

## **EGGE – EC’s Expert Group on Gender and Employment**

### **National Reports on the Unadjusted and Adjusted Gender Pay Gap**

**U.K.**

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**UK national report on the unadjusted and adjusted  
gender pay gap**

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## **Introduction**

The narrowing of the gender pay gap during the late 1980s and early 1990s has faltered in recent years, despite steady improvements in human capital and more continuous labour market participation among female workers. A range of studies in the 1980s and early 1990s suggested that the gender pay gap was overstated because it did not adjust for gender differences in personal and human capital characteristics. More recently, however, several important studies show that it is the differences associated with labour market structure (especially job and workplace characteristics), rather than human capital differences, that are most important in disentangling the causes of gender pay inequality. These econometric studies are also useful insofar as they illuminate the differential returns to characteristics experienced by men and women, constituting what is usually referred to as sex discrimination in the literature. Nevertheless, closer attention to the institutions and actors involved in shaping the wage structure and labour market system offers an alternative (or, perhaps, complementary) account of the factors that shape changes in women's relative pay - factors which are difficult to capture in econometric models.

This report begins with a brief assessment of available UK earnings data to shed light on trends in gender pay inequality. The second section reviews econometric studies of the gender pay gap, which re-estimate the gender pay gap after adjusting for gender differences in a range of characteristics. There is no universal list for the kinds of characteristics that ought to be considered when making the adjustment. As such, our discussion distinguishes different characteristics, including those related to human capital, to the job and occupation, to family status and part-time work. The third section reviews the major changes in labour market institutions that have impacted on gender pay equality, such as changes in collective bargaining coverage, the role of unions and the 1999 introduction of the National Minimum Wage. The report concludes with a review of recent policy efforts to address the gender pay gap.

## **1. National measures of the unadjusted gender pay gap**

From the early 1980s to the present the UK has witnessed a narrowing of the gender pay gap among all workers, with women's average pay relative to men's increasing from 66% in 1984 to 72% in 2001 (Table 1.1). However, this overall long-run trend masks important characteristics of change in the gender pay gap. First, the narrowing has not occurred at a steady pace. Between 1984 and 1987 there was very little change in the gender pay ratio (around 66%). The next five years saw the most significant improvement in women's relative pay (from 66% to 70%, by 1992). And during the late 1990s and early 2000s, there has been little discernible trend with the gender pay ratio fluctuating

between 71% and 72%. Indeed, the trend from 1999 to 2001 demonstrates a slight widening of the gender pay gap.

**Table 1.1: Female average gross hourly earnings as a ratio of male average full-time pay - overtime included, 1982-2001**

	1982	1983	1984	1985	1986	1987	1988	1989
<b>Female full-timers</b>	71.96%	72.29%	73.36%	73.81%	74.15%	73.66%	75.19%	76.51%
<b>Female part-timers</b>	56.84%	57.00%	57.47%	57.44%	56.68%	56.23%	56.12%	57.23%
<b>All (LFS weights) *</b>	:	:	66.43%	66.69%	66.58%	66.11%	67.07%	68.23%

	1990	1991	1992	1993	1994	1995	1996	1997
<b>Female full-timers</b>	77.07%	78.26%	79.31%	79.38%	80.02%	80.25%	80.41%	80.90%
<b>Female part-timers</b>	57.44%	58.33%	58.74%	58.77%	59.00%	60.04%	58.24%	59.24%
<b>All (LFS weights) *</b>	68.76%	69.73%	70.44%	70.43%	70.81%	71.44%	70.63%	71.38%

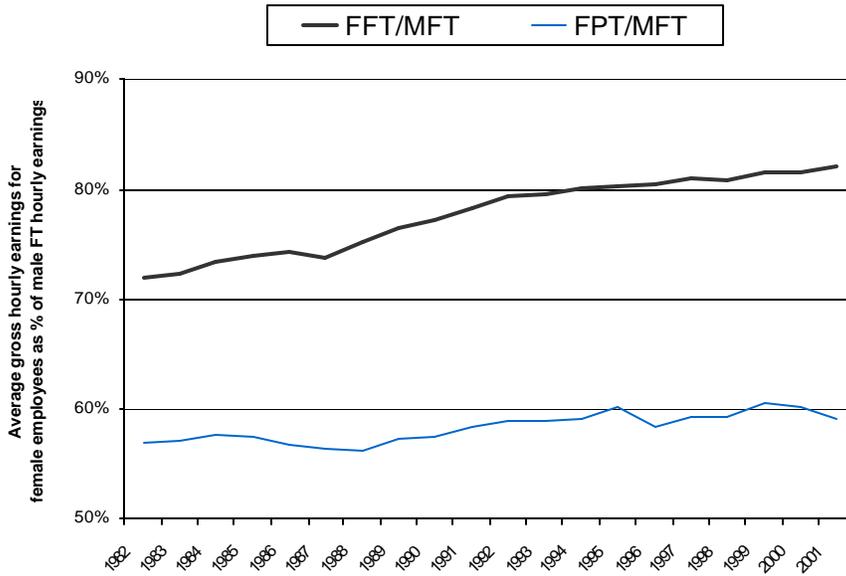
	1998	1999	2000	2001
<b>Female full-timers</b>	80.69%	81.55%	81.48%	82.10%
<b>Female part-timers</b>	59.22%	60.39%	60.20%	58.99%
<b>All (LFS weights) *</b>	71.25%	72.39%	72.18%	72.00%

Source: New Earnings Survey; Labour Force Survey

\* Average gross hourly earnings for all female employees are calculated as a weighted mean of the figures for full-timers and part-timers (as in the NES) using sample numbers from the Labour Force Survey dataset.

The second important characteristic of the UK gender pay gap is its uneven impact among full-time and part-time workers (Figure 1.1). Average earnings of female full-timers compared to average male full-time pay has increased by more than ten percentage points over the period, from 72.0% in 1982 to 82.1% in 2001. By contrast, the average pay of female part-timers compared to average male full-time pay has changed very little, from 56.8% in 1982 to 59.0% in 2001. While the trend in the pay gap among full-timers shows only a couple of exceptions to a steady narrowing over the period (a widening is evident in 1986-87, 1997-98 and 1999-2000), for female part-timers of the 19 year-on-year changes over the period 1982-2001 there are 11 occasions where a narrowing of the gap is recorded and eight where the gap widens. Underpinning the divergent fortunes of women working as full-time and part-time workers is a significant increase in average pay inequality between these two groups of female workers. Figure 1.2 shows that average hourly pay of female part-timers compared to that of female full-timers has declined from 79% in 1982 to 72% in 2001.

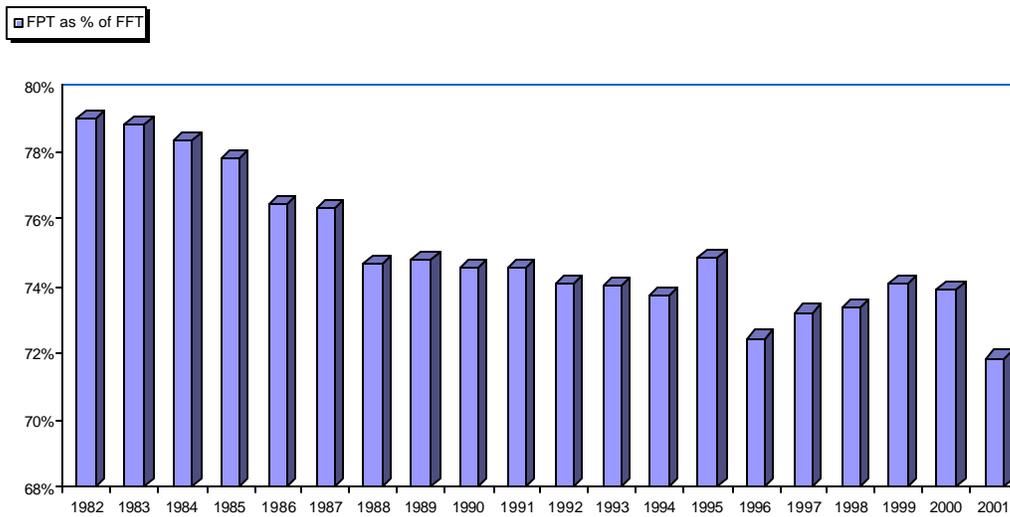
**Figure 1.1: Gender Pay Gap for full and part-time employees, including overtime (1982-2001)**



Source: New Earnings Survey

Definition: Average gross hourly earnings for female employees (full-time vs. part-time) as a share of average hourly earnings for male full-time employees (including overtime); employees on adult rates, whose pay for the survey pay-period was not affected by absence.

**Figure 1.2: Average Gross Hourly Earnings of Female Employees in Part-Time as Ratio of Female Average Full-Time Pay, 1982-2001 (overtime included)**



Source: New Earnings Survey

While the overall gender pay gap demonstrates some movement towards greater pay equity among male and female workers, most notably during the late 1980s and early 1990s, the inter-decile measure of overall pay inequality shows that pay equity between the lowest paid and highest paid has moved in the opposite direction. Table 1.2 shows that over the period 1985-2001 the ratio of earnings between the highest and lowest decile earnings groups (D9/D1) has increased from 2.89 to 3.79 among male full-timers, from 2.66 to 3.41 among female full-timers and from 2.13 to 2.93 among female part-timers. Among all three groups, therefore, the interdecile measure of wage inequality increased by between eight and nine percentage points. Hence, while the gender pay differential may have made some progress towards equality, there has been a widening of pay differences among male workers and among female workers. For all three groups, the increase in pay inequality is indicative of a drop in pay among low paid workers and an increase for high paid workers, relative to the median level of pay for each group (Table 1.2). For example, high paid male full-timers experienced an increase in pay from a level which was 84% higher than the median to 115% higher. Similarly, the highest decile level for female full-timers increased from 77% to 103% of the female full-time median, and for female part-timers it increased from 69% to 109% of the female part-time median pay level.

**Table 1.2: Pay Inequality - ratios of lowest, median and highest deciles of earnings distributions**

	1985	1990	1995	2000	2001
<b>Male FT Employees</b>					
<b>D9/D1</b>	2.89	3.25	3.62	3.68	3.79
<b>D1/D5</b>	0.64	0.60	0.57	0.57	0.57
<b>D9/D5</b>	1.84	1.96	2.06	2.09	2.15
<b>Female FT Employees</b>					
<b>D9/D1</b>	2.66	3.01	3.36	3.36	3.41
<b>D1/D5</b>	0.67	0.63	0.59	0.60	0.60
<b>D9/D5</b>	1.77	1.90	1.98	2.01	2.03
<b>Female PT Employees</b>					
<b>D9/D1</b>	2.13	2.46	2.94	2.92	2.93
<b>D1/D5</b>	0.79	0.75	0.70	0.72	0.71
<b>D9/D5</b>	1.69	1.85	2.06	2.11	2.09

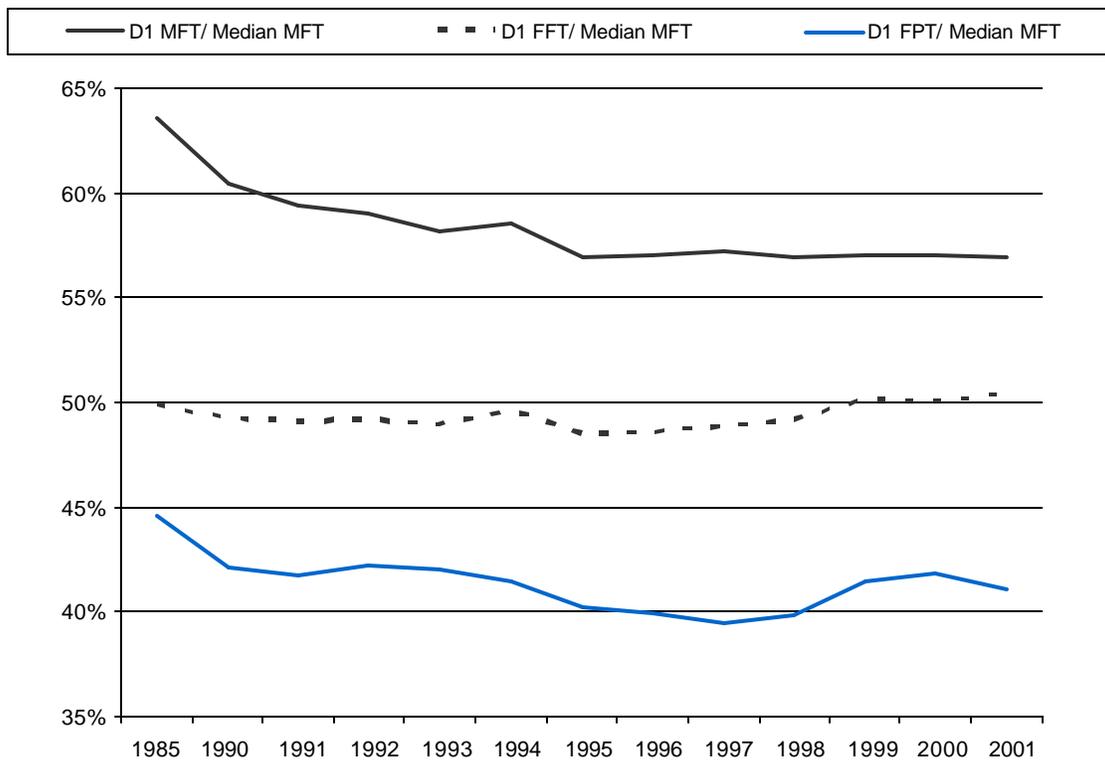
Source: New Earnings Survey

Note: Average gross hourly earnings for employees in the lowest, median and highest deciles of earnings distribution; includes overtime hours and pay; employees on adult rates, whose pay for the survey pay-period was not affected by absence

The universality of trends in pay inequality within these three groups is not quite so clear if we focus on the position of the lowest decile using the male full-time median as a comparator for all groups (Figure 1.3). This shows a substantial decline in the relative position of low paid male full-timers, little change among female full-timers and a fluctuating trend, suggestive of long-term decline, among

female part-timers. The lowest decile pay for male full-timers fell from around 64% in 1985 to 57% in 2001, relative to median full-time pay. For female full-timers it hovered at around 48-50% over the entire period, and for female part-timers the lowest decile level dropped from 45% to 39% between 1985 and 1997, but then recovered sharply to reach 42% by 2000, only to drop off again in 2001. What these divergent trends demonstrate is the importance of going behind the headline average gender pay gap figure to explore how the distributions of male and female, full-time and part-time wage structures change in shape and how these changes impact at different points of the wage distributions. It is beyond the scope of this brief overview to examine this issue in more detail (but see Harkness 1996).

**Figure 1.3: Average Gross Hourly Earnings for Lowest Decile as Percentage of the Male Full-time Median, 1985, 1990-2001**



Source: New Earnings Survey

Definition: Average gross hourly earnings for employees in the lowest deciles of earnings distribution as a ratio for average hourly pay of male full-time employment median; includes overtime hours and pay; employees on adult rates, whose pay for the survey pay-period was not affected by absence

Legend:

D1 MFT/ Median MFT - Average gross hourly earnings for employees in the lowest decile of the earnings distribution of male full-time employees as share of corresponding median  
D1 FFT/ Median MFT - Average gross hourly earnings for employees in the lowest decile of the earnings distribution of female full-time employees as share of median for male full-time employees  
D1 FPT/ Median MFT - Average gross hourly earnings for employees in the lowest decile of the earnings distribution of female part-time employees as share of median for male full-time employees

Table 1.3 presents more details of the proportion of male and female full-time employees earning less than two thirds of male full-time median earnings. Over the period 1990-2001 this shows the rather surprising trend of an increase in the share of low paid among male full-timers and a decrease among female full-timers. In terms of the absolute level, there remains a substantial gap in the share of female full-timers earnings less than two thirds of the male median, compared to the share of male full-timers (30% and 19%, respectively, in 2001). Nevertheless, the trends shows that the share of low paid men has, according to this definition, increased by three percentage points, whereas for women it has decreased by five points.

**Table 1.3: Share of male full-time and female full-time employees earning less than 2/3 \* of the median for male full-time employees, 1992, 1997, 2001**

	1990	1993	1997	1999	2001
Male Full-Time Employees	16.00%	17.30%	18.70%	19.30%	19.30%
Female Full-Time Employees	34.90%	31.30%	30.50%	30.60%	29.80%

Source: New Earnings Survey (published results) \*\*

\*(0.662 - 0.672)

\*\* Based on years in which closest bracket of earnings distribution accounts for 2/3\* of the median for full-time employees; including overtime effects

Table 1.4 presents the position of low paid workers in the UK in relation to the National Minimum Wage (see, also, section 3.2 below). This shows the share of different groups of workers earning less than the National Minimum Wage (NMW) (and also includes 1998 data, the year prior to its introduction). Among all workers over the age of 18 years, the introduction of the NMW in April 1999 lifted a substantial share above the minimum threshold; the percentage share earning less than the minimum hourly rate fell by four percentage points from 6.4% to 2.4%. This trend continued the subsequent year and then tailed off. In terms of the actual numbers of workers affected by this pattern of change we can see that it is female part-timers who have benefited most. It is estimated that between 1998 and 2001, the numbers paid less than the minimum fell by around 210,000 for male full-timers, 220,000 for female full-timers, 110,000 for male part-timers and 660,000 for female part-timers. Of course, the table does not demonstrate whether these workers experienced an increase in pay or lost employment, although aggregate employment data support the (new) argument that the minimum wage has an insignificant effect on numbers employed.

**Table 1.4:**

- Number of jobs paid at less than £3.00 per hour (aged 18-21) or £3.60 per hour (aged 22 and over) for 1998 to 2000  
 - Number of jobs paid at less than £3.20 per hour (aged 18-21) or £3.70 per hour (aged 22 and over) for 2001.

	1998		1999		2000		2001	
	Thousands	%	Thousands	%	Thousands	%	Thousands	%
All (18+)	1,520	6.4%	580	2.4%	300	1.2%	320	1.3%
All 18-21	120	7.7%	40	2.7%	40	2.4%	50	2.6%
All 22+	1,400	6.4%	540	2.4%	260	1.2%	270	1.2%
All Male	420	3.4%	200	1.6%	100	0.8%	110	0.9%
All Female	1,100	9.7%	380	3.3%	200	1.8%	210	1.8%
Male full-time	260	2.3%	120	1.1%	50	0.4%	50	0.4%
Male part-time	170	15.8%	80	7.0%	50	4.3%	60	4.9%
Female full-time	260	4.3%	90	1.5%	40	0.6%	40	0.7%
Female part-time	830	16.3%	290	5.5%	160	3.1%	170	3.1%
All FT	520	3.0%	220	1.2%	90	0.5%	100	0.5%
All PT	1,000	16.2%	370	5.8%	210	3.3%	220	3.4%

Source: NES and LFS ([www.statistics.gov.uk](http://www.statistics.gov.uk))

Note: Since these estimates are partially based on LFS data, the standard LFS policy for suppression of earnings estimates has been used. LFS earnings estimates of less than 30,000 people are not published because they have a 95% confidence interval of roughly +/- 12,000, i.e. 40% of the size of the estimate. This threshold should be borne in mind when using and interpreting the data in the table.

## 2. Review of decomposition studies of the UK gender pay gap

There have been a number of econometric studies of the gender pay gap in the UK which decompose it into explained and unexplained components. In many cases, the nature of the study is determined by the choice of dataset, with some allowing for the manipulation of a range of personal characteristics (such as age, education and work experience), while others allow for the consideration of detailed variables on labour market structure (occupation, industry, unionization, etc.). In some some studies, the chosen dataset enables the assessment of the relative explanatory power of both types of characteristics (Anderson et al. 2001, Harkness 1996, Joshi and Paci 1998). In recent years, several studies have addressed the impact of household position (including number of children, family responsibilities). All studies apply econometric techniques to the decomposition analysis, with most adapting the well-known Oaxaca-Blinder approach and some drawing on the approach developed by Juhn, Murphy and Pierce (1993) – particularly where the research aims to investigate the factors contributing to the change in the gender pay gap over time, or where the aim is to assess the inter-

related effects of various personal and job characteristics on wage structure and the gender pay gap.

What these different studies reviewed here share in common is the attempt to separate out the explained from the unexplained components of the average gender pay gap, with the unexplained component attributed to gender differences in the returns to similar characteristics (whether personal, job-related, or other), referred to as sex discrimination, as well as differences in unobservable characteristics. As we argued in a previous report (Grimshaw and Rubery 2002), there are problems with this approach. For example, it assumes a neat compartmentalization between labour market discrimination, on the one hand, and, on the other, a set of non-discriminatory filtering devices, whether related to individual preferences, labour market sorting or the household division of labour. In the real world, labour market discrimination is endogenous to all these other processes. Also, because the component attributed to discrimination also includes, by definition, that part of the gender pay gap due to gender differences in unobservable characteristics (such as effort or commitment, for example), the methodological approach does not provide a practical means of quantifying the degree of discrimination. We do not develop this critique here. Instead, the aim in this section is to present the general results of a selection of decomposition studies of the UK gender pay gap, drawing attention to their overall method and main contribution to an explanation of the gender pay gap (see Table 2.1 for an overview).

**Table 2.1. Summary of findings from UK decomposition studies**

<i>Author and year</i>	<i>Dataset and sample</i>	<i>Decomposition method</i>	<i>Independent variables</i>	<i>Explained portion of the unadjusted gender pay gap</i>	<i>Comments/ significant variables</i>
Anderson et al. (2001)	WERS98	Oaxaca	Human capital, personal characteristics, job characteristics (occupation, job type, gender segregation, payment system), workplace characteristics (union, size, age, ownership, gender segregation, part-time share, manual share, industry, gender share of industry, competition, local labourmarket)	All women/all men: just over 11 points of a gap of 22 percentage points FT women/ FT men: 11 of a gap of 16 percentage points PT women/ FT men: around four fifths of a 34 percentage point gap	User friendly decomposition with detailed workplace variables
Bell and Ritchie (1998)	<i>New Earnings Survey Panel Dataset</i> , 1977-1994, full-timers only.	Mincer	Age, length of time in current job, region, collective bargaining coverage, industry, occupation	1979: 7.3 of a gap of 26.8 percentage points (27%) 1994: 3.4 of a gap of 19.2 percentage points (18%)	
Black, Trainor and Spencer (1999)	<i>International Social Survey Programme 1989</i> (very small sample of married persons)	Mincer	Experience, education, FT/PT, occupation, industry, union, establishment size, region.	All: 5 points of a gap of 43 percentage points	
Blackaby, Clark, Leslie and Murphy (1997)	<i>General Household Survey</i> , 1973-91	Juhn-Murphy-Pierce (gap at 10 <sup>th</sup> and 90 <sup>th</sup> deciles)	Experience (imputed), educational qualifications, marriage, work ethic, race, industry, region		
Dolton, O'Neill and Sweetman (1996)	<i>Graduate Cohort Data</i> ; nonmedical graduates who completed degrees in 1960, 1970 and 1980; full-timers only	Juhn-Murphy-Pierce (change in gap over time)	Age, education qualifications (including degree subject), actual work experience, child, sector, father's profession, no. of jobs since graduating, marital status, region		

Harkness (1996)	<i>General Household Survey and British Household Panel Survey</i>	Oaxaca	Age, educational qualifications.	1992-93 (FFT/All Men): 2 points of a gap of 20 points 1992-93 (FPT/All Men): 6 points of a 35 point gap.	First stage of iterative decomposition
Harkness (1996)	<i>General Household Survey and British Household Panel Survey</i>	Oaxaca	Age, educational qualifications, full-time/ part-time work experience, region, industry, occupation, children, union, employer size	1992-93 (FFT/All Men): 2 points of a gap of 20 points 1992-93 (FPT/All Men): 22 points of a 35 point gap.	Distinguishes between full-time and part-time workers in decomposition. Presents basic decomposition results and returns to characteristics.
Joshi and Paci (1998)	British Birth Cohort Studies ( <i>NDRC</i> and <i>MRC</i> ); nationwide coverage	Oaxaca-Blinder	General ability at 11 years, education (5 variables), experience, job tenure, region.	Full time, 1991: 1.1 of a gap of 16.7 percentage points (7%)	
Joshi and Paci (1998)	<i>NDRC</i>	Oaxaca-Blinder	The above variables plus: firm size, public/private, sector, employer financed training provision, flexible hours, supervisory responsibility, union member, occupation, female share of occupation, fringe benefits, commuting time	FFT/ MFT, 1991: 6.9 of a gap of 18.3 percentage points (38%) FPT/ MFT, 1991: 35.0 of a gap of 60.2 percentage points (58%)	Shows that unequal treatment is as much about gendered jobs and occupations as it is about the gender of workers
Manning (2000)	<i>General Household Survey</i> (earnings data for 1974-92) and <i>Labour Force Survey</i> (for transition rates)	OLS regression	Transition rates (employment – non-employment), experience	Job search variable explains 'virtually all' the difference in earnings-experience profiles of men and women	Specification of transition rates as contributing to the earnings-experience profile

Myck and Paull (2001)	<i>British Family Expenditure Survey</i> , 1978-1997 (from school leaving age to 36 years old)	OLS regression	Age, cohort, education (3 levels), number of children, ages of youngest and 2 <sup>nd</sup> youngest child, experience.	Experience explains between 5% and 8% of the gender pay gap (for the different education levels) after controlling for other factors	Very detailed specification of the experience variable for part-time and full-time workers
Waldfoegel (1995)	<i>National Child Development Study</i> , age 23 and 33 surveys (1981, 1991)	Oaxaca	Age, experience, education, marital status, number of children.	Age 23: all variables explain 3 points of the 18.6 percentage point gap (16%) Age 33: all variables explain 9 of the 29.8 percentage point gap (30%)	Details of all coefficients and decomposition of contribution of differences in family status (characteristics and returns) to the pay gap.

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Note: See Anderson et al. (2001: Appendix 3) for a summary table that includes an alternative selection of econometric studies.

## 2.1. The role of personal characteristics

Most UK studies of the gender pay gap over recent years show that gender differences in human capital, or personal characteristics (such as age, education and work experience), explain a shrinking portion of the overall gender pay gap. This reflects a convergence in levels of education among men and women, as well as increased continuity of labour market participation among women. There are, however, conflicting results among the various studies with some demonstrating that gender differences in labour market experience, for example, have significant explanatory power, while others claim that they are insignificant.

The study by Joshi and Paci (1998) is an extensive exploration of a wide range of variables, not solely limited to personal characteristics. However, for the purposes of this section, we draw out the main results of their first stage model, which only includes personal characteristics (see below for further results). The study draws on two birth cohort studies that trace people born in 1946 and in 1958 and analyses gender pay inequality in Britain between 1978 and 1991. The main advantage of these datasets is the rich information they provide on individual education, work histories, family background and a school test of general ability at the age eleven. The assumption of economic theories of discrimination is that the nondiscriminatory part of the gender pay gap is the result of differences between men's and women's individual and job characteristics. Hence, compared to other datasets where detailed information on these variables is often not available, this study seems highly valuable in testing the effects of individual characteristics. Joshi and Paci carry out decomposition of the gender pay gap for 1978 and 1991 to demonstrate the slow progress of equal opportunity legislation in closing the gap. Controlling for gender differences in human capital, they demonstrate that the main reason for the narrowing of the gap was women catching up with men in measures of human capital; by the 1990s, gender differences in estimated returns to human capital (sex discrimination) became the major component of the unadjusted gap. In 1978, the unadjusted gender pay gap was 30.5 percentage points. Of this, one third (9.1 points) is explained by women having lower human capital than men and two thirds (21.4) is attributed to discrimination. By 1991, the unadjusted gap was 16.7 points. Only one fifteenth (1.1 points) is explained by women's lower human capital, while the vast majority is explained by discrimination (15.6 points).

The study by Harkness (1996) arrives at a similar result. Drawing on the GHS for 1974 and the BHPS for 1992-93, Harkness undertakes a step-by-step decomposition approach (similar to Joshi and Paci) that first tests the role of gender differences in human capital in explaining the gender pay gap. Separate tests are undertaken for women full-timers and part-timers with average earnings for all male workers as the comparator. The 1992-93 data show that for full-time employees, human capital differences explain just 2 points of a gap of 20 percentage points and for part-timers 6 points of a 35 point gap (cited in Anderson et al.: 39). Since the mid-1970s, the share of the gap attributable to

human capital differences has reduced, so that the bulk of the gap in the 1990s is attributable to discrimination. Nevertheless, analysis of the narrowing of the gap over time suggests a reduction in discrimination played a stronger role than convergence in human capital characteristics (op. cit.: 29). Details of the coefficients for the variables in the male and female wage equations shed some light on the gender differences in returns to age and education. Among men returns to age and education fell between 1974 and 1983, but then increased up to 1992-93. For women working full-time, returns to age followed a similar path, but returns to education show a general decline, especially among women with degree qualifications (op. cit.: Table 5b). For part-timers, returns to age declined markedly and returns to education remained stable over the period.

Studies that use the Juhn-Murphy-Pierce method decompose the change in the gender pay gap over time to disentangle the relative importance of different variables. The study by Dolton et al. (1996) shows that human capital characteristics outweighed labour market characteristics in explaining the narrowing of the gender pay gap among graduates in Britain between 1967 and 1977. The data are drawn from cohort surveys of graduates in Britain, which include detailed information on actual work experience. They find that around 80% of the reduction in the gap is explained by the reduced skill differential between men and women in the sample and very little is explained by changes in the shape of the wage structure that affect returns to education and experience. The average female moves from the 30<sup>th</sup> percentile to the 36<sup>th</sup> percentile over this period. A residual term that captures discrimination and interaction effects explains 41% of the narrowing (4.3 of the 10.6 percentage point reduction). That is, the narrowing of the gap reflected movement of men and women within the wage distribution, rather than changes in the shape of the distribution. The authors argue that this shows that incomes policies during this period were relatively unimportant in reducing the wage gap for this particular sample. However, the strength of argument here with regard to the respective role of personal characteristics and wage structure, is limited by the choice of sample group. Their finding may reflect the fact that there is a narrow dispersion of earnings found among graduates relative to all workers, so that changes in the entire wage structure are not picked up in the variance of wages found among graduates.

Two studies that focus on the role of labour market experience in explaining the gender pay gap reach different conclusions. The study by Myck and Paull (2001) suggests that gender differences in experience levels explain little of the gender pay gap; instead, greater explanatory power rests with differences in the returns to experience, since the gap actually widens as experience increases. Manning (2000), on the other hand, shows that a variant of labour market experience – referred to as ‘job search capital’ – explains a substantial part of the gender pay gap in Britain. Myck and Paull show that for groups of workers with similar education, holding total employment experience constant has very little impact on the gender pay gap. For example, among least educated workers (left school

aged 16), gender differences in experience explain just 1.6 points of the 19.5 percentage point gap (8%); among the highest educated workers (left education aged 19+), differences in experience explain only 0.7 of the gap of 13.7 points (5%) (op. cit.: Table 8). An important finding of this study is evidence that gender differences in returns to experience vary widely by education level and by years of experience. For female workers leaving school at age 16, the gender pay ratio follows a U-shape curve as experience increases (from 100% to around 80% between 6 and 11 years experience, and back up to 100% by 16 years experience). In contrast, among the highest educated women, gender pay equality follows an inverted U-shape curve; it improves over the first eight years (from around 85% to 95%), but then declines sharply (to around 40% for women with 16 years experience) (op. cit.: Figure 16). The authors interpret this with the following rather conservative, and highly speculative, argument:

The decline may be related to a change in employment tastes or capabilities brought about by the presence of young children for working mothers. For example, mothers of young children may trade-off other desirable work aspects (such as flexible hours or the ability to work at home) against wage levels in their employment choice. The ability to trade such aspects may be greater for the more highly educated (op. cit.: 23).

To confirm this the authors would need to demonstrate evidence of an equitable trade-off among highly educated women, so that the widening wage gap as experience increases is offset by access to a range of family-friendly work practices not associated with more highly paid employment. In the absence of such evidence, the only firm conclusion one can reach given the evidence is that women experience increasing levels of discrimination in pay with rising years of experience. In other words, despite acquiring higher levels of education and increasing years of experience, women face a widening gender pay gap due to highly differentiated returns to employment.

Manning (2000) shows that a reformulated notion of labour market experience, based on rates of labour market transitions among workers, explains a large part of the gender pay gap. Although the presented results rely on visual comparison of the fit between predicted and actual earnings-experience profiles for men and women – making it impossible to draw out the decomposition results (op. cit.: Figure 3) - regression results for the separate male and female earnings profiles show that after five years experience, for example, the search model explains at least 40% of the earnings gains. Manning suggests that his ‘job search’ variable does share common ground with the conventional notion of labour market experience. However, there are differences in the explanatory mechanism. The human capital argument is that women who take time out of the labour market suffer a depreciation of human capital, are less productive and therefore receive lower wages. Manning’s search model suggests these women are no less productive, but tend to be in less well-paid jobs, perhaps because of demand-side inefficiencies (op. cit.: 286).

In a further analysis of the role of experience Manning and Robinson (2000) investigate the role of the pay differential in entrant wages among men and women, wage growth for those in continuous employment and the share of entrants among male and female workers. They find that wage growth is similar among men and women, although this reflects the higher proportion of women at lower rungs of the job ladder where advancement is easier to obtain; overall, given their position, women do worse in terms of wage growth than men. The gender pay gap among labour market entrants is around half the average pay gap. Finally, there is a higher share of entrants among women than among men (14% compared to 11%) (op. cit: 11-12). Overall, they suggest that around two thirds of the gender pay gap is due to the pay gap among labour market entrants and one third due to differences in the proportion of entrants. They conclude that the difference in earnings-experience profiles is due to the larger share of women entrants, which leads to a clustering in low paid jobs and a flatter earnings profile, despite the fact that wage growth for continuous workers is the same for men and women. The problem with this analysis is that it takes as given the notion that earnings-experience profiles ought to reward continuous employment experience, when in fact the issue is the degree to which these profiles penalize discontinuities from the labour market, as picked up in the higher share of women entrants into the labour market which may obviously include returners.

## **2.2. The role of labour market structure (job and employer characteristics)**

Several studies incorporate a range of variables for employer and job characteristics in an effort to identify the impact of changes in labour market structure on the gender pay gap. In addition to their first stage decomposition reported above, Joshi and Paci (1998) also decompose the gender pay gap between women and men full-timers and between women part-timers and men full-timers using personal, job and employer characteristics. The test is applied to the 1991 data from the NCDS dataset. Among full-timers, information about the firm (eg. size) and industry adds nothing to the explanation of the gender pay gap based on the detailed information on individual human capital, but the introduction of job characteristics and occupation is very important. While gender differences in human capital explain less than a tenth of the gender pay gap (1.7 of 20.1 percentage points), the inclusion of job characteristics increases the explanatory portion to more than two tenths of the gap and the additional inclusion of occupation increases this to almost four tenths (7.2 points). In other words, while the portion of the gap attributable to sex discrimination (differential rewards to all these different characteristics) remains substantial, the finding of this study is that among full-timers job characteristics and occupation are more important than personal human capital characteristics in explaining the gender pay gap (see Table 2.2).

**Table 2.2 Summary of decompositions with job characteristics**

Percentage of lower pay	Male full-time/ female full-time	Male full-time/ female part-time
<i>Personal characteristics</i>		
Gross differential	20.1	82.6
Gap explained by differences in characteristics	18.1	45.7
Gap explained by differences in returns	1.7	25.2
<i>Personal and firm characteristics</i>		
Gross differential	20.1	82.6
Gap explained by differences in characteristics	18.2	40.4
Gap explained by differences in returns	1.6	30.1
<i>Personal, firm and job characteristics</i>		
Gross differential	20.1	82.6
Gap explained by differences in characteristics	15.4	27.1
Gap explained by differences in returns	4.1	43.6
<i>Personal, firm and job characteristics, occupation</i>		
Gross differential	20.1	82.6
Gap explained by differences in characteristics	12.0	19.2
Gap explained by differences in returns	7.2	41.9

Source: Adapted from Paci and Joshi (1998: Table 5.5).

The results for the gap between male full-timers and female part-timers are different. Differences in human capital are considerable and explain around one third of the gender pay gap (25.2 points of an 82.6 percentage point gap). Firm characteristics are significant (increasing the explained portion to 30.1 points), mainly because of the over-representation of part-time workers in low paying firms, such as small firms or private sector firms. Inclusion of job and occupation differences increases the gap due to characteristics to 41.9 points, a full 51% of the unadjusted gap. While this means that a greater share of the gap is explained by differences in characteristics, the component attributable to discrimination is, in absolute percentage point terms, a larger gap than that among full-time men and women, meaning that part-time women suffer a double wage penalty, both from greater disadvantage in the type of personal, firm, job and occupation characteristics and greater experience of sex discrimination. Overall, Joshi and Paci adopt an 'agnostic' theoretical position (op. cit.: 34), but emphasise the importance of examining the wage-determining role of a range of different variables and for full-timers and part-timers separately:

Gender differences in the distribution of occupations go a long way to explain the pay gap between men and women. Thus some of the unequal treatment is not so much of the gender of workers but of gendered jobs. . . . There still may be a mechanism analogous to the unequal treatment of the sexes whereby the wages of part-timers are marked down. Whether this is part and parcel of the treatment of women or whether it would apply to male part-timers as well, cannot be disentangled with the evidence available, part-timers being virtually all women (op. cit.: 94).

In addition, the authors note that the introduction of the occupation variable changes the estimated returns to human capital characteristics, suggesting that there is a strong association between occupational segregation and women's low pay.

The importance of labour market structure is confirmed in three related studies by Forth and Millward (2000, 2001) and Anderson et al. (2001). They draw on the WERS 1998 data since it allows for wage determination to be explored through models that include both personal and workplace based characteristics. The general conclusions to emerge from the various analyses that have been conducted using these data are that workplace characteristics are more important factors in explaining wage differences than personal characteristics. Moreover with respect to gender, there are both personal and workplace-related characteristics that account for the gender pay gap. As table 2.3 describes, the degree of gender segregation at the workplace has as large an impact on pay as the sex of the individual employee, after adjusting for human capital variables, as well as occupational and industrial job characteristics. Thus in the private sector the marginal effect of working in a workplace with only men was to raise the pay by 6% compared to a gender mixed workplace, while working in an all female workplace reduced the pay by 7%. Similar effects were found in the public sector. In the study by Anderson et al. (2001; Table 5.3), gender segregation is considered at the different levels of work group, workplace and industry. The results show that work group segregation of men and women explains around one quarter of the 16 percentage point gap among full-timers and over one tenth of the 34 point gap between female part-timers and male full-timers. Workplace segregation has a negligible impact among full-timers, but explains around one point of the gap among the latter group. Industry segregation explains a further one percentage point among full-timers and 2.5 points of the gap between female part-timers and male full-timers.

**Table 2.3. Marginal impact of gender, responsibility for children and gender segregation on pay**

	<i>Private sector</i>	<i>Public sector</i>
<i>Reference: male no child &lt;12</i>		
Female with child <12	-6%	-3%
Female no child <12	-7%	-9%
Male child < 12	+8%	+3%
<i>Reference: equality at workplace</i>		
Only men at workplace	+6%	+7%
Mainly men at workplace	+2%	+7%
Mainly women at workplace	-4%	-4%
Only women at workplace	-7%	-9%

Source: Forth and Millward 2000.

This general analysis of pay was followed up by a specific study of low pay in the UK (Forth and Millward 2001). Here the analysis only referred to the occupational groups- often categorized as low skilled- in which low pay was concentrated. One of the important findings of this study was that the factors influencing pay determination for the low paid were different from those influencing the high paid, thereby calling into question the notion of an aggregate adjusted gender pay gap, spanning both sets of workers. This analysis started with an exploration of workplace characteristics influencing low pay and then went on to add personal characteristics as explanatory variables. As the authors note, the aim of taking the unusual step of beginning with workplace characteristics was to demonstrate how little personal characteristics change the preceding results (op. cit.: 27). The personal characteristics had surprisingly little impact on the strength of the workplace variables; in short, the employer model performed better in explaining pay than the human capital model. In the specific context of gender, the workplace analysis showed that for low skilled workers working in an all female environment involved an 18% penalty relative to an all male environment (op. cit.: Table 3). When personal characteristics were added this penalty was reduced to 13%, but there was an additional penalty of 5% associated with being a woman. In an otherwise fully specified model that excluded the gender segregation variables the penalty for being female is estimated at around 10%. These adjusted measures compare to a raw pay gap for the low skilled of 15% (op. cit.: 27). Thus gender segregation at the workplace has as great or greater impact on pay than simply the sex of the employee. Workplace characteristics were also more important than personal characteristics in explaining low pay associated with part-time work. In fact there was little difference found in pay between full and part-time workers, everything else being equal (op. cit.: 25; in contrast to temporary versus permanent workers where there was a marked penalty of 12%). What was found to induce a wage penalty was working in a workplace where over 30% of jobs were part-time; this reduced pay by 16% compared to a workplace where less than 5% of jobs were part-time. The penalty for working where part-time accounted for between 5% and 29% of jobs was around 10%. A final stage of the analysis restricted the data to the very lowest skilled occupational group (around 18% of the five selected low skilled groups). Here there was even stronger evidence of gender discrimination, with an adjusted gender pay effect of 15% compared to 5% when all five lower skilled occupational groups were included.

### **2.3. The role of part-time work**

Part-time work is often considered as a personal characteristic in many of the decomposition studies, or as a signal of lower productivity work that therefore explains part of women's lower pay due to their concentration in part-time employment. Many UK studies show that the pay penalty associated with women's part-time work has increased over the 1980s and 1990s. Among women, the growing gap between full-timers and part-timers is attributed to widening differences in human capital endowments and a widening of returns to

these characteristics, reflecting greater pay dispersion in the labour market. Using a fully specified wage equation (personal, experience, job-related and family characteristics), Harkness (1996) shows that the unadjusted pay gap of 35% in 1992-93 narrows to 13%. While the unadjusted pay gap is larger for female part-timers than for full-timers, compared to male full-time earnings, the adjusted gap is in fact narrower (see Table 2.1). Hence, part-timers appear to face less discrimination than full-timers, since the bulk of the gap is explained by differences in characteristics. Over time, however, discrimination against part-timers has increased, suggesting, according to Harkness, either that the penalty for working part-time has increased, or part-timers in the 1990s were less motivated than their counterparts in the 1970s (op. cit.: 32).

The analysis of WERS98 data reported in Anderson et al. (2001) shows that the concentration of part-time work within the establishment explains around five percentage points of the 22 point gap among all employees (one of the most important explanatory factors along with job type and gender segregation within work group, op. cit.: Table 5.3) and 7 percentage points of the 34 point gap between female part-timers and male full-timers. Interestingly, the concentration of part-time also explains 2.5 percentage points of the gap between male and female full-timers (op. cit.: 88), suggesting that there is an undervaluation of the particular job because it is carried out by part-timers which has a knock-on depressing impact on the wages of female full-timers in the same establishment.

Part-time work among women in Britain is closely inter-related with family status, as assessed in the next section.

#### **2.4. The role of family status**

There are competing explanations regarding the relationship between family status and women's pay (Waldfogel 1995). A first explanation argues that the relationship between family status and pay can not be analysed with observable variables since it is unobservable variables, such as motivation or commitment to work, that explain mother's lower productivity (see, for example, Hakim 1991). Secondly, women experience depreciation in human capital when they take time out of the labour market to raise children (Becker 1991). Thirdly, mothers have lower wages because of a conflict between family and work responsibilities (which may be reinforced by employer actions) (Brannen and Moss 1991).

Waldfogel (1995) draws on two surveys from the NCDS cohort study, which includes every child born in Britain during the first week of March 1958. Comparison of the gender pay ratios at ages 23 and 33 years old (1981 and 1991 surveys, respectively) shows 84% for both years for women with no children, but ratios of 70% at age 23 and 64% at age 33 for mothers. Decomposition of the gender pay gap against human capital variables (age, experience and education) and family status shows the respective contribution of each variable to the overall gender pay gap. At age 23, differences in the quantity

of education and the returns are a positive factor for women (due to the higher returns at this age compared to men). Experience at this age provides the major explanation (80% of the gap), but family status accounts for 21%. However, by age 33, family status explains 53% of the gap due to the larger size of the marriage premiums enjoyed by men and the child penalties paid by women. These results mirror those of other studies. Details of coefficients in the Harkness (1996) decomposition analysis (see Table 5d) reveal positive, and increasing returns between 1983 and 1992-93 associated with the presence of children for male earnings, but negative returns for female full-time earnings (the effect is insignificant for women part-timers). Moreover, the significance of family status is increased if we consider its indirect effects on labour market experience. Waldfogel estimates that the combined direct and indirect effects of family status actually explains 85% of the gender pay gap at age 33 and argues that the price of motherhood in Britain seems to be resistant to change over time:

It appears that as women have narrowed the gender gap over time, the relative importance of family status in explaining the gender gap may have increased, as the differential returns for mothers have been much more resistant to change than have the differences between men and women in characteristics such as educational qualifications (op. cit.: 604).

In their extensive decomposition analysis of the gender pay gap in Britain, using cohort studies, Joshi and Paci shed light on the impact of family responsibilities by testing a series of inter-related hypotheses. First, they reject the hypothesis that it is the concentration of mothers in poorly paid jobs that explains the low average pay of part-timers. Rather, their results suggest that mothers are poorly paid because they tend to take part-time jobs.<sup>1</sup> Analysis of the relative pay of full-time and part-time female workers shows that family status explains very little of the gap in pay. The important factors are differences in human capital and returns to experience, with full-timers enjoying far higher returns than female part-timers. The authors suggest this may be a sign that employers are not providing part-timers with on-the-job training (op. cit.: 111-112). More generally, it is likely to reflect the lack of internal labour market arrangements for part-timers in many organizations (Grimshaw and Rubery 1995). Comparing the average pay of mothers with non mothers, Joshi and Paci show that the main source of the pay gap in 1991 is the difference in human capital (69% of the gap), closely followed by differences in full-time/ part-time status (49%); motherhood status explains very little, although it certainly has indirect consequences of lost experience and association with part-time employment. However, in an assessment of a second hypothesis, comparison with men's earnings demonstrates a significant role for family status. In 1977-78 (people aged 32), working mothers earned 55% of men's average pay and in 1991 the ratio was

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<sup>1</sup> Joshi and Paci (1998) do, however, acknowledge that because of the absence of data on work effort (the technical problem of 'unobservable' variables), it may well be that it is the predominance of low effort mothers that depresses the pay among part-timers (op. cit.: 106, 120) – a technical issue that arises because of the assumption of the Oaxaca model that productivity determines relative pay (Grimshaw and Rubery 2002).

63%. At both points in time, the direct and indirect effects of motherhood accounted for around 20% of this gap (op. cit.: Figure 6.3). Introducing the variable of parental status into the full model increased the explained portion of the gap from 7.1 percentage points to 7.8 points among full-timers (3% of the gap) and from 22.3 to 23.9 points among all women (4% of the gap) (op. cit.: Table 7.2).

## **2.5. The role of wage structure and wage regulations**

Following the innovative econometric techniques developed in the US by Juhn et al (1993) and applied, most notably, by Blau and Kahn (1992), two studies of the UK gender pay gap adopt an integrated approach to the impact of changing wage structure on gender pay inequality.

Harkness (1996) investigates the changing composition of women workers at different points of the male wage distribution. She shows that in 1973, women were concentrated in the bottom of men's distribution with more than 50% earning less than the 10<sup>th</sup> percentile man and 90% earnings less than male median earnings. By 1993, the position had improved considerably, although 75% of women still earned less than male median earnings and 25% earned less than the 10<sup>th</sup> percentile man. Disaggregating by full-time and part-time workers, the trend is similar but with greater concentration at the bottom of the male earnings distribution among part-timers (84% of part-timers earned less than the male median in 1993).

Blackaby et al (1997) identify the impact of changing characteristics and changing price effects on the gender pay gap among workers at the lowest and highest decile of the earnings distribution between 1973 and 1991. They find that at the top and bottom ends of the distribution, change in relative female pay during the 1970s is mainly explained by changing price effects – that is, the equal pay legislation improved the returns to female workers with a given set of characteristics – although among the lowest paid, women also benefitted from acquiring characteristics associated with greater earnings power. Over the entire period, the authors argue that at the bottom decile improved characteristics, as well as unmeasured effects, explain the narrowing of the gender pay gap, rather than reduced discrimination.

Other studies test the impact of changes in the regulation of wages on the UK gender pay gap. Bell and Ritchie (1998) draw on the New Earnings Survey Panel Dataset (1977 to 1994) to assess the changing impact of collective bargaining on the gender pay gap at different points in time for full-time workers. Comparing the decomposition of the gap during the late 1970s with the early 1990s, the size of the component explained by a range of labour market characteristics (such as occupation, industry, collective bargaining coverage, etc.) declined substantially, from 27% of the gap in 1979 to 18% by 1994, with most of this change occurring between 1985 and 1994. Detailed regressions show that the wage mark-up (or

coefficient) associated with collective bargaining coverage among women increased from 1% in 1980 to 5% in 1982 and then fell to a stable level of around 2% from 1986 to 1994. Among men the markup increased from 2% to 4% between 1980 and 1982 and then declined strongly to a negligible level in 1990, before picking up to 4% over the next four years. The fact that for much of the period women enjoyed a higher markup from collective bargaining than men, coupled with a slower fall in the collective bargaining coverage (from 50% to 36% for women and from 51% to 29% among men), means that changes in collective bargaining coverage narrowed the pay gap by worsening average male earnings at a faster rate than women's. Coefficients for working in the private sector, compared to the public sector, show a general upward trend for both men and women over the period up to the recession after 1989 – although public sector pay was higher than private sector pay for similar workers throughout, and particularly so for women. The decline in the public sector pay premium is attributed to privatization of public corporations and the increase in contracting out in the 1980s and 1990s (op. cit.).

Finally, the three-country comparative study of the gender pay gap by Black et al. (1999) argues that the larger discrimination component found in Britain, compared to Germany and the Netherlands, is attributable to the weakness of the British system of wage protection (no minimum wage at the time of the survey and limited collective bargaining). Also, the clustering of women in small firms increases discrimination. They argue that their econometric results confirm the thesis of Rubery and Fagan (1995) that gender segregation contributes substantially to discrimination in countries such as Britain where wage protection is limited.

## **2.6. Payment systems and promotion.**

Differential access to premium payments explains part of the gender pay gap. For example, overtime payments has a significant effect on male weekly earnings in unskilled, semi-skilled and skilled manual jobs, but no significant effect on women's weekly pay (Millward and Woodland 1995; cited in Anderson et al. 2001: 61). In contrast, however, shift working had no significant effect on male or female earnings (op. cit.). The more general analysis of Anderson et al. (2001) shows that the general type of payment system (fringe benefits, performance-related pay and flexible working) does explain a significant portion of the gender pay gap, around two percentage points of the 22 point gap among all employees (op. cit.: 81) and around 2.5 points of the 34 percentage point gap between female part-timers and male full-timers (op. cit.: 85). The latter result is explained by the over-representation of male full-timers in jobs with fringe benefits. However, the over-representation of female part-timers in jobs with flexible working is actually associated with a wage penalty – of between 3 and 4 per cent.

Econometric studies of the relationship between pay and promotion finds no clear evidence for differences in rates of promotion between male and female workers (Booth et al. 1999). However, as Anderson et al. (2001: 63) note, lack of evidence on differential promotion rates may be due to the way the method controls for a range of gender-related variables, such as overtime hours, employer size and occupation. Also, it is interesting that tenure was significant in the female only wage equation, but not for men, suggesting that women may have to prove stability whereas men are promoted on the basis of performance (Anderson et al. 2001). In terms of the pay accompanying promotion, Booth et al. show, again, that there is no significant difference between male and female workers. Over the period after promotion, however, women had lower wage growth than men.

### 3. National institutional factors and the gender pay gap

#### 3.1. The national system of wage-setting and recent changes

The majority of employees now do not have their wages determined by collective bargaining. Table 1 shows the pattern of pay determination for employees by sector in 1998 for workplaces with 10 or more employees. Only 42% are covered by any form of collective bargaining, 30% in the private sector and 68% in the public sector. For those covered by collective bargaining, multi-employer bargaining is still the most common form in the public sector while it has all but disappeared in the private sector. For those whose pay is not covered by collective bargaining we find again large differences between the public and private sector. For the majority of public sector workers their pay is determined by an external review body - called pay review bodies. The result is that less than 10% of public sector employees are outside the influence of collective bargaining or the pay review process and subject to managerial pay decisions. In contrast over 60% of private sector workers have their pay determined by management, either at the workplace or at a higher level in the organization. Purely individualized pay negotiation still only affects a minority but accounts for 4% of private sector employees.

**Table 3.1. Method of pay determination 1998, % of employees**

System of pay determination	All establishments	Private sector establishments:			Public sector establishments
		All	Manufacturing	Services	
<i>Collective bargaining</i>	42	30	47	22	68
Multi-employer	16	5	5	5	42
Single employer	17	16	19	14	21
Workplace	8	10	23	4	5
<i>Not collective bargaining</i>	58	70	53	78	32
External to organization (pay review bodies)	7	-	-	-	22
Management- higher level in	18	23	11	29	6

organization					
Management at workplace	28	39	39	39	3
Management- level not known	3	4	2	6	-
Individual negotiation	3	4	2	4	-

Source: Forth and Millward 2000. WERS 1998 data. Establishments with 10 or more employees

To look at change over time we have to turn to workplace level data, shown as the percentage of workplaces where collective bargaining is the dominant form of wage-setting (affecting at least 50% of employees). These data show an even lower coverage of collective bargaining and a very steep decline in coverage. The lower coverage is explained by the fact that collective bargaining is more common in large establishments, so that the percentage of employees will be larger than the percentage of employees covered. However it should be noted that these data exclude workplaces with 10 to 24 employees (as this information was not available in 1984 or 1990) and this exclusion of very small workplaces will tend to increase the share of workplaces covered by collective bargaining. In a separate exercise, based on the same data base collective bargaining was found to be the dominant method of wage determination in only 1% of small businesses (defined as single establishment companies with 10 to 99 employees) and only reached 14% in small multiples (workplaces with 10-99 employees that belonged to larger companies) (Cully et al. 1999:269).

The strong differences by sector are clearly evident. Collective bargaining is still the norm in the public sector and very few workplaces use methods other than collective bargaining or pay review bodies (set up to replace collective bargaining in a number of key areas of the public sector since 1984). The decline in coverage has been concentrated in the private sector. Collective bargaining was much more widespread in manufacturing than private services in 1984 but its coverage declined from a half to under a quarter over 14 years. The rate of decline in private services was similar but from a lower level- from 36% in 1984 to only 14% in 1998. When we compare the data on the basis of coverage of workplaces (table 3.2) to shares of employees covered, we can see that there is more of a marked difference between manufacturing and services on the employee data: 47% of manufacturing employees are covered compared to only 22% of private service employees, that is a difference of more than double, while the share of establishments varies only from 23% in manufacturing to 14% in services. This suggests that there is more of a relationship between size of establishment and use of collective bargaining in manufacturing than services.

**Table 3.2. Change in collective bargaining coverage by sector, by workplace.**

<i>% workplaces with more than 25 employees % where main type of wage-setting is collective bargaining (at least 50% of employees covered)</i>	1984	1990	1998
All sectors	60	42	29
Private sector manufacturing	50	33	23
Private sector services	36	29	14
Public sector	94	71	63
Public sector (collective bargaining plus external pay review bodies)	97	87	92

Source: Millward et al. (2000: ch.6), WERS1998 data.

The changes in the coverage of collective bargaining over recent years are mirrored in changes in the presence of unions at the workplace. Here we have data both by sector and by share of women in the workplace. What we find here is that the decline of trade union presence has served to narrow differences between the private manufacturing and private service sectors, but to increase the difference between public and the private sector (Table 3.3). Union presence by share of females in the workplace is clearly influenced by these public/private sector divisions. However while in 1980 it was male dominated workplaces that were most likely to have a union presence, by 1998 female dominated workplaces were the most likely. Even in 1980 it was mixed workplaces that were least likely to have a union presence but by 1998 the share of male dominated workplaces was only just larger than for mixed workplaces and a large gap had emerged with female dominated workplaces. To a large extent these patterns are related to the presence of female dominated workplaces in the public sector. However a similar pattern emerges, albeit less extreme, within the private sector. The decline in union presence in male dominated workforces has been particularly rapid in the private sector in the 1990s, declining from 60% to just 39% between 1990 and 1998. If we look at data on aggregate union density at the workplace we find a similar but somewhat different picture (Table 3.4). Here we find a much stronger fall in union membership than in union presence in the public sector particularly in the 1990s, suggesting a weakening of collective strength in the public sector that was not so evidence when simply considering collective bargaining or union presence. When we look at share of women in the workplace we find that the decline in trade union density was lowest in female dominated workplaces, compared to male dominated and mixed workplaces in the 1980s but faster in the 1990s. Moreover in contrast to the data on union presence, the union density level remains highest in the male dominated workplaces. Following a similar trend, trade union density decline was highest in manual workforces in the 1980s but the pattern was reversed in the 1990s. The more manual workforces still have a somewhat higher trade union density. Trade

union density has declined in all sizes of establishments with a somewhat reduced tendency in establishments with 500 employees or more.

The overall impact of these changes has been to severely reduce the linkage between male employment and the presence of trade unions and the use of collective bargaining. Nevertheless male dominated workplaces retain higher levels of union density.

**Table 3.3. Union presence by sector and female share of workforce.**

% establishments with 25 or more employees				
	1980	1984	1990	1998
All establishments	73	73	64	54
<i>Broad sector</i>				
Private manufacturing	77	67	58	42
Private services	50	53	46	35
Public sector	99	100	99	97
<i>Proportion of employees female</i>				
0-24%	81	79	66	47
25-74%	66	68	55	46
75%+	72	78	72	72
Private sector only				
<i>Proportion of employees female</i>				
0-24%	76	72	60	39
25-74%	52	51	41	30
75%+	46	42	40	49

Source: Millward et al. 2000: 85

**Table 3.4. Aggregate union membership density by workplace characteristics**

establishments with 25 or more employees: cell percentages						
	1980	1984	1990	1998	Average annual change 1984-90	Average annual change 1990-98
All establishments	65	58	47	36	-3.1	-3.2
Private sector	56	43	36	26	-2.7	-3.5
Public sector	84	81	72	57	-1.9	-2.6
<i>Size of establishment</i>						
25-49	47	43	34	23	-3.7	-4.0
50-99	51	46	37	27	-3.2	-3.5
100-199	60	54	44	32	-3.2	-3.6
200-499	70	64	56	38	-2.0	-4.0
500+	78	74	61	48	-2.9	-2.9
<i>Proportion of employees that work part-time</i>						
None	70	62	54	36	-2.2	-4.4
1-24%	65	59	47	39	-3.4	-2.2
25%+	62	53	44	32	-3.0	-3.6

*Proportion of employees*

*female*

0-24%	72	68	56	47	-3.1	-2.0
25-74%	59	51	38	29	-4.1	-3.3
75%+	62	54	50	37	-1.3	-3.3

*Proportion of employees*

*that are non manual*

0-24%	72	63	49	40	-3.8	-2.5
25-74%	64	60	47	37	-3.7	-2.8
75%+	58	50	47	32	-1.0	-4.1

Source: Millward et al. 2000: 87-8

The shrinkage of union coverage in the private sector has also been associated with a decline in the estimated premium for working in a unionized workplace, now only 3% in the private sector. Moreover the premia effects are mainly evident in places with more than 70% union density. There have been a range of studies investigating the interactions between gender, hours of work and unions in shaping pay differentials but the results are at best inconclusive (Anderson et al. 2002); some point to stronger union effects for men, some for women, some for part-time. These differences in results underpin the problems of using the decomposition techniques for establishing the causes of the gender pay gap.

The decline in the importance of collective bargaining variables in explaining pay has not, however, reduced the significance of workplace or employer characteristics in explaining pay; in all the analyses performed on the WERS data set the employer model, which focused on workplace characteristics, provide a better explanation of the pay distribution than human capital and personal characteristics. Moreover these workplace based variables remained important even when personal characteristics were added. This suggests that pay systems are always affected by decisions made within organizations and industries and do not reflect aggregate market variables related to the quality of labour supply, but instead reflect the whole range of workplace factors including the degree of competition, the history and nature of the organization, the system of work organization, the form of employment relations etc. Moreover workplace characteristics include gender characteristics; gender pay discrimination is embedded within organizational structures and practices as is revealed by the evidence of the impact of gender segregation at the workplace on pay differentials even after controlling for the effect of gender.

### **3.2 Low pay**

There are three main policy initiatives affecting the extent and level of low pay in the UK: the introduction of a national minimum wage, the extension of inwork benefit support and the promotion of contracting out in the public sector. These policy initiatives can be argued to be pulling in potentially different directions, with the minimum wage acting as at least some counterweight to the impact of the

latter two policies which, *ceteris paribus*, could be expected to promote low paid employment.

The National Minimum Wage (NMW) was introduced in April 1999 at the relatively low level of £3.60 an hour for those over 21 and £3 an hour for those under 22 (reduced from the initial recommended rate of £3.20).<sup>2</sup> There is no agreed formula for setting the NMW; the government has appointed an independent Low Pay Commission to make recommendations but reserves the right not to follow the recommendations.

The NMW was uprated by only 10p for adults in October 2000 and by 20p for young people in June 2000. In October 2001 the NMW was uprated more substantially – to £4.10 an hour for adults and 30p an hour for young people, to be followed by a further 10p increase for both in October 2002 (Table 3.5). The most up to date available assessment of the effects of the NMW only covers the impact up to 2000 and does not cover the higher level of minimum wages introduced towards the end of 2001. Even for these earlier rounds the impact has been favourable for women. The Low Pay Commission (2001) estimates that 1.3 million benefited from the NMW and that 70% of the beneficiaries were women and around two thirds were part-time workers. Table 3.6 shows that it was the low paid part-time workers whose earnings rose at the fastest rate between 1998 and 1999. The rather low rate of increase in 1999-2000 meant that there was much less of a favourable impact on low paid workers over the time period 1999 to 2000.

**Table 3.5: The National Minimum Wage rates**

	Up to April 1999	April 1999 - September 2000	October 2000 - September 2001	October 2001 - September 2002	From October 2002
<b>Adult Min wage</b>	None	£3.60	£3.70	£4.10	£4.20
<b>Youth Min Wage (18-21)</b>	None	£3.00	£3.20	£3.50	£3.60

**Table 3.6. Increase in earnings, 1998-2000**

	1998-1999	1999-2000
<i>Full-time</i>		
- lowest decile	5.4	3.3
- median	4.8	2.8
- upper decile	5.5	2.9
<i>Part-time</i>		
- lowest decile	9.1	2.8
- median	4.8	1.4
- upper decile	5.7	2.2

Source: Low Pay Commission (2001: Table 3.2).

<sup>2</sup> In addition, for employees over the age of 22 in an accredited training programme, employers were able to pay a reduced rate of £3.20 in 1999.

Further significant rises could be expected to be revealed since October 2001 when the earnings data for 2002 become available. These improvements in relative pay levels at the bottom end have done something to offset the long term trend towards greater wage inequality in the UK but it must be stressed that the minimum wage levels have been set at very low levels (see table 3.7 on comparative relative levels of minimum rates in the UK and other European countries). Table 3.8 estimates the level of the adult minimum wage relative to median pay for different groups of workers. Because the NMW was introduced in April of one year and then uprated in October in successive years, there is no perfectly accurate way of estimating the NMW level against median earnings for a particular year; for example, the initial £3.60 rate applied during nine months of 1999 and nine months of 2000, and the subsequent rate of £3.70 applied during just three months of 2000 and nine months of 2001. As such, the table estimates the relative level of the NMW against a range of years, as shown. For example, against 1999 earnings data, the rate of £3.60 per hour stood at just 41.0% of male full-time median earnings. During 2000, its relative level dropped, as earnings rose, to 39.9% and the 10 pence increase the following year saw the NMW drop further to 38.7% against 2000 earnings. This decline was arrested during the election year, so that the £4.10 rate introduced in October 2001 brought the relative level of NMW to 42.8%, above the initial level, although this uses median earnings for 2001 and so overestimates the true relative level which ought to be estimated with 2002 earnings data (which are unfortunately not available yet). The research on the impact of the NMW suggests that there have not been any significant negative employment effects; where these are detected they are in specific sectors, particularly textiles. The employment of the groups most affected by the NMW- women, young people etc- continued to grow over the implementation period. The estimated effect of the NMW in the first two years was to increase the national wage bill by only 0.35%.

**Table 3.7. Relative levels of minimum wage rates**

	Adult minimum wage as % of full-time median earnings (men and women)
France	69.6
Portugal	64.8
Australia (a)	60.8
Belgium	59.1
Greece	56.9
Australia (b)	56.6
Ireland	55.5
Netherlands	52.1
New Zealand	49.9
United Kingdom	46.0
Canada	43.8
Japan	41.1
United States	38.0

Spain	35.8
Korea	34.4

Note comparison refers to minimum wage rate of £3.70 for UK.

Source: Low Pay Commission 2001:134 – OECD Minimum Wage Database and OECD Main Economic Indicators 2000.

**Table 3.8: Adult National Minimum Wage as Percentage of Median Earnings\* (£3.60 for 1998, 1999, 2000; £3.70 and £4.10 for 2001)**

	1998	1999	2000	2001	2001
<b>Adult Min wage</b>	£3.60	£3.60	£3.60	£3.70	£4.10
% Median MFT	42.76%	41.00%	39.87%	38.66%	42.84%
% Median FFT	50.99%	48.39%	46.88%	45.18%	50.06%
% Median MPT	:	:	:	69.7%	77.21%
% Median FPT	:	:	:	66.5%	73.74%

Source: New Earnings Survey

\* excluding overtime effects

The second policy initiative in this area is the working families tax credit, a system of inwork benefits for households with children. This inwork benefit scheme is to be extended to households without children in April 2003. The impact of these developments will be to provide state subsidies to all 'breadwinners' who find themselves in low paid jobs, but to allow those who are in multi-earner households- mainly women and young people to continue to receive low wages without subsidy. In the absence of a minimum wage, this system of state subsidies could seriously extend low pay and moreover increase the vulnerability of women to receiving much less reward for their efforts than 'breadwinners' who take low wage jobs. However the government is aware that an effective minimum wage policy is essential to ensure that employers do not take advantage of the subsidies available to keep wages low. The government itself estimates that the NMW has saved £75m in WFTC payments, nearly half of the estimated £180m benefits savings from the introduction of the NMW (Low Pay Commission 2001). The potential cost of the inwork benefits scheme could be a factor in persuading governments to uprate the minimum wage.

The third initiative, which is discussed further below relates to the government policy of promoting the involvement of the private sector in the provision of public services. Although workers transferred from the public to the private sector have their terms and conditions of employment protected under TUPE legislation, there are limitations in this protection- particularly with respect to occupational pensions- and the protection does not extend to new recruits. This has led to union campaigns against the effects of privatization increasing a so-called two tier workforce. The trade unions have had some success with this campaign, insofar as there have been arrangements made in some pilot schemes to second

staff rather than transfer them and there is a new code of practice being developed, which would require contractors to provide broadly similar terms and conditions including occupational pensions to those in the public sector. Scrutiny of contractors could include their equal opportunities records.

Concerns about low pay are driving the union pressure for the reintroduction of contract compliance regulations. Such strategies are dependent upon another aspect of their strategy; to have some say in the decision-making process over which contractors are awarded the contract. At the same time as launching campaigns to protect contracted out workers the unions are taking steps to reduce low pay in the public sector. In the summer of 2002 a series of strikes were called by local authority worker unions on the issue of low pay. A settlement looks to have been reached where the unions' key demand for a £5 minimum wage for local authority workers was conceded as part of a two year deal that will raise the minimum wage to £5.32 by April 2003 and offers rises of 8 to 10% for some low paid workers. In addition there is a plan to set up an independently chaired Local Government Pay Commission to report back in a year on how to solve problems of low pay and unequal pay in local government. The unions are thereby firmly linking issues of low pay and unequal pay. However they are also aware that the arrangements with respect to contractors are vitally important if these gains are not to be lost through the outsourcing of services to lower paying contractors.

### **3.3. Part-time workers**

There are a number of policy and market developments that have had a particular impact on part-time workers. The detailed effect of several of these developments are described in the relevant sections above and below but include inter alia:

- The introduction of the national minimum wage that has had a disproportionate impact on the pay of part-timers, especially the lowest paid
- The full implementation of the working time directive which has had particular impact on part-timers' access to paid holidays. Many part-timers previously had no rights to paid holiday but now they receive 4 weeks paid holiday.
- The extension of contracting out and private finance initiatives in the public sector is likely to continue to affect part-timers- for example in the area of homecare and ancillary staff in hospitals.
- The focus on the low paid in the recent proposed settlement for local authority workers, establishing new minimum rates of £5 (April 2002) and £5.32 (April 2003), up from £4.80, should have a disproportionate impact on part-timers' pay levels.

There are two changes to the policy environment that are specifically concerned with part-time working. First there is a new right for parents of young children, to

be implemented in April 2003, to request a flexible working schedule, which could include reduced hours. This right to request means that an employer should provide grounds for not agreeing to the request, but this is a rather weak policy, considering there had been extensive lobbying for a statutory right to work reduced and flexible hours. If the policy has an impact on employer policy it should reduce the tendency for British mothers to have to change jobs or employers if they wish to return to part-time or flexible work. This should reduce occupational downgrading as a consequence of motherhood and thereby reduce the gender pay gap. The second specific policy is the implementation of the part-time workers directive.

According to the part-time workers directive part-timers are entitled, for example, in relation to comparable full-timers, to:

- the same hourly rate of pay,
- the same access to company pension schemes,
- the same entitlements to annual leave and maternity/parental leave on a pro rata basis,
- the same entitlement to contractual sick pay, and
- no less favourable treatment in access to training.

The government's own assessment of the potential impact of the regulations (see box 3.1) recognized that one limitation of the directive was that only one in six part-timers were likely to have a comparable full-timer, as a consequence of gender segregation. Of the 1 million that could potentially benefit, the government estimated that 40% might be entitled to some improvements in their terms and conditions. This represented quite a high share but most of the adjustment was likely to be in the provision of fringe benefits, not directly on wages (see box 3.1). A particular source of adjustment would be in the equalization of entitlements to occupational pensions. However as we document below, this directive has coincided with the rapid withdrawal of private sector employers from the provisions of final salary pension schemes. It was these schemes that were preserved primarily for full-timers, so that this equalization of pension entitlements has not come at an opportune moment. Moreover it is not clear to what extent some employers may have reacted to the need to equalize entitlements by withdrawing the more expensive schemes for new recruits, both full and part-time.

When the government was drawing up regulations to implement the part-time workers' directive the trade unions fought a successful campaign for the regulations to cover not just employees but workers. This increases the scope of the directive particularly as many agency workers are part-timers. A more recent piece of legislation- the fixed term contract directive- has induced the government to introduce a further change to the regulations. Under the initial regulations a part-time temporary employee could not compare themselves to a full-time permanent employee, but with the implementation of the fixed term regulations that does not allow unequal treatment on grounds of the contract, part-timers will be able to compare themselves to full-timers, irrespective of the length of their

contracts. This could increase the estimate of the share of part-timers with a comparable full-timer at their workplace.

**Box 3.1. Estimate of the impact of the part-time workers regulation by the DTI**

There are approximately 6 million part time employees in Great Britain - all of whom will benefit from added security. We estimate that 1 million have a comparable full time employee. Equal treatment could directly benefit 400,000 part time employees through increases in pay and non-wage benefits. Total recurring costs are estimated to be £27.4 million per year. There are two main elements of compliance costs: bringing pay and non-wage benefit entitlements into line with full time employees where there is currently less favourable treatment (£6.7 m and £20.0 m respectively). The right to receive a written statement of reasons for less favourable treatment is also likely to generate a cost to employers (£0.7 m).

Source: DTI Part-time workers' regulations: summary of regulatory impact assessment.

### **3.4. Childcare and leave arrangements**

Since the election of the Labour government in 1997 there have been a large number of changes to leave entitlements, some of which are still to be introduced. Initially the government focused on implementing the minimum changes to leave entitlements needed to bring us into line with directives agreed under the social chapter and from which Britain was excluded until the government gave up its opt out under the Maastricht Treaty. Thus the parental leave initiative was implemented but in a way to comply with the minimum requirements of the legislation, that is parental leave was unpaid, did not provide for the right to take all 13 weeks as one block and allowed the leave to be postponed for up to six months (except at the birth of the baby) (see box 3.2).

However there have been a number of improvements since then. First of all the length of paid maternity leave was extended: initially from 14 to 18 weeks, but from April 2003 from 18 to 26 weeks. Second the eligibility period for qualification for additional maternity leave- 26 weeks unpaid leave- was reduced from two to one year's employment with the same employer. Third the level of statutory maternity pay was raised first to £75 a week and from April 2003 to £100 a week (except for the first six weeks which continue to be paid at 90% of earnings or the flat rate level whichever is greater). Fourth two weeks paid paternity leave is to be introduced from April 2003, paid at £100 a week. Despite these improvements the statutory leave entitlements in the UK are unlikely to have much impact on the behaviour of fathers, arguably one of the more important changes if the gender pay gap is to be reduced. The entitlement for fathers to two weeks paid leave and at a low flat rate will not impact significantly on the domestic division of labour. Leave in the UK is still primarily tied to maternity. Nevertheless the

maternity leave provisions have markedly increased the share of women returning to work after childbirth and returning on to the same job. This should help to reduce the pay penalty associated with interrupted careers of mothers. The introduction of a right to request reduced hours working is part of an increasing recognition that there are disadvantages for mothers if the lack of childcare facilities or their own preferences for part-time working cause them either to leave employment altogether or to seek a part-time job that may be less suited to their skills and may pay lower wages. However there are doubts over whether the right to request will have a significant impact on employer practice. Moreover it could have the effect of reinforcing views that mothers are unlikely to return to full-time - and therefore - by implication - to committed working. However these attitudes are based on relatively untested premises that full-time work is the more productive form of employment; a recent study of the 1998 WERS data shows that organizations offering family friendly employment arrangements showed a slight tendency towards higher productivity (Dex and Smith 2002). If more flexible working time arrangements were seen as associated with better performance rather than higher cost, then this could provide a way towards reducing the gender gap, if the right to flexible working was not seen as a reason for lower wages due to loss of productivity.

### **Box 3.2. Parental leave: the fallback scheme**

The fallback scheme in the Regulations provides for employees to take parental leave

- in blocks or multiples of one week
- after giving 21 days notice
- up to a maximum of four weeks leave in a year
- subject to postponement by employer for up to 6 months where business cannot cope
- but leave cannot be postponed when the employee gives notice to take it immediately after the time the child is born or is placed with the family for adoption

Parallel to these developments in leave provision there has been a serious attempt to expand childcare provision in the UK, albeit from a very low base. Box 3.3 (see also Fagan 2002) provides details of the developments to date. The main problems with the scheme is the decentralized method of delivery and the short term nature of government funds which result in unevenness of provision and inhibit investment in facilities and training. A second problem is a shortage of trained staff and a third problem is affordability of childcare. Parents pay at least three-quarters of the cost in the UK. These issues have been partly addressed for low income households through the childcare credit, a scheme that is to be extended up the income range, but nevertheless childcare costs are predicted to remain high. Shortage of childcare does continue to influence the behaviour of

women. Although the majority of mothers who stay at home say they do this out of choice, in one survey in 1999 (La Valle et al. 2000) one quarter said they were unable to work because they lacked available and affordable childcare and two thirds said they would prefer to work if they had better childcare, subject to costs and flexible working arrangements. Even those who are working are far from satisfied with childcare arrangements: nearly three quarters of parents who worked or studied outside of the home said that their current childcare arrangements were not ideal, due to lack of local provision or the cost of more adequate childcare.

### Box 3.3. Expansion of childcare in the UK

There has been a major expansion of pre-school education investment and provision in recent years, stimulated by the Government's launch of the *National Childcare Strategy* in May 1998 (DfEE 1998). A key element of the strategy was that early years and childcare services should be developed and delivered through local partnership initiatives – the *Early Years Development and Childcare Partnerships*. The Department for Education and Skills<sup>3</sup> (2002) provides funding, information and advice for the establishment of these partnerships (local authorities, private and voluntary childcare providers, schools, training organisations, employers, parents) and for organisations providing childcare services and reports that 150 such partnerships were in operation by 2002.

The expansion in childcare services in the UK has involved a large growth in private sector day nurseries. In 1999 there were four times as many day nursery places as there were in 1987, an increase from 62,000 to 262,000 (rising again to 285,000 by 2001/2, see table 9). The number of childminders more than doubled over the same period, although most of this increase was in the first half of the 1990s and the number of childminders has fallen back post-1998. There has been a proportional and absolute decline in state provision. Local authority provision of day nursery places in England, Wales and Northern Ireland fell from 29,000 in 1987 to 16,000 in 1999 (National Statistics 2001, p156). Day nurseries still only cater for a minority of pre-school children, for example the proportion of three and four year olds attending day nurseries has risen from 7% in 1997 to 10% in 2000 (Blake et al. 2001).

School enrolment in nursery and reception classes has also increased. In 1970/71 21% of three and four year olds in the UK attended schools, by 1999/00 this had risen to 64%, which includes 28% who are in reception classes. Another 16% of all four year olds in England were enrolled in non-school education settings in the private and voluntary sector, such as local playgroups (National Statistics 2001, p59 and 156). Overall, by 2000, 91% of three year olds and 98% of four year olds attended some form of nursery education, when playgroups and pre-school are included alongside day nurseries and school reception classes (Blake et al. 2001). The rate of full-time participation increased with the child's age, and the type of service used shifted as they approached school entry:

- For the *younger three year olds* the main form of service used was playgroups or pre-school (41%), 17% attended a nursery class in a primary school, 15% attended a day nursery, and 7% attended a nursery school.
- *Older 3 year olds and younger 4 year olds* were mainly attending nursery classes at primary schools (45%) but 26% were also in playgroups and 13% in nursery schools.
- Over 80% of the *older 4 year olds and younger 5 year olds* were in reception classes in primary schools.

Provision in out-of-school clubs has also grown substantially. These clubs provide care for four or five days a week before and/or after school. The government introduced start-up funds to stimulate this provision in 1993 (O'Brien and Dench 1996, Gatenby 1998), with further funding sources introduced more recently as part of the National Childcare Strategy. By 2000 there were around 4,000 such clubs in England, providing 141 thousand places for children aged five to seven. The number of places available was almost 12 times higher than in 1992. Holiday play schemes or clubs provide care all day during school holidays and sometimes at half-term breaks. In 2000 there were 11.5 thousand holiday schemes providing 490 thousand places – ten times more than in 1992, with half the increase taking place since 1998 (National Statistics 2001, p62).

Overall, in 1998 when the childcare strategy was launched there were an estimated 830,000 registered places for the 5.1 million children aged under eight in England (16.3 children per place) (DfEE 1998, p6). By 2001 coverage had grown rapidly, but there is still only one place in a day nursery, with a registered childminder or at an out-of-school club for every 6.6 children aged

<sup>3</sup> The Department for Education and Skills replaced the Department for Education and Employment following a restructuring of Ministries.

under 8 years. A national survey this year (Daycare Trust, 2002) found that the vast majority of parents still report a lack of quality, affordable childcare in their area, particularly for children under two and after-school clubs.

The government remains committed to further expansion of childcare places, but a number of factors may limit the success of the strategy in its current form. Firstly, the affordability of childcare is a major obstacle. Parents pay between 75-93% of the cost of childcare in the UK, with the Government paying most of the rest plus a small contribution by employers. This is in contrast to the situation in most other European countries where parents pay closer to 25-30% of the costs (Daycare Trust 2002, 2002a). The typical cost of a full-time nursery place for a child under two is now £120 a week (£6,200 per year) up almost 10% in the last year, and places with childminders are only slightly cheaper. These costs represent a high proportion of average earnings (see table 9).<sup>4</sup>

Working families on low incomes can obtain help towards their childcare bill through the childcare tax credit, providing that they pay a minimum of 30% of the cost of childcare. The current average childcare tax credit is £37.30 a week, or less than a third of the typical cost of a nursery place (table 9). According to the Daycare Trust 'British parents face the highest childcare bills in Europe' (2002). In April 2002 the Chancellor announced that childcare tax credits are to be extended to middle/higher income households, but childcare costs will remain high in the UK relative to the situation in many other European countries.

Furthermore, 3 million children live in families where there is no employed adult, and of these only 20,000 children can access childcare services paid for by their local authority. Thus, the majority of children in very low-income households miss out on the learning and development benefits of childcare (Daycare Trust 2002).

Source: Fagan (2002)

### **3.5. Public sector**

Policies towards the public sector have proved to be one of the most contentious and also the most politically sensitive issues for the second term of the Labour government. These policies have a direct impact on the future for the gender pay gap as women are disproportionately represented among public sector workers and among the increasing army of private sector workers providing services under contract to the public sector. The government has staked its programme in its second term on improving public services and has backed this up with large increases in new funding. It is concerned, however, that this new funding should expand the volume of services and not be swallowed up by pay increases and is also insisting that new money is dependent on progress in modernising public services and delivering productivity improvements based around new working practices. Moreover this public sector funding is primarily for recurrent costs and the government is relying primarily on public private partnerships to generate the capital needed for new investment projects and infrastructure. The response to this programme of reform and development of the public sector has had a mixed

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<sup>4</sup> Typically the average amount of childcare paid by families is much lower when averaged across all the types of provision that they use, for only a minority of families purchase full-time childcare. In 1999 40% of families had paid fees or wages for some form of childcare in the previous week (La Valle et al., 2000). Overall, the average costs were low, with a median of £19 per week (this includes full-time and part-time attendance at all forms of childcare).

reception from trade unions and the general public. While the need for new money and improvement of public services now appears undisputed, there are major concerns about the implications of this particular programme for the development of terms and conditions of staff providing public sector services, that is mainly women.

The groups most immediately at risk are those likely to be transferred to external subcontractors under the best value regime or to private sector partners under public private partnerships. While the terms and conditions of transferred workers are protected under TUPE legislation, there is no current protection for pension rights, nor related to other aspects of the work relationship such as work intensity (Cooke et al. forthcoming). Moreover TUPE does not provide for the enhancement of terms and conditions of transferred staff in line with the change to pay and conditions agreed through collective bargaining for non transferred staff so that over time the transferred staff's pay can decline in relative terms. Perhaps even more importantly there is no protection for new recruits who can be employed at much lower wage rates thereby creating a two-tier workforce. Women are particularly at risk from being over represented in the second tier.

With these risks in mind the public sector unions have initiated campaigns designed both to maintain public services as far as possible in the public sector and to improve the protection for workers when transferred to the private sector. These campaigns were widely based with even the normally conservative and apolitical Royal College of Nursing calling for a suspension of private finance initiative deals (Bach 2002). The campaigns have had some success with respect to the latter objective: the government has proposed that there should be a code of practice governing transfers to the private sector. The notion of a code was first proposed under the so-called Retention of Employment Model for PFI pilot schemes in the NHS and in some cases the unions have been able to negotiate that staff should only be seconded to the new employer not transferred. A review of the best value regime covering local authorities has also proposed a new code of practice. These codes of practice would offer four significant improvements over the current situation; private sector contractors would be required to offer terms and conditions that were broadly similar to those offered by the public sector, even to workers not covered by TUPE. Contractors would also be required to offer a pension scheme that was broadly comparable to that provided by the public sector employer and the contractor would have to match employees' pension contributions up to 6% of earnings or offer a final salary pension scheme. In the NHS a limit would be placed on the proportion of workers transferred to the private sector- for example in the health sector at least 85% of staff would remain as employees of the NHS, and the unions would be involved in the process of negotiations (continuous dialogue) over public private partnerships and contracting (GMB 2002a) particularly as only a code of practice was proposed rather than statutory regulation. In particular there was no clear mechanism by which the terms would be assessed to be 'broadly similar' and this guarantee fell short of their proposal that these terms should be 'no less

favourable' than current terms and conditions. The unions have remained split, with some parts of Unison supporting the GMB position and reversing the leadership's acceptance at the health sector conference in April 2002. However, in July 2002, as the government threatened to withdraw these proposals if agreement was not reached, Unison once again accepted the proposal but the GMB remained opposed (GMB 2002b). The debate over the protection to be offered to transferred workers and indeed the share of workers to be transferred thus continues.

Workers who remain within the public sector also face major changes to their work environment and potentially to their pay levels. The modernization of the public services has become synonymous in the government's eyes with the introduction of private sector management techniques with an emphasis on performance management and competency rather than seniority related progression. These changes do not necessarily widen the gender pay gap but there are several reasons for suggesting that the outcome may be overall negative for women (although individual women may still of course gain). The replacement of seniority increases with competence based progression may increase managerial discretion and extend the time taken or reduce the level of increments over and above basic pay (see the ACAS case discussed under section 3.7). The impact is also likely to be to widen differentials within the public sector, thereby widening the gender pay gap because of women's greater concentration at the bottom of the grading structures. Another negative effect may be the fact that it distracts attention from the need to improve rates of pay for undervalued skills. It was this last concern as well as genuine concerns about the impact of performance evaluation on teacher morale that led the trade unions to oppose plans for performance related pay for teachers. They were unsuccessful in resisting performance related pay altogether but achieved a compromise whereby it was introduced as an additional payment for those at the top of the scale that most teachers received, except primarily for those discouraged from applying on grounds of lack of competence. However the government has now come back with a much more extensive programme of performance related pay where all increments would be competency based, but it remains to be seen if they are able to implement the scheme in the form they have announced.

There are three main reasons why the government has not enjoyed a free hand to impose all its plans on the public services workforce. First the unions have been able to mount a strong campaign both against the two tier workforce and against low pay (see above re the new pay settlement for local authority workers) because they have enjoyed public sympathy with their case. The track record of privatized services such as the railways has led to strong feelings among the public that the involvement of the private sector does not necessarily mean greater efficiency. A second factor that has constrained the government has been the problem of staff shortages and the importance of staff morale and commitment to the delivery of the enhanced services. Thirdly, there is a concern

within the government to address the issue of equal pay if only because the trade unions have been relatively successful in mounting a number of expensive equal pay cases against the government. These countervailing pressures are beginning to have some effects on public policy in ways that may be somewhat at odds with the original agenda for modernization based on decentralization and contracting. The main ways in which the public sector pay agenda may be shifting towards new policies with potentially positive or at least non negative impacts for women are as follows:

- The new proposed codes of practice are bringing back some notion of fair pay to public procurement, reducing the risk of outsourcing for the workforce. These changes could herald the introduction of 'forms of contract compliance, modeled on US regulations, in which private companies bidding for public service contracts would have to demonstrate that they have measures in place to identify and eliminate gender bias in their pay and promotion systems.' (Bach 2002: 323). This change has already occurred in Wales where the devolved assembly has made it a requirements that contractors adopt an equality code of practice.
- The new local authority agreement has focused on improving the pay of low paid workers and may lead to the establishment of a commission to look at the twin issues of low pay and equal value in the local authority sector
- There is a proposal to introduce a new national pay scale based on three integrated pay spines in the health sector (for doctors, nurses and professions allied to health and other workers) and to develop a national job evaluation scheme. Such proposals reverse the trend towards fragmentation and decentralization and also for the first time move towards an inter-occupational integrated pay structure in health. So complex are these negotiations that the scheme is unlikely to be implemented before 2005. This development of an integrated pay structure may help to eliminate the anomalies in pay structures that have increased over recent years where in addition to separate pay bargaining for occupational groups at the national level, individual hospital trusts have been able to introduce their own pay structures for groups not covered by national pay bargaining. This has applied particularly to health care assistants, used to assist the nursing staff on wards. This group, almost all female, has been paid primarily under terms and conditions determined by management. The main effects has been that this group has received less generous rewards for unsocial hours working than those covered by national bargaining machinery. This move towards integrated pay spines in health follows the earlier introduction of a single pay spine for local authority workers. However the full implementation of this has proved problematic because of the potential costs and this would be a focus of the work of the proposed commission on low pay and equal value.
- The government is favouring two or three year pay deals in the public sector in order to diffuse the political problems of the annual pay round. These pay deals have reaffirmed centralized pay bargaining as the system

for pay determination in the public sector and have in practice allowed for settlements that are somewhat above those prevailing in the private sector. This represents a process of partial 'catch-up' with the private sector as from the mid 1990s, with the exception of doctors and nurses, pay for most public sector pay groups fell behind pay in the private sector (Bach 2002).

- Following the Kingsmill report (2001) on women's pay and employment public sector agencies are to be required to undertake gender pay audits by April 2003. However, the government has not yet adopted another recommendation in the report that public sector workers who are transferred to private sector or other public sector employers should have their pay level and grade protected, where this has been established according to a fair system of job evaluation, to avoid the potential loss of the gains from equal value cases through contracting out. The implications of this proposal are that the contractor would not only preserve existing terms and conditions of transferred staff but also upgraded them in line with changes for public sector employees.

### **3.6 Other issues**

Here we identify the major factors taking place within the labour market that are likely to impact upon the gender pay gap, other than those discussed in detail above. Our focus is on the employing organization and labour supply issues; we leave to section 4 discussion of the general thrust of government and trade union policy.

There are major changes taking place in the organization of employment and the associated pay and rewards system in the UK that can be expected to have potentially negative impacts on the more vulnerable groups in the labour force, including women. These tendencies are, however, generating in turn political debate and pressures, and indeed leading to the development of some policy measures that may at least modify the effects of this restructuring on the gender pay gap. The most important restructuring measures that may impact negatively on the gender pay gap include:

- There is a trend towards more fragmented organizations: these may intensify the impact of gender segregation of the structure of pay and indeed permit unequal pay within the same workplace.
- The continued trend towards more performance related and individualized pay provides increased scope for managerial discretion in pay determination, opening up new possibilities of discrimination
- The rapid movement away from the provision of final salary pension schemes by private sector employers and their replacement with money purchase pension schemes will have a very significant negative impact on all affected employees. While male employees are more likely than female employees to be in occupations offering final salary schemes ( as these are positively related to being in full-time and high status employment) the

effect of this change has more negative consequences for women as final salary schemes provide the same benefits by gender while money purchase schemes require recipients to purchase an annuity. Discrimination is allowed in the sale of annuities such that a man aged 65 with a fund of £100,000 would be able to purchase an annuity of £6,546.24 per annum while a woman aged 65 with the same fund would only receive £5,682.36 (EOR 2002(106:7)).

At the same time there are a number of developments, within the legal system and in the policy field that may have some moderating impact on employer policy and practice. These include equal pay legal cases, the development of gender pay audits in the public and private sectors and the growing political awareness of equality issues, driven in part by the EU and in part by the devolved governments of the United Kingdom (Scotland, Wales, Northern Ireland) (see Rubery 2000, 2001).

Equal pay cases may be expected to modify employer behaviour for two reasons: first the size of payouts to successful claimants has risen significantly due to the lifting of an upper limit on the size of payouts. Employers may therefore take the threat of an equal pay case more seriously. Second the rulings in equal pay cases establish new case law and in some cases are extending the scope of equal pay claims. Important new cases over recent data have, for example, established that the new performance related payments systems in the civil service could be discriminatory. Employees in one part of the civil service-ACAS- won their case that the replacement of the seniority scheme with a performance scheme was discriminatory as under the latter scheme it could take up to forty years to reach the top of the pay scale, while those –mainly men- who had reached the top of the pay scale under the previous system had had their pay levels preserved when the new scheme was introduced (EOR 2002 (104:2)). Similar rulings could affect the legitimacy of performance pay schemes throughout the civil service. Another case (South Ayrshire v. Martin) established that it might be possible to choose comparators employed by other employers where it was possible to make a case that the comparator was part of the same service (in this case the service of providing education in Scotland) (EOR 2002 (103:2)). This ruling begins to extend the scope of equal pay comparison beyond the single employer. Another case against Warwickshire County Council found that bonus schemes that were applied to primarily male groups of workers (gardeners, road workers) but not to the primarily female groups of cleaners, catering workers etc were not legal. In general one factor behind some of the new initiatives in the public sector have been induced by the increasing number of successful and expensive equal pay cases launched by the trade unions against primarily public sector employers.

The second factor that is raising awareness of equal pay issues are the new policies with respect to gender pay audits. The government rejected the recommendations of the Equal Opportunities Commission's Equal Pay Taskforce

to introduce compulsory equal pay audits. It responded by setting up the Kingsmill review to cover largely the same ground but with compulsory private sector audits ruled out. This review did, however, recommend compulsory public sector audits and called upon the possibility of including a requirement to report on human resource management policies within company accounts. It is not yet known what effect this requirement to have completed gender pay audits in the public sector by April 2003 will have. In the private sector pressure to carry out such audits on a voluntary basis is being applied by the EOC, backed by some measures such as 'fair pay champions' (companies committed to equal pay) and the 'Castle awards' to companies, to commemorate Barbara Castle's role in the passing of the Equal Pay Act in 1970.

Employers may also need to take increasing note of equality issues because of changes in the legislative and policy environment. These changes are associated in the UK primarily with two factors: first there is a continuing influence from European law on employment regulation in the UK, much of which has implications for the gender pay gap. The coming on stream of the fixed-term workers directive has already led to a modification of the part-time workers' regulations, to expand the range of potential pay comparators. The fixed term directive could do much to close the gender pay gap in sectors where women are concentrated among the fixed term workforce, particularly the public sector. The proposed directive on agency workers would also allow comparison with the client workforce, thereby potentially reducing the incentives to use agency workers. These changes in legislation associated with the EU are happening alongside changes being introduced in the UK associated with two factors; first the trade union campaigns in the public sector and second the establishment of devolved government in Scotland, Northern Ireland and Wales. These devolved parts of the UK have been considerably more proactive than central government in embracing a gender mainstreaming agenda and in establishing equality issues within public procurement policies. These two developments taken together may raise awareness of the need for more explicit equality policies among potential contractors to the public sector. The expansions of public private partnerships has increased the importance of the public sector as a market for companies, a factor that should help to spread such effects through a large swathe of the private sector. However, the question remains as to how effective these policies are likely to be if they are not backed up by more detailed and extensive regulation on what actually constitutes an equality policy. If the proposed codes of practice are strengthened to require contractors to follow at least the minimum pay levels established in the public sector, these developments could do much to reduce some of the potential threat to the gender pay gap from contracting out, although it will not solve all the problems of deteriorating employment conditions associated with contracting.

Some changes to the gender pay gap can be expected to result from the continuing improvements in the performance of girls within the education system relative to that of boys (EOC 2002). As we have discussed above, recent

research suggests that having the same educational qualification in the same subject and same years of experience is not sufficient to bring about equal pay. Nevertheless, a higher share of women entering the labour force now have higher educational qualifications, a factor that should narrow the gender pay gap, particularly as for women there is larger gap between the educated and the non educated than for men, even though the individual returns from the investment in education are lower due to the lower wages of women graduates. One factor that might prevent the higher educational levels from lowering the gender pay gap is if there is a continuation of the strong trends over recent years towards longer working hours. The requirement to work excessively long hours in higher level jobs may lead to the underemployment of women graduates if they try to maintain a reasonable balance to their work and family commitments. The more generous leave entitlements for women may further increase the share of women retaining their connection to the labour market over the period of childbirth and reduce the tendency towards occupational downgrading. Parental leave for men may begin a process of reducing the association of childcare leaves with female employees, but unless the leave is paid the effects are likely to be weak. Finally there could be some further tendency towards reductions in the gender pay gap due to men taking on low paid jobs, now that they can usually obtain state subsidies, through the Working Families Tax Credit and the proposed Employment Credit, if they take a low paid or part-time job. How far this will lead to the desegregation of low paid jobs is not yet clear, but reductions in the gender pay gap through the downgrading of men's pay is not the intended outcome of gender pay equality policies (Jones 1993).

#### **4. Policy review**

Over the last two years there has been an increasing focus within policy debates and policy circles on the gender pay gap, stimulated in part by recommendations by the European Council of Ministers to address the large size of the gap as part of the European employment strategy. The EOC's decision to set up a task force on equal pay has been an important stimulus to this debate, even if the immediate response by government was to exclude the main recommendation of the taskforce, that is compulsory pay audits. The need to make some positive response was nevertheless recognized and the government set up the Kingsmill review, possibly to distract attention from its refusal to implement the taskforce recommendations. The Kingsmill review largely supports the government's preferred voluntary approach in the private sector, although it does consider the case for compulsory reporting on human resource management in company accounts (see box 4.1 for summary of recommendations). This voluntary approach is at the heart of government policy towards equal pay. It has been pushed by the strength of feeling within the trade union movement towards a more interventionist approach with respect to contracting out and public private partnerships but even here, in its proposed code of practice rather than statutory regulation, and in its weak formulation that contractors should set broadly similar terms and conditions, its predilection for the voluntary market led approach is

evident. The weakness of this policy stance lies not only in the fact that it relies on voluntary compliance but that it fails to adopt a gender mainstreaming approach to the problem of the equal pay gap in the first place. The problems of the gender pay gap are supposed to be solved through the voluntary actions of individual employers and are not thereby related to the whole structure of pay and system of pay determination in the UK. This approach is also evident in the UK government's focus on the gender pay gap measured for full-time adults only. However by excluding part-timers from this perspective the role of gender pay discrimination in shaping the division between part-time and full-time jobs in the labour market is ignored. It was the EOC's Equal Pay Taskforce that highlighted the issue of the adjusted gender pay gap, by claiming that between one quarter to one half of the gender pay gap was caused by discrimination, that is 'after discounting for other factors'. Much of the media attention surrounding this report focused on whether or not it was really true that discrimination was responsible for such a high share of the gender pay gap. However this debate revealed the general level of confusion surrounding the concept of pay discrimination as some commentators consider occupational segregation to be part of discrimination and others a factor that needs to be discounted before discrimination is measured.

#### **Box 4.1. Summary of recommendations on equal pay from Kingsmill review**

- i. Government to set up an inquiry to consider case for inclusion of human capital management information, including information on women's employment and pay, as part of proposed mandatory Operating and Financial Reviews (OFRs) as part of reform of company law and reporting standards.
- ii. Public sector bodies to be asked to report similar information on human capital management in their annual reports
- iii. Private sector organizations to be encouraged to conduct employment and pay reviews into all aspects of women's employment by the time of introduction of OFRs
- iv. All public sector bodies to be required to undertake pay and employment reviews
- v. The government to monitor progress with pay and reviews in the private sector with a view to considering the need for legislation for laggards at a later date
- vi. Where public services contracted out for first time or contracts due for renewal, and where clear comparators for contracted services are retained by the public sector, bidders to demonstrate that they will offer the terms and conditions prevailing previously where these have been established through a pay review or job evaluation
- vii. Government to seek to establish a new academic centre of excellence, for research on all aspects of women's careers and labour market prospects
- viii. An identifiable element of the appraisal and remuneration of senior board level members of government departments and other public bodies to be linked to achievement of stated diversity objectives
- ix. Women's employment and pay issues to be included in the Investors in People standards
- x. The government to consider giving right for employees to request confirmation that he or she is receiving equal pay with a named colleague
- xi. Training tax credits to be introduced for employers who provide training for lower paid workers to enable them to move to higher paid jobs
- xii. Training tax credits to be introduced for employers who recruit and train women who would otherwise be unemployed or on low earnings in jobs where they are seriously underrepresented.
- xiii. The government to convene a group of experts to consider how research into the earnings gap between part-time and full-time workers should be investigated
- xiv. The government to monitor the restructuring of tax and National Insurance contributions to ensure that they are not leading to the creation of jobs just below the NIC/tax limit and to monitor the take up of stakeholder pensions for the emergence of a gender gap

At the launch of the Kingsmill review, the government pointed to the number of measures it was taking with respect to equal pay. However, according to Equal Opportunities Review (2002: 102: 2) no actual new measures were announced and many of the more interventionist recommendations were not responded to. The measures that had already been announced which were repeated at the launch included

- i. Allowing groups of workers to make a single pay claim (not addressed in Kingsmill)
- ii. Introducing a new questionnaire to allow women to obtain key information from an employer when deciding whether to bring a equal pay case (close to recommendation x by Kingsmill but designed to reduce number of cases brought)
- iii. Training TU officials – 500 - to carry out company equal pay reviews (supportive of Kingsmill recommendation iii)
- iv. Castle awards for companies - supportive of Kingsmill recommendation iii
- v. Creation of fair pay champions to publicly promote the benefits of equality – supportive of Kingsmill recommendation iii
- vi. Government departments and agencies to review pay systems by April 2003 and to prepare action plans to reduce any gender pay gaps - similar to Kingsmill recommendation iv.

Most of the positive developments with respect to equal pay issues - particularly the emerging possibilities with respect to contract compliance in public procurement - can be attributed to the pressures put on the government by the trade unions in the UK, supported by the continuing development of EU legislation designed to promote some degree of security and fairness for workers on non standard contracts. The trade union movement has identified the importance of the structures of pay and employment organization for issues such as pay equity and have thereby served to mainstream gender issues into their general policy perspectives, at least with respect the public sector. The trade unions in the public sector have also been harnessing the specific equal pay laws to promote both higher and more equal pay for public sector workers, demonstrating the benefits of what has been called a two track approach to gender equality - mainstreaming and specific gender pay policies. The role of the trade unions has been much less influential in the private sector where the influence of collective bargaining has continued to decline. Here the main pressures towards equal pay have come more from the development of legislation rather than from voluntary regulation or even equal pay cases, as these only have an impact on individual employers. The trade unions are seeking to be involved in the new gender pay audits and 500 trade union officials are to be trained to assist in these audits but at most those audits will affect policies in the 'good employers' as those uninterested in equal pay are unlikely to participate. In general therefore the prospects for a major closure of the gender pay gap in the UK can be considered slim unless, on the one hand, there are future improvements in the national minimum wage and on the other hand if there are major spin off effects from the current emerging policies of reintroducing contract compliance, including compliance with equal pay, in public procurement.

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