committee, minutes 31 January 1919, Memorandum No 20 (Under the chairmanship of Sir Robert Horne - Minister of Labour) 6-7
2. B B Gilbert, op. cit., 69
3. Ibid., 75

July 1922. These new regulations however were conditional on proof that the applicant was engaged in insurable work during 20 weeks following December 1919, that the applicant was normally employed in an insurable trade and that he or she was genuinely seeking full-time employment. 'The intention was to exclude persons who had come into industrial employment to do "war work" and were drawing benefits without intention of remaining in industry when the chance of employment returned'.¹ The conditions upon which the payment of the benefit was based were bound to affect women to a greater extent than men. The clauses which aimed to exclude from the benefit the 'temporary' workers or those who were not 'normally' employed in an insurable trade were decidedly adverse to women workers. Nevertheless, throughout the inter-war years a variety of schemes to amend, and to contract or expand the payment of unemployment benefit were passed. One important new principle accepted was the responsibility of the state for the maintenance of unemployed workers' dependents, i.e. wives and children. By the Act of 1921, wives of unemployed men were paid 5/- and children 1/- per week.²

The conditions of continuity of contribution required for the receipt of the benefit disqualified many of those women who were employed on part-time or seasonal work. In 1922 it was reported in the Manchester area, that 8% of women on the unemployment register did not receive payments because they had not been employed for a sufficient period of time or because they had exhausted their benefit.³ It was later claimed by one witness from the Ministry of Labour to the Royal Commission on Unemployment Insurance that the part-time nature of some women's work did not qualify them to the description of 'unemployed' but that these women had 'acquired the habit of lodging their books'.⁴ Renewed scrutiny over all claims to benefit,

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1. J J Astor et al., The Third Winter of Unemployment (1922), 35
 2. These rates were low in comparison to poor relief paid out by some Poor Law Guardians as in Poplar where 33/- and 10/- for rent was being paid. See C L Mowat, Britain Between the Wars (1956) 129
 3. J J Astor et al, op. cit., 220
 4. R.C. on Unemployment Insurance, Final Report, Cmd 4185, HMSO (1932) 69

as the slump of the 30s overshadowed the unemployment of the 20s, spelt an even greater control over all payment. By 1931 some 700,000 insured persons had exhausted their routine insurance benefits, although financial aid was being provided for 250,000 in the form of transitional benefit.¹ In order to qualify for 'assistance' or 'transitional' benefit however, applicants were subjected to ignominious and searching inquiries and the notorious means test. These regulations included scrutiny of the incomes of single men and women who may have been in short time employment, of married women whose husbands were in employment and of married men whose wives were at work. The Labour Government of 1924 temporarily suspended these restrictions applying to certain categories of the unemployed but claimants to the extended benefit still had to satisfy additional conditions and submit to interviews by the Local Employment Committees. In any event the succeeding Conservative Government reimposed the general limitations and it is a fact of some significance that in the years 1925-7 the number of women's claims disallowed was twice as high as that of the men.² The rigorous examination of women's claims persisted in the following years. The Minority report of the Royal Commission on Unemployment Insurance alleged that the regulations governing all payments, both standard and transitional benefits, were more strictly applied to women than to men. The Courts of Referees who were the ultimate authority sanctioning benefits, disallowed 165,403 women's applications for standard and transitional payments as against 325,158 applications by the men. The number of women's claims disallowed was therefore more than half that of the men's while the number of insured women in relation to the men was only one third.³ It is no wonder therefore that in these circumstances many women, especially among the elderly and the

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1. S Pollard, The Development of the British economy 1914-1967 (1969) 2nd ed, 252
 2. R C Davison, *op. cit.*, 115-118
 3. R.C. on Unemployment Insurance, Final report, Cmd 4185 (HMSO 1932), 479

married had ceased by 1931 to register with the Ministry of Labour 'as they had exhausted their unemployment insurance benefits and considered it unlikely that they would ever be found work again'.¹ This tendency to abstain from registration at the time of the greatest depression was not a new feature; it had already been noted in the early post-war period when in 1920 a Ministry of Labour official reported that:

We have in almost every town in the North a hidden supply of female labour. Our registration may be rather low because women know that at the present time there is very little work going.²

In the depths of the depression the hidden nature of the female labour supply carried with it the additional privation of withdrawal of unemployment benefit.

The Women's Viewpoint

The problem of women workers who were to be discharged after the war occasioned much public debate. It figured prominently in discussion among men and women trade unionists, labour politicians and in Government committees set up to investigate the multitude of problems thrown up by the employment of women on a major scale. The war had wrought great changes in the women's workforce which seemed to indicate the need for a wholesale reorganisation of their social and economic status. Only a few contemporary observers believed that the world after the war would resemble the status-quo ante.³

This does not imply that male trade unionists did not continue to insist on the restoration of trade union practices or that they refrained

1. S Pollard, The Development ... 243
2. M.o.L., Committee of Inquiry into Labour Exchanges, Evidence, Cmd 1140, 352
3. British Association for the Advancement of Science. Proceedings 1916. President of the Economic section (A W Kirkaldy) 445, was quoted as saying 'Many women came forward from motives of patriotism and will gladly resume their former state'

from appealing to the women to return quietly to their homes on cessation of hostilities. Ben Turner, for instance, Secretary of the General Union of Textile Workers appealed to women workers in the following terms:

The point for working women, real working women to mind is that they get equal pay ... and secondly that they leave off work and resume house duties when the war heroes return home.¹

Representatives of working women, on the other hand, refused to surrender so unconditionally their hard won gains. In contrast to male trade unionists they faced the dilemma of keeping faith with their own members and at the same time standing by their menfolk in supporting their demands. The Women's Labour League report for 1916 illustrated the existence of this dual loyalty. It predicted that women who had obtained men's wages:

Will refuse to return to their old role of industrial drudge. On the other hand women who are not themselves wage earners, but are dependent upon their husbands will have to consider how far the presence of female labour, with all its tradition of low wages and weak organisation will mean the lowering of the whole standard of life for the working people. And further, what will the reinstatement of the old trade union rules mean to women workers.²

Mrs Lewis Donaldson in her presidential address to the Women Labour League Congress in 1917 showed her awareness of the same dilemma facing women workers who wanted to continue to compete in the labour market. She reaffirmed the resolve of organised women to adhere to the principles of equity and solidarity with male workers, while refusing to give up with docility their hard won gains:

After the war ... was the woman going back like Joan of Arc to her plough and rough menial work? After delivering her country and laying down her armour was she going to leave the arena of commerce to lay down her uniform and go back to her pots and kettles, to unpaid and unconsidered labour or to the lower alleys of factory work? Had the women learnt enough brotherhood to combine to refuse to undercut each other or to injure the returning men by undercutting them? A great tangle and a great task were these.³

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1. Yorkshire Factory Times, 3 February 1916, 4. Meeting of the Yorkshire Trades Council
 2. Women's Labour League, Annual Report 1916, 40
 3. The Times, 23 January 1917

Mary Macarthur whose trade union solidarity with male workers could not be faulted and who in many ways exemplified the dual allegiance of women activists in the labour movement gave vent to her feelings in a characteristically graphic phrase when she said:

Women are going to come out of this inferno with broken hearts and bleeding feet, but they are coming out of it with a strange, new and terrible wisdom.¹

Marion Phillips, the General Secretary of the Women's Labour League expressed the hope that the reinstatement of pre-war male trade unionists though not negotiable in principle, would still leave room for women in industry on an equal basis with the men. Dr Phillips demanded that 'women should only be employed in trades formerly closed to them if they worked at trade union rates of wages'.²

Women do not want to keep men out of their old work ... But they will certainly have a real and bitter grievance against those who run affairs at home if their war work finds no better recognition than reinstatement of the rules of exclusion and a scramble for any kind of job that is going.³

The Fabian Research Department held conferences at the end of 1916 to discuss the problems of restoration of trade union conditions. The spectre of a 'sex war' which haunted the proceedings was countered with pious resolutions for a united front to face the common enemy - the employers. The problem of wage inequality was central to the issues of the sex war among workers. According to Susan Lawrence, the organising energy of the craft workers on behalf of women and other operatives was helping women to maintain a better level of wages in engineering and was providing one of the best guidelines for the future struggle. However, the thrust of the conference was directed to preparing for conditions of non-restoration of trade union practices. Most delegates feared that promises would not be kept. C H Stuart Bunning, representing the Parliamentary Committee of the TUC assumed in his address that:

1. The Times, 23 January 1917

2. Trade Union Worker, February 1917. 'Women after the War', by Marion Phillips

3. Ibid.

Whatever promises there might be, the fact remained that the women had had for the first time experience of higher wages, better work and the employers had also had active experience of the potential achievements of female labour. No agreements and no promises could remove this experience ... The women would not go back.¹

Some labour leaders like W C Anderson who mistrusted the efficacy of the restoration pledges called for more effective trade unionism as a counter-weight to this possible loss of leverage power:

Mr Anderson did not believe that pre-war conditions would ever be restored ... labour must prepare for the after war struggle in advance ... There were now 600,000 women workers. He thought that at least 250,000 of these would desire to stay in industry. What was to happen to these after the war? A strong and simplified trade union organisation must be built up to meet the future.²

The war had brought women's work into central prominence and it seemed unthinkable that they should ever be willing to return to their pre-war condition of 'invisible' employment. As one reporter writing in the Woolwich Pioneer put it:

Ten years ago, in Woolwich itself, trade unionists would tell you that the borough contained no industrial women and would be amazed to hear of 600 in this factory and 500 in that. The war has changed all that. Women are now visible ... It is readily acknowledged that there is work for them to do in the world and that they are ready and willing to do it.³

Women themselves expressed a wish to continue in their war time employment according to one investigation quoted by Mrs Lewis Donaldson at a Women's Labour League Conference in Manchester in January 1917:

An organisation to combine women in certain trades sent out recently a form of questions to the industry 'Do you wish after the war to return to your former work or stay in what you are doing now?' Of the 3000 answers 2500 were - 'To stay in the work I am doing now'.⁴

Women unionists and organisers on the shop floor were equally convinced that women would not wish to return to their traditional and ill paid occupations.

1. Woolwich Pioneer, 22 December 1916, Fabian Research Department Conference on 'The Restoration of Trade Union Conditions after the War'
2. The Dreadnought, 2 September 1918, Report on the East London Labour Organisations Conference on the Industrial and Political Position of Women.
3. Woolwich Pioneer, 13 April 1917, 2, 'The Position of Women after the War' by EH
4. Glasgow Herald, 27 January 1917.

Kate Manicom, a WU organiser opposed a quietist reacceptance of old conditions:

Many people tell us that women will go back into their own occupations when the men come home; but not so the women who have tasted freedom from worry of short or slack time; they will never return to their own work.¹

The contemporary press based its forecasts for the future on the experience of the war years. It was an undeniable fact that women's financial and material position had visibly improved and a return to pre-war employment and conditions appeared unthinkable, as well as undesirable:

For the first time in history the women of Britain as a whole are earning 'men's wages'. True they are doing men's work for it, but that work is not breaking down their constitutions ... They are revelling in their freedom, their good pay and their newly discovered efficiency ... As one who knows the women munition workers exceedingly well I can definitely state that there is going to be no wholesale disbandment of women when peace comes.²

Women's voices were raised in favour of continuing in new occupations which were providing them with higher living standards, with the proviso that trade union rates were to be safeguarded and wage levels permanently revised in the direction of greater equality. Policy attitudes to women's wage levels in relation to the men's or in the low paid Trade Board industries have already been discussed in Chapter 5. Many commentators feared however that the inevitable competition of a greater number of women for a limited number of jobs would be a source of industrial weakness and was to be avoided. Even the issue of motherhood, which was partly prompted by the fears for the future of the race following on the holocaust of the war, can also be partly traced to the fear that an increase in the number of married women seeking work would further aggravate the imbalance in the female labour supply and demand.

1. Trade Union Worker, April 1916

2. People's Journal, 27 January 1917, 'Fair Play for Women', by a Scottish lady prominently engaged in welfare work among Scottish munition girls and women'.

The post-war dilemma of women who wished to remain loyal to their fellow men while at the same time wanting to continue in paid employment contrasted sharply with the short but path breaking war experience. New occupations and a new style of life had for a period contributed to substantial gains. In economic terms, women's labour had perhaps for the first time in capitalist development become scarce and women were able to secure, if they wished, regular employment. This factor in itself spelt an enormous social change. For many it meant a steadier income than they had ever known supplemented in the case of married women whose husbands were in the armed forces by a separation allowance for themselves and their children. Contemporary evidence suggests that the factor of regular employment more than compensated for the steep rise in the cost of living, the food shortages and the daily grind of unremitting and sometimes dangerous work.

No doubt the frequent reports of wild spending and earning among women were so much nonsense but the fact appears unrefuted that regular feeding ceased for most to be a once weekly luxury. There is added proof for the higher expenditure on clothing and entertainment in the frequent resentment expressed in the contemporary press. Even labour journals reflected the atmosphere of new-found prosperity:

[For] hundreds probably thousands of women ... the war has brought a golden opportunity of earning exceptional pay in wholly exceptional circumstances ... A very large proportion of these women hitherto have not been dependent or have been only partially dependent upon their earnings for a living and it is obvious to anyone that an exceedingly high percentage of their war work salary goes on dress, expensive boots and hats, jewellery and furs.¹

While middle class writers never ceased to circulate misinformed tales, even after the war, of spending sprees,² Forward having sensed middle class envy was quick to seize on it. In May 1916 it published a parody of the

1. Woolwich Pioneer, 28 September 1917, 2

2. F W Hirst, The Consequences of the War to Great Britain (1934), is worth noting as an author whose venom against the rising income of the working class during the war could be equalled by few others.

conventionally accepted idea of a free spending working class family, said to be earning between them an income of £5000 p.a. and having purchased five pianos.¹ Nevertheless, taped interviews with women munition workers - survivors of the Great War - do show that the period was looked back on as 'flush' and the symbol of it was sirloin for Sunday dinner, according to one informant.² The Woolwich Pioneer reported that women dressed better; their increased income invested them with a new sense of freedom to indulge in 'promiscuous friendships', as one vigilant women's columnist of the paper reported.³ The Working Classes Cost of Living Committee reported increases of 93% in clothing expenditure and better quality boots.⁴ Mrs McIntyre, who worked in the Barnbow Shell Factory, Leeds, remembered the war as a time when she was able to buy new clothing in a shop instead of making do with second hand cast offs. She also recalled having bought a piano though no one in the family was able to play it.⁵ The Charity Organisation Review reported increased spending on jewellery and rather comically fancied that this type of purchase was made 'for investment'.⁶ The new freedom to spend occasioned many a raised eyebrow even among labour activists like Tom Mac-Namara - district secretary of the Woolwich Workers' Union who had this to say about young people of 14-16 working at the Arsenal:

They buy a good deal of jewellery and pay inflated prices for it. They go to the stalls in the theatre ... they spend a lot in the picture palaces and the sweet shops and fruiterers.⁷

The new conditions of regular employment and income generated much propaganda in favour of thrift and saving, even among some working women's champions as in the 'bien pensant' and more conventional journals like the

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1. Forward, 6 May 1916, 2, 'The Thriftless War Workers and the Pianos'
 2. IWM/Taped interview with Mrs Jessie Arrowsmith, 6 November 1975
 3. Woolwich Pioneer, 5 May 1916, 7, Women's column
 4. Working Classes Cost of Living Committee, Report, Cd 8980, 1918, 21, 22
 5. IWM/Taped interview with Mrs Elsie McIntyre, 8 July 1975
 6. Charity Organisation Review, July 1915, 207
 7. Woolwich Pioneer, 8 January 1916, 6

Charity Organisation Review.¹ One Bank Manager wrote in the Economist in July 1917 advocating 'compulsory thrift' by deducting from wages of over £1 per week and investing the money in war stock at 5%. He lamented the 'widespread extravagance and waste' among the majority of the workers and the failure to 'help their country financially'.² In common with other representatives of the employing classes, he was preoccupied with the feasibility of post war deflation. As one contributing reporter to the monthly Engineering put it: 'Until the worker realises especially at the present juncture that there must not be excessive or lavish expenditure, it will be impossible for the national finance to return to a stable condition'.³ Commercial and employing interests combined in their efforts to curb spending and reflected also the traditional and continuous drive among earnest and reforming men and women to persuade the working class to save and prosper. During the war, however, members of the labour movement also participated in the thrift movement which indicates that money was indeed available for saving. Mary Longman wrote in a 1916 issue of Labour Woman that the Executive of the Women's Labour League had given much thought to the problem of persuading young people to save. The task advocating thrift was to be entrusted to welfare workers, since parents could not be relied on to do the job.⁴ Clementina Black, a veteran activist of the Anti-Sweating League, was also in favour of 'deferred' payments to women workers:

It was said and with truth that to pay women a 'man's wage' would be to give many of them an income considerably in excess of their individual requirements ... If ever there was a case for deferred payment it was the case of these emergency workers ... but no official suggested that ... Wages were paid direct to the workers and generally went the way that money does go when bestowed suddenly upon young persons accustomed to very narrow allowances.⁵

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1. Charity Organisation Review, July 1915, 98-100. Eleanor Rathbone wrote advocating supervision over the spending of separation allowances: 'The State should have a certain amount of responsibility for seeing that it is not grossly squandered'. See also *Ibid.*, September 1915, 334, article by J B Haldane
 2. The Economist, 29 July 1916, 179, Letter from City Bank Manager
 3. A Richardson, The Man Power of the Nation (1916) 22. Collection of articles contributed to the monthly Engineering
 4. Mary Longman, 'The Boy and Girl in Munitions Works', Labour Woman, August 1916, 44
 5. C Black, 'The Women's Reward', Women's Industrial News, April 1919, 14

Increased purchasing power among women and the resulting evil of smoking was lamented by the Woolwich Pioneer.¹ The same paper also connected increased juvenile crime to increased earnings² and deplored excessive drinking among women.³ The cinema became an increasingly popular entertainment. One writer maintained that women's new found economic independence found expression in an increased number of women applying for legal separations from their husbands:

The fact that a great number of women are now earning wages for the first time in their married lives ... causes or accentuates dissension between man and wife ... Many of the women confessed that they were taking this their first opportunity of ridding themselves of idle or drunken husbands.⁴

Perhaps even more important than the increased spending power was the consciousness of greater freedom and increased importance of women in society. A new feeling of potential within the community was acquired. For the first time women were able to fulfil a publicly visible function and not merely left to perform the socially necessary functions of home care and motherhood. Women became aware of their changed circumstances and gave expression to their awareness. Mrs Eunice Murray wrote to the Glasgow Herald as follows in 1916:

To observe how men speak and write about women today is vastly amusing to us. We have not changed with the war; it is only that in some instances the scales have fallen from men's eyes ... In the hour of Britain's need her sons have realised that if victory was to be won they could not afford to hem women in with the old restrictions. To carry on the industries of the country women must work ... A few years ago I heard Lord Charles Beresford say 'A woman's place was her home'. Twelve months ago I heard him say 'Woman's place was in the world'.⁵

After the war women writers remarked with bitterness on the loss of their short lived freedom, the comradeship and socialibility of war time work. Lady Florence Bell wrote that 'women of every class stepped across

1. Woolwich Pioneer, 7 July 1916, 7
2. Ibid., 28 July 1916, 7. The Howard Association Annual Report for 1916 noted a rise in the number of delinquent children from 37,000 to 50,000 but a fall in the adult crime rate.
3. Woolwich Pioneer, 28 July 1916, 7
4. C Leeson, The Child and the War (1917) 26
5. Glasgow Herald, 14 February 1916, Letter to the Editor

their thresholds into what was to most of them a freer, wider world'.¹ M L Eyles in a bitter book of disillusion wrote: 'as soon as the first baby nears the home, the cage begins to close round the woman in the little house', and contrasted war time as a period of liberty.² The inter war years with the new realities of work shortage, especially for married women, shattered the hopes and the freedom briefly tasted during the war by working class women. Freedom of choice dissolved in the harsh conditions of the dole queue and the closure of work options. The war was definitely over.

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1. F Bell, 'Women at the Works and Elsewhere', Fortnightly Review, December 1919, 909
 2. M L Eyles, The Woman in the Little House (1922) 95, 26

POSTSCRIPTA NOTE ON WOMEN'S EMPLOYMENT AND
UNEMPLOYMENT IN THE INTER-WAR YEARS

The inter-war period of large scale unemployment and depression affected men and women workers in different ways. The economy, which suffered its first severe blows in the Spring-Autumn of 1920, continued with interruptions to stagnate in a depression which culminated in the collapse of 1929-32. The slump, however, was unevenly distributed in its geographical and industrial impact. During the period, the pattern of British manufacturing industry altered radically. While the economy as a whole registered a 1.9% - 2.7% annual growth rate between 1924-35,¹ some areas achieved considerably greater annual increases. These were: rayon or artificial silk, electrical engineering and allied industries, motor vehicles, cycles and aeroplanes, distribution and white collar occupations. The first post war census of 1921 showed a small decrease in the proportion of women employed from 34.1% in 1911 to 32.3% in 1921 of the ^{female} population. This decrease applied in particular to the proportion of married and widowed women in employment but the proportion of those employed in the 18-24 age group experienced an increase.² Traditional women's jobs continued to occupy more than half of the female workforce; personal domestic service accounting for 33%, textiles for 12%, clothing 11%.³ Nevertheless significant new trends were visible in the 1921 census which were further accentuated by later developments in the subsequent intercensal period. The table overleaf shows some of the growth

1. S Pollard, The Development ..., 97
2. Census of 1921, General Report, (HMSO) 89
3. Ibid., 117

areas of women's employment, expressed as proportions of total workforce. Those aspects which affected the later pattern of women's employment will be briefly mentioned.

The Table shows a 10.66% growth in the proportion of women engaged in the retail trade (listed as commerce, dealing and finance), office work and white collar occupations, like banking and insurance, and also national and local Government work. According to the 1921 census over one half of the shop assistants and almost half the clerks were women.¹ The rise in the proportion of women in relation to the total workforce engaged in metal manufacture and allied products is also to be noted. While in their totality women represented only 11.3% of the workforce, the proportion engaged in the manufacture of electrical goods rose to 23% of the total. The other notable inter-war growth sector of the economy, i.e. motors, showed a slight fall in the proportion of women in 1921 and it is not therefore typical of subsequent inter-war development. While the rubric of personal service shows in 1921 a slight fall over 1911, this again was not typical for later years, as the growing sub-sections of hotels, restaurants and 'other' personal services were beginning to indicate. The clothing trades were marked by an aggregate fall in the proportion of women, but both tailoring and boot production was to compensate for this in the long run, at the expense of the dressmaking sub-section where a fall was already evident in 1921.

1. Ibid., 113-114

Table 38. Females as Per Cent of Total Workforce in England and Wales by Industry 1911 and 1921, and the Intercensal Change in the Number of Females per Hundred Persons Employed Industrially between 1911 and 1921 and occupationally between 1901 and 1911¹

Industry	Females as a Per Cent of Total Work Force		Intercensal Change in Number of Females per Hundred Persons Employed Industrially 1911-1921	Intercensal Change in Number of Females per Hundred Persons Employed Occupationally 1901-1911
	1911	1921		
Commerce, Dealing and Finance	21.96	32.92	11.66	(a)
Grocers	21.90	33.82		
Dairymen	18.18	23.33		
Butchers	10.67	13.33		
Fishmongers	17.65	16.67		
Greengrocers	25.30	27.71		
Wine Merchants	10.00	21.05		
Tobacconists	11.67	46.15		
Chemists	15.22	35.85		
Oil and Colourmen	7.41	17.14		
Ironmongers	10.41	19.78		
Cloth Merchants, Drapers, Hosiers, Hatters, etc.	42.00	53.54		
Boot Dealers	31.58	46.48		
Furniture Dealers	15.30	21.28		
Auctioneers and House Agents	2.94	16.22		
Advertisers	-	20.00		
Bankers	2.27	26.58		
Insurance	4.50	25.41		
Other Merchants, Financiers and Salesmen	21.65	32.74		
Chemicals	20.25	27.53	7.28	- .24
Chemicals	14.75	20.78		
Candles, Soap	25.00	34.38		
Dyes, Explosives, Oil, Matches, Glue, Size, Varnish	21.57	25.84		

(a) Because of the Census underestimation of assisting female relatives in 1901, no valid comparison can be made of women's occupational share in Commerce, Dealing and Finance between 1901 and 1911.

1. S Hogg 'The Employment of Women in Great Britain 1891-1921' DPhil (Oxford 1968) Table 39, 491-4. This comparative table was compiled from several sources. Since the Census of 1921 abstained from making comparisons on the grounds of the newly adopted method of tabulating the population by occupation rather than by industry. AL Bowley made the attempt to make valid comparisons while denying any foolproof claim for his method. The table above therefore was computed on the basis of figures as presented in AL Bowley, 'Numbers Occupied in the Industries of England and Wales 1911 & 1921' Special Memorandum No 17a, London and Cambridge Economic Service (Dec 1926) Table III; occupational figures computed from Census of England and Wales, 1911, X, i, Table 26; 1913, LXXVIII, Cd 7018

Industry	Females as a Per Cent of Total Work Force		Intercensal Change in Number of Females Per Hundred Persons Employed Industrially 1911-1921	Intercensal Change in Number of Females Per Hundred Persons Employed Occupationally 1901-1911
	1911	1921		
Rubber	25.00	36.96		
Celluloid	50.00	35.33		
Skins and Leather	20.69	27.50	6.61	2.00
Tanners, Furriers Leather Goods	15.91 25.58	21.70 35.29		
Public Administration and Defence	10.67	17.45	6.70	1.30
National Govern- ment and Defence	7.97	17.16		
Local Government (excluding Education)	14.33	17.85		
Brick, Cement, Pottery and Glass	21.05	27.68	6.63	5.11
Brick, Earthenware, China	24.26	31.78		
Glass	6.67	15.56		
Miscellaneous	-	33.33		
Food, Drink and Tobacco	31.51	36.97	5.46	4.25
Food Preparation:				
Millers	5.41	12.00		
Bakers, Biscuit Makers, Con- fectioners	36.62	35.24		
Sugar Refining	-	9.09		
Jam, Chocolate, etc.	61.40	61.05		
Other Food Industries	40.00	39.29		
Total Food Preparation	36.80	38.89		
Drink Manufacture:				
Brewers	3.45	15.46		
Distillers	-	33.33		
Aerated Waters	15.79	35.29		
Total Drink Manufacture	5.56	18.80		

Industry	Females as a Per Cent of Total Work Force		Intercensal change in Number of females per hundred persons employed industrially	Intracensal change in number of females per hundred persons employed occupationally
	1911	1921	1911-1921	1901-1911
Tobacco Manufacture	61.52	67.35		
Metals and Allied Products	7.64	11.59	3.75	1.63
Iron and Steel Manufacture	.60	2.93		
Copper	-	-		
Brass	17.63	27.03		
Blacksmiths, Anchor, Chain Manufacture	2.78	7.55		
Finplate	9.65	10.53		
Wire	12.50	13.04		
Engineering and Shipbuilding	1.26	4.71		
Electrical Apparatus	13.75	25.49		
Railway and Tram Cars, etc.	2.17	2.71		
Cycles and Motor-Cars	9.09	8.08		
Vehicles - Coach, Carriage	1.92	15.29		
Tools, Cutlery, etc., Scissors, Needles, Pins	19.23	25.45		
Nails, Screws, etc.	10.00	37.93		
Other Metal Industries	19.57	23.50		
Precious Metals, Watches, etc.	26.09	32.86		
Scientific Apparatus	20.00	31.03		
Musical Instruments	5.26	13.64		
Public Utilities	-	3.07	3.07	-
Gas Works	-	2.91		
Waterworks	-	4.76		
Electricity Supply	-	2.56		
Professions, Entertainment and Sport	49.60	52.42	2.82	- .03
Religion	23.61	27.54		
Law	5.08	25.86		

Industry	Females as a Per Cent of Total Work Force		Intercessnal Change in Number of Females Per Hundred Persons Employed Industrially	Intercessnal Change in Number of Females Per Hundred Persons Employed Occupationally
	1911	1921	1911-1921	1901-1911
Doctors and Nurses	72.55	70.19		
Dentists	11.11	19.05		
Education (Local Authorities or Private)	70.37	70.77		
Engineers and Surveyors	-	6.25		
Artists	25.00	36.36		
Architecture	-	9.09		
Other Professions (Excluding Music)	17.39	22.64		
Theatre, Cinemas, etc.	35.90	42.03		
Other Entertainment and Sport	12.50	19.57		
Transportation and Communication	1.77	3.24	1.47	.67
Railways	.83	3.10		
Omnibus	-	6.67		
Trams	2.08	3.95		
Other Road Transport	1.30	2.63		
Shipping	1.33	4.15		
Harbours	-	1.46		
Storage, Passengers, etc.	10.20	6.50		
Textiles	55.88	57.27	1.39	1.33
Cotton	59.87	61.74		
Wool	54.94	55.27		
Silk	65.63	60.61		
Linen, Jute, etc.	50.00	51.65		
Hosiery	71.19	75.00		
Lace	61.56	54.17		
Carpets	50.00	52.94		
Bleaching, Dyeing, etc.	43.33	21.57		
Other Textile Industries	65.00	65.38		
Wood	9.50	10.53	1.03	.88
Timber	1.69	5.00		
Furniture	14.00	12.50		
Other Wood Industries	9.64	14.71		

Industry	Females as a Per Cent of Total Work Force		Intercensal Change in Number of Females per Hundred Persons Employed Industrially	Intercensal Change in Number of Females per Hundred Persons Employed Occupationally
	1911	1921	1911-1921	1901-1911
Paper	34.04	35.00	.96	2.47
Paper Manufacture	25.81	23.26		
Paper Staining	20.00	16.67		
Printing, Stationery, etc.	35.34	36.90		
Construction	.35	1.19	.84	-
Mining	.44	.86	.42	- .15
Miscellaneous and Unclassified Industries	18.60	24.02	5.42	- .25
Floor-cloth	-	22.22		
Other Manufacturing Industries	48.21	51.28		
Unclassified and Miscellaneous Industries	15.14	19.00		
Agriculture and Fishing	7.55	7.47	- .08	- .49
Personal Service	75.74	74.42	- 1.32	- 2.90
Private Domestic Service	82.58	81.57		
Lodging Houses	87.50	90.67		
Restaurants	58.35	63.36		
Inns, etc.	40.14	49.20		
Other Personal Services, etc.	75.11	61.07		
Clothing	66.95	61.72	- 5.23	1.13
Tailors	50.00	56.25		
Dressmakers, Milliners	98.50	96.34		
Hats	53.49	57.14		
Boots	21.10	26.26		
Other Clothing Industries	85.71	82.52		
Total of All Occupied	29.67	29.49	- .18	- .22

Increases in the number of insured workers in the inter-war years followed a similar pattern to that indicated in Table 38. In the manufacture of electrical goods and in electricity supply they rose from 173,600 in 1924 to 367,000 in 1937; the number of insured workers in motor manufacture rose from 220,000 in 1924 to 380,000 in 1939.¹ Another important growth sector was distribution which employed 2.4 million workers in 1937-8 in comparison to the average of 1.6 million in 1920-22.² Other service industries like entertainment and Local Government also expanded as did hotels and restaurants which showed an increase of 19% in the proportion of insured workers in employment in 1933 over the 1926-8 figures.³ Insurance and banking showed an increase of 11% over the 1926-8 workforce.⁴

In general it was the newer industries based on a strong home market which offered better employment opportunities than the traditional export based industries like textiles, wool, marine engineering and coal mining. Since the older industries like marine engineering and coal mining were predominantly staffed by male labour, the depression affected the male labour force to a greater extent than the female labour force. On the other hand unemployment in the textile trades affected women as adversely as men. However, taking into account seasonality, fluctuations and short time, the proportion of unemployed insured women was often lower than that of men. In August 1922, 6.1% of insured females were unemployed as against 14.4% of insured males;⁵ and the Annual reports of the Ministry of Labour reported lower unemployment rates for insured women in the years 1925-7.⁶ In February 1931, 19.6% of insured women as against 22% of insured men were

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1. S Pollard, The Development ... 101-3. For figures of 1923-33 see British Association, Britain in Depression; A record of British Industries since 1929, (1935) 288
 2. *Ibid.*, 178 and 288
 3. *Ibid.*, 436
 4. *Ibid.*, 443
 5. J J Astor et al, The Third Winter of Unemployment, The report of an enquiry undertaken in the Autumn of 1922, (1922), 14
 6. M.o.L. Annual Reports, Cmd 2736, 1926, 146, Cmd 2856, 1927, 116, Cmd 3090, 1928, 112

unemployed and the percentages for the worst year - 1932 - ranged from 12.5% - 15.4% for women as against 24.1% - 26.5% for men.¹ A factor to be set against this generally more favourable state of affairs among women workers was that the rate of unemployment was almost invariably higher among elderly women than among the younger women.²

The single most important factor in reducing the level of women's unemployment was possibly the continuing high level of demand for domestic servants. But other reasons included the employment of women in the so-called 'new' industries, and the service and tertiary sectors. At the same time the new industrial sector profited from the developments in electrical engineering and acted as a stimulus to the manufacture and supply of electricity and electrical goods. New subsidiary industries grew and profited from these initial developments. New types of goods were produced and provided work for industries subsidiary to motor manufacture such as upholstery and fittings and motor accessories; new engineering products for instance electric lamps, electrical consumer goods, accumulators, batteries; telegraph and telephone equipment; lighter engineering products - lifts, refrigerators, brewery equipment; stoves, gas meters and weighing machines. The new industries were located in greater London, particularly West Middlesex, in Worcestershire, Warwickshire and Staffordshire.³

By 1924 the proportion of women in electrical engineering and scientific instrument making had risen to 27.1% of the workforce and in motor vehicles and cycles to 12.1%.⁴ By 1928 the proportion of women employed in metal

1. RC on Unemployment Insurance, Final Report, Cmd 4185, HMSO 1932, 478. For detailed figures and proportions of unemployment by industry and sex in the years 1923-7, see M.o.L. Nineteenth Abstract of Labour Statistics, Cmd 3140, 1928, 48-55
2. H Llewellyn-Smith (Director), New Survey of London Life and Labour (1930-35) Vol II, 21
3. B.A. Britain in Depression, 292-4
4. J Blainey, The Woman Worker and Restrictive Legislation (1929) Table, 95

trades (apart from extraction and foundry work) had grown to 13% of the workforce, in comparison with 6% in 1907. As a result of the increased use of the capstan lathe they were employed in light core making, assembly and warehouse work, in polishing, electric and acetylene welding but they were excluded from skilled or heavy work. As a rule women were not retained 'for any classes of work for which they were specially recruited during the war' but they continued to be employed in machine processes where they were 'reported to concentrate on their work better than men or boys'.¹ The increase in the proportion of women in the London metal and engineering trades as well as the lower incidence of unemployment in these trades among women than among men was noted by The New Survey of London Life and Labour in 1930. A lower unemployment rate among women was also remarked on in the older London trades such as clothing and the manufacture of furniture. The Survey concluded that the reasons were mechanisation and changes in industrial organisation in all these trades.²

The new industries, and even some traditional industries such as clothing, whose production methods had received a considerable boost from technological improvements introduced during the war, provided the background for the utilisation of unskilled, dextrous and cheap female labour. Not only did the number of insured workpeople in the new industries increase in the years of depression but the number of insured workpeople in employment rose even faster. Thus in electrical engineering the number in employment rose by 24,036 in the years 1923-39.³ The number employed in the manufacture of electric cables, apparatus and lamps rose by approximately 24,000,⁴ and those in motor vehicles by approximately 54,000.⁵ Even in an area like Lancashire where engineering in general suffered a catastrophic decline because of the

1. H.O., A Study of the Factors which have operated in the Past and those which are operating now to determine the Distribution of Women in Industry, Cd 3508, 1929, 14
2. H Llewellyn-Smith, The New Survey ..., Vol II, 19-21
3. B.A. Britain in Depression, 289
4. Ibid., 291
5. Ibid., 290

fall in demand for textile producing machinery, the new engineering sector increased its workforce both in terms of the numbers insured and the numbers employed. The Lancashire Industrial Survey of 1932 merely stated that in electrical engineering and the manufacture of cables, lamps etc. 'large numbers of female workers were employed'.¹ Even in some older industries like the tool and cutlery trades of Sheffield, mechanisation and lower wages contributed to the substitution of female for male labour. Unemployment in Sheffield in the inter-war period was therefore on the whole lower among women than among men, and even lower among juveniles.²

The expansion of the artificial silk and rayon industry provided relative increases in employment in Britain as a whole but particularly in the Lancashire area, including parts of Derbyshire and Cheshire. Whereas the number of insured employed persons in the industry in Britain as a whole rose to 194.2 (1923 equals 100), in the years 1923-9, in Lancashire it rose to 535.3.³ The hosiery industry likewise benefitted the workforce by the introduction of rayon; employment in the hosiery industry increased by about one-third between 1924-1935-9,⁴ although one study stated that the increase in employment could largely be accounted for by an increase in the numbers of juveniles.⁵

Another growing sector of employment was distribution. The retail trade continued throughout the inter-war period to expand its services and its personnel. The statistics for 1933 showed an expansion in the numbers of insured persons in employment over the average number of years 1926-8 by 14% in Scotland and 28% in the South-East. The general expansion of this service

1. B.o.T., Industrial Survey of the Lancashire Area, HMSO (1932) 156, see also 155-7
2. S Pollard, A History of Labour in Sheffield (Liverpool) 1959) 249. The 1931 census showed a greater reduction in the employment of men than of women in both light and heavy trades. In other words women were supplanting men at some of the jobs in an area where unemployment was one of the highest in the country. In the period 1923-39 the number of insured women rose at a slow rate while the number of men remained stationary. Ibid., 250-1
3. B.o.T., Industrial Survey of the Lancashire Area, 308-9, Table IV
4. S Pollard, The Development ..., 107
5. B.A., Britain in Depression, 373

industry therefore affected favourably not only the relatively prosperous areas but also the depressed areas like the North-East where the numbers insured rose by 22%.¹ Women, who were increasingly being employed in the distributive trades experienced less unemployment than the men. Even in a depressed area such as the North-East unemployment among women in this sector stood at 6.7% in 1923 as against the men's 7.4% and in the catastrophic year 1931 at 13.8% as against the men's 19%.² The lower cost of women's labour as compared to the men's and the even lower cost of girls as compared to boys must have contributed to this relatively favourable situation for the female workforce and so did the mechanisation of the retail trade.

The hotel and restaurant trade, in common with distribution, increased its employment potential. The number of insured workers in the trade increased by 25% between 1924-31, while the number of women and girls remained stable at 64% of the total workforce.³ This industry however, while never sinking to the depths of depression experienced by the older basic manufacturing sector, underwent nevertheless relatively severe unemployment of 15.3% in the crisis year of 1931.⁴

In contrast to these expanding industries which offered growing employment opportunities to women, other significant trades where women suffered equal or greater unemployment than men may be mentioned. The most important of these was textiles, both cotton and wool, which suffered a general collapse of the export market. By 1937-8 only 16.1% of the national workforce was employed in textile manufacture compared to 21.4% in 1921-2.⁵ Lancashire, which in 1929 contained 83.7% of the national insured workforce employed in cotton manufacture and 43% of those in dyeing and bleaching⁶ did not register lower

1. Ibid., 425

2. B.o.T. Industrial Survey of the North-East Coast Area, (HMSO 1932) 417

3. Ibid., 349-51

4. Ibid., 350

5. S Pollard, The Development ..., 99

6. B.o.T., Industrial Survey of the Lancashire Area,

unemployment figures for women or girls. In the period 1923-31 the cotton industry showed that the proportion of unemployed women as percentage of insured persons was consistently higher than that of men, except for the year 1927. Girls also showed a higher or equal incidence of unemployment in comparison to boys.¹ The clothing industry was another which was considerably transformed during the inter-war years, though it did not register an absolute decline. There was consolidation and even growth in ready-made tailoring which absorbed a growing number of women. In contrast small scale manufacture, and the made to measure trade, as well as dressmaking, especially in the smaller towns and rural areas was on the decrease. In Lancashire which accounted for 13.1% of the nation's clothing industry, the numbers of insured women increased in the period 1923-31 in tailoring, shirts and under-clothing, boots etc., but declined in dressmaking and millinery.²

These longer term developments in the pattern of women's employment in the inter-war years can only partly be linked to the expansion of war-time munitions productions. Women found employment in the lower grades of the expanding light engineering industry, in the newer branches of hosiery and rayon filament sectors, in the more mechanised wholesale branches of clothing and in the service industries. War-time mechanisation and technical development may have accelerated their entry into light engineering and even other sectors which benefitted from war-time investment like clothing, but in the metal and engineering industries the gradually increasing number of women employed had already been noted by the 1911 Census. The 1921 Census confirmed these tendencies.

1. Ibid., 111

2. Ibid., 179-213

APPENDIX A AND B

The Treasury Agreement (Appendix A) signed on 19 March 1915 was not agreed to by the ASE who insisted on supplementary clauses which were subsequently included on 25 March 1915 (Appendix B). The core of the supplementary clauses reiterated the pledge to restore trade union practices and included a proviso on the limitation of profits. It should be noted that while general unions were parties to the Treasury Agreement, the National Federation of Women Workers was never consulted, although it was called in later to participate in the talks on the Munitions Acts.

THE TREASURY AGREEMENT (Appendix A)

ACCELERATION OF OUTPUT ON GOVERNMENT WORK.

MEMORANDUM OF PROPOSALS WHICH THE WORKMEN'S REPRESENTATIVES AGREED TO RECOMMEND TO THEIR MEMBERS AT A CONFERENCE WITH THE CHANCELLOR OF THE EXCHEQUER AND THE PRESIDENT OF THE BOARD OF TRADE, HELD AT THE TREASURY, ON MARCH 17TH-19TH, 1915.

The following workmen's organisations were represented :—

Friendly Society of Ironfounders.
 British Steel Smelters' Association.
 Amalgamated Society of Engineers.
 Federation of Engineering and Shipbuilding Trades.
 Electrical Trades Union.
 Associated Blacksmiths and Ironworkers.
 Associated Ironmoulders of Scotland.
 National Amalgamated Cabinetmakers.

Steam Engine Makers' Society.
 General Union of Carpenters and Joiners.
 United Patternmakers' Association.
 National Transport Workers' Federation.
 General Union of Textile Workers.
 Amalgamated Society of Carpenters and Joiners.
 Boilermakers and Iron and Steel Shipbuilders' Society.
 Ship-constructors and Shipwrights' Association.
 National Amalgamated Sheet Metal Workers.
 United Operative Plumbers' Association.
 Gasworkers' and General Labourers' Union.
 United Machine Workers' Association.
 Associated Iron and Steel Workers of Great Britain.
 National Amalgamated Union of Labour.
 Workers' Union.
 Amalgamated Society of Woodcutting Machinists.
 Amalgamated Toolmakers' Society.
 National Amalgamated Furnishing Trades Association.
 National Amalgamated House and Ship Painters and
 Decorators.
 National Union of Railwaymen.
 National Union of Boot and Shoe Operatives.
 General Union of Braziers and Sheet Metal Workers.
 Scottish Painters' Society.
 Sheet Iron Workers and Light Platers Society.
 Shipbuilding Trades Agreement Committee.
 General Federation of Trade Unions.
 Parliamentary Committee of the Trade Union Congress.

The Workmen's Representatives at the Conference will recommend to their members the following proposals with a view to accelerating the output of munitions and equipments of war:—

(1) During the war period there shall in no case be any stoppage of work upon munitions and equipments of war or other work required for a satisfactory completion of the War.

All differences on wages or conditions of employment arising out of the War shall be dealt with without stoppage in accordance with paragraph (2).

Questions not arising out of the War should not be made the cause of stoppage during the war period.

(2) Subject to any existing agreements or methods now prevailing for the settlement of disputes, differences of a purely individual or local character shall unless mutually arranged be the subject of a deputation to the firm representing the workmen concerned, and differences of a general character affecting wages and conditions of employment arising out of the War shall be the subject of Conferences between the parties.

In all cases of failure to reach a settlement of disputes by the parties directly concerned, or their representatives.

or under existing agreements, the matter in dispute shall be dealt with under any one of the three following alternatives as may be mutually agreed, or in default of agreement, settled by the Board of Trade.

- (a) The Committee on Production.
- (b) A single arbitrator agreed upon by the parties or appointed by the Board of Trade.
- (c) A court of arbitration upon which Labour is represented equally with the employers.

(3) An Advisory Committee representative of the organised workers engaged in production for Government requirements shall be appointed by the Government for the purpose of facilitating the carrying out of these recommendations and for consultation by the Government or by the workmen concerned.

(4) Provided that the conditions set out in paragraph (5) are accepted by the Government as applicable to all contracts for the execution of war munitions and equipments the workmen's representatives at the Conference are of opinion that during the war period the relaxation of the present trade practices is imperative, and that each Union be recommended to take into favourable consideration such changes in working conditions or trade customs as may be necessary with a view to accelerating the output of war munitions or equipments.

(5) The recommendations contained in paragraph (4) are conditional on Government requiring all contractors and sub-contractors engaged on munitions and equipments of war or other work required for the satisfactory completion of the War to give an undertaking to the following effect:—

Any departure during the War from the practice ruling in our workshops, shipyards, and other industries prior to the War, shall only be for the period of the War.

No change in practice made during the War shall be allowed to prejudice the position of the workpeople in our employment, or of their trade unions in regard to the resumption and maintenance after the War of any rules or customs existing prior to the War.

In any readjustment of staff which may have to be effected after the War priority of employment will be given to workmen in our employment at the beginning of the War who are serving with the colours or who are now in our employment.¹

Where the custom of a shop is changed during the War by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher

¹ These first three clauses are taken from the form of undertaking proposed in the Second Report of the Committee on Production. See above p. 50.

skill, the rates paid shall be the usual rates of the district for that class of work.¹

The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings.

A record of the nature of the departure from the conditions prevailing before the date of this undertaking shall be kept and shall be open for inspection by the authorised representative of the Government.

Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of this arrangement, and opportunity of local consultation with men or their representatives shall be given if desired.

All differences with our workmen engaged on Government work arising out of changes so introduced or with regard to wages or conditions of employment arising out of the War shall be settled without stoppage of work in accordance with the procedure laid down in paragraph (2).

It is clearly understood that except as expressly provided in the fourth paragraph of clause 5 nothing in this undertaking is to prejudice the position of employers or employees after the War.

(Signed)

D. LLOYD GEORGE.

WALTER RUNCIMAN.

ARTHUR HENDERSON,

*(Chairman of Workmen's
Representatives).*

WM. MOSSER,

*(Secretary of Workmen's
Representatives).*

March 19th, 1915.

¹ A point not provided for in this paragraph was the question whether the semi-skilled worker should also receive the guarantee (given according to the practice of some shops to the skilled worker) of his minimum time rate when he was employed on piece-work. The reason of the omission was probably that the practice was not general before the War.

Appendix B

ACCELERATION OF OUTPUT ON GOVERNMENT WORK.

At a meeting held at the Treasury on 25 March, 1915, between the Chancellor of the Exchequer and the President of the Board of Trade and the Executive Council and Organising District Delegates of the Amalgamated Society of Engineers, the Chancellor of the Exchequer explained the circumstances in which it had become essential for the successful prosecution of the War to conclude an agreement with the Trade Unions for the acceleration of output on Government work. After discussion the representatives of the Amalgamated Society of Engineers

resolved that, in the light of the Chancellor of the Exchequer's statement and explanations, the agreement be accepted by the Union, and expressed a desire that the following statements by the Chancellor of the Exchequer in answer to questions put to him as to the meaning of various clauses in the Memorandum agreed upon at a Conference with Workmen's Representatives on 17-19 March, be put on record:—

(1) That it is the intention of the Government to conclude arrangements with all important firms engaged wholly or mainly upon engineering or shipbuilding work for war purposes, under which their profits will be limited, with a view to securing that benefit resulting from the relaxation of trade restrictions or practices shall accrue to the State.

(2) That the relaxation of trade practices contemplated in the agreement relates solely to work done for war purposes during the war period.

(3) That in the case of the introduction of new inventions which were not in existence in the pre-war period the class of workman to be employed on this work after the War should be determined according to the practice prevailing before the War in the case of the class of work most nearly analogous.

(4) That on demand by the workmen the Government Department concerned will be prepared to certify whether the work in question is needed for war purposes.

(5) That the Government will undertake to use its influence to secure the restoration of previous conditions in every case after the War.

D. LLOYD GEORGE.

WALTER RUNCIMAN.

JAS. T. BROWNLIE (Chairman of Executive Council of Amalgamated Society of Engineers).

WM. HAROLD HUTCHINSON (Member of Executive Council).

GEORGE RYDER (Organising District Delegate).

ROBERT YOUNG (General Secretary).

APPENDIX CCIRCULAR L2**RECOMMENDATIONS RELATING TO THE EMPLOYMENT AND REMUNERATION OF WOMEN ON MUNITIONS WORK OF A CLASS WHICH PRIOR TO THE WAR WAS NOT RECOGNISED AS WOMEN'S WORK IN DISTRICTS WHERE SUCH WORK WAS CUSTOMARILY CARRIED ON.**

1. Women of 18 years of age and over employed on time, on work customarily done by men, shall be rated at £1 per week, reckoned on the usual working hours of the district in question for men in Engineering Establishments.

This, however, shall not apply in the case of women employed on work customarily done by fully-skilled tradesmen, in which case the women shall be paid the time rates of the tradesmen whose work they undertake. Overtime and night-shift and Sunday and holiday allowances payable to men shall also be made to women.

2. Where women are prevented from working, owing to breakdown, air-raid, or other cause beyond their control, they shall be paid for the time so lost at the rate of 15s. a week as above, unless they are sent home.

3. Women shall not be put on piece work or premium bonus systems until sufficiently qualified. The period of qualification on shell work shall not, in general case, exceed three to four weeks.

4. Where women are employed on piece work they shall be paid the same piece-work prices as are customarily paid to men for the job.

5. Where women are engaged on premium bonus systems, the time allowed for a job shall be that calculated on the basis of the man's time rate.

6. Where the job in question has not hitherto been done on piece work or premium bonus system in the establishment, the piece-work price, or the time allowed, shall be based on a similar job previously done by men, on piece work or premium bonus system as the case may be.

7. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece-work price or time to be allowed, the price or the time to be allowed shall be so adjusted that the women shall receive the same percentage over the time rate of the class of men customarily employed on the job, as such man would have received had he undertaken the job on piece work or premium bonus system as the case may be.

8. The principle upon which the recommendations proceed is that on systems of payment by results equal payment shall be made to women as to the men for an equal amount of work done.

9. Piece-work prices and premium bonus basis times shall be fixed by mutual agreement between the employer and the woman or women who perform the work.

10. On piece work, every woman's time rate as per Clause 1 hereof shall be guaranteed irrespectively of her piece-work earnings. Debit balances shall not be carried forward beyond the usual weekly period of settlement.

11. On premium bonus systems, every woman's time rate as per Clause 1 hereof shall in all cases be paid.

12. Overtime and night shift and Sunday and holiday allowances shall be paid to women employed on piece work or premium bonus system on the same conditions as now prevail in the case of men in the district in question for time work.

13. Piece-work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

14. All wages and balances shall be paid to women through the Office.

15. Any question which arises as to the interpretation of these recommendations shall be determined by the Minister of Munitions.

October, 1915.

Appendix to Circular L.2.

MUNITIONS OF WAR ACT, 1915.

Schedule II.

1. Any departure during the war from the practice ruling in the workshops, shipyards, and other industries prior to the war, shall only be for the period of the war.

2. No change in practice made during the war shall be allowed to prejudice the position of the workmen in the owners' employment, or of their trade unions, in regard to the resumption and maintenance after the war of any rules or customs existing prior to the war.

3. In any readjustment of staff which may have to be effected after the war priority of employment will be given to workmen in the owners' employment at the beginning of the war who have been serving with the colours or who were in the owners' employment when the establishment became a controlled establishment.

4. Where the custom of a shop is changed during the war by the introduction of semi-skilled men to perform work hitherto performed by a class of workmen of higher skill, the time and piece rates paid shall be the usual rates of the district for that class of work.

5. The relaxation of existing demarcation restrictions or admission of semi-skilled or female labour shall not affect adversely the rates customarily paid for the job. In cases where men who ordinarily do the work are adversely affected thereby, the necessary readjustments shall be made so that they can maintain their previous earnings.

6. A record of the nature of the departure from the conditions prevailing when the establishment became a controlled establishment shall be kept, and shall be open for inspection by the authorised representative of the Government.

7. Due notice shall be given to the workmen concerned wherever practicable of any changes of working conditions which it is desired to introduce as the result of the establishment becoming a controlled establishment, and opportunity for local consultation with workmen or their representatives shall be given if desired.

8. All differences with workmen engaged on Government work arising out of changes so introduced or with regard to wages or conditions of employment arising out of the war shall be settled in accordance with this Act without stoppage of work.

9. Nothing in this Schedule (except as provided by the fourth¹ paragraph thereof) shall prejudice the position of employers or persons employed after the war.

¹ "Fourth" a drafting error for "third," corrected by the Amending Act, 1916, Section 19.

STATUTORY RULES AND ORDERS, 1918, No. 546.

THE CONSOLIDATED WOMEN'S WAGES ORDER, DATED MAY 8, 1918, MADE BY THE MINISTER OF MUNITIONS IN PURSUANCE OF SECTION 6 OF THE MUNITIONS OF WAR (AMENDMENT) ACT, 1916 (5 & 6 GEO. 5, c. 99), AS AMENDED BY SECTION 4 OF THE MUNITIONS OF WAR ACT, 1917 (7 & 8 GEO. 5, c. 45).

The Minister of Munitions in pursuance of Section 6 of the Munitions of War (Amendment) Act, 1916, as amended by Section 4 of the Munitions of War Act, 1917, and of all other powers enabling him in that behalf hereby orders and directs that the directions contained in the First Schedule hereto regarding the wages of female workers employed on munitions work shall take effect and be binding upon the owners of the establishments named in the Second Schedule hereto and any contractor or sub-contractor employing labour in any such establishment and the female workers to whom the directions relate.

Dated this 8th day of May, 1918.

Winston S. Churchill.

Ministry of Munitions,
6, Whitehall Gardens,
London, S.W.1.

First Schedule.

DIRECTIONS RELATING TO THE REMUNERATION OF WOMEN AND GIRLS FOR MUNITIONS WORK.

NOTE.—These directions are confined to the War period, and are subject to the observance of the provisions of Schedule II. of the Munitions of War Act, 1915.

PART I.—WORK OF A CLASS WHICH PRIOR TO THE WAR WAS CUSTOMARILY DONE BY MEN IN DISTRICTS WHERE SUCH WORK WAS CARRIED ON.

Time Workers.

1. Women employed on work customarily done by men shall be paid not less than 6d. per hour, with a minimum of 24s. per week. Where the working week is less than 48 hours, 24s. shall be paid for the working week and for additional hours up to 48.

2. Women employed on work of a class customarily done by semi-skilled men shall be paid according to the nature of the work and the ability of the women.

3. (a) Women employed on the work customarily done by fully-skilled tradesmen shall in all cases be paid as from commencement the time rates of the tradesmen whose work they undertake.

(b) A woman shall be considered as not employed on the work customarily done by fully-skilled tradesmen but a part only thereof, if she does not do the customary setting up or, when there is no setting up, if she requires skilled supervision to a degree beyond that customarily required by fully-skilled tradesmen undertaking the work in question.

(c) Women who undertake part only of the work customarily done by fully-skilled tradesmen shall serve a probationary period of three months. The wages of such women for this period shall be reckoned as follows:—

They shall be rated for a period of four weeks at the time rate of wages to which they were entitled under these directions when employed on time, and from that rate shall then rise from the beginning of the fifth week until the end of the thirteenth week by equal weekly increases to the district time-rate of the fully-skilled tradesman, and shall thereafter be rated at the district time rate of the tradesman whose work they are in part undertaking.

(d) In any case where it is established to the satisfaction of the Minister that additional cost is being incurred by extra setting up or skilled supervision due to the employment of women in place of fully skilled tradesmen, the rates payable to women under these directions may, with the sanction of the

Minister, be subject, for so long as such additional cost is incurred, to deductions not exceeding 10 per cent. to meet such additional cost. Provided that no woman shall in any case be paid at lower rates than those prescribed by paragraph 1 of these directions.

(e) No woman shall be called upon to serve more than one probationary period.

(f) Every woman who has served the probationary period shall receive from her employer a certificate to that effect.

(g) Any time immediately before the date on which these directions take effect during which a woman has been employed on part of the work customarily done by fully-skilled tradesmen shall be reckoned in diminution or extinction as the case may be of the probationary period prescribed by these directions.

4. Girls under 18 years of age employed as time-workers on work customarily done by men shall be paid as follows:—

Working Week.	Age.			
	17 to 18 years.	16 to 17 years.	15 to 16 years.	Under 15 years.
48 hours ...	s. d.	s. d.	s. d.	s. d.
49 hours ...	20 0	18 0	16 0	14 0
50 hours ...	20 6	18 6	16 6	14 6
51 hours ...	21 0	19 0	17 0	15 0
52 hours ...	21 6	19 6	17 6	15 6
53 hours ...	22 0	20 0	18 0	16 0
54 hours ...	22 6	20 6	18 6	16 6
54 hours ...	23 0	21 0	19 0	17 0

and so on for working weeks in excess of 54 hours.

Where the working week is less than 48 hours, the rate above prescribed for 48 hours shall be paid for the working week and for additional hours up to 48.

Workers on Systems of Payment by Results.

5. The principle upon which the following directions proceed is that, on systems of payment by results, equal payment shall be made to women as to the men for an equal amount of work done.

6. Women employed on piece-work shall be paid the piece-work prices customarily paid for the same or similar work when done by men.

7. Women employed on premium bonus system shall be allowed the time customarily allowed to men for the same or similar work, and their earnings shall be calculated on the basis time rate used in the case of men.

8. Where in the establishment in question there are no data from previous operations to enable the parties to arrive at a piece-work price or time allowance, the price or time allowance shall be so adjusted that a woman would receive the same percentage over the time rate of the class of men customarily employed on the job as such man would have received had he undertaken the job on piece-work or premium bonus system as the case may be.

9. Girls under 18 years of age employed as piece-workers or premium bonus workers on work of a class customarily done by men shall be paid as follows:

(a) In the case of piece-workers:

17 to 18 years—the piece-work price paid or allowed for the same or similar work when customarily done by men, less 10 per cent.

16 to 17 years—Ditto, less 20 per cent.

Under 16 years—Ditto, less 30 per cent.

(b) In the case of premium bonus workers:

17 to 18 years—the time allowed shall be that customarily allowed to men for the same or similar work, and the earnings of the girls shall be calculated on the basis of the man's time rate, less 10 per cent.

16 to 17 years—Ditto, less 20 per cent.

Under 16 years—Ditto, less 30 per cent.

PART II.—WORK OF A CLASS WHICH PRIOR TO THE WAR WAS NOT RECOGNISED AS MEN'S WORK IN DISTRICTS WHERE SUCH WORK WAS CARRIED ON.

Time-Workers.

10. Women and girls shall be paid as follows:—

	Per Hour.
Women, 18 years and over	5½d.
Girls, 17 " " under 18	4½d.
" 16 " " " 17	3½d.
" 15 " " " 16	3d.
" under 15 years	2½d.

11. In an establishment in which a custom prevailed prior to the war of differentiating between the rates of wages paid to women and girls employed in warehouses and those otherwise employed, an application may be made to the Minister of Munitions for special directions as to the rates of wages to be paid to women and girls employed in warehouses.

12. Women and girls may be rated at ½d. per hour less than their appropriate time rate under paragraph 10 for probationary periods not exceeding one month from the date when they are first employed, and no woman or girl shall be called upon to serve more than one probationary period.

Workers on Systems of Payment by Results.

13. Piece-work prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her time rate, except in the case of an establishment where an application that this provision should be dispensed with, either generally, or, as regards any particular class of workpeople, has been approved by the Minister of Munitions. Subject to compliance with the foregoing provisions of this paragraph, the earnings of women and girls for work done by them in any establishment at the date of this Order on premium bonus system shall in that establishment be calculated on the basis of the following time rates:—

	Per Hour.
Workers, 18 years and over	4½d.
" 17 " " under 18	3½d.
" 16 " " " 17	3d.
" 15 " " " 16	2½d.
" under 15 years	2d.

PART III.—WOODWORK PROCESSES OTHER THAN FOR AIRCRAFT.

Time-workers.

14. Women and girls shall, for the first eight weeks, be paid as follows:—

	Per Hour.
Women, 18 years and over	5d.
Girls, 17 " " under 18	4d.
" 16 " " " 17	3d.
" 15 " " " 16	2½d.
" under 15 years	2d.

15. Women and girls shall, after eight weeks, be paid as follows:—

	Per Hour.
Women, 18 years and over	6d.
Girls, 17 " " under 18	5d.
" 16 " " " 17	4d.
" 15 " " " 16	3½d.
" under 15 years	3d.

16. Women and girls employed on machine woodwork processes shall, subject to the provisions of paragraphs 14, 15 and 31, be paid according to the nature of the work and their ability.

17. No girl under 18 years shall be employed on any machine process without the sanction of the Minister of Munitions.

Workers on Systems of Payment by Results.

18. Piecework prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her time rate.

Provided that women or girls employed on piecework or premium bonus system on work which in the establishment concerned was previously done by men on piecework or premium bonus system shall be paid according to the provisions of paragraphs 5, 6, 7, 8, and 9.

PART IV.—AIRCRAFT.

A. Woodwork Processes.

Time-Workers.

19. Women and girls employed on woodwork processes for aircraft, other than machine processes, shall be paid according to the provisions of paras. 14 and 15.

20. Women employed on machine woodwork processes for aircraft shall be paid as follows:—

	Per Hour.
For the first four weeks of such employment	6½d.
For the second four weeks of such employment	6d.
On completion of eight weeks of such employment	7½d.

21. Women and girls employed as inspectors and gaugers on woodwork for aircraft shall, after eight weeks be paid at the rate of ½d. per hour more than the rates mentioned in paragraph 15 hereof.

22. No girl under 18 years shall be employed on any machine process without the sanction of the Minister of Munitions.

23. Where the employment of girls under 18 on machine woodwork processes for aircraft has been sanctioned by the Minister of Munitions they shall be paid as follows, on commencement, and shall receive an increase of 1d. per hour after the first four weeks, and an additional 1d. per hour on completion of eight weeks of such employment:—

	Per Hour.
Girls, 17 years and under 18	4½d.
" 16 " " " 17	3½d.
" 15 " " " 16	3d.
" under 15 years	2½d.

Workers on Systems of Payment by Results.

24. Piecework prices and premium bonus time allowances shall be such as to enable every woman or girl of ordinary ability in the establishment concerned to earn at least 25 per cent. over her time rate.

Subject to compliance with the foregoing provisions of this paragraph the earnings of women and girls for work done in any establishment at the date of this Order on premium bonus system, shall, in that establishment, be calculated on the basis of the following time rates:—

	Per Hour.
Workers, 18 years and over	5½d.
" 17 " " under 18	4½d.
" 16 " " " 17	3½d.
" 15 " " " 16	3d.
" under 15 years	2½d.

Provided that women or girls employed on piecework or premium bonus system on work which in the establishment concerned was previously done by men on piecework or premium bonus system shall be paid according to the provisions of paragraphs 5, 6, 7, 8, and 9.

B. Sheet Metal Work for Aircraft.

(i) Hand Processes.

Time-Workers.

25. Women employed wholly or mainly on hand processes in the beating of metal to shape from the plain sheet, except the processes specified in paragraph 26 (a) and (b), shall be paid according to the provisions of paragraph 3.

26. Women and girls employed on—
- the making of straight folds (whether beaded or not), straight bends and straight flanges;
 - the making of bends and flanges (if in one plane) on other than straight work;

(c) hand processes other than the beating of metal to shape from the plain sheet, shall be paid as follows:—

	Per Hour.
Women 18 years and over ...	7d.
Girls 17 " " under 18 ...	6d.
" 16 " " " 17 ...	5d.
" 15 " " " 16 ...	4½d.
" under 15 years ...	4d.

The rates prescribed by this paragraph shall be subject to an increase of ½d. per hour after four weeks' experience and to an additional ½d. per hour after eight weeks' experience.

Workers on Systems of Payment by Results.

27. Women and girls shall be paid according to the provisions of paragraphs 5, 6, 7, 8 and 9.

(ii) Machine Processes.

28. Women and girls employed as time-workers, or on systems of payment by results, on machine processes shall, subject to the provisions of paragraph 29, be paid according to the provisions of Part II. of these directions.

C. General Aircraft Work.

29. Women employed as time-workers on Aircraft work in any establishment wholly or mainly engaged in the manufacture or repair of Aircraft shall not in any case be paid a less rate than 6d. per hour after the first eight weeks.

PART V.—GENERAL PROVISIONS.

30. The provisions of Parts I. and II. of these directions shall not apply to any of the work (other than General Aircraft Work) mentioned in Parts III. and IV., except in so far as those provisions are specifically applied by Parts III. and IV.

31. Where special circumstances exist, women and girls may be paid in excess of the rates prescribed in these directions. In particular, and without prejudice to the foregoing provisions, they shall be so paid when they are employed—

- (a) in danger zones,
- (b) on work injurious to health,
- (c) on specially laborious or responsible work, or
- (d) on work requiring special ability.

Rates of wages in excess of the respective rates prescribed in these directions shall not be put into operation for any class of workers without the previous sanction of the Minister of Munitions.

32. The same overtime, night-shift, Sunday and holiday allowances shall be paid to women and girls to whom Parts I., III. or IV. (except paragraph 28) of these directions apply as are paid to men employed on work of the same class. For this purpose, the working week shall be the working week for women and girls in the establishment in question, but shall in no case be reckoned as less than 48 hours. Women and girls to whom Part II. of these directions applies shall be paid—

- (a) in accordance with the custom of the establishment;
- (b) where no such custom exists, in accordance with the custom prevailing in similar establishments or trades in the district;
- (c) where there are no similar establishments or trades in the district, then in accordance with the rates and conditions prevailing in the nearest district in which the general industrial conditions are similar;

(d) where (a), (b) and (c) cannot be applied, such allowances shall be paid at such rates and on such conditions as the Minister of Munitions may direct.

33. Where women or girls are prevented from working owing to breakdown, air-raids or other causes beyond their control, and no custom exists in the establishment as to payment in respect of time so lost in excess of what is merely laid down they shall be paid for the time so lost at three-fourths of their time rate unless they are sent home.

34. Where women or girls are employed on systems of payment by results their time rates shall be guaranteed and paid irrespective of earnings. Debit balances shall not be carried forward from one week to another.

35. Women or girls shall not be put on systems of payment by results until sufficiently qualified. The period of qualification on shell work shall not exceed four weeks without the express sanction of the Minister of Munitions.

36. Piece-work prices and premium bonus time allowances shall be fixed by mutual agreement in accordance with these directions between the employer and the worker or workers who perform the work.

37. Piece-work prices and premium bonus time allowances, after they have been established, shall not be altered unless the means or method of manufacture are changed.

38. These directions shall not operate to prejudice the existing remuneration of any person or persons.

39. All wages and balances shall be paid to women and girls through the Office.

40. For the purpose of these directions, the term "woman" or "women" means a woman or women of the age of 18 years or over, and the term "man" or "men" means a man or men of the age of 18 years and over.

41. In addition to the amounts payable to women or girls under any of the foregoing directions there shall be paid over and above those amounts to all women and girls whilst employed on munitions work, whether working on time or on a system of payment by results, an advance which in the case of women of 18 years of age and over shall be 6s. per full ordinary week, and in the case of girls under 18 years of age 3s. per full ordinary week.

This advance is to be taken into account in the calculation of payment for overtime, night-shift, Sunday, and holiday work, but is not otherwise to apply to or affect time rates, premium bonus rates or piece-work prices, and is not to be taken into account as part of the time rates for the purpose of fixing new piece-work prices or premium bonus rates. This advance shall not apply in establishments where the payment of alternative War advances has been sanctioned by the Minister of Munitions.

42. These directions shall come into operation in each establishment named in the second schedule hereto as from the beginning of the first full pay occurring after either the receipt of the Order by the establishment or the 1st day of June, 1918, whichever may be the later.

43. Compliance with these directions shall exempt the owner of an establishment named in the second schedule hereto and any contractor or sub-contractor employing labour therein from the obligation to comply with any previous Order of the Minister of Munitions regarding the wages of female workers employed in that establishment on munitions work.

44. Any question which arises as to the interpretation of these directions shall be determined by the Minister of Munitions.

APPENDIX E

Table I. Shift Systems in Government Establishments: Percentage of Women Employees on Various Shift Systems on a Date Approximating to the Middle of Each Month*

Week ending	1916					1917						
	15 Sept.	13 Oct.	17 Nov.	15 Dec.	12 Jan.	16 Feb.	16 Mar.	13 Apr.	13 May.	15 Jun.	13 July.	17 Aug.
Royal Factories :												
One Shift	—	—	—	—	10.5	12.0	9.0	7.5	8.0	11.0	11.0	11.5
Two Shift	69.5	76.5	78.0	81.0	83.0	81.0	84.0	85.0	80.5	80.0	81.0	80.6
Three Shift	4.0	5.0	5.5	6.5	6.5	7.0	7.0	7.5	8.0	9.0	8.0	7.9
Not stated	—	—	—	—	0.0	0.0	0.0	0.0	3.5	—	—	—
National Projectile Factories :												
One Shift	—	—	—	—	8.5	8.0	10.5	11.5	12.5	18.0	17.0	18.0
Two Shift	35.5	42.5	43.5	40.0	35.5	43.0	46.0	47.0	45.0	39.5	41.5	42.8
Three Shift	49.0	47.5	48.0	(44.0)* 51.0 (47.5)*	46.5	49.0	43.5	38.0	39.5	42.5	41.5	39.2
Not stated	—	—	—	—	9.5	0.0	0.0	3.5	3.0	0.0	—	—
National Shell Factories :												
One Shift	—	—	—	—	13.0	12.5	12.0	14.0	8.5	9.0	9.5	12.9
Two Shift	38.5	36.5	39.5	43.5†	43.0	49.0	36.0	41.5	47.0	47.5	43.5	46.7
Three Shift	48.0	45.5	45.5	43.5†	43.5	37.5	50.5	44.5	43.0	42.0	37.5	38.5
Not Stated	—	—	—	—	0.5	1.0	1.5	0.0	1.5	1.5	9.5	1.9
National Filling Factories :												
One Shift	—	—	—	—	11.5	10.0	11.5	13.5	15.5	41.5	30.0	20.1
Two Shift	18.5	24.0	26.5	36.5	28.5	35.0	44.0	25.0	35.0	38.5	37.0	50.6
Three Shift	37.5	27.5	26.5	(28.0)‡ 3.0 (25.0)‡	27.0	32.0	9.0	25.0	11.5	12.0	12.5	11.3
Not Stated	—	—	—	—	33.0	23.0	35.5	36.5	38.0	8.0	20.5	18.0
High Explosives and Propellants :												
One Shift	—	—	—	—	18.0	18.0	18.5	15.5	17.5	17.5	17.5	17.5
Two Shift	—	—	0.0	2.0	0.0	1.0	1.0	1.0	0.5	0.5	0.5	0.3
Three Shift	—	—	83.0	80.0	80.5	78.5	79.0	80.5	80.0	81.5	82.0	82.1
Not Stated	—	—	—	—	1.5	2.5	1.5	3.0	2.0	0.5	—	0.1
Miscellaneous :												
One Shift	—	—	100.0	100.0	100.0	87.0	82.5	80.5	76.0	88.0	74.0	81.8
Two Shift	14.5	13.5	0.0	0.0	0.0	13.0	15.0	12.0	6.5	11.5	20.5	13.8
Three Shift	37.5	47.0	0.0	0.0	0.0	0.0	2.5	3.0	1.5	2.5	5.5	4.4
Not Stated	—	—	0.0	0.0	0.0	0.0	0.0	4.5	16.0	0.0	—	—

* Percentages given in brackets include November figures for a National Projectile Factory which failed to make a return for December.

† Percentages do not include figures for Liverpool (3,546), which made a late return

‡ Percentages given in brackets include November figures for a National Filling Factory which failed to make a return for December.

Table II. Percentage on Sunday Labour of Females Employed in Various Classes of Establishment*

Month	1916.				1917.							
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July	Aug.	Sept.
	15 Oct.	12 Nov.	17 Dec.	16 Jan	11 Feb.	18 Mar.	15 Apr.	13 May.	17 Jun.	8 July	12 Aug	16 Sept.
<i>Government Establishments :</i>												
Royal Factories	7.5	6.5	7.0	9.0	2.5	3.0	3.5	3.5	1.0	2.9	7.7	3.3
National Projectile Factories ..	8.0	6.0	22.0	16.5	6.0	8.5	6.5	3.5	2.0	2.9	3.3	3.0
National Shell Factories ..	8.0	11.0	11.0	4.5	5.0	1.5	1.5	1.0	1.0	0.3	0.0	0.3
National Filling Factories ..	11.5	6.0	1.0	6.0	11.0	4.0	2.0	2.0	1.5	0.2	0.0	0.1
High Explosives and Propellants	37.5	44.5	33.0	30.5	32.5	34.5	33.0	33.0	27.5	28.4	25.2	26.4
TOTAL, including Miscellaneous	11.5	9.5	10.0	10.5	10.0	7.5	6.5	6.0	4.5	4.8	5.0	4.7
<i>Non-Government Establishments :</i>												
Metal Trades	2.5	8.0	2.5	1.5	1.5	2.0	1.5	1.0	1.0	1.1		0.9
Chemicals and Explosives ..	11.5	12.0	13.0	12.5	13.5	8.5	7.0	7.0	6.5	6.0		5.9
TOTAL, including Rubber, Wood Trades and other Trades ..	3.0	3.0	3.5	2.5	2.5	2.0	2.0	1.5	1.5	1.5		1.4

* The figures given in the table are obtained by calculating the actual numbers engaged on each Sunday as percentage of the mean of two proximate monthly returns of female numbers employed.

BIBLIOGRAPHY: TABLE OF CONTENTS

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NOTE ON BIBLIOGRAPHY

Primary Sources are listed in alphabetical order.

British Government publications are listed in alphabetical order by Ministry, Department, or Committee. Within these sections documents are listed in chronological order and in the case of several publications in the same year they are listed alphabetically. If a document appears in the same volume of Parliamentary Papers as the previous one cited, the year and volume number is not repeated but the title of the subsequent document is followed by Ibid.

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Unsigned articles are listed under 'Anon' or 'Engineer'.

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The main primary sources used were the archives of the Ministry of Munitions at the PRO in Classes Mun 1, Mun 2, Mun 4, and Mun 5. Mun 5 contains the bulk of the most pertinent detailed material used for the Official History of the Ministry (see British Government publications); it encompasses intra- and inter-departmental memoranda as well as conferences with employers and trade unions. The next most important source is Mun 2, which contains the secret weekly reports of the Munitions Council which included the labour reports and which have been used in the thesis to provide a picture of the labour situation during the war. Mun 1, contains the daily reports of the Munitions Council from August 1917-October 1918. Mun 4 is a miscellaneous class of papers for which the complete index had not yet been made available, but for which the archivist in charge provided his notes. Mun 4 contains the Committee on Production (COP) papers and the National Advisory Committee (NAC) minutes as well as memoranda on dilution and labour problems. The important gap of the missing Labour Supply Committee papers was noted by the archivist.

Lab 2 is an important class of archives containing several thousand boxes, some of them transferred from other Ministries when the Ministry of Labour was set up as a separate office. Lab 2 contains the papers of the Industrial Commissioner's Office and details of wage arbitrations and disputes, some

of which are more detailed than others. It also contains the papers of Munitions Tribunals, some Trade Board investigations, Ministry of Labour inquiries and schemes for women's retraining after the war. This class was in the process of being indexed while the research for this thesis was being done and a progress list was kindly made available by Dr Brenda Swann at the PRO.

Lab 14 contains some papers of the factory inspectorate, the proceedings of the Hours of Labour Committee and the Health of the Munitions Workers' Committee.

Lab 34/33-37 is a register of strikes and lockouts, catalogued by industry in chronological order with some information on the cause of stoppages and their duration.

HO 45 papers contain some material of a political and labour nature and they have been used to a limited extent, as well as Mepol 2, but the original reports on labour unrest which provided the basic material for Mun 2 (see above) were not found.

Some material in class PIN 7 was used for information on the Out of Work Donation and Unemployment Insurance as well as on the organisation of the marches of the unemployed.

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