Regional evidence on the effect of the National Minimum Wage on the gender pay gap

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Abstract

We study the evidence of change in the gender wage gap across regions around the introduction of the National Minimum Wage (NMW) in Britain. As the proportion of low paid workers continued to vary across British regions, so did the relative share of men and women paid below the NMW before its introduction. This variation provides a "quasi" natural experiment with which to try and measure the effect of the introduction of the NMW. Other things equal, if women are over-represented amongst the low paid, and the proportion of low paid workers varies across regions, we might expect to see the introduction of the NMW narrowing the overall gender pay gap by varying degrees across the country. Analysing Labour Force Survey data, we assess the regional evidence of the decline in the pay gap before and after the introduction of the NMW. Using difference-in-differences type estimation, we conclude that there is variation in the narrowing of the overall gender pay gap across regions, consistent with regional differences in the incidence and magnitude of low pay.

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1 Introduction

Did the introduction of the national minimum wage have a greater impact on gender pay gaps in some British regions than in others? Much is already known about the gradual long run narrowing of the gender pay gap, but far less is known about differences in gender pay gaps across regions. The study of regional differences by gender is mainly uncharted research territory.[1] This paper analyses the regional element of gender pay and assesses in particular the impact of the National Minimum Wage (NMW) on the gender pay gap across regions. To the extent that the incidence of low pay varies across regions, as we show below, the advent of the NMW should act to reduce regional wage inequalities.[2] However, whilst this feature is clearly established, what is not generally accounted for in the literature is a discussion of the interaction of gender pay gaps across regions and the NMW.

In April 1999, the government introduced a national minimum wage at an adult rate[3] of £3.60 an hour across all occupations and all regions. The introduction of the NMW affected a larger fraction of women than men (Robinson (2002a)). To the extent that the relative shares of men and women receiving low pay varies over regions, then this variation provides a "quasi" natural experiment with which to try and measure the effect of the introduction of the NMW. Other things equal, if women are over-represented amongst the low paid, and the proportion of low paid workers varies across regions, we might expect to see the introduction of the NMW narrowing the overall gender pay gap by varying degrees across the country. Card (1992) follows a similar strategy to analyse the impact on employment and wages of the NMW across US states where coverage between states varies. Collins (2001) uses the same technique to measure the wage effects of US fair employment laws for black workers, where employment legislation again varies across US states. For our purposes, this methodology amounts to using a difference-in-differences type approach. The combination of the variation in low pay across regions, and the differing incidence of low pay between men and women across regions creates a “treatment effect” by which we can

[1] The only study of which we are aware is Blackaby, Moore, Murphy, and O’Leary (2001) who present some evidence for Wales.

[2] The Low Pay Commission (2000) acknowledges widening wage inequality in Britain up to the mid-1990’s, and also that rates of low pay vary by region.

compare the change in the gender pay gap in regions with a high incidence of low pay with those where there is less low pay, following the advent of the NMW. Other things equal, this approach allows us to see if the gender pay gap narrowed more in regions that were more heavily affected by the introduction of the NMW. By using a difference-in-difference approach we net out any region-specific fixed effects.

We address these issues as follows. The next section describes our chosen data set and the third section provides our theoretical basis for the work. Section Four documents the evidence on the regional gender pay gaps for the period 1993-2000. Section Five assesses the effect of the national minimum wage in the narrowing of the gender pay gap using difference-in-differences estimation. Section Six concludes.

2 Labour Force Survey Data

For our purposes, the Labour Force Survey (LFS) provides the most comprehensive source of labour market information. It is a nationally representative sample of around 60,000 households each quarter. Earnings information from the LFS are sometimes less accurate than employer-based information, such as the New Earnings Survey, especially where responses are obtained from proxy respondents (some 30 per cent of responses), but the LFS is much larger than any other corresponding British household data set.

The LFS is a rotating panel survey. Each household is interviewed for five consecutive quarters with an 80 per cent overlap over successive quarters. Pay information until 1997 was collected in the fifth (and last) wave of a household's participation for around 20 per cent of the sample each quarter. Since then, pay is ascertained on the first and fifth waves. This means that around 40 per cent of the sample of employees now offer wage information in any one quarter, yielding around 16,000 wage observations.

Gross weekly pay estimates from the LFS can only be derived from the combination of questions relating to the last usual pay amount and the relevant pay period. We derive hourly pay by dividing the gross weekly wage by the usual weekly paid hours including paid overtime. From the spring of 1999, the LFS contains an hourly

[3] For over 21 year-olds.

wage variable, which should suffer from less measurement error. This is too late to allow us to examine trends in gender pay gaps over time on a consistent basis. We expect some measurement error on our hourly wage dependent variable. However, this is absorbed in the disturbance term of any regressions that we run and as such affects only the efficiency of our estimates (Greene (2000) page 376). Stoddart *et al* (2002) contains a detailed discussion of measurement error in hourly pay in the LFS.

It should be borne in mind that workers in the low wage sectors who do not regularly receive a pay slip tend to understate pay levels and this limitation is exacerbated by the omission of any bonus payments in the LFS. Further, there exist disparities between employer and employee estimates of the number of hours worked. We exclude those adult workers on training schemes from our study since these workers are less likely to be covered by the minimum wage legislation.[4]

In what follows, we use the LFS, first, to analyse the proportions of workers in each region paid below the rate of the April 1999 NMW; and second, to document the changes in the gender wage gap across British regions from 1993 to 2000. Thirdly, we perform difference-in-differences estimation of the impact of the NMW.

We break down geographical areas into the eleven standard British regions of residence afforded by the data, (Wales and Scotland are treated as "regions" in the analysis). We pool over four consecutive quarters of the LFS every time in order to enhance the sample size in each region and to help with the precision of our estimates. We construct annual data samples that run from April of a given year to March of the following year, in order to coincide with the introduction of the NMW in April 1999, and we make all cross year comparisons consistent with this. As explanatory variables, we use educational qualifications (degree; technical and 'A' level; GCSE; and no qualifications (the default category)) rather than a measure of years of schooling. We include the amount of potential, rather than actual, work experience (and its square) since this is the only possible experience measure available in the LFS. We construct a measure of job tenure and its square (measured in years and months). We also incorporate a variable for the number of dependent children. Other controls common to

[4] The precise remit of the legislative exemption covers all adults on accredited traineeships for the first six months.

each quarter of our data set include marital status, one-digit industry dummies, ethnicity, temporary job, the private sector, and establishment size. We cannot use information on union status as this is only obtained in the third quarter of each year. Also included in our analysis is a variable for part-time work. Part-time workers are self-defined by the respondents themselves in the LFS. We present estimates with and without the presence of controls (that is, unadjusted and adjusted specifications).

For all our analyses we drop potential outliers: those individuals who report an hourly wage of less than fifty pence or more than fifty pounds. Further, all estimations were carried out on two data samples: that sample which excludes youth workers (individuals aged 21 years or younger), and the complete sample of all workers for the relevant year.[5] Changes to the NMW imply common regional effects, so that individual observations are not necessarily independent within groups. The inclusion of the full set of regional and year dummies are equivalent to making the standard adjustment for this type of clustering (Bertrand, Duflo and Mullainathan (2001)).

3 The National Minimum Wage and Regional Gender Pay Gaps

Given an observed individual wage, w_i, for an individual of gender male (m) or female (f), then following the introduction of the NMW (in the absence of any wage spillovers or employment affects), we would expect to see all wages below NMW shunted to the national minimum. (Dickens and Manning (2002) do indeed find minimal spillover effects.) Robinson (2002a) shows that the mean of the wage distribution after the NMW is given by

$$[\Sigma_{nmw}(NMW) / N_{nmw}] * (N_{nmw} / N) + [\Sigma_{N\text{-}nmw}(w_i) / N\text{-}N_{nmw}] * (N - N_{nmw} / N) \qquad (1)$$

$$= \Sigma_{nmw}(NMW) * 1/N + \Sigma_{N\text{-}nmw}(w_i) * 1/N \qquad (1')$$

That is, the average wage is the weighted sum of the mean wage for those earning NMW plus the average for those that earned more than NMW (where the weights reflect the

[5] For brevity, we report only the results for workers 22 years and over. The other results including youths are available on request.

shares of the two groups in the population). So, subtracting the pre-NMW average wage from (1'), we can see that the change in the mean of the wage distribution is given by the change in the average wage of those affected by the NMW:

$$\Delta \overline{w} = 1/N * [\Sigma_{nmw}(NMW - w_i)] \quad (2)$$

Hence, the number of people below the NMW, and the distance of the original wage from the NMW will affect the change in the average wage. The impact of these effects will differ depending on whether an individual is located in a predominantly low pay region. The mean gender pay ratio in region *j* before the NMW is therefore

$$(\overline{w_f} / \overline{w_m})^{j0} = \frac{\sum_{w_f \le nmw} (w_f)*1/N_f + \sum_{w_f > nmw} (w_f)*1/N_f}{\sum_{w_m \le nmw} (w_m)*1/N_m + \sum_{w_m > nmw} (w_m)*1/N_m} \quad (3)$$

and the gender pay ratio after the introduction of NMW is given by

$$(\overline{w_f} / \overline{w_m})^{j1} = \frac{\sum_{w_f \le nmw} (NMW)*1/N_f + \sum_{w_f > nmw} (w_f)*1/N_f}{\sum_{w_m \le nmw} (NMW)*1/N_m + \sum_{w_m > nmw} (w_m)*1/N_m} \quad (4)$$

Comparing Equations (3) and (4), we see that the more workers affected by the NMW the greater is the increase in the average wage in that region. The more women affected by the NMW relative to men, the larger the fall in the average gender pay gap in that region. The further away female pay is from the minimum wage, the greater the improvement in the gender pay ratio in a particular region. The gender pay gap would be expected to narrow most in regions with a combination of relatively more low paid women, and with pay further removed from the NMW, other things equal. It is to the analysis of these proportions of workers paid below the NMW by region in the preceding years to which we now turn.

4 Regional Summary of Low Pay

We begin with a summary of the three main factors that section three suggests would be likely to influence regional differences in the effect of the NMW on gender pay gaps. The minimum wage itself is set in nominal terms. For this reason, these figures and tables also relate to the same nominal benchmark of £3.60. Table 1 gives the share of employees earning less than the nominal NMW value around the period of the introduction of the NMW. The estimated total proportion of working age individuals over 21 earning less than the minimum wage rate in 1998 was around 10 per cent. This fell by around 2 percentage points the following year. Although this is not a huge fall, the rate of decline between 1998 and 1999 is statistically significant.[6] For the purposes of our investigation, there is clear evidence of a lot of variation in the fraction of low-paid workers across regions. London and the South East had the lowest proportions of workers earning less than the proposed minimum wage in 1998 (some 5 and 7 per cent). The North East and Wales contained the highest proportions (around 16 and 13 per cent) in 1998. After the introduction of the NMW, the fractions earning less than £3.60 are less dispersed across regions.

Table 2 gives the differences between the proportion of low paid males and females by region. In 1998, the overall proportion of women earning less than the minimum wage exceeded the proportion of men (around 15 per cent compared with 5 per cent). There appears to be a positive correlation between the incidence of low pay and the difference in the shares of low pay between men and women by region. In London (the area with the lowest share of low paid workers), the difference between the shares of men and women receiving low pay before the NMW was the smallest in the country, (7 per cent of women compared with 4 per cent of men in 1998). In the North East, the region with the highest incidence of low pay, the difference in the proportion of men and women earning less than the minimum wage was the highest in the country in 1998, (around 23 per cent compared with 8 per cent). Following the introduction of the NMW: the share of women in low pay falls more in absolute terms than the share of men between 1998 and 1999 in every region.

[6] It is still possible to pay less than the minimum wage to workers on traineeships and some seafarers, for example, and so we would not expect the proportions to fall to zero.

Section three highlights that regional gender pay gaps are also affected by the distance of the tail of the wage distribution from the proposed minimum wage. Figures 1 and 2 show the hourly wage distributions of male and female workers by region in 1998 and 1999 respectively. The uppermost end of the wage distributions is quite often similar for men and women, but there are obvious differences by gender throughout the rest of the distributions. It is noticeable that the left-hand tails of the male and female wage distributions in London in 1998, indeed the distributions as a whole, were much closer than in any other region. London is also atypical inasmuch as much more of the distribution for men, and even more notably, for women, is to the right of £3.60 in 1998. In all other regions, we see a spike in the female wage distribution around £3.60 even before the advent of NMW. Table 3 shows that the distance between the rate of £3.60 and the mean hourly wage rate of those paid below the minimum is greater for men than for women (compare 82 and 69 pence respectively, row 1). This is repeated throughout the regions. This can be explained by the fact that more women in low pay are concentrated just below the minimum wage, hence the lower average distance. Men and women in Yorkshire and East Anglia have the smallest gap in the overall distance, whilst the East Midlands and the North East have the largest. Section three showed that the further away is female, relative to male, low pay from the NMW, the greater the improvement in the gender pay ratio in a region. It is clear from Table 3 that the opposite is the case. Since male low pay lies further away from the minimum, the advent of the NMW would, on this basis, increase the gender pay gap. Following the logic of the decomposition above, whether the relative distance away from NMW or the relative shares of male and female low pay dominate ultimately determines whether the gender pay gap narrows or widens, and this is the empirical matter that we now examine.

Changes in the Gender Pay Gap across Regions

Whilst we know that the overall long run trend is the gradual narrowing of the mean gender pay gap, can the same be said across all British regions? Figure 3 follows the changes in the mean gender pay gap in each region for the period immediately before and after the introduction of the NMW for our sample of adult workers. Our data is organised in samples that run from April of one year to March of the next and so we have flagged

the watershed year of 1998 on the figures. These diagrams reveals that each region has an almost unique story as regards the trend in the gender pay gap. For example, there is no universal evidence that the gap is closing everywhere – indeed in regions such as the South West it would appear to be widening. The figure illustrates the persistence of the gender pay gap in some areas such as the West Midlands and the South East across our eight-year period. The figure also shows how the gender pay gap in London has narrowed rapidly although the fall had begun before the NMW came to pass. For only a few regions (the North West, Yorkshire and Wales), is there any suggestion of an effect of the introduction of the NMW over the 1998-99 time period.

Next we present summary regression evidence of these trends that again suggest a negligible impact of the introduction of the NMW. Table 4 reports OLS estimates of the gender coefficient from a region specific regression of the log of the individual hourly wage on a gender dummy for various years from 1997-2000[7] following two categories of specification. First, unadjusted for a set of controls and, second, adjusted for the complete range of explanatory variables described in the data section above. Whilst the issue of differential participation and employment across region and gender could influence any estimation of the gender pay gap, our results were not changed by the inclusion of a Heckman-type selectivity procedure to attempt to control for this.[8] The NMW obviously acts at the bottom of the wage distribution, so we also use quantile regression estimation to establish whether the gender pay gap has changed at different points of the wage distribution. These results are in line with previous work (Robinson (2002a), for instance) and are reported in Table A2.

In 1998, the gender pay gap was the highest in the South East (at around 35 log points), and lowest in London (at around 20 log points).[9] The addition of controls in the adjusted specification reduces the estimated negative effect of being female by around one-third, with the regional rankings in terms of the size of the gender-pay gap little changed. Following the introduction of the NMW, the unadjusted pay gap falls in all

[7] Additional years not presented are available on request from the author.
[8] The Heckman selection equation is identified by the age of youngest child (and its square) together with gender interactions. These results are available on request from the author. See Robinson (2002b) for a discussion of differential employment rates by region and gender.
[9] These raw gaps are all statistically significant. The standard errors are adjusted to account for the approximate 20% of individuals who appear twice in each year.

regions except those of East Midlands, East Anglia and Scotland by around 1 to 2 percentage points. To conclude, this outcome is in line with the predictions of Dex, Sutherland and Joshi (2000, page 87) and Robinson (2002a) that state that the introduction of the minimum wage had only a small effect on the aggregate gender wage gap.

5 Difference-in-differences estimation

How much, if any, of the narrowing of the gender pay gap may be solely attributed to the introduction of the NMW? The introduction of the NMW affected the pay (and hence the pay gap) of a larger fraction of female workers in some British regions than in others. Essentially, the introduction created eleven treatment effects of differing intensities. By studying these experiments simultaneously via difference-in-differences estimation we ensure that our results on the gender pay gap are not biased by any region-specific fixed effects. Lastly, we separate out the impact of the NMW on three groups of workers: those directly affected by the introduction of the NMW; those just above the £3.60 rate; and everyone else. This enables us to assess how the introduction of the NMW altered the gender pay gap for those below, those at, and those above the minimum wage.

The basic methodology in this section is to use three dimensions of comparison to obtain a clean measure of the impact of the NMW across British regions. Any unobserved regional differences between workers that lead women into low paid jobs would obscure the effects of the NMW. If the gender pay gap falls in response to, say, reduced unobservable productivity differences of female workers in certain regions compared to males, then the narrowing of the gap due to the policy impact of the NMW cannot simply be observed from multiple regression analysis. One way of dealing with these unobserved effects is to assume that they do not differentially affect regions (see Collins (2001) for a discussion of this with respect to US states). By working with a difference-in-differences specification of the earnings equation, any regional fixed effects are removed. Our analysis compares the wage outcomes for men and women; in regions across Britain differentially affected by the treatment (the introduction of NMW); over time.

We specify the following over pooled cross-sections of data for the year immediately before (that is, 1998) and the year immediately after NMW (1999):

$$\ln W_{ijt} = \alpha + \beta\, WOM_{ijt} + \gamma\, V_{ijt} + \delta\, Region_j + \eta\, Year_{99} + \theta\, Year_{99} * WOM_{ijt} + \mu\, Year_{99} * Region_j + \kappa\, WOM_{ijt} * Region_j + \varphi\, Year_{99} * WOM_{ijt} * Region_j + \varepsilon_{ijt} \quad (5)$$

where $ln\ W_i$ is the natural logarithm of the hourly wage for individual i, WOM represents a female dummy, and the vector V_i is a set of controls. Here, i indexes individuals, j indexes our regions and t indexes the years of data available. In addition, $Year_{99}$ is a 1999 year dummy and *Region* is a dummy for geographical area. The term $\boldsymbol{b}$ reflects time-invariant and region-invariant pay differences between men and women. The year and female interaction term, $\boldsymbol{q}$, gives the average female catch up in wages for 1999; this interaction term multiplied by the regional dummy yields the additional regional effect around this catch up term. Thus, the coefficient of interest for our study is $\boldsymbol{j}$, on the triple interaction of gender*year*region, that measures the change in the gender pay gap in each region relative to the default region. Given that London appears atypical with respect to the incidence and shares of low paid workers observed in the previous section, we take this region to be the "control" region. London therefore appears as the default category, so that all the estimated coefficients in the vector $\boldsymbol{j}$ measure the change in the gender pay gap relative to the change in pay gap in London. Where the parameter is positive, it shows that the approximate percentage growth of female wages relative to male attributable to the advent of the NMW was increasing relative to London, other things equal.

There is some evidence (Topel (1986)) that wages are more likely to respond to transitory economic changes in local labour markets than to permanent ones. There is nothing to suggest that separate transitory economic shocks occurred in some regions in the period before the introduction of the NMW. The unobserved effects unique to all the treatment regions have been eliminated such that the effect of the advent of the NMW has been separated from the other unobserved determinants of the decline in the gender pay gap.

Table 5 summarises our findings. With the exception of the East Midlands, East Anglia and Scotland, the unadjusted relative growth in female pay, although insignificant,

rises in 1999 by around 1 percentage point more in all regions compared with London. This is consistent with dominance of the share of low paid women over the distance from the NMW in these regions as discussed above. So this does not reject the idea that the gender pay gap has improved in regions that were disproportionately affected by the NMW, and where women were the greater beneficiaries of the new legislation. The effect of the controls (column II) is to raise the net improvement relative to London by a further one to two percentage points in each region except the East Midlands. Since the female working population of London has more characteristics associated with higher pay, netting out these effects increases the relative improvement in the gender pay gap in the other regions.[10]

Following the work of, amongst others, Booth (2000), and Manning *et al* (2000), we acknowledge the potentially important effect of working part-time in our analysis of gender pay inequality. It is known, first, that there is a pay penalty associated with some forms of part-time working; and, second, that a narrowing of the gender pay gap has not occurred for women working part-time. To the extent that the incidence of, and the pay penalty for, part-time working varies across regions, we would expect the gender pay gap for women working part-time to fall more in regions with a higher share of part-timers paid below the NMW, and/or in those regions that pay wages further away from the NMW. Table A3 reports the variation in the incidence of females working part-time across regions and the distance from the NMW of their average pay in 1998. London has the lowest fraction of female part-timers and indeed the lowest fraction of female part-timers paid below the NMW. The South West has the highest incidence of low paid females working part-time (around 76 per cent in this particular region of low paid women are in part-time work in 1998). Part-time wage rates in London are, on average, furthest away from the minimum and this would tend to offset the impact its of lower fraction of females working part-time on the overall effect of the NMW. However, the mean distance of female (part-time) pay relative to all men is also large in London (row 5) and this would tend to offset the low share effect.

[10] These estimations were also carried out on two restricted samples that excluded workers who reported an annual salary; and excluding those with an annual salary along with workers in receipt of overtime payments. These results are in line with the commentary reported here and are available from the author on request.

We re-estimate Equation (5) to capture full- and part-time work effects by running the difference-in-differences specification over the sample of women working part-time and men (both full- and part-time); and over the sample of women working full-time and men, both adjusted and unadjusted for a set of controls. These results are reported in Table 6. Our coefficients of interest now reveal the growth of wages for women working part-time relative to men in each region relative to the change in the pay gap in London in the advent of the NMW. The unadjusted gender pay gap for women who work part-time (the percentage difference in the average female part-time wage in 1998; column I, row 1) is around 42 log points. With respect to the regional differences, although insignificant, the unadjusted interaction terms are positive everywhere, save in the East Midlands, East Anglia and Scotland, and show gains in the pay gap of around 2 points relative to London. Table A3 confirms that the average distance below the NMW is lower in East Midlands, East Anglia and Scotland relative to London and this probably offsets any low pay share differences. Wales had the biggest relative increase of around 6 points. Despite the lower average distance, Wales had a much larger fraction of women working part-time paid below the minimum than London, and this probably accounts for the relative improvement in the part-time gender pay gap. The addition of controls usually makes the change in the part-time gender pay gap more positive relative to London, with the exception of the East Midlands.

Table A4 shows the regional variation in the share of the distance for women working full-time. In general the difference in the shares of women (full-time) in low pay is much smaller than for the women working part-time in low pay across regions observed in Table A3. The distances away from the NMW are if anything larger for full-time female workers than for part-timers. The combination of these patterns across regions and the distances relative to men contribute to the coefficients observed in columns III and IV of Table 6. In general, the regional rankings are not the same for full-timers as they are for part-timers because of the differential share and distance effects. The highest improvements in the full-time gender pay gap relative to London are in Yorkshire and the South West - consistent with the share effect offsetting the distance effect. East Anglia suffered a worsening of the relative full-time gender pay gap. Since the shares and the distance here were similar to Yorkshire, there may have been a differential effect further

up the wage distribution. The addition of controls generally strengthens the positive coefficients and weakens the negative. The average adjusted gain relative to London is around two points.

Impact of the NMW across the wage distribution

A priori, we would expect that, if the NMW were to have an effect on the gender pay gap, it would have the greatest influence on the wages of men and women paid below the NMW before its introduction. As such, the greatest impact on the gender pay gap should be readily observable here. Moreover, in those regions where the share of low paid workers is the highest, we would expect to see the largest changes. Recall from equation (4) above that the gender pay gap is affected by both the relative share of men and women paid below the minimum and the relative distance away. Table 3 shows that more men are paid rates that are further below the NMW, whilst Table 2 reveals that there is a higher relative share of women clustered at or below the minimum. Therefore which effect influences the direction of change in the gender pay gap across regions upon the introduction of the NMW is an empirical matter.

In order to investigate this, we split the sample according to the worker's position in the 1998 wage distribution. We choose three groups: those directly affected by the introduction of the NMW; the next 10 per cent of workers in the distribution earning £3.60 or just higher;[11] and the remaining workers. We then compare the change in the gender pay gap for each of these groups over the following year. In order to do this we have to use the longitudinal aspect of the LFS. We select the subset of workers in each of these groups who can also be matched to their post-April 1999 wage. We then can estimate a difference-in-difference regression of the change in the gender pay gap for each groups as follows:

$$\ln W_{ijt} = \alpha + \beta\, WOM_{ijt} + \eta\, Year_{99} + \theta\, Year_{99} * WOM_{ijt} + \varepsilon_{ijt} \qquad (6)\ .$$

The coefficients of interest are β and θ. The former gives the level of the gender pay gap in the base year whilst θ measures the change in the gender pay gap for workers in the relevant group. Comparing the size and significance of the coefficients across groups

[11] This comprises any individual earning between £3.60 and £4.30 in 1998.

allows us to assess the magnitude of any changes in the differential.[12] If the parameter q is positive, it shows that gender pay gap narrowed between 1998 and 1999, other things equal. Since Tables 2 and 3 reveal that gender pay issues of workers in London are quite different to the other parts of Britain, we estimate these difference-in-difference estimations for London and elsewhere and compare the effects.

Table 7 summarises the results. For the group of workers paid below the NMW in 1998, there was a female to male premium in 1998 of 6 log points (a figure that remains practically unchanged upon the addition of control variables). This is in sharp contrast to the rest of the wage distribution. Table 3 is consistent with this: men are located further away, on average, from the £3.60 cut-off. The female-year interaction term reveals that the gender pay gap following the advent of the NMW for the same group paid below £3.60 worsened by 14 log points. However, for those workers that were paid well above the NMW, the relative position of women worsened only by around 2 log points in 1999. It would appear that the NMW did have the most impact on the gender pay gap where expected although this was for the most part due to men making higher relative gains.

The second panel of Table 7 suggests the absence of any significant regional difference in these effects. There appears to have been, first, a gender pay premium at the bottom for both London and elsewhere; and, second, the relative gain in the male position after the advent of the NMW. Higher up the wage distribution, the adjusted gender pay gap in London was smaller than elsewhere in 1998, but the subsequent change in the gender pay gap was less than at the bottom in both London and elsewhere.

6 Conclusion

There is a dearth of British evidence on the regional issues associated with gender pay and the introduction of the NMW. The impact of the minimum wage on the gender pay gap is affected by both the distance away and the share of workers paid below the minimum. Since these characteristics vary across regions, this provides a "quasi" natural experiment with which to try and measure the effect of the introduction of the NMW. Using difference-in-differences estimation, the gender pay gap appears to have narrowed

[12] Of course, the same could be achieved by pooling across groups and running a specification with a triple interaction term. This would not, however, reveal the size of the gap in each group but only the relative changes.

by one to two percentage points more in regions where women comprise a relatively large share of the low paid and/or where the average distance between the NMW and the hourly rate before its introduction was larger, although these effects are not statistically significant. These effects also vary across regions according to the incidence of full- and part-time work status. The gender pay gap has, however, changed significantly more at the bottom of the wage distribution where the NMW would be expected to have a greater affect, although this does appear to have worked in favour of men who, on average, were paid much further below the minimum. As the NMW rates continue to change annually, further research should be aimed at assessing the regional variations of these changes.

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Figure 1. Nominal Hourly Wage Distributions by Region, 1998

(Source: Labour Force Survey)

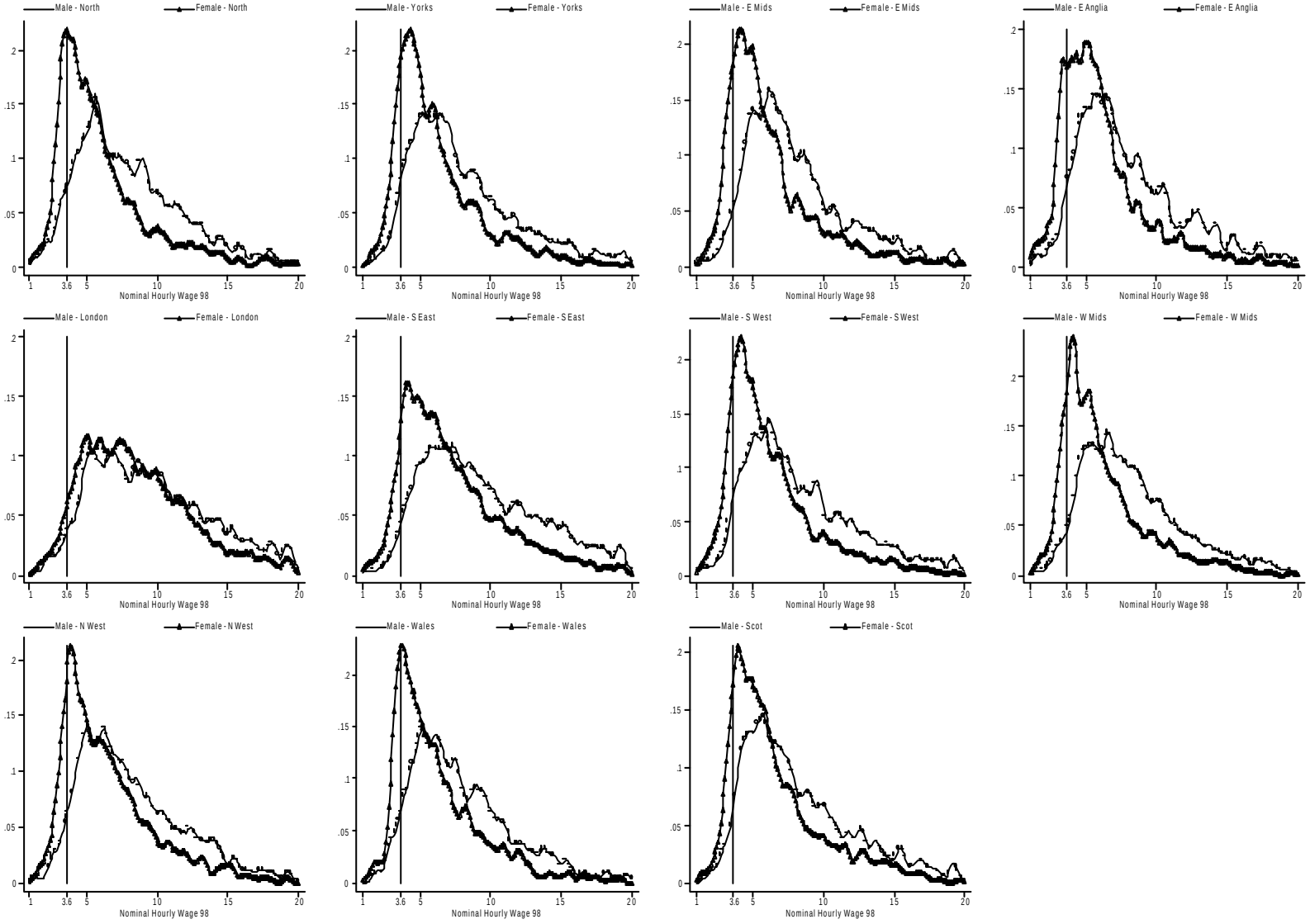


Figure 2. Nominal Hourly Wage Distributions by Region, 1999

(Source: Labour Force Survey)

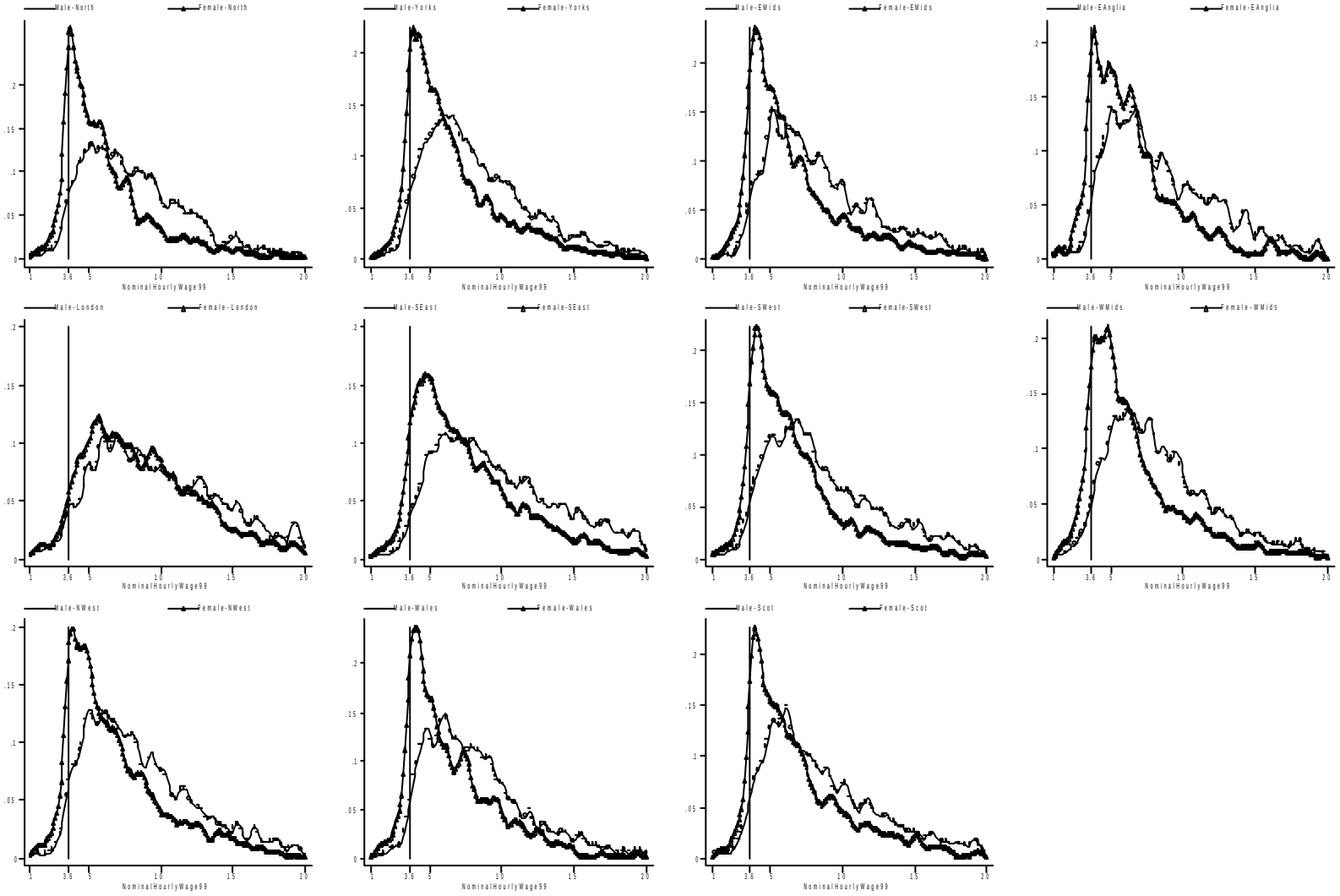
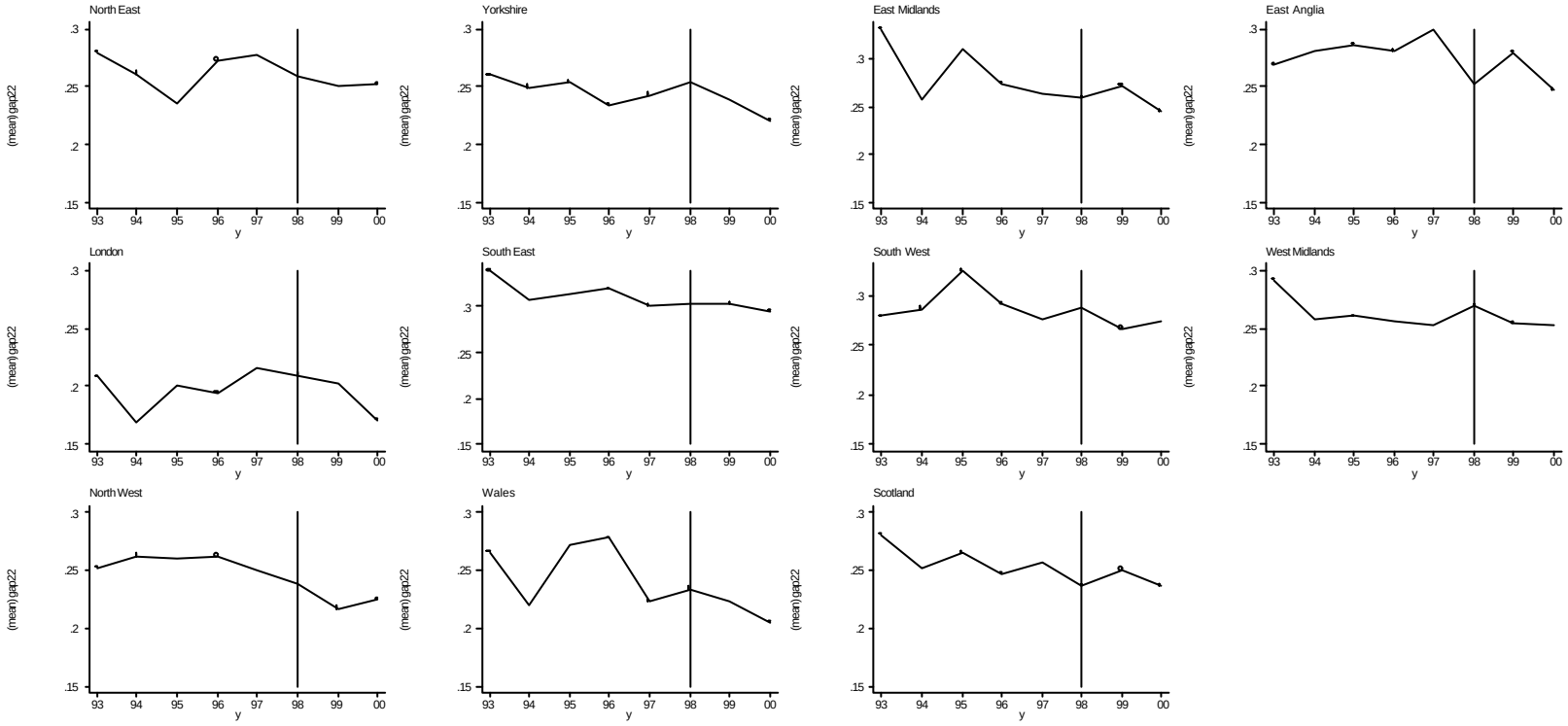


Figure 3. Gender Pay Gaps by Region for Adult Workers, 1993-2000
(Source: Labour Force Survey)



Regional Gender Pay Gaps

Table 1. Proportion of Employees Paid Less Than £3.60 (Adults 22+)

	1997	*1998*	*1999*	*2000*
Total	.121	.101	.078	.063
	(.001)	(.001)	(.001)	(.001)
North East	.157	.156	.114	.097
	(.006)	(.006)	(.006)	(.005)
Yorkshire	.149	.118	.095	.082
	(.005)	(.004)	(.004)	(.004)
East Midlands	.142	.118	.092	.077
	(.005)	(.005)	(.004)	(.004)
East Anglia	.137	.122	.088	.062
	(.007)	(.007)	(.006)	(.006)
London	.068	.054	.047	.037
	(.003)	(.003)	(.003)	(.003)
South East	.091	.071	.055	.049
	(.003)	(.002)	(.002)	(.002)
South West	.139	.117	.087	.066
	(.005)	(.004)	(.004)	(.004)
West Midlands	.126	.109	.090	.069
	(.004)	(.004)	(.004)	(.004)
North West	.139	.115	.088	.066
	(.004)	(.004)	(.004)	(.003)
Wales	.147	.131	.088	.071
	(.007)	(.006)	(.005)	(.005)
Scotland	.125	.103	.084	.061
	(.004)	(.004)	(.004)	(.003)

Note. 1. Proportions are weighted using the LFS sample weights. 2. Standard errors are in parentheses. They are the standard errors for sample proportions. 3. 1997 represents the year between April 1996 and March 1997; 1998 the year between April 1997 and March 1998 and so on. This is because the NMW was first introduced in April 1999.

4. The minimum wage is set in nominal terms. For this reason, these figures relate to the nominal benchmark.

Table 2. Proportion of Employees Paid Less Than £3.60 (Adults 22+)

		1997	*1998*	*1999*	*2000*
Total	- Men	.064	.053	.043	.036
		(.001)	(.001)	(.001)	(.001)
	- Women	.179	.149	.115	.091
		(.002)	(.002)	(.002)	(.002)
North East	- Men	.074	.084	.058	.055
		(.006)	(.007)	(.006)	(.006)
	- Women	.238	.226	.170	.139
		(.010)	(.010)	(.009)	(.009)
Yorkshire	- Men	.077	.061	.054	.053
		(.005)	(.004)	(.004)	(.005)
	- Women	.218	.174	.136	.109
		(.008)	(.007)	(.007)	(.006)
East Midlands	- Men	.066	.052	.045	.041
		(.005)	(.005)	(.004)	(.004)
	- Women	.218	.185	.139	.113
		(.009)	(.008)	(.008)	(.007)
East Anglia	- Men	.061	.063	.035	.023
		(.007)	(.007)	(.005)	(.005)
	- Women	.219	.185	.144	.102
		(.012)	(.001)	(.011)	(.010)
London	- Men	.054	.041	.040	.030
		(.004)	(.003)	(.003)	(.003)
	- Women	.081	.067	.054	.044
		(.005)	(.004)	(.004)	(.004)
South East	- Men	.046	.034	.028	.027
		(.003)	(.002)	(.002)	(.002)
	- Women	.139	.107	.083	.071
		(.004)	(.004)	(.004)	(.003)
South West	- Men	.069	.062	.045	.030
		(.005)	(.005)	(.004)	(.003)
	- Women	.207	.170	.128	.102
		(.008)	(.007)	(.006)	(.006)
West Midlands	- Men	.063	.050	.045	.040
		(.004)	(.004)	(.004)	(.004)
	- Women	.193	.170	.138	.098
		(.007)	(.006)	(.006)	(.006)
North West	- Men	.077	.063	.049	.032
		(.005)	(.004)	(.004)	(.003)
	- Women	.199	.165	.124	.099
		(.007)	(.007)	(.006)	(.006)
Wales	- Men	.077	.067	.042	.049
		(.007)	(.007)	(.005)	(.006)
	- Women	.214	.192	.132	.093
		(.011)	(.010)	(.009)	(.008)
Scotland	- Men	.068	.057	.049	.030
		(.005)	(.004)	(.004)	(.003)
	- Women	.181	.146	.116	.090
		(.007)	(.006)	(.006)	(.006)

Note. See Table 1 above.

Table 3. Mean Hourly Wage Distance of Low Paid Employees From £3.60

		1998 (£)
Total	- Men	0.82
	- Women	0.69
North East	- Men	0.83
	- Women	0.64
Yorkshire	- Men	0.72
	- Women	0.69
East Mids	- Men	0.84
	- Women	0.63
East Anglia	- Men	0.77
	- Women	0.72
London	- Men	0.98
	- Women	0.81
South East	- Men	0.87
	- Women	0.78
South West	- Men	0.83
	- Women	0.67
West Mids	- Men	0.86
	- Women	0.69
North West	- Men	0.78
	- Women	0.67
Wales	- Men	0.74
	- Women	0.59
Scotland	- Men	0.72
	- Women	0.65

Note: Sample is for adults: years 22+.

Table 4. Unadjusted and Adjusted Gender Pay Gaps by Region, 1997–2000: Adults

		1997	*1998*	*1999*	*2000*
		I	II	III	IV
North East	- Unadjusted	-0.334	-0.303	-0.293	-0.293
		(0.017)**	(0.019)**	(0.019)**	(0.018)**
	- Adjusted	-0.190	-0.147	-0.160	-0.162
		(0.018)**	(0.019)**	(0.019)**	(0.018)**
Yorkshire	- Unadjusted	-0.287	-0.285	-0.264	-0.249
		(0.014)**	(0.014)**	(0.015)**	(0.015)**
	- Adjusted	-0.184	-0.163	-0.146	-0.177
		(0.014)**	(0.014)**	(0.015)**	(0.015)**
East Midlands	- Unadjusted	-0.304	-0.299	-0.306	-0.278
		(0.015)**	(0.015)**	(0.016)**	(0.017)**
	- Adjusted	-0.188	-0.175	-0.192	-0.151
		(0.015)**	(0.015)**	(0.016)**	(0.016)**
East Anglia	- Unadjusted	-0.359	-0.308	-0.323	-0.288
		(0.021)**	(0.022)**	(0.025)**	(0.025)**
	- Adjusted	-0.215	-0.166	-0.204	-0.162
		(0.023)**	(0.022)**	(0.024)**	(0.025)**
London	- Unadjusted	-0.187	-0.197	-0.191	-0.159
		(0.014)**	(0.014)**	(0.016)**	(0.016)**
	- Adjusted	-0.096	-0.088	-0.086	-0.066
		(0.012)**	(0.013)**	(0.014)**	(0.014)**
South East	- Unadjusted	-0.343	-0.350	-0.335	-0.338
		(0.010)**	(0.010)**	(0.011)**	(0.014)**
	- Adjusted	-0.183	-0.179	-0.181	-0.177
		(0.010)**	(0.010)**	(0.010)**	(0.011)**
South West	- Unadjusted	-0.316	-0.318	-0.307	-0.326
		(0.014)**	(0.014)**	(0.015)**	(0.015)**
	- Adjusted	-0.155	-0.173	-0.163	-0.171
		(0.014)**	(0.014)**	(0.015)**	(0.015)**
West Midlands	- Unadjusted	-0.303	-0.323	-0.299	-0.278
		(0.013)**	(0.013)**	(0.014)**	(0.014)**
	- Adjusted	-0.196	-0.218	-0.198	-0.165
		(0.013)**	(0.013)**	(0.014)**	(0.014)**
North West	- Unadjusted	-0.282	-0.266	-0.245	-0.256
		(0.013)**	(0.014)**	(0.015)**	(0.014)**
	- Adjusted	-0.164	-0.143	-0.123	-0.168
		(0.013)**	(0.013)**	(0.014)**	(0.014)**
Wales	- Unadjusted	-0.269	-0.276	-0.264	-0.210
		(0.019)**	(0.019)**	(0.020)**	(0.020)**
	- Adjusted	-0.164	-0.172	-0.182	-0.169
		(0.019)**	(0.019)**	(0.021)**	(0.020)**
Scotland	- Unadjusted	-0.285	-0.259	-0.266	-0.261
		(0.013)**	(0.014)**	(0.015)**	(0.014)**
	- Adjusted	-0.179	-0.157	-0.160	-0.194
		(0.013)**	(0.013)**	(0.015)**	(0.014)**

Note. 1. Standard errors adjusted for individual clustering in parentheses. 2. Double asterisk notes significance at1% level.
3. Regional, industry, marital status, education, ethnicity, temporary job status also included but results not reported. 4. Dependent Variable: Log real hourly wage. 5. Each year estimate runs from April to the following March respectively.

Table 5. Difference-in-differences estimation of the Pay Gaps by Region, Pooled Years 1998 – 1999

	Unadjusted	*Adjusted*
	(I)	(II)
Woman	-0.199	-0.100
	(0.014)**	(0.011)**
Year 1999 dummy	0.019	0.018
	(0.015)	(0.012)
1999 * woman	0.008	-0.006
	(0.020)	(0.016)
1999 * north * woman	0.004	0.012
	(0.032)	(0.025)
1999 * yorks * woman	0.016	0.027
	(0.027)	(0.022)
1999 * e midlands * woman	-0.017	-0.015
	(0.029)	(0.023)
1999 * e anglia * woman	-0.024	-0.005
	(0.036)	(0.029)
1999 * s east * woman	0.005	0.017
	(0.024)	(0.019)
1999 * s west * woman	0.009	0.019
	(0.028)	(0.022)
1999 * w midlands * woman	0.020	0.040
	(0.027)	(0.021)
1999 * north west * woman	0.011	0.021
	(0.027)	(0.021)
1999 * wales * woman	0.006	0.013
	(0.032)	(0.026)
1999 * scot * woman	-0.015	0.001
	(0.027)	(0.021)
Observations	121659	121659
R-squared	0.11	0.46

Note. 1. White adjusted standard errors in parentheses. 2. Double asterisk notes significance at 1% level. 3. Region, industry, marital status, education, ethnicity, temporary job status also included but results not reported. 4. Dependent Variable: Log real hourly wage. 5. Each year estimate runs from April to the following March respectively. 6. Dependent Variable: Log real hourly wage. The *year 1999 (WOMAN) region j* term represents the interaction of the year (1999), female and regional dummy. 6. Estimation carried out on the full adult sample.

Table 6. Difference-in-differences estimation of the Pay Gaps by Region, Pooled Years 1998 – 1999, Part-time / Full-time Analysis

	Part-timers		*Full-timers*	
	Unadjusted	Adjusted	Unadjusted	Adjusted
	I	II	III	IV
Woman	-0.426	-0.066	-0.096	-0.086
	(0.020)**	(0.019)**	(0.014)**	(0.012)**
Year 1999 dummy	0.019	0.019	0.019	0.018
	(0.015)	(0.012)	(0.015)	(0.012)
1999 * woman	-0.008	-0.012	0.011	-0.003
	(0.028)	(0.023)	(0.021)	(0.017)
1999*north* woman	0.032	0.033	0.001	-0.007
	(0.041)	(0.034)	(0.035)	(0.028)
1999 *yorks* woman	0.042	0.038	0.010	0.022
	(0.036)	(0.030)	(0.030)	(0.024)
1999* e mids *woman	-0.015	-0.036	-0.006	0.003
	(0.038)	(0.032)	(0.032)	(0.025)
1999*e anglia* woman	-0.008	0.001	-0.035	-0.005
	(0.048)	(0.040)	(0.041)	(0.032)
1999 *s east *woman	0.027	0.028	-0.002	0.011
	(0.033)	(0.027)	(0.026)	(0.021)
1999*s west *woman	0.022	0.020	0.006	0.027
	(0.037)	(0.030)	(0.031)	(0.024)
1999* w mids *woman	0.039	0.045	0.011	0.039
	(0.036)	(0.030)	(0.030)	(0.023)
1999 *north west* woman	0.012	0.023	0.008	0.023
	(0.037)	(0.030)	(0.030)	(0.023)
1999*wales*woman	0.061	0.049	-0.023	-0.013
	(0.042)	(0.036)	(0.036)	(0.029)
1999 *scot* woman	-0.013	-0.009	0.006	0.009
	(0.037)	(0.030)	(0.030)	(0.023)
Observations	86780	86780	95455	95455
R-squared	0.17	0.48	0.06	0.42

Note. 1. White adjusted standard errors in parentheses. 2. Double asterisk notes significance at 1% level. 3. Region, industry, marital status, education, ethnicity, temporary job status also included but results not reported. 4. Dependent Variable: Log real hourly wage. 5. Each year estimate runs from April to the following March respectively. 6. Dependent Variable: Log real hourly wage. The *year 1999 (WOMAN) region j* term represents the interaction of the year (1999), female and regional dummy. 6. Columns I and II, the sample represents all men along with women working part-time. Columns III and IV, the sample represents all men along with women working full-time.

Table 7. Difference-in-differences estimation of the Pay Gaps by Region, Panel Subset: Below and Above Analysis

	Below NMW	*At NMW*	*Well Above NMW*	*Below NMW - London*	*Below NMW - Not London*	*Well Above NMW – London*	*Well Above NMW - Not London*
Unadjusted Woman	0.061	-0.006	-0.178	0.112	0.057	-0.208	-0.179
(base year)	(0.015)*	(0.002)*	(0.007)*	(0.071)	(0.015)*	(0.024)*	(0.007)*
1999* Woman	-0.142	-0.081	-0.024	-0.102	-0.142	0.006	-0.027
	(0.024)*	(0.016)*	(0.010)*	(0.131)	(0.025)*	(0.036)	(0.011)*
Observations	4600	3854	33810	234	4366	3570	30240
R^2	0.212	0.074	0.039	0.285	0.208	0.036	0.042
Adjusted Woman	0.057	-0.006	-0.110	0.152	0.053	-0.076	-0.118
(base year)	(0.017)*	(0.005)	(0.006)*	(0.081)	(0.017)*	(0.021)*	(0.006)*
Adjusted 1999*	-0.139	-0.079	-0.020	-0.104	-0.139	0.007	-0.025
Woman	(0.024)*	(0.015)*	(0.009)*	(0.123)	(0.024)*	(0.030)	(0.009)*
Observations	4600	3854	33810	234	4366	3570	30240
	0.254	0.108	0.334	0.422	0.249	0.331	0.343

Note. 1. White adjusted standard errors in parentheses. 2. Single asterisk notes significance at 5% level. 3. Region, industry, marital status, education, ethnicity, temporary job status also included but results not reported. 4. Dependent Variable: Log real hourly wage. 5. Each year estimate runs from April to the following March respectively. 6. Dependent Variable: Log real hourly wage. The *year 1999 (WOMAN)* term represents the interaction of the year (1999) and female dummy.

Appendix

Table A1. Descriptive Statistics, Labour Force Survey, 1995 – 2000

	2000		*1999*		*1998*		*1995*	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Real Hourly wage	8.89	5.6	8.68	5.4	8.43	5.3	8.27	5.1
Log hourly wage	2.0	.55	2.0	.54	2.0	.54	1.9	.56
Woman	.50	.50	.50	.50	.50	.50	.50	.50
Part-time	.24	.43	.24	.43	.24	.43	.23	.42
Experience	23.0	11.2	22.8	11.3	22.8	11.3	22.3	11.3
Experience^2	656	546.2	645.0	546.6	645.0	546.6	624.7	545.1
Tenure	8.1	8.3	8.1	8.2	8.1	8.2	8.2	8.1
Tenure2	134	243.5	132.3	240.5	132.3	240.5	132.4	238.4
White	.96	.20	.96	.20	.96	.20	.96	.19
Mining: ind3	.00	.06	.00	.07	.00	.07	.01	.07
Manuf: ind4	.19	.39	.19	.39	.19	.39	.21	.41
Utilities: ind5	.01	.09	.01	.09	.01	.09	.01	.10
Construction: ind6	.05	.22	.05	.21	.05	.21	.04	.20
Retail: ind7	.13	.34	.14	.34	.14	.34	.14	.35
Hotels: ind8	.03	.17	.03	.18	.03	.18	.03	.18
Transport: ind9	.07	.26	.07	.25	.07	.25	.07	.25
Finance: ind10	.05	.22	.05	.22	.05	.22	.05	.22
Estate: ind11	.10	.32	.10	.30	.10	.30	.09	.28
Public admin: ind12	.08	.27	.08	.26	.08	.26	.07	.26
Education: ind13	.10	.30	.10	.30	.10	.30	.09	.29
Health: ind14	.13	.34	.13	.33	.13	.33	.13	.33
Agric :ind12	.01	.09	.01	.09	.01	.09	.01	.10
Private	.70	.46	.70	.46	.70	.46	.69	.46
Small	.17	.37	.17	.37	.17	.37	.17	.37
Medium	.28	.45	.27	.45	.27	.45	.27	.45
Large	.56	.50	.56	.50	.56	.50	.56	.50
Temp	.06	.23	.06	.23	.06	.23	.06	.24
Married: 2	.64	.48	.64	.48	.64	.48	.67	.47
Separated 3	.03	.17	.03	.17	.03	.17	.02	.15
Divorced 4	.08	.28	.08	.28	.08	.28	.07	.26
Widowed 5	.01	.11	.01	.11	.01	.11	.01	.11
No. child < 19	.81	1.0	.80	1.0	.80	1.0	.79	1.0
Nursing qual: q2	.10	.30	.10	.30	.10	.30	.10	.30
A level: q3	.06	.24	.06	.23	.06	.23	.06	.23
GNVQ q4	.05	.22	.05	.21	.05	.21	.05	.03
O level q5	.19	.39	.19	.39	.19	.39	.19	.39
BTEC q6	.15	.36	.15	.36	.15	.36	.16	.36
CSE < grade 1 q7	.04	.19	.04	.20	.04	.20	.05	.22
NVQ q8	.06	.30	.10	.30	.10	.30	.11	.31
No quals q9	.11	.31	.11	.32	.11	.32	.14	.35
Observations	52322		49173		49173		32116	

Table A2. Quantile Regression Estimates of the Gender Pay Gap (Adults 22 plus)

	Unadjusted			Adjusted		
1998	*10th*	*Median*	*90th*	*10 th*	*Median*	*90th*
North	-.243**	-.359**	-.233**	-.086**	-.146**	-.204**
	(.029)	(.024)	(.040)	(.025)	(.018)	(.040)
Yorks	-.211**	-.298**	-.278**	-.104**	-.161**	-.219**
	(.016)	(.018)	(.024)	(.019)	(.016)	(.026)
East Mids	-.304**	-.322**	-.256**	-.140**	-.180**	-.229**
	(.021)	(.020)	(.028)	(.023)	(.016)	(.026)
East Ang	-.285**	-.305**	-.320**	-.098*	-.171**	-.204**
	(.035)	(.025)	(.050)	(.042)	(.027)	(.044)
London	-.148**	-.183**	-.309**	-.043*	-.082**	-.168**
	(.023)	(.016)	(.027)	(.021)	(.013)	(.021)
South East	-.275**	-.357**	-.390**	-.131**	-.171**	-.236**
	(.013)	(.011)	(.021)	(.016)	(.010)	(.018)
South West	-.233**	-.329**	-.328**	-.130**	-.163**	-.218**
	(.022)	(.022)	(.029)	(.022)	(.015)	(.029)
West Mids	-.307**	-.360**	-.273**	-.192**	-.207**	-.237**
	(.018)	(.015)	(.022)	(.018)	(.015)	(.021)
North West	-.240**	-.272**	-.219**	-.114**	-.117**	-.215**
	(.021)	(.014)	(.021)	(.025)	(.015)	(.024)
Wales	-.231**	-.304**	-.258**	-.124**	-.173**	-.263**
	(.021)	(.023)	(.030)	(.028)	(.022)	(.039)
Scot	-.196**	-.267**	-.231**	-.105**	-.148**	-.241**
	(.018)	(.018)	(.024)	(.021)	(.015)	(.026)
1999						
North	-.186**	-.339**	-.217**	-.117**	-.134**	-.237**
	(.026)	(.024)	(.054)	(.025)	(.022)	(.031)
Yorks	-.196**	-.286**	-.235**	-.093**	-.162**	-.211**
	(.017)	(.018)	(.028)	(.021)	(.014)	(.034)
East Mids	-.227**	-.327**	-.293**	-.153**	-.185**	-.249**
	(.021)	(.023)	(.032)	(.026)	(.020)	(.033)
East Ang	-.209**	-.303**	-.389**	-.143*	-.184**	-.280**
	(.025)	(.037)	(.046)	(.038)	(.026)	(.046)
London	-.133**	-.176**	-.302**	-.029	-.067**	-.133**
	(.019)	(.019)	(.027)	(.025)	(.015)	(.023)
South East	-.257**	-.334**	-.391**	-.115**	-.164**	-.249**
	(.014)	(.014)	(.020)	(.014)	(.012)	(.020)
South West	-.237**	-.310**	-.286**	-.111**	-.161**	-.217**
	(.018)	(.019)	(.033)	(.020)	(.016)	(.023)
West Mids	-.238**	-.322**	-.273**	-.146**	-.196**	-.239**
	(.016)	(.019)	(.029)	(.022)	(.016)	(.027)
North West	-.193**	-.280**	-.221**	-.075**	-.129**	-.183**
	(.021)	(.016)	(.025)	(.023)	(.014)	(.026)
Wales	-.206**	-.288**	-.254**	-.114**	-.181**	-.203**
	(.024)	(.033)	(.033)	(.030)	(.022)	(.033)
Scot	-.185**	-.274**	-.285**	-.103**	-.159**	-.252**
	(.020)	(.020)	(.028)	(.022)	(.015)	(.029)

Note. 1. The standard errors (in parentheses) were obtained by the bootstrapping method using 100 replications. Other notes see table 4. 2. Quantile regression estimates of the difference-in-differences model are available from the author on request.

Table A3 Low Paid Women in Part-time work by Region 1998

	North	*Yorks*	*East Mids*	*East Anglia*	*London*	*South East*	*South West*	*West Mids*
All Women	.46	.46	.46	.47	.31	.42	.49	.45
PT Share of low paid	.71	.72	.71	.72	.64	.73	.76	.70
Share of PT women who are low paid	.32	.24	.26	.26	.12	.17	.24	.24
Mean Distance from NMW	0.62	0.69	0.62	0.71	0.78	0.73	0.66	0.63
Mean Distance relative to all men	-0.21	-0.03	-0.22	-0.06	-0.20	-0.14	-0.17	-0.20

Note: 1. Source: LFS 2. Distance represents the 1998 mean hourly wage distance away from the NMW in pounds.

Table A4 Low Paid Women in Full-time work by Region 1998

	North	*Yorks*	*East Mids*	*East Anglia*	*London*	*South East*	*South West*	*West Mids*
FT Share of low paid	.29	.28	.29	.28	.36	.27	.24	.30
Share of FT women who are low paid	.11	.08	.09	.09	.03	.05	.07	.09
Mean Distance from NMW	0.67	0.71	0.66	0.75	0.85	0.91	0.71	0.80
Mean Distance relative to all men	-0.16	-0.01	-0.18	-0.02	-0.13	0.04	-0.12	-0.06

Note: 1. Source: LFS 2. Distance represents the 1998 mean hourly wage distance away from the NMW in pounds.