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Workplaces, Low pay and the Gender Earnings Gap in Britain.

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Report for the Low Pay Commission

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1. Introduction

This study provides a robust assessment of the importance of a number of determinants of the gaps in earnings between the four groups of employees who make up the British workforce; males and females who work full and part-time. The analysis considers the contribution of individual employee characteristics as well as occupation, industry, region and other workplace specific characteristics. The results are compared with previous findings for 2004 (Mumford and Smith, 2009) and with alternative data from the ASHE series for 2004, 2011 and 2015.

2. Data

The primary sources of data used in this study are the British Workplace Employee Relations Survey 2004 (WERS04)[1]; the British Workplace Employee Relations Survey 2011 (WERS11)[2]; and the Annual Survey of Hours and Earnings (ASHE) 2004, 2011 and 2015.

WERS04 and WERS11 are the fifth and sixth surveys in the WERS series, the WERS are nationally representative surveys of workplaces with 5 or more employees[3]. A workplace comprises the activities of a single employer at a single set of premises. Face-to-face interviews for these WERS were conducted with a senior manager (with day-to-day responsibility for employee relations). At those workplaces responding to the manager survey, a questionnaire was presented to 25 randomly selected employees (in workplaces with more than 5 employees) or to all the employees (in workplaces with fewer than 26 employees). The entire 2004 surveying process resulted in 2,295 completed workplace surveys, with 22,451 completed employee questionnaires from 1,733 of these workplaces. In 2011 there were 2,680 completed workplace surveys, with 21,981 completed employee questionnaires.

[1] Department of Trade and Industry (2006). Workplace Employee Relations Survey: Cross-Section, 2004 (computer file). 5th ed. Colchester: The Data Archive (distributor). SN: 5294.

[2] The Workplace Employment Relations Study (WERS) was conducted by NatCen Social Research on behalf of the Department for Business, Innovation and Skills, the Economic and Social Research Council, the UK Commission for Employment and Skills, the Advisory, Conciliation and Arbitration Service and the National Institute of Economic and Social Research. The data was distributed by the UK Data Archive at the University of Essex. Workplace Employee Relations Survey: Cross-Section, 2011 (computer file). 2nd ed. Colchester: The Data Archive (distributor).

WERS is a stratified random sample, and larger workplaces and some industries are over-represented. The data have been weighted throughout this study to allow for the complex survey design and thus represent the sampling population (Deaton, 1998; WERS (2014; 26-36)). All of the empirical results that follow use workplace and employee sampling weights when possible. Retaining only those individuals who have complete information for the variables used in the analyses below leaves us with over 20,000 employees from more that 1,700 workplaces in 2004; and almost 18,000 workers from more than 1,800 workplaces in 2011.

The Office for National Statistics (ONS) collect the ASHE from a 1 per cent survey of employee jobs from HM Revenue and Customs Pay as Your Earn (PAYE) administrative records[4]. ASHE contains rich and detailed data on wages and hours earned in different industries and occupations but it covers a limited number of additional variables (for example, there are no measures of education or training for employees). We will use the ASHE data to provide us with information on how average hourly wages move across the earnings distributions for the groups of employees of primary interest in this study.

3. Earnings and the earning gaps

The measure of earnings used is average hourly earnings for each employee.[5] This is calculated by dividing the employee's gross (before tax and other deductions) weekly wages by the hours they usually work each week (including any overtime and extra hours). Whilst usual hours worked is a continuous measure, the survey responses for gross weekly wages are banded in the WERS data set. There are 14 bands and the midpoints of these bands are used. Any employees showing an hourly rate of pay below £1 or above £100 are excluded from the dataset. A part-time employee is defined to be working 30 or fewer hours per week, a common definition used in the UK.

[3] The industries excluded from WERS are agriculture, hunting and forestry; fishing; mining and quarrying; private households with employed persons; and extra-territorial organisations and bodies.
[4] http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/previousReleases
[5] Full definitions of the variables are provided in Appendix 1 Table A1.1.

Table 3.1 presents the nominal log average hourly wage for different groups in the workforce in 2004 (column 1) and 2011 (column 2), column 3 presents the difference between these values. On average, we can see that the male hourly wage has increased by 0.226 log points between 2004 and 2011, whilst the female hourly wage has risen by 0.250.

Table 3.1. Log average log hourly wages nominal, 2004 and 2011.

Groups	Ave hourly wage 2004 (1)	Ave hourly wage 2011 (2)	Change (3)
Males	2.234	2.460	+0.226
Females	2.030	2.280	+0.250
Full-Time workers	2.191	2.449	+0.258
Part-Time workers	1.969	2.113	+0.144
Female Full-Time workers	2.109	2.377	+0.268
Male Full-Time workers	2.249	2.499	+0.250
Female Part-Time workers	1.930	2.120	+0.190
Male Part-Time workers	2.131	2.087	-0.044

Source: WERS 2004 and 2011; results for 2004 taken from Mumford and Smith, 2009.

The major change that has occurred between 2004 and 2011 is that the relative pay of part-time employees has fallen (the pay of part-time employees only rose by 0.144 points relative to the 0.258 rise for full-time employees). This is particularly true for part-time male employees. The average hourly wage rate for male part-time employees actually declined 0.044 log points over the time period; this is the only group where a decline in the average nominal wage rate is found. As the pay of one group declines and the pay of another group increases, the pay gap between the groups will clearly grow. The average male part-time hourly wage was substantially higher than that for female part-time employees in 2004, however, by 2011 these females can be seen to be earning slightly more than the males. We turn to consider measures of the earnings gaps between groups of employees next.

3.1 Measuring the earnings gaps

Table 3.2 presents earnings gaps (or differences) in the average hourly pay of the comparison groups, measured in log per cent. As discussed above, what sits behind these gaps are the relative shifts in average hourly wage levels for the groups reported in Table 3.1. For example, in 2004 the mean earnings gap between men and women was 20.4 log per cent as seen in column 1 of Table 3.2, this value comes from (2.234-2.03) column 1 of Table 3.1 scaled by 100, by 2011 this raw gender earnings gap had fallen to 18 log per cent (column 2 of Table 3.2); a decline of 2.4 log percentage points (column 3 of Table 3.2). In 2004 the pay gap between full-time and part-time employees in Britain was 22.2 log per cent, by 2011 this gap had risen substantially to 33.6 log per cent; an increase of 11.4 log percentage points. So, whilst the average gender earnings gap has declined over this time period, the gap between full-time and part-time employees has increased considerably.

Table 3.2. Raw gender earnings gaps in log per cent, 2004 and 2011.

Comparison groups	Total gap 2004 (1)	Total gap 2011 (2)	Change (3)
Men versus Women	20.40	18.0	-2.40
Full-Time versus Part-Time	22.20	33.60	+11.4
Male Full-Time versus Female Full-Time	14.01	12.22	-1.79
Male Full-Time versus Female Part-Time	31.82	37.96	+6.14
Female Full-Time versus Female Part-Time	17.91	25.74	+7.83
Male Full-Time versus Male Part-Time	11.71	41.26	+29.55
Female Full-Time versus Male Part-Time	-2.20	29.0	+31.2
Male Part-time versus Female Part-Time	20.11	-3.30	-23.41

Source: WERS 2004 and 2011; results for 2004 taken from Mumford and Smith, 2009.

Working part-time is much more common in Britain for women than for men[6], dividing the data by gender and employment status (full-time versus part-time) reveals partially offsetting movements in the raw earnings gaps. We can see in Table 3.2 that

the gender earnings gap between full-time employees has declined slightly over the time period (falling by 1.8 log percentage points). Comparing either male full-time employees, or female full-time employees, with female part-time employees shows a modest decline in the relative pay of female part-timers (with the gaps increasing by 6.1 and 7.8 log percentage points respectively). In sharp contrast, the gap between male full-time, or female full-time employees, and male part-time employees has increased dramatically (by 29.6 and 31.2 log percentage points respectively). In the case of female full-timers, in 2004 they were earning less on average than male part-timers per hour (see Table 3.1) by 2011 they were earning considerably more.

Finally, the last row of Table 3.2 reveals a substantial relative decline in the pay of male part-time employees compared with female part-time employees; leading to a small gender gap between part-time employees of 3.3 log percentage points (in favour of women). In contrast, the gaps between full-time and part-time employees are substantial and increasing, they are consistently larger in 2011 than they were in 2004. Of particular note is the raw earnings gap for male full-time versus male part-time employees which has risen from 11.71 log per cent to 41.26 log per cent; this is the largest pay gap recorded in the table.

3.2 The determinants of earnings

3.2.1 Individual characteristics

Most authors adopt the human capital model as the theoretical basis for the earnings function. This approach will also be used here. At the individual employee level, it is assumed that wages increase with measures of accumulated skills via work experience, education and training.

Measures of work experience are usually assumed to be positively related to wages via the ability to acquire skills over the time period the employee has spent working. Typically, studies do not have data on the history of actual lifetime work experience across firms for individuals. Instead proxies are provided, the most common of which is potential experience: the age of the individual minus years spent in education and infancy. This may lead to difficulties interpreting the relationship

[6] In 2004 40.4% of women worked part-time, 12% of the men did; in 2011, 39.8% of the women worked part-time and 10.5% of the men did. Full tables of summary statistics for the 2004 and 2011 data are provided in Appendix 1 (Table A1.1 and A1.2 for 2004; and Tables A1.8 and A1.9 for 2011).

between work experience and earnings if the individual was not actually employed during substantial parts of their life (such as the long-term unemployed or mothers who have taken time out of the labour force to care for their children) or if the individual has spent substantial periods engaged in part-time rather than full-time employment. WERS also does not have information on actual experience over one's working life; potential experience (age minus (education and infant years)) is instead used and the results need to interpreted with this caveat in mind. Educational achievement is identified by the highest qualification the individual has received and training by the number of days the individual has spent in employer-provided training in the last year.

The earnings function is augmented with the inclusion of further categories of explanatory variables capturing individual employee characteristics such as demographic variables (including the presence of dependent children, marital status, ethnic identification, and physical disability); individual job characteristics (being on a fixed term contract, and trade union membership); and occupation.

3.2.2 Workplace characteristics

A range of workplace characteristics are included in the analyses. These can be grouped in to two broad categories: those common across workplaces (industry and region) and those that are workplace specific.

The workplace specific characteristics can be considered in clusters: physical and market conditions; high performance workplace practices (HPP); and industrial relations measures. Physical and market conditions are captured by: workplace age; workplace size; whether the firm has multiple UK work sites; whether the workplace is foreign controlled; and whether the workplace is facing increasing market demand. High performance workplace practices (HPP) are practices which have been found to be positively associated with employee wages and are postulated gued to be associated with increased productivity (Freeman and Lazear, 1995; Black and Lynch, 2004). The measures of HPP included are: an index of family friendly practices; an index of the extent of employer and employee interaction; and employee belief of what salary is based on (seniority or job grade). Workplace industrial relations measures include: an index of industrial relations (IR) measures; and whether or not the workplace has a formal written equal opportunity policy.

As referred to above, full tables of summary statistics for the 2004 and 2011 data are provided in Appendix 1 (Table A1.1 and A1.2 for 2004; and Tables A1.8 and A1.9 for 2011). To summarise these many characteristics succinctly, much of the difference between full-time and part-time employees comes from the characteristics of the female part-time workforce. These women have fewer university degrees, are less likely to be from a non-white ethnic background, and have longer current job tenure (than part-time males). They are much more likely to have a young dependent child and to work as clerks, in sales or in personal services. They are concentrated in the retail trades, education, and the health sectors. They are also very likely to work in female dominated workplaces and occupations.

In contrast, part-time males tend to be younger, single, on a fixed term contract, not be a trade union member, and be employed in sales or unskilled occupations. Compared with male full-time employees they are also much more likely to work in a female dominated workplace or occupation. There is little change in the average characteristics of males and females between 2004 and 2011.

4. Models and methods

4.1 The earnings function

The earnings equations that are estimated in this study are semi-logarithmic versions of:

$$W_i = \alpha + X_i\beta + Z_k\gamma + \varepsilon_i \quad (1)$$

where W_i is the natural log of the earnings of individual i; X_i is a vector of regressors measuring a range of individual characteristics; Z_k is a set of workplace characteristics; and ε_i is a residual term. We begin with a basic model which contains only the individual characteristics. We next extend this model by expanding the set of individual characteristics to include the occupational indicator variables as fixed occupation effects.

The role of the workplace is handled through Z_k including the workplace common characteristics (industry and region) and the set of workplace specific

characteristics descriptive of the physical market condition, high performance workplace practices, and the industrial relations measures.[7] The models are estimated using ordinary least squares applying appropriate weights reflecting the design of the dataset and are estimated separately for each of the groups of employees, male and female, full-time and part-time. Pooling of models for males and females is a common approach (see Bayard et al. 2003, for example). We take the view that models for part-time and full-time employees may be more likely to produce different parameters than those for all employees. This is borne out in the results presented below.

4.2 Decomposing the gender pay gap

The estimation results for the four groups of employees allow us to examine a number of earnings gaps. The approach we adopt to apportion the gap in the mean earnings of any two groups is that discussed in Oaxaca and Ransom (1994). In general, the decomposition of the mean earnings gap between groups of employees *a* and *b* is calculated as:

$$\bar{W}_a - \bar{W}_b = \left\{ \left(\bar{X}_a - \bar{X}_b \right) \hat{\beta}_a + \left(\bar{Z}_a - \bar{Z}_b \right) \hat{\gamma}_a \right\} + \left\{ \bar{X}_b \left(\hat{\beta}_a - \hat{\beta}_b \right) + \bar{Z}_b \left(\hat{\gamma}_a - \hat{\gamma}_b \right) \right\} \quad (2)$$

for the model described in equation (1) above. In this calculation $(\overline{X}_a - \overline{X}_b)\hat{\beta}_a$ captures the impact of the difference in the individual characteristics weighted by the parameters from the model for group *a*; $(\overline{Z}_a - \overline{Z}_b)\hat{\gamma}_a$ captures the impact of the difference in the characteristics of the workplaces where groups *a, b* work, again weighted by the parameters from the model for group *a*; and $\{\overline{Z}_b(\hat{\beta}_a - \hat{\beta}_b) + \overline{Z}_b(\hat{\gamma}_a - \hat{\gamma}_b)\}$ is the remaining unexplained gap.

In our decomposition results we present calculations of the total unexplained gap as well as the part of the unexplained gap that can be attributed to individual or groups of variables. As pointed out by Jann (2008) amongst others, there is a problem in interpreting these results for categorical variables where the results may depend on the choice of omitted category. We adopt the solution proposed by Jann, and

[7] We also consider workplace specific fixed effects when we discuss decomposing the gender pay gap; the Z_k are then fixed workplace specific effects and the estimates $\hat{\beta}$ are therefore within workplace estimates of the impact of the individual characteristics

implemented in Stata, that takes the standard coefficient estimates and computes the elasticities for all categories including the omitted category by reweighting.

5. Results: 2011.

5.1 Estimation results; earnings functions.

The estimates of the various earnings models for each of the groups of employees are presented in Tables 5.1, 5.2 and 5.3 for 2011.[8] The standard errors reported are robust to heteroskedasticity in the residuals of an unknown form. As discussed previously, all estimates employ complex survey weights.

Beginning with the results for the inclusion of individual characteristics alone, see Table 5.1, the estimates demonstrate the standard feature of the human capital model that earnings are increasing in potential experience but at a decreasing rate. This results from a positive coefficient on the level of potential experience and a small negative parameter on the squared level of potential experience. Higher educational achievement is found to be related to greater earnings, although this relationship is typically lower for part-time males. Training is also found to be positively related to higher wages; however, this relationship is not significant for part-time male employees in 2011.

The demographic control variables have mixed associations with earnings. Having children aged between 12 and 18 is negatively related to earnings only for women; however, having an infant (aged 0-4) is positively associated with wages for female part-time employees and a primary school child aged (5-11 years) with higher earnings for full-time men. There is typically a positive association between being married or partnered and higher wages but not for part-time males in 2011.

Being on a fixed term contract is only found to be significantly related to wages for part-time males in 2011, where it is associated with higher wages. There is

[8] Appendix 1 presents equivalent results for 2004 in Tables A1.4, A1.5 and A1.6, reproduced here from Mumford and Smith (2009).

Table 5.1. Basic earnings function (individual characteristics), 2011.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
potential experience	0.032	10.75*	0.035	11.16*	0.026	3.72*	0.025	5.92*
pot exp sqd (x1000)	-0.468	-8.17*	-0.596	-8.97*	-0.420	-3.32*	-0.346	-4.11*
Training	0.011	3.66*	0.010	3.17*	0.018	1.18	0.009	2.09*
education minimal is omitted								
Vocational	0.168	3.10*	0.234	4.13*	0.250	2.83*	0.108	2.36*
cse25	0.208	3.64*	0.337	5.67*	0.354	2.32*	0.162	2.75*
cse1	0.322	5.72*	0.414	8.10*	0.215	2.28*	0.256	6.19*
Ceae	0.380	5.86*	0.482	7.08*	0.233	2.52*	0.380	6.00*
ce2ae	0.430	6.89*	0.572	9.73*	0.377	3.23*	0.349	6.94*
Degree	0.709	12.23*	0.735	13.63*	0.548	5.80*	0.599	12.08*
Postgrad	0.809	13.41*	0.898	15.18*	0.616	4.71*	0.796	12.02*
Other	0.031	0.47	0.261	2.24*	0.023	0.20	-0.077	-1.50
child 0-4	0.034	1.47	0.053	1.59	-0.071	-0.48	0.220	6.43*
child 5-11	0.045	1.97*	0.007	0.16	-0.133	-1.28	0.027	0.78
child 12-18	0.038	1.61	-0.058	-2.69*	0.034	0.36	-0.075	-2.53*
Married	0.099	6.00*	0.067	3.90*	0.160	1.58	0.059	2.29*
Disabled	-0.176	-2.43*	-0.090	-1.15	-0.198	-1.49	0.062	0.98
Ethnic	-0.091	-2.62*	0.033	0.88	-0.167	-1.59	-0.004	-0.06
fixed contract	-0.035	-0.82	-0.026	-0.58	0.155	2.06*	-0.027	-0.58
Tenure	0.015	5.84*	0.013	4.58*	0.026	2.49*	0.026	7.69*
Union	-0.058	-3.18*	0.047	2.18*	0.031	0.45	0.106	4.02*
Constant	1.470	23.04*	1.305	23.77*	1.263	12.35*	1.186	21.75*
PSUs		1820		1820		1820		1820
No. observations		7048		5955		827		3933
Degrees freedom		1819		1819		1819		1819
R-squared		0.314		0.255		0.23		0.282

Source: WERS 2011. *significant at a 95% confidence level or above.

strong evidence of a positive return to current job tenure for all employees, with the rate of return being twice as high for part-time workers. Finally, the strong positive impact from being a member of a trade union found for part-time male employees in 2004 (Mumford and Smith, 2009) is no longer apparent in 2011.

5.1.1. *Adding occupation.*

A number of authors have identified an important role for occupations in explaining both the male/female and full-time/part-time earnings gaps (for comprehensive and recent survey see Goldin (2014)). We address this by augmenting the individual characteristics in the basic earnings function with information on individual occupations, results are presented in Table 5.2 (equivalent 2004 results are provided in Table A1.5 of Appendix 1). Occupation is significantly associated with earnings. We omit the Clerical occupational group and all parameters are therefore estimates of the difference between earnings in Clerical occupations and those associated with any particular occupation. These are typically estimated to be positive for Technical, Professional and Managerial occupations and negative for the remainder.

Table 5.2. Individual characteristics and occupations: selected results, 2011.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
Individual characteristics also included		yes		yes		yes		yes
clerical is omitted								
managerial	0.331	8.00*	0.231	5.47*	0.651	4.38*	0.306	3.76*
Professional	0.363	13.80*	0.274	10.70*	0.658	6.69*	0.326	7.42*
Technical	0.277	8.22*	0.187	8.75*	0.588	5.05*	0.256	5.50*
craft	0.053	1.59	-0.230	-3.77*	0.215	1.75	-0.205	-3.53*
personal	-0.227	- 5.28*	-0.308	-11.55*	-0.033	-0.32	-0.245	-8.36*
sales	0.014	0.21	-0.224	-7.27*	-0.064	-0.58	-0.324	-7.96*
operative	-0.107	-3.15*	-0.251	-4.06*	-0.045	-0.41	-0.431	-6.38*
Unskilled	-0.188	-5.34*	-0.317	-8.44*	-0.109	-1.29	-0.354	-10.36*
R-squared		0.428		0.394		0.391		0.412

Source: WERS 2011. *significant at a 95% confidence level or above.

The differences in the returns relative to being a Clerk from the various occupations can be seen to be larger for part-time compared with full-time employees, substantially so for the additional earnings associated with Managerial and Professional occupations. Comparisons of the estimates of the coefficients for the individual characteristics with those for the basic earnings function were found to be qualitatively similar and are summarised Table 5.2 (and Table 5.3).

5.1.2. *Workplace characteristics.*

The characteristics of the workplace are included next to provide a set of determinants of earnings in addition to individual worker characteristics and occupation fixed effects (Table 5.3; Table A6 for 2004). These workplace variables are the workplace common characteristics (industry and region) and the set of workplace specific characteristics descriptive of the physical market condition, high performance workplace practices, and the industrial relations measures. The estimates show that, when compared with the Manufacturing sector, the Accommodation sector pays the lowest for full-time employees having allowed for the individual characteristics of those employees and their occupations. Male full-time earnings are highest in Financial Services whilst female full-time employees working in the Utility sector are the highest earning. Manufacturing is a relatively high pay sector for part-time males, as indicated by the range of substantial significant penalties of working in other sectors for these men shown in Table 5.3.

The omitted category amongst Regions is the East Midlands. Unsurprisingly given the prevalence of London pay loadings, earnings in London are typically higher than in the East Midlands. These findings are particularly so for part-time male employees; the London loading is worth 34 log percentage point more earnings for part-time males, and 17 log percentage points more for full-time males and females. For males, there is also a significant gain associated with working in the South East, again this gain is roughly twice as high for part-time male than full-time employees. Male part-time employees also see a significant wage gain associated with working in the South West relative to the East Midlands. The regional gaps are not significantly different for part-time female employees.

Table 5.3. Individual, occupation and workplace characteristics, 2011.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
Individual characteristics and occupation also included		Yes		yes		Yes		yes
manufacturing is omitted								
Electricity	0.285	5.06*	0.330	5.25*	0.437	0.99	0.238	2.72*
water supply	0.010	0.15	0.336	2.81*	0.641	1.8	0.405	1.78
Construction	0.103	2.95*	0.075	0.98	-0.135	-0.63	-0.123	-0.73
Retail	-0.064	-1.69	-0.058	-1.23	-0.287	-1.35	-0.140	-1.99*
Transport	0.071	2.15*	0.087	1.75	-0.358	-1.64	0.224	2.81*
Accommodation	-0.210	-4.08*	-0.264	-4.63*	-0.506	-2.50*	-0.128	-1.68
Communication	0.142	3.09*	0.035	0.74	-0.172	-0.71	-0.013	-0.1
Financial	0.213	5.40*	0.091	1.63	0.153	0.55	0.128	1.42
real estate	0.115	2.49*	0.130	2.63*	-0.277	-1.16	0.045	0.6
Professional	0.125	3.22*	0.111	2.36*	-0.114	-0.45	0.168	1.98*
Clerical	-0.027	-0.4	-0.017	-0.29	-0.319	-1.5	0.068	0.58
Public	-0.009	-0.3	0.068	1.59	-0.283	-1.39	0.059	0.88
Education	-0.031	-0.87	-0.038	-0.9	-0.548	-2.61*	-0.155	-2.32*
Health	-0.070	-2.23*	-0.008	-0.2	-0.462	-2.15*	-0.069	-1.06
Arts	-0.081	-2.06*	-0.192	-2.40*	-0.476	-2.27*	-0.206	-2.57*
other community	-0.043	-0.67	-0.072	-1.17	-0.516	-2.42*	-0.054	-0.69
workplace age	0.000	0.13	0.000	0.1	0.000	0.06	0.000	-1.04
workplace size	0.000	4.45*	0.000	3.03*	0.000	1.97*	0.000	3.76*
multi site	0.037	1.66	0.025	1.36	0.008	0.15	-0.028	-1.16
foreign owned	0.071	2.98*	0.118	4.00*	0.082	0.9	0.021	0.43
increasing market	-0.008	-0.34	-0.061	-2.87*	-0.115	-2.43*	-0.026	-1.00
reward wages	0.007	0.36	0.023	1.39	0.044	0.9	0.033	1.46
family friendly index	0.034	3.25*	0.028	2.89*	0.009	0.39	0.033	2.49*
interaction index	0.013	1.19	0.035	3.64*	0.065	2.14*	0.022	1.68
industrial relations index	0.023	2.17*	-0.002	-0.19	0.038	1.31	0.005	0.39
equal opp	0.029	0.85	0.024	0.68	0.013	0.14	-0.025	-0.62

Table 5.3. Individual, occupation and workplace characteristics, 2011, continued.

	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
east midlands is omitted								
north east	0.022	0.59	-0.038	-0.84	0.160	1.73	-0.058	-1.15
north west	0.033	0.97	-0.030	-0.76	-0.076	-0.87	-0.036	-0.86
yorkshire & the humber	0.045	0.93	-0.006	-0.11	0.167	1.78	-0.041	-0.96
west midlands	0.000	0.01	-0.009	-0.19	0.010	0.1	-0.046	-0.94
east of England	0.080	2.06*	0.017	0.38	0.185	1.91	0.017	0.33
London	0.174	5.08*	0.171	3.96*	0.340	3.34*	0.101	1.79
south east	0.097	3.01*	0.064	1.58	0.185	2.25*	0.025	0.63
south west	0.041	1.2	-0.034	-0.76	0.180	2.00*	-0.001	-0.02
Scotland	0.101	3.41*	0.059	1.4	0.101	1.08	0.020	0.42
Wales	0.030	0.79	-0.068	-1.49	0.107	1	-0.072	-1.52
Constant	1.385	17.31*	1.413	17.28*	1.664	7.54*	1.755	18.47*
PSUs		1820		1820		1820		1820
No. observations		7048		5955		827		3933
Degrees freedom		1819		1819		1819		1819
R-squared		0.499		0.481		0.512		0.459

Source: WERS 2011. *significant at a 95% confidence level or above.

Amongst the workplace specific characteristics the results are mixed. It is notable that larger workplaces are associated with higher wages for all employees, and that foreign owned workplaces are associated with significantly higher earnings for full-time (but not part-time) employees. Increased presence of family friendly practices in the workplace is associated with significantly higher earnings for all but part-time male employees. The index measuring the extent of interaction between employees in the workplace has a positive and significant impact on earnings for female full-time and part-time males. In this sense higher quality workplaces appear not to be consistently rewarding individuals more highly. However, the industrial relations index suggests the presence of a trade union in the workplace appears not to have an impact on earnings over and above whether the individual worker is a union member for all except full-time male employees.

Finally, the presence of an equal opportunities policy has no significant impact in these results. The point estimates of the effect suggest higher earnings for part-time males but this effect is very small as well as statistically insignificant. This confirms

the analysis of Mumford and Smith (2007) using WERS 1998 data and finding no significant impact of such a policy on the earnings gap between all male and all female employees, and similarly Mumford and Smith (2009) using WERS 2004 data.

5.2 Estimation results; decompositions.

5.2.1 *The basic model.*

The decompositions for 2011 are presented in Table 5.4 (see Appendix 1, Table A1.7 for comparable decompositions for 2004). Table 5.4 has five panels, one for each of the bilateral earnings gaps we are interested in. Decompositions for the basic earnings function (which only considers individual characteristics) are presented in the first row of each panel. Thus, comparing male full-timers with female full-timers (panel 1 of Table 5.4), the earnings gap is 12.22 log per cent in favour of the males. Of this gap, 1.35 log percentage points is due to this group of females having less productive characteristics than the corresponding males. The remaining 10.87 log percentage points (clearly the major component of the gap) is unexplained and is due to the female individual characteristics (as estimated in our basic model) being rewarded at a lower rate than are those of males. To reiterate, the model does not explain why they are being rewarded differently (hence the term 'unexplained').

The results for male part-timers relative to female part-timers for the basic model are very different. These males earn 3.30 log per cent less than the females. This gap is decomposed into the individual characteristics component of -6.46 log percentage points and the residual unexplained 1.52 log percentage points or, in other words, male part-time employees have less productive characteristics than do part-time females, and the males are over-rewarded for these characteristics. It would seem in this simple model that the higher hourly earnings of full-time males over part-time males merely reflect the relatively more productive characteristics the former group possesses (or, at least, characteristics associated with higher hourly pay). Similar analysis can be carried out for all of the panels in the table.

Table 5.4 Decompositions of the earnings gaps, 2011.

Model	Total gap	Individual Characteristics	Occupation	Industry	Workplace	Region	Unexplained
Male Full-Time versus Female Full-Time	12.22						
Individual characteristics		1.35					10.87
+ occupations		1.99	0.90				9.33
+ (i) workplace fixed effects		2.43	0.88				8.90
or (ii) workplace characteristics		1.42	-0.98	1.75	0.26	-0.05	9.83
Male Part-time versus Female Part-time	-3.30						
Individual characteristics		-6.46					3.16
+ occupations		-5.05	0.22				1.52
+ (i) workplace fixed effects		-1.24	-3.25				1.18
or (ii) workplace characteristics		-3.92	-3.93	1.86	-0.62	0.66	2.64
Male Full-Time versus Male Part-time	41.26						
Individual characteristics		13.36					27.90
+ occupations		10.85	13.08				17.33
+ (i) workplace fixed effects		7.94	9.18				24.14
or (ii) workplace characteristics		7.33	19.24	16.66	4.76	0.88	-7.61
Female Full-Time versus Female Part-time	25.74						
Individual characteristics		6.57					19.17
+ occupations		3.18	12.95				9.61
+ (i) workplace fixed effects		1.40	7.99				16.35
or (ii) workplace characteristics		1.70	12.62	5.07	1.44	1.05	3.85
Male Full-Time versus Female Part-time	37.96						
Individual characteristics		6.39					31.57
+ occupations		4.16	12.00				21.80
+ (i) workplace fixed effects		1.63	8.02				28.30
or (ii) workplace characteristics		2.81	10.73	6.09	2.30	1.13	14.90

Source WERS 2011.

The earnings gap between male full-time employees and male part-time employees is 41.26 log per cent. This earnings gap can be decomposed into the component due to differences in the mean values of their individual characteristics which make up 13.36 log percentage points, and an unexplained component of 27.90 log percentage points; the two components summing to the very substantial earnings gap of 41.26 log per cent.

In contrast, female full-time employees earn 25.74 log per cent more than do female part-time employees, with 6.57 log percentage points being due to their having more productive characteristics on average and 19.17 log percentage points due to characteristics which are positively associated with earnings being rewarded at a lower rate for part-time women.

Finally, and similar to the gap between full-time males and part-time males, the gap between full-time male employees and part-time female employees is substantial at 37.96 log percentage points, 6.39 of these are related to full-time males having more productive individual characteristics associated with higher wages whilst 31.57 log percent is due to these worked receiving different rewards for their characteristics (this is the highest unexplained component reported in Table 5.5).

5.2.2 *Adding occupations.*

Results for the decompositions for the model with individual characteristics and occupation fixed effects (the second row of each panel in Table 5.4) reveal that, for workers with the same employment status, differences in occupation is associated with a relatively small component of the gender pay gap. Amongst full-time employees (panel 1) differences in occupation for men and women is associated with 0.90 of the overall pay gap of 12.22; amongst part-time employers it is a similarly proportion at 0.22 from -3.30.

All of the other panels in Table 5.4 show a much larger role for occupation in the explained pay component of the gender pay gap; full-time employers are working in occupations associated with higher pay whilst part-time employment appears to be concentrated in lower paid occupations. The unexplained component of these pay gaps can all be seen to fall dramatically with the inclusion of occupation in the earnings function, providing further support for the belief that occupation is important for pay differences between full and part-time employees.

5.2.3 *Including workplace-specific fixed effects.*

A further comparison which can be made, given the nature of the WERS dataset, is to control for the workplace of the worker as well as the occupation and individual employee characteristics. The most general way to do this is by treating the workplace as a workplace-specific fixed effect, these estimates then measure the impact of the individual characteristics within occupations and workplaces.

Introducing workplace-specific fixed effects to the model with individual characteristics and occupations has little impact on the gender earnings gap for full-time employees (panel 1 of Table 5.4). The impact of the workplace is important, however, when we compare part-time employees either within or across gender. For example, amongst part-time employees the inclusion of workplace-specific effects substantially lowers the component of the earnings gap associated with occupation (from -5.05 to -1.24).

Considering earnings gaps amongst full-time and part-time employees (panels 3, 4 and 5) we can see that within workplaces, the impact of full-time employees tending to work in higher paid occupations relative to part-time employees is diminished compared to the results that exclude the workplace effect. In each case the role of occupation is lessened in the decomposition. Furthermore, the increase in the unexplained component in these panels demonstrates the positive contribution of the fixed workplace effect to the full-time versus part-time earnings gap. Part-time employees tend to work in lower paid occupations within workplaces, and this is more so for females than males. We can explore the implications of this finding more fully with our full model which includes the set of workplace characteristics.

5.2.4 *The full model, with workplace characteristics.*

The decomposition results, from including all of the workplace-related variables (common and specific) in addition to those for the individual, are presented in the fourth row of each panel and develop upon the fixed workplace effect results. The unexplained gender earnings gap for both full and part-time employees is reduced. Also the unexplained full-time versus part-time earnings gap for females is reduced to a negligible value of less than 1 log per cent. Importantly, the results show that working in higher paying industries provides a substantial component of both the gender and the full-time to part-time earnings gaps. In general, women, especially

part-time employees, appear to work in lower paid industries than do men. The geographical region in which the workplace is situated also explains a small proportion of the earnings gap between full and part-time employees of the same gender. A gap of more than 1 log per cent in hourly earnings between female full and part-time employees is due to full-timers working in higher paying regions.

Differences in the values of a range of more detailed workplace variables have a further impact on earnings gaps. The overall impact of these workplace variables is that men, both full and part-time, work in workplaces with characteristics associated with lower earnings relative to the workplaces of their female counterparts. However, full-time employees benefit from workplace characteristics more than part-timers of the same gender.

5.2.5 *Comparing 2004 and 2011.*

As discussed above, a part of the earnings gap for each of the models remains unexplained; this is the difference between the parameters for each group evaluated at the mean level of the characteristics for the lower average earnings group. This unexplained (or residual) component of the decompositions reflects differences in returns in terms of earnings for any given characteristic and is often described as the pure gender or discrimination effect.

Table 5.5 provides summary information for the decompositions for 2004 (more detail is provided in Appendix 1, Table A1.7) and for 2011 (see also Table 5.4). Whilst there are some striking differences in the raw gender gaps and the size of the unexplained component of these gaps in Table 5.5, there are also some patterns across the time periods. Panel 1 of Table 5.5 compares male and female full-time employees; the raw earnings gap declines (from 14.01 to 12.22) between 2004 and 2011, as does the unexplained component (11.21 to 9.83). In both cases, however, the great majority of the earnings gap between these employees is not explained by differences in characteristics associated with productivity and may be argued to reflect discrimination in the labour market. To a lesser extent the same can be argued for the male full-time versus female part-time employee comparisons (panel 5).

Table 5.5. Decompositions in brief, comparing 2004 and 2011.

Model	2004 Total gap	2004 Unexplained	2011 Total gap	2011 Unexplained
Male Full-Time vs Female Full-Time 2004	14.01		12.22	
Individual characteristics		11.51		10.87
+occupations		13.30		9.33
+ (i) workplace fixed effects		12.80		8.90
or (ii) workplace characteristics		11.21		9.83
Male Part-time vs Female Part-time	20.11		-3.30	
Individual characteristics		34.24		3.16
+occupations		22.30		1.52
+ (i) workplace fixed effects		18.50		1.18
or (ii) workplace characteristics		12.40		2.64
Male Full-Time vs Male Part-time	11.71		41.26	
Individual characteristics		0.21		27.90
+occupations		-4.91		17.33
+ (i) workplace fixed effects		-0.80		24.14
or (ii) workplace characteristics		-11.21		-7.61
Female Full-Time vs Female Part-time	17.91		25.74	
Individual characteristics		10.7		19.17
+occupations		3.50		9.61
+ (i) workplace fixed effects		8.10		16.35
or (ii) workplace characteristics		0.16		3.85
Male Full-Time vs Female Part-time	31.82		37.96	
Individual characteristics		26.64		31.57
+occupations		20.09		21.80
+ (i) workplace fixed effects		24.42		28.30
or (ii) workplace characteristics		13.51		14.90

Source: WERS 2004 and 2011; results for 2004 taken from Mumford and Smith (2009).

Substantial gender earnings gaps exist for the within gender comparisons of full and part-time employees (panels 3 and 4). In 2004, the residual earnings gap between female full-time employees and female part-time employees was essentially zero for females (at 0.16). However, for males it was negative (at -11.21) almost the same size as the raw earnings gap (11.71). This implies that, given all of these determinants of pay, we would expect the full-time part-time earnings gap for men to be twice as big as it was measured to be in practice in 2004. In 2011, the relative sizes have changed but the pattern is the same. The unexplained component of the within female gap is larger than it was in 2004 but it is still relatively small, whilst for males

the unexplained component is again negative. It would seem that the great majority of the earnings gap between women is because female full-time employees have more characteristics associated with higher pay than do part-time females. Whereas for males, working part-time is associated with a pay premium linked to the workplaces part-time males are employed in.

Finally, considering male part-time employees relative to female part-time employees (panel 2), the raw earnings gap changes dramatically over the time period from 20.11 log points in favour of males in 2004, to 3.30 log points in favour of females in 2011. The unexplained component in 2004 suggests that these men should earn less than they do relative to females; similarly in 2011 the residual would indicate that these women should earn more. In both time periods, the discrimination component is working towards improving the salary of the males relative to the females. This finding is true for all of the across gender comparisons in Table 5.5, the discrimination component is always associated with males having higher wages than females.

6. More detailed decompositions, 2011.

The results presented so far indicate a complex relationship between occupation, industry and workplace for the earnings gaps. In this section, we seek to more fully understand the individual roles of these factors by further exploring (i) the gender earnings gap for all employees, and (ii) the within gender full-time to part-time earnings gaps within occupations and within industries. Table 6.1 provides decompositions for these two earnings gaps, both occupation and industry are clearly significant factors in the explained component of both gaps with workplace also being important for the full-time versus part-time gap (more detailed results is provided in Table A2.1 of Appendix 2). [9]

[9] Appendix 2 contains full information on these earnings differentials, and decompositions of the earnings gap, for the more detailed variable definitions and/or sub-samples using WERS 2011. Selected results are discussed briefly below.

Table 6.1 Decomposing the primary earnings gaps, 2011.

	Difference	Explained					Unexplained
		Indiv Char	Occupation	Industry	Workplace	Region	Total
Male versus Female							
Individual characteristics	17.95	8.43					9.52
	(12.38)*	(9.00)*					(7.39)*
extended characteristics	17.95	3.19	3.44	3.13	0.66	0.43	7.09
	(11.29)*	(5.76)*	(4.39)*	(5.03)*	(1.63)	(1.52)	(6.07)*
Full-Time versus Part-Time							
Individual characteristics	33.63	11.10					22.53
	(19.85)*	(9.75)*					(14.20)*
extended characteristics	33.63	6.21	11.90	5.42	2.33	1.20	6.59
	(18.13)*	(7.84)*	(14.53)*	(8.55)*	(5.47)*	(3.80)*	(5.14)*

Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

We explored increasing the number of occupation categories (from 9 to 25) in the estimation of the earning functions and find that this, perhaps unsurprisingly, does not significantly affect the components of the decompositions for any of the five group comparisons presented in Table 5.5 (see Appendix 2 Table A2.2). Concentrating on specific occupations there are, however, some notable differences comparing male and female earnings, and full-time versus part-time employees, within the nine occupations that were the focus of the previous analysis. Table 6.2 summarises these findings, more detailed results are provided in Appendix 2 Tables A2.3 and A2.4.

Table 6.2. Decompositions of the earnings gap for each occupation, selected results.

	Difference	Explained				Unexplained					
		Individual	Industry	Workplace	Region	Individual	Industry	Workplace	Region	Constant	Total
Managerial											
Male versus Female	**15.99**	0.92	**5.71**	0.33	1.94	8.42	1.40	**-29.96**	**-5.42**	32.66	**7.09**
Full-Time versus Part-Time	10.71	6.23	4.06	2.19	2.75	-16.58	-8.33	-1.04	-1.59	23.03	-4.52
Professional											
Male versus Female	**12.06**	1.10	**3.30**	0.85	0.19	**35.64**	6.09	4.34	1.19	**-40.64**	**6.62**
Full-Time versus Part-Time	**8.97**	-2.58	**5.16**	**2.02**	**1.26**	5.50	12.98	**-32.47**	1.38	15.71	3.10
Technical											
Male versus Female	**12.77**	1.19	1.86	0.75	0.61	0.01	1.77	7.59	0.48	-1.48	**8.36**
Full-Time versus Part-Time	4.89	-1.27	**5.16**	1.87	1.52	16.52	**8.87**	-1.48	-2.35	-23.95	-2.39
Clerical											
Male versus Female	1.83	1.42	0.66	-0.07	1.23	-11.95	-1.75	14.62	-1.37	-0.96	-1.41
Full-Time versus Part-Time	**11.34**	**-2.28**	**1.60**	1.06	0.55	-11.85	-0.97	-3.00	0.78	25.44	**10.40**
Craft Service											
Male versus Female	**36.98**	**6.03**	**8.62**	0.61	-0.29	7.97	**17.59**	27.66	0.12	-31.34	**22.00**
Full-Time versus Part-Time	**27.66**	**13.82**	5.50	3.26	-0.04	16.83	**27.73**	-7.59	1.09	-32.95	5.11
Personal Service											
Male versus Female	**6.45**	-2.82	2.46	0.79	1.68	19.29	-10.16	26.24	-0.36	-30.66	4.34
Full-Time versus Part-Time	**5.42**	0.54	1.18	1.10	0.97	19.58	-4.71	29.62	0.49	**-43.34**	1.63
Sales&Customer											
Male versus Female	**24.77**	4.09	**4.33**	1.01	0.04	-5.21	11.19	6.22	2.21	0.87	**15.28**
Full-Time versus Part-Time	**35.86**	**9.34**	**8.28**	1.87	0.01	-11.24	10.94	31.00	1.51	-15.85	**16.36**

Table 6.2 Decompositions of the earnings gap for each occupation, selected results, continued.

	Difference	Explained				Unexplained					
		Individual	Industry	Workplace	Region	Individual	Industry	Workplace	Region	Constant	Total
Operative&Assembly											
Male versus Female	**24.03**	**5.93**	2.55	-2.74	0.64	**56.48**	**-17.63**	-0.80	-1.44	-18.95	**17.66**
Full-Time versus Part-Time	**35.04**	**11.99**	**6.37**	1.43	-0.36	0.17	21.83	0.06	-22.27	15.82	**15.60**
Unskilled											
Male versus Female	**20.73**	**6.35**	**8.20**	0.36	1.05	2.06	**-6.47**	-14.08	-1.04	24.29	4.77
Full-Time versus Part-Time	**26.96**	**7.60**	**8.51**	1.13	**1.66**	-12.16	-0.07	5.82	-0.39	14.85	**8.06**
Manual Workers											
Male versus Female	**27.41**	**6.37**	**7.49**	**1.51**	0.26	14.32	-1.77	2.49	**-0.83**	-2.43	**11.78**
Full-Time versus Part-Time	**29.65**	**10.36**	**7.42**	**2.07**	0.20	10.32	4.22	10.34	0.13	-15.41	**9.60**
Non Manual Workers											
Male versus Female	**24.56**	**7.54**	**2.55**	**0.99**	**1.02**	3.16	-0.11	9.87	-0.08	-0.37	**12.46**
Full-Time versus Part-Time	**29.61**	**7.87**	**5.35**	**2.18**	**1.60**	5.06	3.90	5.21	0.86	-2.40	**12.62**

Source: WERS 2011. Bold denotes significance at the 95% confidence level.

Table 6.2 (and the more detailed Table A2.3 in Appendix 2) provides decomposition information for differences in the means of the observed characteristics (the explained components) and also for differences in the returns to these characteristics (the unexplained components), within each of the major occupations. Numbers in bold are significantly different from zero with 95% confidence. Considering the first row of results, in the Managerial occupation the total raw earnings gap between men and women is 15.99 log points (first column), of these 8.99 log points are explained (final column labelled total) implying 7.09 points are unexplained. The major difference in the observed (explained characteristics) is 5.71 points associated with industry; male Managers are considerable more likely to work in higher paying industries than are female Managers. Amongst the unexplained components we can see that these women receive a substantially lower return on their individual characteristics than do the males, however, they receive a considerably higher workplace premium than do male Managers (hence the -29.96 log points unexplained workplace component). The regional components are typically small in Table 6.1, although there is a notable unexplained gender pay difference of -5.42 log points for region amongst Managers.

Considering the full-time to part-time pay gap in the Managerial occupation (row 2 of Table 6.1), the raw earnings gap at 10.71 log points is only two-thirds the size of the gender earnings gap in this occupation. The total unexplained gap is -4.52 points; the unexplained components in total suggest that part-time Managers should earn more than full-time Managers. This implies that the total explained gap is 15.23 log points. (10.71 plus 4.52), substantially more than the explained gender earnings gap for this occupation (of 8.9 points). Amongst the components of the explained gap, we can see that full-time Managers have more individual characteristics associated with higher pay. In contrast, part-time Managers receive a much higher pay premium for their individual characteristics. Similarly, full-time Managers are more likely to work in industries associated with higher pay but part-time Managers are more likely to receive higher pay within an industry.

This type of analysis can be continued down the rows in Table 6.2 addressing the different occupations' gender and full-time to part-time pay gaps. For example, in rows 3 and 4 we can see that amongst Professional employees there is a very sizable

(35.64 log points) earnings difference between men and women because male Professionals receive a much higher rate of return from their individual characteristics (characteristics which are themselves very similar on average to the individual characteristics of women). Whilst female Professionals receive a considerably higher payment associated with workplace, ceteris paribus, than do males.

A particularly interesting finding for occupations occurs for gender differences amongst Operative and Assembly workers. Their total gender pay gap is sizeable at 24.03 log points, with some 5.93 log points being associated with men being more likely to have individual characteristics associated with higher pay. These men also receive a very much higher wage premium associated with their individual characteristics than do women (56.48 log points).

Results are reported for all nine occupations, and for manual and non-manual, in Table 6.2 but some of these occupations have relatively few comparison employees in the data set (as shown in the summary statistics presented in Table A1.9 of Appendix 1), and some of the differences discussed above are not actually significant at standard confidence levels (full results with standard errors are presented in Tables A2.3 and A2.4). The components of the decomposition that are significantly different at the 95% confidence level are presented in bold in Table 6.1.

Reading down the columns in Table 6.2 allows us to generalise about which component types are more likely to be important in the decompositions. Typically workplace or regions are not relevant amongst the explained components. Whilst, often sizable, there are nevertheless few significant components amongst the unexplained components. As discussed above, this is often related to there being few employees in the subcategories being considered. For example, if we focus only on those occupations employing at least 4% of the potential total, male or female workforce (see Appendix 1 Table A1.8) we would exclude Craft Services (with only 1.2% of females); Personal Services (3.1% of males); and Operative and Assembly (1.3% females) from the analysis.

Table 6.3 Decompositions of the earnings gap for each industry, selected results WERS 2011.

	Difference	Explained				Unexplained					
Manufacturing		**Indiv Char**	**Occupation**	**Workplace**	**Region**	**Indiv Char**	**Occupation**	**Workplace**	**Region**	**Constant**	**Total**
Male versus Female	**17.87**	3.61	1.02	2.02	-0.07	7.22	**-6.65**	4.08	-2.91	9.55	**11.29**
Full-Time versus Part-Time	16.18	**8.96**	3.74	2.82	0.24	**76.86**	5.79	**20.54**	7.49	**-110.26**	0.43
Retail											
Male versus Female	**21.15**	**4.56**	**3.84**	2.62	1.25	14.51	4.67	-3.76	-1.83	-4.72	**8.88**
Full-Time versus Part-Time	**38.92**	**11.26**	**11.06**	**4.41**	1.08	3.15	3.88	8.82	-0.99	-3.75	**11.11**
Financial											
Male versus Female	**35.64**	2.98	**8.91**	5.66	3.57	-24.75	3.55	**311.06**	-11.21	**-264.14**	**14.52**
Full-Time versus Part-Time	**30.35**	**11.39**	**11.79**	10.55	-0.34	37.59	-13.32	**59.34**	-20.19	**-66.47**	**-3.03**
Real estate											
Male versus Female	**14.76**	2.89	**5.88**	0.30	2.61	-4.19	-2.66	16.73	2.27	-9.06	3.09
Full-Time versus Part-Time	**30.93**	6.72	**16.44**	1.55	-1.66	20.26	0.41	-41.49	6.67	22.01	7.86
Professional											
Male versus Female	**21.78**	3.95	**7.76**	1.20	2.79	-5.59	9.54	1.64	-2.72	3.22	**6.08**
Full-Time versus Part-Time	5.71	-0.75	**8.64**	**2.72**	**3.50**	**-52.78**	-1.62	15.87	-1.14	31.28	-8.40
Public											
Male versus Female	**6.80**	1.30	**6.57**	0.06	-0.52	-10.02	**-7.56**	6.41	0.37	10.20	-0.60
Full-Time versus Part-Time	**8.48**	0.14	**6.05**	0.13	0.25	-10.34	-4.94	33.30	-0.20	-15.91	1.92
Education											
Male versus Female	**29.29**	**3.66**	**14.21**	**3.84**	0.70	-3.82	5.67	**26.50**	-0.39	-21.09	**6.88**
Full-Time versus Part-Time	**35.13**	**6.35**	**17.55**	**3.17**	0.75	15.43	**-14.07**	2.75	-0.72	3.92	7.31
Health											
Male versus Female	**9.12**	2.24	**4.92**	0.06	**1.77**	16.64	-1.34	**56.06**	0.49	-71.72	**0.13**
Full-Time vs Part-Time	**20.88**	1.99	**9.89**	**4.54**	**1.99**	15.90	1.80	**-28.58**	1.02	12.32	2.47

Source: WERS 2011.

Following Table 6.2, the table layouts are the same in Table 6.3 (for industry), Table 6.4 (region), Table 6.5 (workplaces), and Table 6.6 (female segregation at the workplace level); we discuss these findings next.

Industries hiring less than 4% of the total, female or male work force are dropped from Table 6.3 (full results for all the industries are, however, included in Appendix 2 Table A2.5). Finance has the largest gender pay gap at 35.6 log points, whilst occupation is associated with almost 9 points of the explained gap, there is a very substantial component associated with the workplace amongst the unexplained component. Finance also has a substantial full-time versus part-time pay gap; with occupation and individual characteristics associated with the majority of the explained component, and workplace again having a sizeable role in the unexplained component consistent with high wage workers working in high wage workplaces.

Reading down the columns of Table 6.3, we can see that occupation plays a significant role in the explained component for all the within industry gaps with the exception of Manufacturing. This is a strong result and supports the finding from the discussion of occupations above where, within occupations, industry was the most often the significant (and sizable) term in the explained component of the pay gaps. There is clearly a strong interaction between the observed occupation and industry for the pay determination of British workers.

A similar, but not as consistent pattern is found for the decompositions at a regional level (Table 6.4); the joint importance of occupation and industry is apparent in many regions especially for full-time versus part-time pay gaps. We also find sizeable effects related to the workplace (and to a lesser extent, occupation) amongst the unexplained component of the pay gap in the North West, Yorkshire and Humberside and the East Midlands. This might also be explained by high wage workers working in high wage workplaces in these regions.

Table 6.4 Decompositions of the earnings gap for each region.

	Difference	Explained				Unexplained					
		Individual Characteristics	Occupation	Industry	Workplace	Individual Characteristics	Occupation	Industry	Workplace	Constant	Total
North East											
Male versus Female	**16.71**	2.93	3.21	-1.01	3.12	5.78	1.65	**-8.78**	-13.59	23.40	**8.46**
Full-Time versus Part-Time	**33.14**	**6.12**	**10.03**	0.24	**6.30**	**27.63**	4.24	11.89	-16.67	-16.64	**10.45**
North West											
Male versus Female	**16.60**	2.16	**4.47**	**4.07**	1.10	4.24	**-6.46**	1.43	-7.47	13.08	4.81
Full-Time versus Part-Time	**35.38**	**6.20**	**11.02**	**4.99**	3.74	10.54	**-5.76**	**14.26**	**-34.21**	24.62	**9.45**
Yorkshire and Humber											
Male versus Female	**24.11**	3.15	4.44	**8.17**	3.09	26.33	-1.30	**6.13**	20.80	**-46.70**	5.25
Full-Time versus Part-Time	**28.42**	**5.76**	**9.63**	**7.31**	1.81	12.48	**-0.80**	**-9.09**	**48.85**	**-47.53**	3.91
East Midlands											
Male versus Female	6.93	0.00	1.94	**7.30**	-2.57	-30.89	**-5.02**	3.50	24.31	8.36	0.26
Full-Time versus Part-Time	**18.66**	**0.27**	**9.53**	**7.65**	-4.43	4.66	**-11.04**	0.39	**39.24**	-27.63	5.63
West Midlands											
Male versus Female	**13.16**	**3.72**	-3.09	3.37	2.75	2.91	-3.90	1.28	7.83	-1.71	6.41
Full-Time versus Part-Time	**29.75**	2.60	**8.31**	**4.63**	1.83	24.76	-1.93	-1.31	32.58	**-41.72**	**12.39**
East of England											
Male versus Female	**18.62**	**5.77**	-0.62	4.58	1.54	-3.68	-3.16	1.36	14.13	-1.30	**7.35**
Full-Time versus Part-Time	**31.89**	**7.02**	**7.86**	**5.66**	**3.84**	1.77	-2.15	-5.95	20.97	-7.13	7.51

Table 6.4 Decompositions of the earnings gap for each region, continued.

	Difference	Explained				Unexplained					
		Individual Characteristics	Occupation	Industry	Workplace	Individual Characteristics	Occupation	Industry	Workplace	Constant	Total
London											
Male versus Female	**11.48**	1.56	3.06	0.68	-0.55	0.00	-0.61	**-6.32**	21.03	-7.37	**6.72**
Full-Time versus Part-Time	**29.01**	**5.50**	**14.43**	**6.22**	2.35	11.85	-1.99	-7.06	19.50	-21.79	0.51
South East											
Male versus Female	**22.08**	**4.07**	**8.85**	2.49	0.53	8.78	-0.54	-1.33	4.82	-5.57	**6.15**
Full-Time versus Part-Time	**38.77**	**5.85**	**15.18**	**6.51**	**2.20**	**23.98**	0.04	**8.01**	6.30	**-29.29**	**9.03**
South West											
Male versus Female	**22.84**	**4.30**	3.66	2.64	1.56	10.73	-3.16	0.62	11.18	-8.70	**10.68**
Full-Time versus Part-Time	**29.47**	**6.12**	**13.74**	**4.92**	2.20	18.54	3.32	2.08	4.22	-25.66	2.49
Scotland											
Male versus Female	**20.59**	**6.80**	2.63	3.36	1.03	-1.17	-0.74	1.63	12.70	-5.66	**6.77**
Full-Time versus Part-Time	**37.01**	**8.40**	**8.13**	**6.79**	1.49	-21.04	1.83	3.85	7.98	19.58	**12.20**
Wales											
Male versus Female	**19.88**	2.49	3.06	-2.50	4.40	4.51	**-9.20**	4.70	-20.94	33.36	**12.42**
Full-Time versus Part-Time	**28.24**	**8.08**	**9.57**	-1.79	**6.01**	28.80	-2.79	15.83	-0.67	-34.79	6.38

Source: WERS 2011

Table 6.5. Decompositions of the earnings gap for high and low wage workplaces 2011.

	Difference	Explained					Unexplained						
		Indiv Char	Occupation	Industry	Workplace	Region	Indiv Char	Occupation	Industry	Workplace	Region	Constant	Total
High Wage Workplaces													
Male versus Female	**16.09**	**2.57**	**5.12**	**2.59**	0.10	-0.22	-8.10	-2.01	1.09	**20.01**	-0.37	-4.69	**5.92**
Full-Time versus Part-Time	**14.21**	1.93	**8.21**	**3.49**	0.56	0.44	1.71	**-8.04**	0.99	9.52	1.91	-6.51	-0.42
Low Wage Workplaces													
Male versus Female	**11.43**	**3.03**	1.03	**2.99**	0.02	0.10	10.19	-1.12	0.99	7.35	-1.12	-12.02	**4.26**
Full-Time versus Part-Time	**21.89**	**3.89**	**5.11**	**2.44**	0.22	-0.11	3.50	1.05	-0.27	6.99	-0.06	-0.87	**10.34**

Source: WERS 2011

Table 6.6. Decompositions of the earnings gap for high and low proportion female workplaces 2011.

	Difference	Explained					Unexplained						
		Indiv Char	Occupation	Industry	Workplace	Region	Indiv Char	Occupation	Industry	Workplace	Region	Constant	Total
High Proportion Female Workplaces													
Male versus Female	**17.40**	**4.15**	**6.26**	1.37	0.98	0.64	7.37	-0.84	-2.37	15.74	0.37	-16.27	**4.00**
Full-Time versus Part-Time	**27.22**	**4.70**	**11.59**	**2.77**	**2.08**	**0.96**	7.39	**-5.54**	2.37	**18.68**	0.10	-17.86	**5.14**
Low Proportion Female Workplaces													
Male versus Female	**6.98**	1.09	-1.03	0.59	0.01	-0.51	3.12	-0.76	-1.91	8.65	-0.12	-2.15	**6.83**
Full-Time versus Part-Time	**16.46**	**5.79**	**7.15**	**4.02**	**2.81**	-0.64	14.05	-0.66	1.38	3.12	2.39	-22.94	-2.67

Source: WERS 2011.

Similar patterns are also found in Table 6.5 for high-wage workplaces and Table 6.6 for disproportionately female workplaces. There are, however, no significant findings within the unexplained component of the pay gaps for either low pay workplaces or low proportion female workplaces. It may be that at the bottom end of the pay distribution there is less scope to vary pay other than that related to observable characteristics associated with productivity, we consider the implications of this finding next.

7. Implications from ASHE 2004, 2011, 2015

The individual earnings data from WERS provides a good indication of the differences in average earnings across the population and occupations, industrial sectors and regions. The size of the sample and the banded nature of the wage data, however, make it difficult to drill down further into the pattern of earnings at these more detailed levels of disaggregation using WERS. A better data set for this purpose is the Annual Survey of Hours and Earnings (ASHE). As discussed in Section 2 above, the Office for National Statistics (ONS) collects the ASHE data from a 1 per cent survey of employee jobs from HM Revenue and Customs Pay as Your Earn (PAYE) administrative records[10].

Here we focus on the distribution of earnings across deciles for workers in each of the relevant groups. We examine the years of the WERS surveys discussed so far as well as the most recent wave of ASHE data, thus data for 2004, 2011 and 2015. Inevitably there are differences between WERS and ASHE. The major sectoral difference at the aggregate level is the inclusion of Agriculture in ASHE which we expect has a very small impact on the wage gaps we examine.

The summary statistics for ASHE for the three years are shown in Tables 7.1, and 7.2. The mean levels of gross hourly earnings show generally similar patterns to those in WERS. For example, the mean full-time gender pay gap has fallen from 21% in 2004 to 18.7% in 2011 and further to 16% in 2015. Likewise the part-time gender

[10]http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/previousReleases

pay gap has fallen over time, although, as we have discussed above, this reduction is more pronounced in 2011 in the WERS data than the ASHE data suggest. A more substantial fall is shown to 2.3% in 2015. Meanwhile, the overall within gender full-time versus part-time pay gap has declined a little over time for women (from 36.7% in 2004 to 31.5% in 2015) and increased a little for men (from 46.4% in 2004 to 49.1% in 2015).

Table 7.1 ASHE Summary Data

	Mean Gross Hourly Earnings (£/hour)			
	Female		Male	
	Part-Time	Full-Time	Part-Time	Full-Time
2004	8.13	11.11	9.18	13.44
2011	10.62	13.80	11.78	16.38
2015	11.09	14.58	11.34	16.91

	Gender Pay Gaps (%)	
	Part-Time	Full-Time
2004	12.91	20.97
2011	10.92	18.70
2015	2.25	15.98

	Full-Time versus Part-Time Pay Gaps (%)	
	Female	Male
2004	36.65	46.41
2011	29.94	39.05
2015	31.47	49.12

Source: ASHE 2015.

A comparison between the WERS and ASHE data for 2011 by occupation and industry (Table 7.2) also confirms the overall pattern of earnings although differences in sampling generate some differences in mean earnings.

Table 7.2. Summary Statistics for Occupations in WERS and ASHE in 2011.

	Mean Gender Pay Gap	Mean Gender Pay Gap	Number of Employees			
	WERS	ASHE	Female		Male	
	(%)	(%)	Part-Time	Full-Time	Part-Time	Full-Time
Total	15.67	24.5	5240	6767	1715	10654
Occupation						
Managerial	15.99	35.3	123	623	75	1473
Professional	12.06	17.1	778	1708	269	2231
Technical	12.77	23.1	363	1077	136	1752
Clerical	1.83	20.2	969	1416	102	587
Craft Service	36.98	33.0	75	116	107	1613
Personal Service	6.45	10.9	1051	828	152	302
Sales & Customer	24.77	15.0	822	475	286	455
Operative & Assembly	24.03	22.9	41	128	128	1155
Unskilled	20.73	19.0	1017	396	460	1087
Industry						
Manufacturing	18.87	26.2	117	387	61	1767
Electricity	27.49	39.9	9	34	4	132
Water Supply	-40.47	-6.3	6	18	0	88
Construction	20.65	25.2	63	83	36	688
Retail	21.15	30.9	924	761	385	1514
Transportation	0.97	2.7	67	155	63	770
Accommodation	10.37	18.1	400	252	222	359
Communication	25.87	25.8	69	217	37	606
Financial	35.64	74.8	122	387	18	560
Real Estate	14.76	32.4	50	107	16	123
Professional	21.78	40.9	183	440	61	703
Clerical	6.20	11.2	302	318	181	642
Public	6.80	19.8	186	481	54	646
Education	29.29	22.9	1330	1357	292	984
Health	9.12	42.1	1143	1523	154	642
Arts	29.29	30.0	110	97	74	155
Other Community	9.12	29.4	106	112	35	145

Source: WERS 2011. ASHE 2011

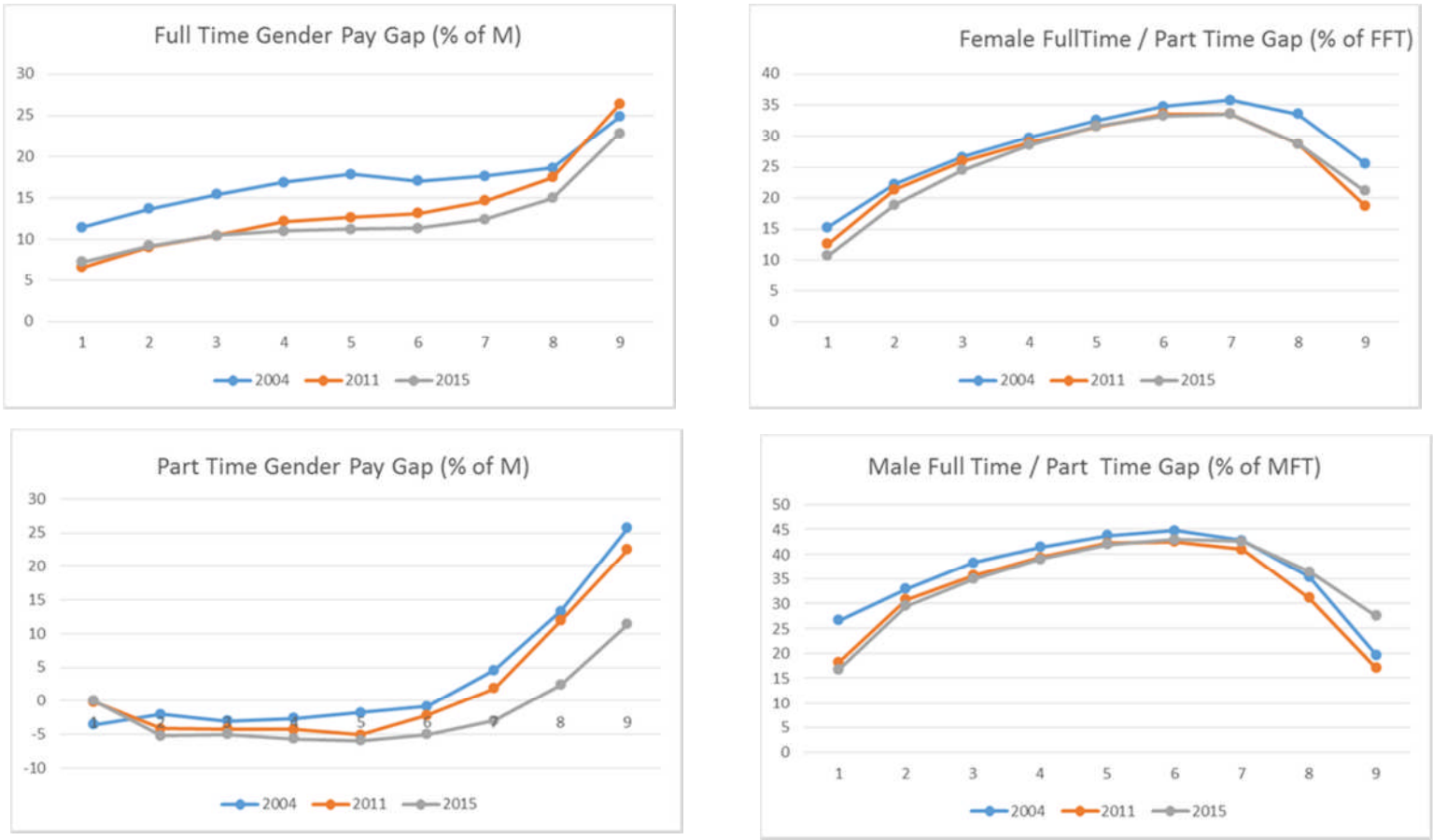
We can more clearly show the distribution of earnings gaps in the various groups with figures plotting the decile values of the samples for each group. The earnings gaps that we report are the gender pay gaps for full and for part-time workers and the within gender full-time versus part-time pay gaps for both genders. Thus we present four plots in each Figure. Figure 7.1 presents the aggregate numbers and shows that the gender pay gap is much larger at higher pay deciles for British employees. The gender pay gaps for full and for part-time workers are shown in the plots on the left hand side of the figure (upper and lower plots, respectively). For full-time workers the gender pay gap remained less than 10% in 2011 and 2015 for the lowest decile, about 12% at the median and just less than 25% in the highest pay decile. The fall in the average full-time gender pay gap over the period from 2004 to 2015 has been concentrated in the bottom 70% of the distribution of full-time workers.

Amongst part-time staff this pattern is even more pronounced. The lower of the left hand side plots in Figure 7.1 shows that the gender pay gap for part-time workers below the 70^{th} percentile is essentially zero or slightly negative. In contrast, at the highest two deciles it had been more than 25%, although most recently it has fallen to little more than 10%. In contrast to the gender earnings gap for full-time employees, the greatest change over time in the part-time gender pay gap has been at the highest three deciles. Even then this change has only been observed in the ASHE data since 2011.

The distributional pattern of the within gender full-time versus part-time pay gap for men and women is also shown in Figure 7.1. The right hand side plots show that unlike the gender pay gap there is no monotonic relationship between the gap and the level of pay. Indeed the gap is significantly higher at the median than at either end of the pay distribution. The gap for the lowest decile of men has fallen since 2004 by about 10% whilst that for women in the highest pay decile has fallen by around 5%. For both men and women, however, there is little evidence of significant change in the size of the gap across time.

Figure 7.1: The aggregate distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE

The figure shows the percentage pay gaps at nine deciles for each of three years.



Considering the lower paid, as an approximation of the direct relationship between the National Minimum Wage and the wage distributions we can compare the decile values of wages with the NMW for adults. The pay of part time staff of both genders overlaps with the relevant adult level of the NMW at the first decile in all three years. Anticipating the size of the National Living Wage (NLW) in 2016, there would be an overlap with the wages of male and female part-time workers at approximately the 3rd decile. There is no overlap of the NMW or NLW with the pay of full-time staff at the lowest decile point.

Appendix 3 presents analogous Figures including plots for these four pay gaps across the distribution of pay for a selection of occupations and industries. The occupations and industries chosen are those with a reasonable representation of at least two of the groups compared using the summary statistics shown in the right hand column of Table 7.2. Figures A3.1 to A3.6 of Appendix 3 presents pay gaps across the earnings distribution in occupations, and Figures A3.7 to 3.12 analogously show how the pay gaps differ between industries.

We assess the pattern of the gender pay gaps first. Starting with occupations, Managerial is the occupation with the highest average pay. Figure A3.1 in Appendix 3 clearly shows a pattern of an increasing gender pay gap associated with higher pay. The gender pay gap for the highest paid full-time Managers shown in the higher left hand side plot was more than 40% in 2004 and 2011 but had fallen to close to 30% in 2015. Similarly, the gender pay gap for the highest paid part-time Managers shown in the lower of the left hand side plot has also fallen steeply from more than 30% to closer to 5-10%.[11] The gender pay gaps for lower paid Managers have changed little between 2004 and 2015 according to the data summarised in Figure A3.1.

Lower paid occupations such as the Unskilled and those working in Sales and Personal Service occupations are good examples where the lowest paid face the smallest gender pays gaps at a value close to zero. This might suggest the influence of the minimum wage as at least the lowest pay decile of workers in these occupations are subject to the minimum wage for both full and part-time employees. The pattern

[11] Note that missing points in the figures are where the data is measured with insufficient accuracy, due to a small sample size.

of reduction in the gender pay gap over time differs significantly between occupations. In the Managerial, Service and Unskilled occupations the reduction has been more pronounced at the highest pay levels. In Sales the reduction is across the top two thirds of pay whilst in the Professional occupation the gap has risen across the pay distribution, especially for full time staff.

In terms of industries, see Figures A3.7 to 3.12, in Manufacturing, Education and Information, the full-time gender pay gap differs little across the pay distribution. By contrast, Wholesale and Retail Distribution, Health and Finance show the association between increased pay and an increased full-time gender pay gap observed at the aggregate level. The gender pay gap for part-time employees also shows this association across all industries, although it is truncated in education. Reduction in the size of the gender pay gap for full-time employees at high levels of pay over time is shown in all industries; this is especially significant in the Finance sector where the gap was more than 60% for full-time employees in 2015 having been close to 100% in 2004. The gender earnings gap for part-time employees has also tended to decline in the upper deciles for all industries except Retail, where the part-time gender pay gap rose for the highest paid decile between 2004 and 2015.

The within gender full-time versus part-time pay gap plots are shown on the right hand side of Figures A3.1-3.12, by occupation or industry. For both females (upper plot) and males (lower plot) there is a positive association between the within gender full-time versus part-time pay gap and levels of pay in only a few occupations and industries. Sales (Fig A3.5) and Unskilled (Fig A3.6) amongst occupations and Wholesale and Retail (Fig3.8) and Financial (Fig A3.12) industries show this pattern whilst a negative association is shown in the Professional (Fig A3.2) occupation and in Education (Fig A3.9) and Health (Fig A3.10), most clearly for men working part-time. Reductions over time in the within gender full-time versus part-time pay gap at the higher pay deciles is shown in Education and Health, especially for female part-time employees. There is little consistent intertemporal pattern, however, in these gaps across occupation or industry.

The analysis of the pattern of pay gaps across pay levels within occupations and industries in the ASHE data provides a more detailed picture than is possible with

WERS[12]. In this section we have shown that around the mean gender pay gap in many occupations there is a distribution of the gap which is monotonically, positively associated with pay level. Whilst in many occupations the gender pay gap for the lowest paid workers is generally close to zero, the pay gap is substantial at higher rates of pay. Over time, this feature has generally moderated a little but remains a strong feature of the data. Within industries there is more heterogeneity, but the positive association between the gender pay gap and pay remains a clear feature, especially amongst part-time workers. The within gender full-time versus part-time pay gap across occupations is less clearly associated with the level of pay but the relationship exists more clearly for men than for women. The scale of the association between this gap and the level of pay is also generally smaller than that for the gender pay gap across occupations. There is also less evidence of a change in the pattern over time. For industries, there a much stronger positive association of the within gender full-time versus part-time pay gap and pay levels with significant exceptions. In Retail the association is very strongly positive and has changed very little over time whereas in Manufacturing the association is generally negative and shows some intertemporal variation.

Our analysis of the gaps in pay within occupations and industries starts to tease out the major contributors to the enduring overall gender and full-time versus part-time pay gaps. We find that occupations with the highest proportion of women working in them, Clerical, Professional, Technical and Personal Services all show a significant positive overall gender pay gap. In these sectors, and some others, the industry in which the employee works explains a significant and substantial part of the pay gap. Differences in individual characteristics are also important in a number of sectors. A residual unexplained part of the gender pay gap in occupations remains in all occupations apart from Clerical and to a lesser degree Personal Services. Differences in the returns to individual characteristics, industry and workplace variables contribute to these unexplained gaps but not in a way that is consistent across occupations. When we aggregate occupations into manual and non-manual tasks we find that the explained gender pay gap is explained mostly by individual characteristics and industry in the case of manual workers and mostly by individual

[12] Even so, there remain groups within industries, in particular, where data is insufficient for analysis.

characteristics for non-manual staff. We also find that the unexplained gender pay gap for manual workers is driven mostly by differences in returns to individual characteristics whilst that for non-manual workers is due to differences in the returns to workplace characteristics.

For the full-time versus part-time pay gap, the sectors with the largest pay gaps and significant numbers of part-time workers are Sales and Unskilled. In both cases a significant component of the pay gap is explained by individual characteristics and industry. The substantial remaining unexplained gap in these occupations is associated with differences in returns to workplace variables. Our examination of the ASHE data shows that the high positive average part-time pay gap in these occupations results from a much larger pay gap at higher levels of pay whilst being close to zero at the lowest pay decile.

We find that amongst the industries with the highest number of women working in them, some like Health, Education and Professional have a significant positive overall gender pay gap much of which is explained by the distribution of women across the occupations employed in the sector. Also, some sectors with large female representation like Retail, Professional and Education show a significant explained contribution from individual characteristics. However, of these sectors only Health has a small residual unexplained gender pay gap. In Professional, Education and Retail there are large positive contributions to the residual or unexplained gap due to differences in the returns to individual characteristics or occupations. Our examination of the complementary data from ASHE for these sectors suggests that the positive size of the mean gender pay gap is driven by the highest paid quartile of workers in these sectors. In the case of the full-time versus part-time pay gap, many of the same features found for the gender pay gap in industries are repeated. In Retail, Education and Health which show the largest number of part-time workers, occupation and workplace explain a large part of the gap whilst a significant residual gap is due to differences in the returns to individual characteristics in Education and Health and to differences in returns to workplace characteristics in Retail. The ASHE data show that the average part-time pay gap in Retail is especially strongly positively related to the level of pay.

Considering the lower paid, as an approximation of the direct relationship between the National Minimum Wage and the wage distributions for occupations and industries we can compare the decile values of wages with the NMW for adults. Of the occupations examined above, only three, Unskilled, Sales and Personal Services show an overlap with the relevant adult level of the NMW. In the Unskilled occupation the NMW in 2011 and 2015 occurs around the 3rd decile of the wage distribution of male and female part-time workers, whilst in 2004 it was at the first decile. Female full-time workers wage overlapped at the first decile in all three years. Anticipating the size of the National Living Wage (NLW) in 2016, there would be an overlap with the wages of male and female part-time workers at the 6th decile. The part-time gender pay gap for the Unskilled is small at all lower deciles, however, especially in 2011 and 2015 and we would not expect the introduction of the NLW to have a significant impact on the gender pay gap even in the occupation whose wage distribution shows the biggest overlap. The effects described for the Unskilled occupation also appear to a reduced degree in the Sales and Personal Services occupations and Retail industrial sector. An overlap with the NMW at the lowest decile of wages for male and female part-time workers in these groups is followed by a likely overlap at the median for the NLW in 2016 but again these are groups where the part-time gender pay gap is small, especially at lower levels of the wage distribution.

8. Conclusions.

The raw overall gender earnings gap has fallen in the WERS and ASHE data over time. It has done so gradually for full-time workers and with more variability for part-timers. For the full-time vs part-time pay gap overall there has been little overall change. We find that the raw gender earnings gap is typically declining over time in occupations and industries, but not uniformly. In many cases, the raw gender earning gap is commonly close to zero at low wages and substantially higher from around the 7th decile; this could be taken as evidence of glass ceiling effects in most occupations and industries in Britain.

Decomposition analysis shows us that individual characteristics, occupation and industry are important to the gender earnings gap. Industry and region are also

important for the full-time part-time gaps. Putting working hours and gender together, therefore, we find a complex story for earnings gaps. The gap between female and male full-time employees declined between 2004 and 2011 (from 14.0 to a still substantial 12.2 log points) and is mainly not explained by observable characteristics. Within occupation, our decompositions show industry is important; and within industry occupation is important. Segregation at occupation and/or industry level is a concern.

For all of the across gender and working hour decomposition comparisons we present (for 2004 and 2011), the unexplained (or discrimination component) is always associated with males having higher wages than females. As discussed in Mumford and Smith (2009), the finding that a large pure gender earnings gap remains for both full and part-time employees suggests that the Equal Pay legislation in Britain is still not fully effective. An important policy response is therefore more effective application of this legislation. The finding that segregation of females into occupations, industries and workplaces accounts for a significant proportion of the raw earnings gap suggests that more vigorous application of comparable worth policies may also be necessary to further close the gender earnings gap.

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References

Budd, J. W. and Mumford, K. 2006.'Family Friendly Work Practices in Britain: Availability and Awareness.' *Human Resource Management Journal* 45, 23-42.

Chzhen, Y. and Mumford, K. 2011. "Gender Gaps across the Earnings Distribution in Britain." *Labor Economics* 18(6): 837-844.

Deaton, A. 1998. *The Analysis of Household Surveys. A Microeconometric Approach to Development Policy.* World Bank. John Hopkins University Press, Baltimore.

Goldin, C. 2014. A Grand Gender Convergence: Its Last Chapter. *American Economic Review* 104 (4): 1091-1119.

Jann, B. 2008. The Blinder-Oaxaca decomposition for linear regression models". *The Stata Journal*, 8(4): 453-479.

Mumford, K. and Smith, P.N. 2007. 'The Gender Earnings Gap in Britain: Including the Workplace.' *Manchester School,* 75, 653-72.

Mumford, K. and Smith, P.N. 2009. 'What Determines the Part-Time Gender Earnings Gap in Britain: Evidence from the Workplace.' *Oxford Economic Papers,* 61(1), 56-75.

Oaxaca, R.L., and Ransom, M.R. 1994. 'On Discrimination and the Decomposition of Wage Differentials.' *Journal of Econometrics* 61, 5-24.

Stewart, M. 1983. 'On Least Square Estimation when the Dependent Variable is Grouped.' *Review of Economic Studies* 50, 737-53.

WERS. 2014. The 2011 Workplace Employment Relations Study: Frequently Asked Questions Version 1.2. 7th January 2014; retrieved from http://doc.ukdataservice.ac.uk/doc/6712/mrdoc/pdf/6712guide_to_analysis_of_wers2011_7_january_2014.pdf on August 22, 2016.

Appendix 1. Comparing 2004 and 2011.

Table A1.1 Variable definitions.

2004

Table A1.2 Sample means for the aggregate samples, 2004.

Table A1.3 Descriptive statistics; full and part time males and females, 2004.

Table A1.4 Basic earnings function (individual characteristics), 2004.

Table A1.5 Individual characteristics and occupations: selected results, 2004.

Table A1.6 Individual, occupation and workplace characteristics, 2004.

Table A1.7 Decompositions of the gender earnings gaps, 2004.

2011

Table A1.8 Sample means for the aggregate samples, 2011.

Table A1.9 Descriptive statistics; full and part time males and females, 2011.

Table A1.1. Variable definitions.

Variable name	Variable definition
hourly pay	Average hourly pay [midpoints of 14 bands]]
log hourly pay	The natural log of average hourly pay
Individual characteristics:	
potential experience (years)	Age minus (approximate years of schooling plus 5), measured in years.
training (days in previous year)	Days of training in the previous twelve months [midpoints of 6 bars, top coded at 10 days]
education measures;	
none/other	Has none of the academic qualifications listed (may have other academic qualifications than those listed)
cse25	Highest level of education is GCSE grades D-G; CSE grades 2-5 SCE; O grades D-; SCE Standard grades 4-7.
cse1	Highest level of education is GCSE grades A-C; GCE O-level passes; CSE grade 1 SCE; O grades A-C; or SCE Standard 1-3
gceae	Highest level of education is GCE A-level grades A-E; 1-2 SCE; Higher grades A-C, As levels
gce2ae	Highest level of education is 2 or more GCE; A-levels grades A-E; 3 or more SCE; or Higher grades A-C
degree	Highest level of education is a first degree, eg BSc, BA, HND, HNC Ma at first degree level
postgrad	Highest level of education is a higher degree, eg MSc, MA, PGCE, PhD
child	Has a dependent child aged below 18
child 0-4	Youngest dependent child aged 0-4
child 5-11	Youngest dependent child aged 5-11
child 12-18	Youngest dependent child aged 12-18
married	Married or living with a partner
disabled	Has a long term (>1 year) illness/disability
ethnic	
fixed contract	Employed on a fixed term contract
hours	Usual hours worked per week (includes over-time)
part time	Working part time, if usual working hours is less than or equal to 30 per week
tenure	Years at this workplace [midpoints of 5 bars, top coded at 10 years]

Variable name	Variable definition
union	Employee is a union member
occupation categories;	
managerial	Managerial
professional	Professional
technical	Technical
clerical	Clerical
craft	Craft service
personal	Personal service
sales	Sales and customer services
operative	Operative and assembly workers
unskilled	Unskilled
Workplace characteristics:	
workplace size	Total number of employees in the workplace
workplace age	Establishment Age (/1000)
multi site	Firm has multiple UK work sites
foreign owned	Foreign controlled workplace
increasing market	Market for workplace main product or service is growing
age based wage	Pay Based on Age or Years of Experience
grade based wage	Pay Based on Job Grade
equal opportunity	Workplace has a formal written equal opportunity policy
family friendly index 2004	Index of six Family Friendly Policies available at the workplace: paternity leave; maternity leave; home working; job sharing; child care; paid leave.
family friendly index 2011	Index of three Family Friendly Policies available at the workplace: paternity leave; maternity leave; child care; paid leave.
paternity leave	If employees on paternity leave receives the normal, full rate of pay
maternity leave	If employees on maternity leave receives the normal, full rate of pay
home working	If employees can work at home
job sharing	If a job sharing scheme exists in the workplace
child care	If a workplace nursery or child care subsidy is available at the workplace
paid leave	If paid family leave is available

Variable name	Variable definition
interaction index	Index of five employee-employer interaction measures at the workplace: employee has a lot of discretion over work; quality circles exists; team working exists; employees consulted over targets; employee briefing system exists
IR index	Index of three industrial relations measures at the workplace: union membership presence; human resources representative; collective grievance procedure present
rel female workplace	Proportion of females in the work place
rel female occupation	Proportion of females in the occupation
regions:	
north east	north east of England
north west	north west of England
yorkshire & the humberside	Yorkshire & the Humberside
east midlands	east midlands of England
west midlands	west midlands of England
east of england	east of England
london	London
south east	south east of England
south west	south west of England
scotland	Scotland
wales	Wales

Source: WERS 2004 and 2011.

Table A1.2. Sample means for the aggregate samples, 2004.

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
log ave hourly pay	2.126	0.009	2.234	0.012	2.030	0.010	2.191	0.010	1.969	0.014
potential experience	23.300	0.168	23.746	0.212	22.886	0.215	22.848	0.179	24.390	0.298
Training	2.560	0.041	2.592	0.056	2.533	0.047	2.810	0.049	1.954	0.052
education measures:										
educ none/other	0.229	0.005	0.254	0.007	0.207	0.006	0.217	0.005	0.257	0.008
cse25	0.096	0.003	0.102	0.004	0.091	0.004	0.098	0.003	0.091	0.005
cse1	0.257	0.005	0.216	0.006	0.294	0.006	0.247	0.005	0.282	0.008
Ceae	0.055	0.002	0.047	0.003	0.062	0.003	0.050	0.002	0.065	0.004
ce2ae	0.091	0.003	0.086	0.004	0.096	0.004	0.084	0.003	0.108	0.006
Degree	0.193	0.005	0.210	0.007	0.179	0.005	0.218	0.006	0.134	0.006
postgraduate	0.064	0.003	0.072	0.004	0.057	0.003	0.071	0.004	0.047	0.003
child 0-4	0.117	0.003	0.144	0.004	0.094	0.003	0.111	0.003	0.132	0.006
child 5-11	0.136	0.003	0.138	0.004	0.134	0.004	0.119	0.003	0.177	0.006
child 12-18	0.121	0.003	0.112	0.004	0.129	0.004	0.116	0.003	0.133	0.005
Married	0.668	0.005	0.678	0.006	0.659	0.006	0.662	0.005	0.681	0.009
Disabled	0.117	0.003	0.117	0.006	0.118	0.006	0.117	0.003	0.118	0.005
Ethnic	0.061	0.004	0.128	0.004	0.108	0.004	0.062	0.004	0.058	0.006
fixed contract	0.030	0.002	0.066	0.005	0.057	0.004	0.029	0.002	0.035	0.003
part time	0.293	0.006	0.120	0.002	0.431	0.002	0.000	0.000	1.000	0.000
Tenure	5.038	0.053	5.262	0.071	4.836	0.062	5.118	0.062	4.845	0.075
Union	0.314	0.008	0.319	0.011	0.310	0.009	0.327	0.009	0.285	0.010
Female	0.528	0.007					0.414	0.008	0.803	0.008

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
occupations:										
Managerial	0.120	0.004	0.159	0.006	0.085	0.004	0.148	0.005	0.052	0.004
Professional	0.109	0.005	0.121	0.007	0.098	0.005	0.120	0.005	0.084	0.006
Technical	0.149	0.005	0.137	0.006	0.160	0.006	0.162	0.005	0.119	0.006
Clerical	0.182	0.005	0.084	0.004	0.270	0.008	0.173	0.006	0.204	0.009
Craft	0.072	0.004	0.138	0.008	0.013	0.002	0.091	0.005	0.026	0.003
Personal	0.073	0.004	0.028	0.003	0.113	0.006	0.049	0.003	0.133	0.007
Sales	0.094	0.005	0.052	0.004	0.131	0.008	0.060	0.005	0.176	0.011
Operative	0.082	0.005	0.143	0.008	0.028	0.004	0.104	0.006	0.029	0.003
Unskilled	0.119	0.005	0.137	0.008	0.102	0.006	0.095	0.006	0.177	0.010
industries:										
Manufacturing	0.163	0.007	0.255	0.011	0.081	0.006	0.208	0.008	0.053	0.004
Utilities	0.004	0.001	0.005	0.001	0.003	0.001	0.004	0.001	0.002	0.001
Construction	0.039	0.004	0.067	0.008	0.014	0.002	0.048	0.005	0.017	0.002
Whole/Retail	0.148	0.007	0.136	0.009	0.159	0.009	0.123	0.008	0.210	0.011
Hotels	0.038	0.004	0.032	0.005	0.044	0.005	0.026	0.004	0.067	0.007
Transport	0.060	0.003	0.089	0.006	0.035	0.004	0.072	0.004	0.033	0.004
Financial Services	0.062	0.004	0.054	0.004	0.070	0.006	0.066	0.005	0.053	0.006
Other Business	0.142	0.008	0.148	0.011	0.136	0.009	0.161	0.010	0.096	0.009
Public Admin	0.062	0.004	0.060	0.005	0.064	0.005	0.071	0.005	0.041	0.005
Education	0.091	0.004	0.048	0.003	0.129	0.006	0.066	0.004	0.151	0.008
Health	0.144	0.007	0.060	0.005	0.219	0.010	0.113	0.007	0.217	0.011
Other Community	0.047	0.004	0.047	0.006	0.046	0.004	0.042	0.004	0.059	0.006
workplace age	43.957	1.636	44.852	1.952	43.166	1.769	44.050	1.743	43.732	2.072
workplace size (/1000)	0.487	0.046	0.463	0.040	0.510	0.058	0.513	0.045	0.426	0.055
multi site	0.755	0.012	0.732	0.016	0.776	0.013	0.753	0.014	0.761	0.015
foreign owned	0.136	0.010	0.177	0.014	0.098	0.009	0.159	0.012	0.079	0.010
increasing market	0.336	0.014	0.344	0.017	0.329	0.015	0.331	0.015	0.349	0.017
age based wage	0.463	0.014	0.438	0.017	0.487	0.016	0.480	0.016	0.424	0.017

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
grade based wage	0.263	0.013	0.252	0.015	0.273	0.014	0.283	0.015	0.215	0.013
family friendly index	3.055	0.040	2.913	0.052	3.182	0.044	3.076	0.045	3.004	0.050
interaction index	2.580	0.032	2.535	0.041	2.619	0.036	2.622	0.035	2.477	0.042
IR index	1.218	0.024	1.204	0.030	1.231	0.028	1.225	0.027	1.201	0.030
equal opp	0.858	0.009	0.837	0.013	0.877	0.010	0.862	0.010	0.850	0.013
rel female workplace	0.526	0.739	0.336	0.761	0.696	0.553	0.455	0.795	0.698	0.746
rel female occupation	0.526	0.357	0.421	0.464	0.620	0.332	0.491	0.416	0.611	0.404
regions:										
North East	0.038	0.005	0.040	0.008	0.035	0.005	0.037	0.006	0.039	0.007
North West	0.146	0.011	0.149	0.013	0.143	0.012	0.146	0.012	0.146	0.013
Yorkshire & The Humber	0.096	0.009	0.096	0.011	0.095	0.010	0.092	0.010	0.103	0.011
East Midlands	0.069	0.008	0.072	0.009	0.066	0.009	0.070	0.008	0.066	0.009
West Midlands	0.098	0.009	0.100	0.011	0.096	0.010	0.095	0.010	0.105	0.013
East Of England	0.091	0.008	0.090	0.010	0.092	0.009	0.089	0.009	0.095	0.011
London	0.102	0.008	0.100	0.010	0.104	0.009	0.112	0.010	0.078	0.008
South East	0.129	0.010	0.123	0.012	0.135	0.011	0.131	0.011	0.126	0.012
South West	0.082	0.008	0.079	0.009	0.085	0.009	0.081	0.008	0.086	0.010
Scotland	0.112	0.010	0.114	0.012	0.109	0.010	0.111	0.010	0.114	0.012
Wales	0.038	0.005	0.037	0.006	0.039	0.006	0.036	0.005	0.042	0.007
No. observations		21156		9841		11287		15102		6054

Source: WERS 2004.

Table A1.3. Descriptive statistics; full and part time males and females, 2004.

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
log ave hourly pay	2.249	0.012	2.109	0.011	2.131	0.036	1.930	0.014
potential experience	23.959	0.212	21.269	0.246	22.208	0.666	24.899	0.309
training	2.655	0.060	3.031	0.063	2.131	0.115	1.914	0.055
education measures:								
educ none/other	0.254	0.007	0.166	0.007	0.180	0.011	0.257	0.008
cse25	0.105	0.004	0.089	0.005	0.082	0.009	0.093	0.005
cse1	0.218	0.006	0.288	0.008	0.540	0.020	0.301	0.009
ceae	0.045	0.003	0.057	0.004	0.147	0.013	0.067	0.004
ce2ae	0.078	0.004	0.093	0.005	0.107	0.017	0.100	0.006
degree	0.215	0.008	0.223	0.008	0.181	0.015	0.123	0.006
postgrad	0.072	0.005	0.071	0.004	0.071	0.008	0.040	0.003
child 0-4	0.151	0.005	0.055	0.003	0.081	0.010	0.142	0.006
child 5-11	0.145	0.005	0.083	0.004	0.206	0.015	0.199	0.007
child 12-18	0.117	0.004	0.115	0.005	0.055	0.008	0.146	0.006
married	0.697	0.006	0.614	0.008	0.139	0.014	0.715	0.009
disabled	0.125	0.004	0.106	0.005	0.179	0.013	0.111	0.005
ethnic	0.060	0.005	0.065	0.006	0.075	0.009	0.046	0.005
fixed contract	0.026	0.003	0.032	0.003	0.055	0.007	0.030	0.003
part time	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.000
tenure	5.421	0.074	4.692	0.074	4.110	0.135	5.017	0.082
union	0.327	0.012	0.325	0.011	0.264	0.017	0.290	0.011
female	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.000
occupations:								
managerial	0.168	0.006	0.119	0.006	0.099	0.011	0.041	0.004

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
professional	0.122	0.007	0.117	0.006	0.120	0.013	0.075	0.006
technical	0.141	0.006	0.191	0.008	0.105	0.011	0.122	0.007
clerical	0.085	0.005	0.297	0.010	0.074	0.009	0.235	0.011
craft	0.146	0.009	0.013	0.002	0.084	0.012	0.012	0.003
personal	0.023	0.003	0.084	0.007	0.065	0.008	0.149	0.008
sales	0.039	0.004	0.090	0.008	0.145	0.017	0.183	0.012
operative	0.152	0.009	0.037	0.006	0.078	0.011	0.017	0.003
unskilled	0.124	0.008	0.052	0.005	0.230	0.018	0.165	0.010
industries								
manufacturing	0.275	0.012	0.115	0.008	0.110	0.012	0.039	0.004
utilities	0.005	0.001	0.003	0.001	0.005	0.002	0.002	0.001
construction	0.069	0.008	0.018	0.003	0.049	0.009	0.009	0.002
whole/retail	0.125	0.010	0.120	0.009	0.218	0.020	0.208	0.013
hotels	0.023	0.004	0.030	0.005	0.093	0.019	0.061	0.007
transport	0.092	0.006	0.043	0.006	0.072	0.010	0.024	0.004
financial services	0.056	0.005	0.080	0.007	0.034	0.006	0.058	0.007
other business	0.156	0.011	0.168	0.012	0.092	0.013	0.096	0.011
public admin	0.063	0.005	0.082	0.007	0.040	0.006	0.042	0.005
education	0.041	0.003	0.101	0.006	0.097	0.010	0.164	0.009
health	0.052	0.005	0.200	0.011	0.112	0.013	0.242	0.013
other community	0.043	0.006	0.040	0.005	0.078	0.011	0.054	0.007
workplace age	44.774	1.960	43.036	2.038	45.413	4.329	43.327	1.963
workplace size (/1000)	0.477	0.039	0.563	0.063	0.356	0.057	0.444	0.057
multi site	0.734	0.016	0.779	0.015	0.715	0.024	0.771	0.016
foreign owned	0.188	0.015	0.118	0.011	0.101	0.014	0.074	0.010
increasing market	0.333	0.017	0.328	0.016	0.424	0.025	0.331	0.018
age based wage	0.442	0.018	0.535	0.018	0.409	0.023	0.427	0.019
grade based wage	0.261	0.016	0.314	0.017	0.184	0.016	0.223	0.015

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
family friendly index	2.927	0.055	3.288	0.048	2.817	0.077	3.050	0.055
equal opp	0.842	0.013	0.890	0.010	0.804	0.024	0.860	0.013
rel female workplace	0.319	0.776	0.647	0.624	0.462	1.264	0.756	0.655
rel female occupation	0.410	0.482	0.605	0.444	0.497	0.829	0.639	0.418
interaction index	2.553	0.043	2.721	0.039	2.405	0.058	2.493	0.047
IR index	1.212	0.032	1.243	0.031	1.143	0.041	1.216	0.033
regions:								
north east	0.041	0.008	0.032	0.005	0.037	0.008	0.040	0.007
north west	0.146	0.013	0.145	0.013	0.168	0.020	0.141	0.014
yorkshire & the humber	0.094	0.012	0.090	0.011	0.110	0.016	0.102	0.012
east midlands	0.074	0.009	0.065	0.009	0.056	0.010	0.068	0.010
west midlands	0.100	0.012	0.088	0.010	0.096	0.015	0.107	0.013
east of england	0.089	0.011	0.090	0.010	0.096	0.015	0.095	0.011
london	0.102	0.010	0.125	0.012	0.085	0.013	0.077	0.009
south east	0.124	0.012	0.140	0.013	0.114	0.015	0.129	0.013
south west	0.079	0.009	0.084	0.010	0.082	0.013	0.087	0.012
scotland	0.114	0.013	0.106	0.011	0.115	0.018	0.113	0.012
wales	0.036	0.006	0.036	0.006	0.042	0.010	0.042	0.008
No. observations		8661		6424		1180		4863

Source: WERS 2004.

Table A1.4. Basic earnings function (individual characteristics), 2004.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
potential experience	0.031	15.30*	0.036	16.00*	0.035	4.38*	0.038	9.76*
pot exp sqd (x1000)	-0.454	-11.42*	-0.629	-12.86*	-0.641	-4.19*	-0.702	-8.84*
training	0.012	6.22*	0.016	8.78*	0.039	4.29*	0.023	5.41*
education none/other is omitted								
cse25	0.140	8.09*	0.108	4.28*	0.180	1.54	0.048	1.49
cse1	0.257	15.71*	0.234	11.74*	0.291	2.9*	0.165	6.54*
ceae	0.283	10.17*	0.320	9.63*	0.289	1.94	0.205	4.93*
ce2ae	0.458	18.11*	0.372	14.07*	0.273	2.48	0.369	6.88*
degree	0.607	30.42*	0.587	24.23*	0.465	4.65*	0.581	13.56*
postgrad	0.787	32.51*	0.725	26.00*	0.530	4.77*	0.703	13.91*
child 0-4	0.055	3.64*	0.040	1.67	-0.085	-0.87	-0.004	-0.11
child 5-11	0.036	2.24*	-0.037	-1.74	0.122	1.25	-0.143	-4.06*
child 12-18	0.022	1.35	-0.114	-5.78*	0.188	1.57	-0.142	-4.45*
married	0.104	8.23*	0.012	0.97	0.177	2.26*	0.059	2.34*
disabled	-0.027	-1.80	-0.052	-2.92*	-0.147	-2.06*	0.014	0.40
ethnic	-0.105	-3.53*	-0.061	-1.89	-0.201	-2.42*	-0.019	-0.35
fixed contract	-0.030	-0.63	-0.017	-0.55	0.113	1.29	0.081	1.58
tenure	0.017	9.01*	0.011	5.43*	0.031	3.07*	0.014	4.74*
union	-0.024	-1.54	0.039	2.62*	0.225	3.34*	0.163	6.88*
constant	1.324	48.58*	1.306	47.82*	1.222	11.64*	1.178	27.02*
strata		89		89		84		86
PSUs		1424		1445		750		1254
No. observations		8661		6424		1180		4863
Degrees freedom		1335		1356		666		1168
R-squared		0.380		0.347		0.235		0.231

Source: WERS 2004 *significant at a 95% confidence level or above.

Table A1.5. Individual characteristics and occupations: selected results, 2004.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
Individual characteristics also included		yes		yes		yes		yes
clerical is omitted								
managerial	0.255	11.66*	0.220	9.43*	0.509	4.08*	0.434	5.34*
professional	0.220	8.66*	0.273	12.61*	0.346	2.97*	0.444	9.98*
technical	0.148	6.15*	0.161	10.67*	0.199	1.72	0.245	7.48*
craft	-0.047	-2.07*	-0.132	-2.83*	0.176	0.94	-0.321	-2.93*
personal	-0.211	-6.29*	-0.238	-10.05*	-0.283	-2.58*	-0.254	-9.27*
sales	-0.222	-6.63*	-0.179	-7.19*	-0.495	-4.75*	-0.304	-9.69*
operative	-0.192	-7.68*	-0.246	-6.81*	-0.101	-0.87	-0.126	-1.21
unskilled	-0.324	-12.13*	-0.303	-11.68*	-0.411	-4.00*	-0.399	-13.71*
R-squared		0.513		0.475		0.350		0.332

Source: WERS 2004. *significant at a 95% confidence level or above.

Table A1.6. Individual, occupation and workplace characteristics, 2004.

log hourly pay	Male full-time		Female full-time		Male part-time		Female part-time	
	coeff	t-value	coeff	t-value	coeff	t-value	coeff	t-value
Individual characteristics and occupation also included		yes		yes		yes		yes
manufacturing is omitted								
utilities	0.117	2.24*	0.139	2.93*	0.324	1.06	-0.080	-0.88
construction	0.053	2.00*	0.006	0.09	-0.002	-0.01	0.208	1.36
whole/retail	-0.094	-3.48*	-0.115	-3.65*	-0.631	-4.65*	-0.333	-4.68*
hotels	-0.288	-6.97*	-0.204	-6.75*	-0.865	-5.28*	-0.346	-5.04*
transport	0.015	0.55	0.068	2.08*	-0.150	-1.13	-0.019	-0.22
financial services	0.047	1.64	0.064	2.47*	-0.437	-2.57*	-0.057	-0.70
other business	0.017	0.69	0.058	2.30*	-0.432	-3.31*	-0.096	-1.27
public admin	-0.069	-2.44*	0.012	0.49	-0.205	-1.08	-0.117	-1.64
education	-0.207	-6.93*	-0.104	-3.82*	-0.681	-4.91*	-0.294	-4.23*
health	-0.136	-5.61*	-0.049	-2.02*	-0.621	-4.82*	-0.246	-3.66*
other community	-0.095	-3.11*	-0.025	-0.71	-0.552	-3.81*	-0.307	-3.90*
workplace age	0.000	0.20	0.000	1.22	0.000	0.73	0.000	1.02
workplace size	0.013	2.11*	0.013	3.37*	-0.006	-0.25	0.012	1.54
multi site	0.003	0.16	0.007	0.44	0.070	1.12	-0.031	-1.11
foreign owned	0.046	2.64*	0.054	2.59*	-0.068	-0.77	0.001	0.03
increasing market	-0.035	-2.54*	-0.025	-1.79	-0.077	-1.50	0.024	1.01
age based wage	0.027	1.94	0.015	1.13	0.032	0.59	0.007	0.34
grade based wage	0.032	1.97*	0.023	1.66	0.141	2.18*	0.017	0.72
family friendly index	0.026	4.94*	0.030	6.58*	0.002	0.09	0.016	2.14*
interaction index	0.017	2.82*	0.017	2.86*	0.032	1.32	0.018	1.85
IR index	-0.001	-0.15	-0.015	-1.91	-0.022	-0.70	-0.003	-0.20
equal opp	0.017	0.82	-0.001	-0.03	0.058	0.64	0.012	0.36
east midlands is omitted								
north east	-0.004	-0.09	-0.096	-2.30*	0.053	0.43	0.071	1.23
north west	-0.029	-0.97	-0.053	-1.58	-0.044	-0.51	0.017	0.41
yorkshire & the humber	0.014	0.48	-0.019	-0.55	-0.107	-1.14	0.035	0.79
west midlands	0.029	0.95	-0.044	-1.31	-0.014	-0.14	0.009	0.23
east of england	0.083	2.52*	0.025	0.73	0.136	1.15	0.092	1.95
london	0.213	6.78*	0.227	6.77*	0.160	1.69	0.324	6.80*
south east	0.120	4.33*	0.089	2.68*	0.101	0.94	0.100	2.49*
south west	0.015	0.46	0.001	0.04	-0.103	-0.98	0.021	0.44
scotland	-0.001	-0.02	0.005	0.14	-0.043	-0.44	0.105	2.59*
wales	-0.004	-0.11	-0.087	-2.22*	-0.166	-1.54	0.091	1.80
constant	1.421	28.30*	1.364	28.51*	2.011	9.65*	1.726	19.77*
strata		89		89		84		86
PSUs		1424		1445		750		1254
No. observations		8661		6424		1180		4863
Degrees freedom		1335		1356		666		1168
R-squared		0.586		0.567		0.451		0.428

Source: WERS 2004. *significant at a 95% confidence level or above.

Table A1.7. Decompositions of the gender earnings gaps, 2004.

Model	Total gap	Individual Characteristics	Occupation	Industry	Workplace	Region	Unexplained
Male Full Time versus Female Full Time	14.01						
Individual characteristics		2.41					11.51
+ occupations		2.87	-2.17				13.30
+ (i) workplace fixed effects		2.84	-1.71				12.80
or (ii) workplace characteristics		3.01	-1.74	3.71	-1.55	-0.66	11.21
Male Part Time versus Female Part Time	20.11						
Individual characteristics		-14.1					34.24
+ occupations		-8.58	6.40				22.30
+ (i) workplace fixed effects		-4.13	5.70				18.50
or (ii) workplace characteristics		-4.19	5.65	8.62	-2.25	-0.17	12.40
Male Full Time versus Male Part Time	11.71						
Individual characteristics		11.51					0.21
+ occupations		9.36	7.29				-4.91
+ (i) workplace fixed effects		7.75	4.81				-0.80
or (ii) workplace characteristics		8.99	6.22	5.39	1.81	0.49	-11.21
Female Full Time versus Female Part Time	17.91						
Individual characteristics		7.1					10.7
+ occupations		4.23	10.1				3.50
+ (i) workplace fixed effects		2.09	7.70				8.10
or (ii) workplace characteristics		2.68	8.48	3.33	1.80	1.41	0.16
Male Full Time versus Female Part Time	31.82						
Individual characteristics		5.19					26.64
+ occupations		3.24	8.49				20.09
+ (i) workplace fixed effects		1.92	5.49				24.42
or (ii) workplace characteristics		2.67	7.26	7.52	0.46	0.39	13.51

Source: WERS 2004

Table A1.8. Sample means for the aggregate samples, 2011.

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
hourly pay	12.444	0.179	13.504	0.240	11.388	0.171	13.206	0.197	9.975	0.212
log hourly pay	2.370	0.014	2.460	0.017	2.280	0.014	2.449	0.015	2.113	0.017
potential experience	24.195	0.260	24.676	0.354	23.716	0.275	23.728	0.300	25.707	0.386
potential experience squared	748.402	12.706	770.182	17.808	726.684	13.047	714.767	14.460	857.418	18.846
training	2.482	0.047	2.576	0.060	2.389	0.057	2.684	0.055	1.829	0.061
education measures:										
none	0.031	0.002	0.037	0.004	0.024	0.002	0.029	0.003	0.036	0.004
vocational	0.120	0.004	0.130	0.007	0.110	0.005	0.116	0.005	0.134	0.007
cse25	0.092	0.004	0.101	0.006	0.082	0.004	0.091	0.004	0.094	0.006
cse1	0.273	0.007	0.247	0.009	0.300	0.008	0.264	0.008	0.304	0.010
gceae	0.042	0.002	0.034	0.003	0.050	0.003	0.039	0.002	0.052	0.005
gce2ae	0.086	0.003	0.075	0.004	0.097	0.005	0.083	0.004	0.096	0.006
degree	0.224	0.007	0.231	0.011	0.217	0.008	0.244	0.008	0.162	0.009
postgrad	0.101	0.006	0.111	0.008	0.091	0.005	0.109	0.007	0.075	0.006
other	0.031	0.002	0.034	0.003	0.028	0.003	0.026	0.002	0.048	0.005
child 0-4	0.130	0.005	0.153	0.007	0.108	0.005	0.122	0.005	0.157	0.009
child 5-11	0.110	0.003	0.119	0.005	0.102	0.004	0.100	0.004	0.143	0.008
child 12-18	0.116	0.004	0.114	0.006	0.118	0.005	0.114	0.005	0.125	0.006
married	0.688	0.006	0.709	0.009	0.667	0.008	0.693	0.007	0.670	0.012
disabled	0.013	0.001	0.012	0.002	0.015	0.002	0.012	0.001	0.017	0.003
ethnic	0.086	0.005	0.092	0.007	0.081	0.005	0.089	0.006	0.080	0.008
fixed term contract	0.036	0.003	0.035	0.005	0.037	0.003	0.034	0.003	0.042	0.004
current job tenure	5.587	0.073	5.642	0.108	5.531	0.072	5.650	0.088	5.380	0.095
trade union member	0.284	0.011	0.291	0.016	0.277	0.011	0.289	0.013	0.266	0.012

Table A1.8. Sample means for the aggregate samples, 2011, continued.

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
workplace age	39.208	1.737	38.367	1.920	40.047	1.966	39.577	1.967	38.010	1.773
workplace size	639.086	79.630	665.811	108.005	612.438	67.265	687.577	91.317	481.912	60.675
multisite	0.735	0.015	0.733	0.019	0.737	0.015	0.736	0.017	0.731	0.017
foreign owned	0.145	0.015	0.178	0.020	0.111	0.015	0.168	0.018	0.069	0.014
increasing market	0.238	0.017	0.235	0.019	0.241	0.018	0.237	0.019	0.242	0.020
reward wages	0.331	0.016	0.278	0.018	0.384	0.018	0.320	0.018	0.366	0.019
family friendly index	1.604	0.030	1.599	0.038	1.609	0.030	1.639	0.033	1.491	0.036
employer interaction index	2.386	0.029	2.402	0.036	2.369	0.031	2.426	0.032	2.254	0.037
industrial relations index	1.750	0.034	1.801	0.044	1.699	0.034	1.793	0.039	1.610	0.038
equal opportunity	0.922	0.008	0.915	0.010	0.930	0.008	0.927	0.008	0.907	0.012
relative female workplace	0.513	0.010	0.342	0.010	0.684	0.008	0.458	0.010	0.693	0.011
relative female occupation	0.543	0.005	0.450	0.007	0.635	0.004	0.514	0.006	0.636	0.005
occupations:										
Managerial	0.081	0.005	0.102	0.008	0.060	0.004	0.099	0.006	0.021	0.003
Professional	0.185	0.009	0.196	0.013	0.175	0.008	0.202	0.011	0.131	0.009
Technical	0.167	0.007	0.181	0.010	0.154	0.007	0.189	0.008	0.098	0.008
Clerical	0.174	0.007	0.081	0.006	0.266	0.010	0.163	0.007	0.209	0.012
Craft Service	0.067	0.005	0.122	0.009	0.012	0.002	0.082	0.006	0.018	0.003
Personal Service	0.079	0.005	0.031	0.004	0.127	0.008	0.052	0.004	0.167	0.012
Sales&Customer	0.070	0.006	0.040	0.005	0.099	0.009	0.047	0.005	0.145	0.015
Operative&Assembly	0.067	0.007	0.120	0.013	0.013	0.003	0.083	0.009	0.015	0.004
Unskilled	0.110	0.007	0.127	0.010	0.094	0.006	0.084	0.007	0.195	0.012
industries:										
Manufacturing	0.123	0.013	0.188	0.020	0.058	0.007	0.153	0.016	0.028	0.005
Electricity	0.003	0.001	0.004	0.001	0.001	0.000	0.003	0.001	0.001	0.000
Water supply	0.006	0.002	0.010	0.004	0.003	0.001	0.008	0.003	0.001	0.001
Construction	0.037	0.006	0.057	0.010	0.016	0.003	0.044	0.008	0.012	0.003
Retail	0.141	0.014	0.131	0.016	0.151	0.015	0.121	0.015	0.204	0.021

Table A1.8. Sample means for the aggregate samples, 2011, continued.

	Full sample		All males		All females		Full-time		Part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
Transportation	0.062	0.009	0.102	0.015	0.023	0.004	0.072	0.011	0.030	0.006
Accommodation	0.043	0.006	0.041	0.006	0.044	0.007	0.035	0.006	0.068	0.010
Communication	0.041	0.008	0.047	0.010	0.036	0.008	0.049	0.010	0.016	0.006
Financial	0.049	0.013	0.049	0.014	0.048	0.015	0.057	0.015	0.023	0.011
Real estate	0.044	0.009	0.042	0.011	0.046	0.008	0.047	0.010	0.034	0.008
Professional	0.087	0.012	0.096	0.016	0.077	0.010	0.101	0.014	0.040	0.006
Clerical	0.033	0.006	0.036	0.008	0.031	0.006	0.034	0.007	0.033	0.008
Public	0.071	0.008	0.062	0.009	0.080	0.010	0.073	0.009	0.063	0.009
Education	0.116	0.009	0.063	0.007	0.168	0.012	0.090	0.008	0.199	0.015
Health	0.115	0.009	0.047	0.005	0.183	0.013	0.090	0.008	0.197	0.016
Arts	0.017	0.002	0.014	0.002	0.020	0.003	0.013	0.002	0.031	0.005
Other community	0.013	0.002	0.011	0.002	0.016	0.003	0.011	0.002	0.020	0.004
regions:										
North East	0.040	0.007	0.042	0.009	0.038	0.007	0.040	0.007	0.039	0.010
North West	0.137	0.014	0.140	0.018	0.133	0.013	0.136	0.017	0.140	0.016
Yorkshire & The Humber	0.072	0.009	0.067	0.010	0.078	0.009	0.067	0.009	0.089	0.011
East Midlands	0.071	0.009	0.080	0.012	0.062	0.008	0.070	0.010	0.075	0.012
West Midlands	0.070	0.008	0.065	0.009	0.076	0.009	0.066	0.008	0.085	0.011
East Of England	0.094	0.010	0.104	0.014	0.085	0.010	0.093	0.011	0.097	0.013
London	0.155	0.016	0.171	0.021	0.139	0.014	0.172	0.018	0.099	0.011
South East	0.135	0.013	0.118	0.013	0.152	0.016	0.132	0.014	0.145	0.016
South West	0.088	0.011	0.082	0.013	0.093	0.011	0.086	0.012	0.092	0.011
Scotland	0.094	0.009	0.096	0.012	0.092	0.010	0.096	0.011	0.087	0.011
Wales	0.044	0.007	0.036	0.006	0.051	0.008	0.041	0.007	0.051	0.010
No. observations	17763		7875		9888		13003		4760	

Source: WERS 2011.

Table A1.9. Descriptive statistics; full time males and females, 2011.

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
hourly pay	13.865	0.250	12.254	0.199	10.086	0.512	9.947	0.215
log hourly pay	2.499	0.018	2.377	0.015	2.087	0.035	2.120	0.018
potential experience	24.646	0.371	22.404	0.325	24.963	0.902	25.896	0.398
potential experience squared	756.382	18.598	654.652	14.902	900.893	46.504	846.399	19.115
training	2.644	0.065	2.741	0.075	1.927	0.131	1.804	0.067
education measures:								
none	0.036	0.004	0.019	0.003	0.051	0.013	0.032	0.004
vocational	0.128	0.007	0.098	0.006	0.144	0.016	0.131	0.008
cse25	0.101	0.006	0.075	0.005	0.097	0.016	0.093	0.006
cse1	0.252	0.010	0.281	0.010	0.196	0.021	0.332	0.011
gceae	0.032	0.003	0.048	0.004	0.045	0.009	0.054	0.006
gce2ae	0.073	0.004	0.098	0.006	0.092	0.012	0.097	0.007
degree	0.234	0.011	0.258	0.011	0.207	0.022	0.150	0.009
postgrad	0.111	0.009	0.105	0.007	0.111	0.016	0.066	0.006
other	0.032	0.003	0.018	0.002	0.058	0.011	0.045	0.005
child 0-4	0.157	0.007	0.071	0.006	0.109	0.016	0.169	0.010
child 5-11	0.123	0.006	0.068	0.004	0.080	0.016	0.159	0.009
child 12-18	0.120	0.006	0.104	0.005	0.055	0.008	0.143	0.007
married	0.723	0.009	0.649	0.009	0.567	0.026	0.696	0.012
disabled	0.011	0.002	0.013	0.002	0.016	0.006	0.018	0.003
ethnic	0.086	0.007	0.093	0.007	0.156	0.027	0.060	0.006
fixed term contract	0.031	0.004	0.038	0.004	0.071	0.015	0.035	0.004
current job tenure	5.765	0.115	5.484	0.088	4.480	0.200	5.609	0.099
trade union member	0.297	0.017	0.278	0.012	0.231	0.021	0.274	0.013
workplace age	38.741	2.007	40.785	2.394	34.819	3.062	38.819	1.930

Table A1.9. Descriptive statistics; full time males and females, 2011, continued.

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
workplace size	684.953	112.553	691.368	82.616	484.491	123.950	481.258	53.815
multisite	0.732	0.020	0.742	0.017	0.739	0.030	0.729	0.018
foreign owned	0.191	0.022	0.135	0.017	0.064	0.018	0.071	0.016
increasing market	0.228	0.020	0.250	0.021	0.301	0.035	0.227	0.021
reward wages	0.275	0.019	0.386	0.020	0.310	0.031	0.381	0.020
family friendly index	1.614	0.040	1.674	0.033	1.455	0.059	1.500	0.037
employer interaction index	2.426	0.037	2.427	0.034	2.180	0.060	2.272	0.039
industrial relations index	1.819	0.046	1.756	0.038	1.628	0.064	1.606	0.039
equal opportunity	0.920	0.010	0.938	0.008	0.869	0.028	0.917	0.011
relative female workplace	0.329	0.010	0.643	0.009	0.463	0.018	0.751	0.009
relative female occupation	0.440	0.008	0.621	0.004	0.546	0.011	0.659	0.005
occupations:								
Managerial	0.110	0.008	0.084	0.006	0.032	0.008	0.018	0.003
Professional	0.203	0.014	0.200	0.010	0.125	0.017	0.133	0.009
Technical	0.188	0.010	0.190	0.009	0.108	0.016	0.095	0.009
Clerical	0.080	0.006	0.283	0.011	0.093	0.018	0.238	0.014
Craft Service	0.130	0.010	0.012	0.002	0.046	0.010	0.012	0.003
Personal Service	0.024	0.003	0.092	0.007	0.098	0.015	0.184	0.013
Sales&Customer	0.032	0.004	0.068	0.007	0.120	0.020	0.151	0.017
Operative&Assembly	0.129	0.014	0.016	0.004	0.042	0.013	0.008	0.003
Unskilled	0.104	0.009	0.055	0.006	0.337	0.028	0.160	0.011
industries:								
Manufacturing	0.205	0.022	0.077	0.010	0.028	0.008	0.027	0.005
Electricity	0.005	0.001	0.002	0.000	0.000	0.000	0.001	0.000
Water supply	0.010	0.004	0.004	0.002	0.003	0.002	0.001	0.001
Construction	0.062	0.011	0.018	0.004	0.014	0.005	0.011	0.003
Retail	0.121	0.016	0.122	0.017	0.226	0.034	0.198	0.021

Table A1.9. Descriptive statistics; full time males and females, 2011, continued.

	Male full-time		Female full-time		Male part-time		Female part-time	
	mean	s.e.	mean	s.e.	mean	s.e.	mean	s.e.
Transportation	0.102	0.015	0.029	0.006	0.099	0.023	0.012	0.003
Accommodation	0.031	0.006	0.039	0.008	0.132	0.023	0.052	0.008
Communication	0.049	0.011	0.048	0.011	0.021	0.012	0.015	0.005
Financial	0.053	0.014	0.062	0.017	0.016	0.010	0.025	0.014
Real estate	0.044	0.011	0.053	0.010	0.032	0.013	0.034	0.008
Professional	0.103	0.017	0.098	0.014	0.027	0.009	0.043	0.007
Clerical	0.034	0.008	0.032	0.008	0.056	0.020	0.028	0.007
Public	0.065	0.009	0.086	0.010	0.035	0.007	0.070	0.010
Education	0.054	0.007	0.141	0.012	0.140	0.019	0.214	0.016
Health	0.041	0.005	0.160	0.013	0.106	0.022	0.220	0.018
Arts	0.011	0.002	0.015	0.003	0.039	0.009	0.029	0.005
Other community	0.009	0.002	0.015	0.003	0.026	0.007	0.019	0.004
regions:								
North East	0.042	0.009	0.037	0.007	0.035	0.021	0.040	0.008
North West	0.138	0.020	0.133	0.016	0.163	0.030	0.134	0.015
Yorkshire & The Humber	0.064	0.010	0.072	0.010	0.092	0.018	0.088	0.011
East Midlands	0.080	0.013	0.054	0.008	0.073	0.019	0.076	0.012
West Midlands	0.064	0.009	0.069	0.009	0.076	0.016	0.087	0.012
East Of England	0.105	0.014	0.076	0.011	0.091	0.021	0.099	0.014
London	0.172	0.022	0.171	0.018	0.156	0.026	0.085	0.010
South East	0.117	0.014	0.154	0.017	0.125	0.021	0.150	0.018
South West	0.084	0.014	0.090	0.013	0.070	0.016	0.098	0.012
Scotland	0.099	0.013	0.094	0.011	0.076	0.015	0.090	0.013
Wales	0.036	0.006	0.049	0.009	0.042	0.012	0.054	0.011
No. observations	7048		5955		827		3933	

Source: WERS 2011.

Appendix 2. Within Measures.

Table A2.1. **Decompositions of the earnings gap by gender, and full-time versus part-time employment status, 2011.**

Table A2.2. **Decompositions of the earnings gap when changing the number of occupations, 2011.**

Table A2.3. **Decompositions of the earnings gap for each occupation, 2011.**

Table A2.4. **Decompositions of the earnings gap for manual and non-manual occupations, 2011.**

Table A2.5. **Decompositions of the earnings gap for each industry, 2011.**

Table A2.6. **Decompositions of the earnings gap for each region, 2011.**

Table A2.7. **Decompositions of the earnings gap for high and low wage workplaces, 2011.**

Table A2.8. **Decompositions of the earnings gap for high and low proportion female workplaces, 2011.**

Table A2.1. Decompositions of the earnings gap by gender, and for full-time and part-time employment status, 2011.

	Difference	Explained					Unexplained						
		Individual Characteristics	Occupation	Industry	Workplace	Region	Individual Characteristics	Occupation	Industry	Workplace	Region	Constant	Total
Male versus Female													
Individual characteristics	17.95	8.43					0.56					8.96	9.52
	(12.38)*	(9.00)*					(0.14)					(2.31)*	(7.39)*
+ workplace characteristics	17.95	3.19	3.44	3.13	0.66	0.43	6.08	-2.91	1.20	7.78	-0.35	-4.71	7.09
	(11.29)*	(5.76)*	(4.39)*	(5.03)*	(1.63)	(1.52)	(1.57)	(-3.60)*	(1.35)	(1.79)	(-0.89)	(-0.87)	(6.07)*
Full Time versus Part Time													
Individual characteristics	33.63	11.10					-7.79					30.31	22.53
	(19.85)*	(9.75)*					(-1.73)					(6.17)*	(14.20)*
+ workplace characteristics	33.63	6.21	11.90	5.42	2.33	1.20	13.91	-1.04	4.86	5.12	0.20	-16.46	6.59
	(18.13)*	(7.84)*	(14.53)*	(8.55)*	(5.47)*	(3.80)*	(3.33)*	(-1.00)	(2.70)*	(0.60)	(0.60)	(-2.20)*	(5.14)*

Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.2. Decompositions of the earnings gap when changing the number of occupations, 2011.

	Difference	Explained					Unexplained						
		Individual	Occupation	Industry	Workplace	Region	Individual	Occupation	Industry	Workplace	Region	Constant	Total
Male Full Time versus Female Full Time													
Individual characteristics	12.22	0.96					4.51					6.76	11.26
	(8.05)*	(1.06)					(1.11)					(1.57)	(8.49)*
+ occupations	12.22	1.63	-0.36				9.71	-3.59				4.84	10.95
	(7.95)*	(2.77)*	(-0.38)				(2.26)*	(-3.39)*				(1.09)	(8.06)*
+ workplace characteristics	12.22	1.85	0.55	1.92	0.20	-0.08	5.59	-2.06	0.72	1.51	-0.49	2.50	7.78
	(7.37)*	(3.59)*	(0.66)	(3.12)*	(0.46)	(-0.25)	(1.34)	(-1.98)*	(0.80)	(0.33)	(-1.09)	(0.44)	(6.55)*
+ 25 occupations	12.22	1.63	1.17				8.45	-1.91				2.87	9.42
	(7.95)*	(2.79)*	(1.17)				(1.91)	(-1.66)				(0.63)	(6.80)*
+ workplace, 25 occupations	12.22	1.80	0.60	1.61	0.19	-0.07	4.57	-2.07	0.39	2.02	-0.48	3.66	8.09
	(7.40)*	(3.53)*	(0.65)	(2.63)*	(0.45)	(-0.25)	(1.10)	(-1.97)*	(0.42)	(0.45)	(-1.10)	(0.64)	(6.80)*
Male Part Time versus Female Part Time													
Individual characteristics	-3.30	-6.56					-4.92					8.17	3.25
	(-0.92)	(-3.33)*					(-0.56)					(1.02)	(0.97)
+ occupations	-3.30	-4.87	-3.74				-3.90	-3.40				12.61	5.30
	(-0.93)	(-4.11)*	(-2.03)*				(-0.51)	(-1.70)				(1.54)	(1.79)
+ workplace characteristics	-3.30	-4.26	-2.64	0.52	-0.99	0.80	-8.17	-3.81	-8.51	16.40	-0.97	8.32	3.26
	(-0.96)	(-3.93)*	(-1.56)	(0.45)	(-1.66)	(1.36)	(-1.07)	(-1.98)*	(-2.01)*	(1.59)	(-0.93)	(0.58)	(1.20)
+ 25 occupations	-3.30	-4.25	-2.83				-5.36	-4.89				14.03	3.78
	(-0.94)	(-3.74)*	(-1.36)				(-0.75)	(-1.53)				(1.74)	(1.32)
+ workplace, 25 occupations	-3.30	-4.14	-1.98	0.58	-0.95	0.01	-9.60	-7.59	-6.89	12.45	-0.38	14.33	2.34
	(-0.97)	(-3.91)*	(-1.04)	(0.52)	(-1.59)	(1.41)	(-1.27)	(-2.05)*	(-1.47)	(1.25)	(-0.39)	(1.01)	(0.88)

Table A2.2. Decompositions of the earnings gap when changing the number of occupations, continued.

Female Full Time versus Female Part Time													
Individual characteristics	-25.74	-5.53					6.76					-26.97	-20.21
	(-14.59)*	(-4.89)*					(1.40)					(-5.27)*	(-12.17)*
+ occupations	-25.74	-2.47	-13.73				-8.10	1.56				-3.01	-9.54
	(-14.22)*	(-2.97)*	(-13.43)*				(-1.76)	(1.13)				(-0.61)	(-6.93)*
+ workplace characteristics	-25.74	-1.91	-11.51	-3.72	-1.90	-1.40	-11.33	2.84	-3.12	-9.68	-0.21	16.20	-5.31
	(-13.57)*	(-2.52)*	(-13.18)*	(-6.58)*	(-4.72)*	(-3.86)*	(-2.47)*	(1.99)*	(-1.96)*	(-1.62)	(-0.58)	(2.16)*	(-3.98)*
+ 25 occupations	-25.74	-2.64	-16.31				-12.42	-1.51				7.14	-6.79
	(-14.17)*	(-3.23)*	(-14.35)*				(-2.81)*	(-0.89)				(1.42)	(-4.97)*
+ workplace, 25 occupations	-25.74	-2.00	-12.94	-3.21	-1.86	-1.36	-12.77	0.82	-1.83	-7.99	-0.24	17.63	-4.38
	(-13.65)*	(-2.68)*	(-12.63)*	(-5.63)*	(-4.67)*	(-3.79)*	(-2.83)*	(0.45)	(-1.08)	(-1.36)	(-0.64)	(2.31)*	(-3.37)*
Male Full Time versus Male Part Time													
Individual characteristics	-41.26	-13.35					-2.36					-25.55	-27.91
	(-11.49)*	(-6.46)*					(-0.28)					(-3.18)*	(-8.15)*
+ occupations	-41.26	-10.54	-13.59				-20.13	-1.77				4.77	-17.13
	(-11.56)*	(-7.04)*	(-8.54)*				(-2.70)*	(-1.07)				(0.59)	(-5.39)*
+ workplace characteristics	-41.26	-9.50	-12.54	-7.09	-2.91	-0.45	-23.61	-1.08	-10.38	5.04	-0.77	22.02	-8.77
	(-11.71)*	(-7.31)*	(-8.55)*	(-6.74)*	(-3.90)*	(-0.90)	(-3.22)*	(-0.66)	(-2.57)*	(0.52)	(-0.68)	(1.64)	(-3.23)*
+ 25 occupations	-41.26	-10.48	-16.52				-24.28	-8.29				18.30	-14.26
	(-11.72)*	(-7.12)*	(-9.25)*				(-3.36)*	(-3.00)*				(2.27)*	(-4.49)*
+ workplace, 25 occupations	-41.26	-9.26	-13.40	-6.87	-2.85	-0.46	-25.62	-6.81	-6.48	2.30	-0.11	28.31	-8.42
	(-11.71)*	(-7.29)*	(-7.52)*	(-6.11)*	(-3.82)*	(-0.92)	(-3.49)*	(-2.10)*	(-1.46)	(0.24)	(-0.10)	(2.12)*	(-3.15)*

Source: WERS2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.3. Decompositions of the earnings gap for each occupation.

	Difference	Explained				Unexplained					
		Individual	Industry	Workplace	Region	Individual	Industry	Workplace	Region	Constant	Total
Managerial											
Male versus Female											
Individual characteristics	15.99	3.73				13.91				-1.64	12.26
	(3.83)*	(1.62)				(0.67)				(-0.08)	(2.92)*
+ workplace characteristics	15.99	0.92	5.71	0.33	1.94	8.42	1.40	-29.96	-5.42	32.66	7.09
	(3.83)*	(0.48)	(3.31)*	(0.36)	(1.63)	(0.45)	(0.59)	(-2.08)*	(-2.63)*	(1.47)	(2.07)*
Full Time versus Part Time											
Individual characteristics	10.71	8.71				4.37				-2.37	2.00
	(1.35)	(1.67)				(0.15)				(-0.09)	(0.25)
+ workplace characteristics	10.71	6.23	4.06	2.19	2.75	-16.58	-8.33	-1.04	-1.59	23.03	-4.52
	(1.27)	(1.66)	(1.58)	(0.86)	(1.39)	(-0.51)	(-1.12)	(-0.04)	(-0.26)	(0.55)	(-0.62)
Professional											
Male versus Female											
Individual characteristics	12.06	4.21				53.85				-46.00	7.85
	(4.49)*	(3.19)*				(5.09)*				(-3.87)*	(3.04)*
+ workplace characteristics	12.06	1.10	3.30	0.85	0.19	35.64	6.09	4.34	1.19	-40.64	6.62
	(4.60)*	(0.83)	(2.18)*	(0.87)	(0.40)	(3.80)*	(1.77)	(0.36)	(1.40)	(-3.13)*	(3.11)*
Full Time versus Part Time											
Individual characteristics	8.97	-0.36				12.31				-2.98	9.33
	(2.57)*	(-0.16)				(0.68)				(-0.17)	(2.64)*
+ workplace characteristics	8.97	-2.58	5.16	2.02	1.26	5.50	12.98	-32.47	1.38	15.71	3.10
	(2.73)*	(-1.28)	(2.89)*	(1.96)*	(2.12)*	(0.32)	(1.85)	(-2.26)*	(1.32)	(0.85)	(1.12)

Table A2.3. Decompositions of the earnings gap for each occupation, continued.

Technical											
Male versus Female											
Individual characteristics	12.77	2.01				-0.34				11.09	10.76
	(5.15)*	(1.41)				(-0.04)				(1.35)	(4.10)*
+ workplace characteristics	12.77	1.19	1.86	0.75	0.61	0.01	1.77	7.59	0.48	-1.48	8.36
	(5.06)*	(0.89)	(1.94)	(1.00)	(0.77)	(0.00)	(0.88)	(0.84)	(0.43)	(-0.13)	(3.85)*
Full Time versus Part Time											
Individual characteristics	4.89	0.32				10.96				-6.39	4.57
	(1.19)	(0.14)				(0.61)				(-0.34)	(1.00)
+ workplace characteristics	4.89	-1.27	5.16	1.87	1.52	16.52	8.87	-1.48	-2.35	-23.95	-2.39
	(1.15)	(-0.66)	(3.55)*	(1.75)	(1.55)	(1.30)	(2.75)*	(-0.12)	(-1.31)	(-1.25)	(-0.59)
Clerical											
Male versus Female											
Individual characteristics	1.83	2.42				-9.55				8.96	-0.59
	(0.58)	(1.68)				(-1.12)				(1.00)	(-0.22)
+ workplace characteristics	1.83	1.42	0.66	-0.07	1.23	-11.95	-1.75	14.62	-1.37	-0.96	-1.41
	(0.60)	(1.12)	(0.66)	(-0.08)	(1.31)	(-1.43)	(-0.79)	(1.18)	(-1.17)	(-0.06)	(-0.59)
Full Time versus Part Time											
Individual characteristics	11.34	-2.31				-17.00				30.65	13.65
	(4.54)*	(-1.89)				(-1.24)				(2.19)*	(5.46)*
+ workplace characteristics	11.34	-2.28	1.60	1.06	0.55	-11.85	-0.97	-3.00	0.78	25.44	10.40
	(4.53)*	(-2.08)*	(1.99)*	(1.41)	(0.94)	(-1.01)	(-0.28)	(-0.34)	(0.99)	(1.67)	(4.83)*
Craft Service											
Male versus Female											
Individual characteristics	36.98	10.17				31.19				-4.39	26.80
	(8.27)*	(3.10)*				(1.95)				(-0.26)	(5.41)*
+ workplace characteristics	36.98	6.03	8.62	0.61	-0.29	7.97	17.59	27.66	0.12	-31.34	22.00
	(7.83)*	(2.12)*	(3.27)*	(0.36)	(-0.20)	(0.66)	(3.08)*	(1.92)	(0.04)	(-1.91)	(4.67)*

Table A2.3. Decompositions of the earnings gap for each occupation, continued.

Full Time versus Part Time											
Individual characteristics	27.66	17.45				2.12				8.09	10.21
	(4.08)*	(2.78)*				(0.09)				(0.32)	(1.64)
+ workplace characteristics	27.66	13.82	5.50	3.26	-0.04	16.83	27.73	-7.59	1.09	-32.95	5.11
	(3.75)*	(2.62)*	(1.45)	(1.90)	(-0.02)	(0.91)	(3.40)*	(-0.40)	(0.30)	(-1.35)	(0.95)
Personal Service											
Male versus Female											
Individual characteristics	6.45	-1.40				17.36				-9.52	7.85
	(1.95)	(-0.83)				(1.50)				(-0.82)	(2.45)*
+ workplace characteristics	6.45	-2.82	2.46	0.79	1.68	19.29	-10.16	26.24	-0.36	-30.66	4.34
	(2.05)*	(-1.79)	(1.46)	(0.86)	(1.70)	(1.91)	(-1.25)	(1.67)	(-0.24)	(-1.51)	(1.51)
Full Time versus Part Time											
Individual characteristics	5.42	0.92				19.05				-14.56	4.50
	(2.18)*	(0.69)				(1.71)				(-1.24)	(1.69)
+ workplace characteristics	5.42	0.54	1.18	1.10	0.97	19.58	-4.71	29.62	0.49	-43.34	1.63
	(2.10)*	(0.46)	(1.66)	(1.55)	(1.39)	(1.80)	(-0.67)	(2.11)*	(0.71)	(-2.87)*	(0.66)
Sales&Customer											
Male versus Female											
Individual characteristics	24.77	8.09				11.21				5.47	16.68
	(4.33)*	(2.75)*				(0.77)				(0.39)	(3.82)*
+ workplace characteristics	24.77	4.09	4.33	1.01	0.04	-5.21	11.19	6.22	2.21	0.87	15.28
	(4.26)*	(1.76)	(2.32)*	(1.00)	(0.05)	(-0.43)	(1.67)	(0.38)	(0.92)	(0.05)	(3.88)*
Full Time versus Part Time											
Individual characteristics	35.86	13.38				-6.67				29.15	22.48
	(9.19)*	(4.82)*				(-0.60)				(2.53)*	(6.11)*
+ workplace characteristics	35.86	9.34	8.28	1.87	0.01	-11.24	10.94	31.00	1.51	-15.85	16.36
	(9.13)*	(3.85)*	(3.88)*	(1.33)	(0.01)	(-0.98)	(1.76)	(1.65)	(0.81)	(-0.79)	(4.67)*

Table A2.3. Decompositions of the earnings gap for each occupation, continued.

Operative&Assembly											
Male versus Female											
Individual characteristics	24.03	6.43				51.30				-33.71	17.59
	(4.41)*	(1.62)				(2.75)*				(-1.83)	(4.56)*
+ workplace characteristics	24.03	5.93	2.55	-2.74	0.64	56.48	-17.63	-0.80	-1.44	-18.95	17.66
	(3.94)*	(2.19)*	(1.69)	(-0.93)	(0.43)	(3.57)*	(-3.86)*	(-0.05)	(-0.52)	(-0.96)	(4.57)*
Full Time versus Part Time											
Individual characteristics	35.04	15.56				4.86				14.62	19.48
	(7.21)*	(4.50)*				(0.19)				(0.58)	(3.91)*
+ workplace characteristics	35.04	11.99	6.37	1.43	-0.36	0.17	21.83	0.06	-22.27	15.82	15.60
	(6.57)*	(3.34)*	(2.33)*	(0.55)	(-0.13)	(0.00)	(1.43)	(0.00)	(-1.61)	(0.27)	(3.07)*
Unskilled											
Male versus Female											
Individual characteristics	20.73	10.79				2.27				7.67	9.94
	(7.66)*	(6.30)*				(0.24)				(0.79)	(3.63)*
+ workplace characteristics	20.73	6.35	8.20	0.36	1.05	2.06	-6.47	-14.08	-1.04	24.29	4.77
	(7.85)*	(3.99)*	(5.09)*	(0.41)	(1.44)	(0.22)	(-1.96)*	(-1.52)	(-1.05)	(1.82)	(1.79)
Full Time versus Part Time											
Individual characteristics	26.96	12.26				2.55				12.15	14.70
	(10.45)*	(6.85)*				(0.30)				(1.34)	(5.46)*
+ workplace characteristics	26.96	7.60	8.51	1.13	1.66	-12.16	-0.07	5.82	-0.39	14.85	8.06
	(10.03)*	(4.23)*	(5.13)*	(1.29)	(2.19)*	(-1.45)	(-0.01)	(0.60)	(-0.43)	(0.99)	(2.94)*

Source: WERS 2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.4. Decompositions of the earnings gap for manual and non-manual workers, 2011.

	Difference	Explained				Unexplained					
		Individual Characteristics	Industry	Workplace	Region	Individual Characteristics	Industry	Workplace	Region	Constant	Total
Manual Workers											
Male versus Female											
Individual characteristics	27.41	9.38				13.00				5.03	18.03
	(16.23)*	(8.53)*				(2.24)*				(0.85)	(10.53)*
+ workplace characteristics	27.41	6.37	7.49	1.51	0.26	14.32	-1.77	2.49	-0.83	-2.43	11.78
	(15.63)*	(6.41)*	(5.65)*	(1.96)*	(0.68)	(2.50)*	(-0.71)	(0.42)	(-2.05)*	(-0.29)	(6.63)*
Full Time versus Part Time											
Individual characteristics	29.65	14.84				6.55				8.26	14.81
	(17.45)*	(10.90)*				(1.19)				(1.40)	(8.69)*
+ workplace characteristics	29.65	10.36	7.42	2.07	0.20	10.32	4.22	10.34	0.13	-15.41	9.60
	(16.56)*	(8.08)*	(6.32)*	(2.84)*	(0.52)	(1.81)	(1.66)	(1.58)	(0.31)	(-1.68)	(5.45)*
Non Manual Workers											
Male versus Female											
Individual characteristics	24.56	10.83				-1.86				15.58	13.73
	(14.23)*	(9.88)*				(-0.32)				(2.63)*	(8.79)*
+ workplace characteristics	24.56	7.54	2.55	0.99	1.02	3.16	-0.11	9.87	-0.08	-0.37	12.46
	(13.55)*	(8.29)*	(3.81)*	(2.13)*	(2.34)*	(0.60)	(-0.10)	(1.56)	(-0.13)	(-0.05)	(8.69)*
Full Time versus Part Time											
Individual characteristics	29.61	10.11				-21.43				40.94	19.51
	(12.94)*	(7.06)*				(-3.00)*				(5.26)*	(9.30)*
+ workplace characteristics	29.61	7.87	5.35	2.18	1.60	5.06	3.90	5.21	0.86	-2.40	12.62
	(11.90)*	(6.33)*	(5.79)*	(4.09)*	(3.65)*	(0.83)	(1.84)	(0.63)	(1.42)	(-0.22)	(6.85)*

Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.5. Decompositions of the earnings gap for each industry.

	Difference	Explained				Unexplained					
		Individual Characteristics	Occupation	Workplace	Region	Individual Characteristics	Occupation	Workplace	Region	Constant	Total
Manufacturing											
Male versus Female											
Individual characteristics	17.87	5.38				1.46				11.03	12.48
	(4.35)*	(2.07)*				(0.11)				(0.93)	(3.23)*
+ workplace characteristics	17.87	3.61	1.02	2.02	-0.07	7.22	-6.65	4.08	-2.91	9.55	11.29
	(4.39)*	(1.88)	(0.55)	(1.71)	(-0.11)	(0.82)	(-3.59)*	(0.41)	(-1.63)	(0.77)	(3.49)*
Full Time versus Part Time											
Individual characteristics	16.18	12.07				49.59				-45.48	4.11
	(1.66)	(2.77)*				(1.98)*				(-1.84)	(0.50)
+ workplace characteristics	16.18	8.96	3.74	2.82	0.24	76.86	5.79	20.54	7.49	-110.26	0.43
	(1.46)	(2.86)*	(1.43)	(1.20)	(0.19)	(4.18)*	(1.00)	(0.85)	(2.28)*	(-3.20)*	(0.05)
Electricity											
Male versus Female											
Individual characteristics	27.49	9.19				65.82				-47.51	18.31
	(5.35)*	(1.33)				(4.06)*				(-3.51)*	(2.05)*
+ workplace characteristics	27.49	3.30	16.72	1.19	-0.08	62.85	-7.98	40.79	2.42	-91.71	6.36
	(6.52)*	(0.48)	(4.23)*	(0.60)	(-0.03)	(3.97)*	(-0.76)	(0.86)	(0.21)	(-1.76)	(0.91)
Full Time versus Part Time											
Individual characteristics	34.99	22.81				-2160.90				2173.08	12.18
	(3.08)*	(2.16)*				(-105.42)*				(170.85)*	(1.01)
+ workplace characteristics	34.99	15.37	20.31	-0.33	1.99	-166.99	-13.61	221.04	-0.84	-41.95	-2.35
	(3.08)*	(1.30)	(3.66)*	(-0.09)	(0.50)	(-6.56)*	(-2.33)*	(10.73)*	(-0.15)	(-2.13)*	(-0.14)

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Water supply											
Male versus Female											
Individual characteristics	-40.47	-39.19				25.50				-26.77	-1.28
	(-3.63)*	(-3.63)*				(0.76)				(-0.85)	(-0.17)
+ workplace characteristics	-40.47	-18.01	-4.08	-25.42	2.24	-44.10	-8.67	177.57	-9.08	-110.92	4.80
	(-3.18)*	(-2.63)*	(-0.89)	(-1.76)	(0.27)	(-1.28)	(-0.86)	(2.41)*	(-1.01)	(-1.94)	(0.66)
Full Time versus Part Time											
Individual characteristics	-56.63	-12.51				550.62				-594.74	-44.12
	(-2.76)*	(-0.72)				(26.12)*				(-63.13)*	(-2.18)*
+ workplace characteristics	-56.63	-5.86	3.90	-14.45	8.95	-198.83	-6.37	50.87	-18.55	123.70	-49.17
	(-2.87)*	(-0.70)	(1.16)	(-1.51)	(1.95)	(-12.13)*	(-0.95)	(1.55)	(-2.90)*	(3.69)*	(-2.59)*
Construction											
Male versus Female											
Individual characteristics	20.65	2.93				27.78				-10.06	17.72
	(2.97)*	(0.56)				(1.35)				(-0.48)	(4.26)*
+ workplace characteristics	20.65	4.15	0.50	4.35	1.64	27.56	9.64	12.14	-3.57	-35.77	10.00
	(2.86)*	(0.86)	(0.13)	(1.53)	(0.97)	(1.13)	(1.18)	(0.89)	(-0.58)	(-1.26)	(1.41)
Full Time versus Part Time											
Individual characteristics	27.74	2.84				-24.85				49.76	24.91
	(2.30)*	(0.47)				(-0.29)				(0.58)	(2.35)*
+ workplace characteristics	27.74	-1.92	4.85	8.50	1.07	-210.37	29.69	-116.80	43.24	269.49	15.24
	(1.94)	(-0.41)	(1.20)	(2.15)*	(0.45)	(-8.85)*	(0.91)	(-2.30)*	(1.14)	(22.35)*	(1.03)
Retail											
Male versus Female											
Individual characteristics	21.15	7.92				19.38				-6.15	13.23
	(5.10)*	(3.01)*				(1.89)				(-0.63)	(3.43)*
+ workplace characteristics	21.15	4.56	3.84	2.62	1.25	14.51	4.67	-3.76	-1.83	-4.72	8.88
	(4.78)*	(2.55)*	(2.17)*	(1.83)	(1.23)	(1.81)	(1.28)	(-0.35)	(-1.13)	(-0.33)	(2.69)*

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Full Time versus Part Time											
Individual characteristics	38.92	16.23				1.95				20.74	22.69
	(10.35)*	(5.46)*				(0.21)				(2.29)*	(5.21)*
+ workplace characteristics	38.92	11.26	11.06	4.41	1.08	3.15	3.88	8.82	-0.99	-3.75	11.11
	(9.46)*	(5.06)*	(4.89)*	(2.51)*	(0.90)	(0.34)	(0.76)	(0.65)	(-0.59)	(-0.23)	(3.02)*
Transportation											
Male versus Female											
Individual characteristics	0.97	2.16				8.24				-9.43	-1.19
	(0.34)	(1.14)				(0.63)				(-0.74)	(-0.39)
+ workplace characteristics	0.97	2.16	-4.03	-1.17	0.89	0.22	-2.04	-26.63	1.08	30.49	3.13
	(0.35)	(1.61)	(-1.77)	(-0.90)	(0.90)	(0.02)	(-0.39)	(-1.53)	(0.38)	(1.59)	(1.14)
Full Time versus Part Time											
Individual characteristics	22.60	2.49				7.09				13.02	20.11
	(4.81)*	(1.43)				(0.38)				(0.67)	(4.29)*
+ workplace characteristics	22.60	2.82	6.14	0.38	0.29	-19.07	16.24	-80.11	0.04	95.86	12.97
	(5.99)*	(1.73)	(2.80)*	(0.18)	(0.19)	(-1.19)	(3.10)*	(-4.27)*	(0.01)	(3.53)*	(3.58)*
Accommodation											
Male versus Female											
Individual characteristics	10.37	2.65				13.34				-5.62	7.72
	(2.32)*	(1.14)				(1.04)				(-0.47)	(1.78)
+ workplace characteristics	10.37	-0.63	2.53	1.35	1.51	16.41	2.13	3.72	-12.36	-4.27	5.61
	(2.30)*	(-0.34)	(1.29)	(1.05)	(1.11)	(1.59)	(0.36)	(0.26)	(-3.22)*	(-0.22)	(1.42)
Full Time versus Part Time											
Individual characteristics	25.91	11.47				23.57				-9.12	14.44
	(5.51)*	(3.14)*				(1.90)				(-0.75)	(2.73)*
+ workplace characteristics	35.86	9.34	8.28	1.87	0.01	-11.24	10.94	31.00	1.51	-15.85	16.36
	(9.13)*	(3.85)*	(3.88)*	(1.33)	(0.01)	(-0.98)	(1.76)	(1.65)	(0.81)	(-0.79)	(4.67)*

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Communication											
Male versus Female											
Individual characteristics	25.87	13.67				-2.67				14.86	12.20
	(4.16)*	(2.85)*				(-0.15)				(0.82)	(2.12)*
+ workplace characteristics	25.87	7.88	10.23	-0.33	1.41	0.65	6.35	51.74	11.76	-63.82	6.68
	(4.21)*	(2.11)*	(3.54)*	(-0.18)	(0.46)	(0.05)	(1.40)	(2.45)*	(1.88)	(-2.80)*	(1.67)
Full Time versus Part Time											
Individual characteristics	36.86	2.72				-24.29				58.44	34.15
	(2.26)*	(0.32)				(-1.02)				(2.61)*	(3.31)*
+ workplace characteristics	36.86	0.79	19.87	2.80	7.99	-9.92	17.86	443.88	-21.49	-424.91	5.41
	(2.16)*	(0.14)	(2.46)*	(1.04)	(1.26)	(-0.23)	(0.70)	(2.47)*	(-0.71)	(-2.15)*	(0.57)
Financial											
Male versus Female											
Individual characteristics	35.64	10.46				-17.40				42.58	25.18
	(6.42)*	(2.66)*				(-0.74)				(1.76)	(4.83)*
+ workplace characteristics	35.64	2.98	8.91	5.66	3.57	-24.75	3.55	311.06	-11.21	-264.14	14.52
	(6.64)*	(1.02)	(4.06)*	(1.17)	(1.34)	(-1.14)	(0.79)	(3.85)*	(-0.99)	(-3.93)*	(3.09)*
Full Time versus Part Time											
Individual characteristics	30.35	21.47				100.60				-91.73	8.87
	(2.83)*	(2.62)*				(2.54)*				(-2.24)*	(1.08)
+ workplace characteristics	30.35	11.39	11.79	10.55	-0.34	37.59	-13.32	59.34	-20.19	-66.47	-3.03
	(2.88)*	(2.03)*	(3.53)*	(1.70)	(-0.08)	(2.99)*	(-5.38)*	(3.06)*	(-1.60)	(-3.19)*	(-0.55)

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Real estate											
Male versus Female											
Individual characteristics	14.76	6.92				-3.72				11.56	7.84
	(3.24)*	(2.17)*				(-0.26)				(0.82)	(2.13)*
+ workplace characteristics	14.76	2.89	5.88	0.30	2.61	-4.19	-2.66	16.73	2.27	-9.06	3.09
	(2.72)*	(1.53)	(2.00)*	(0.16)	(1.03)	(-0.26)	(-0.56)	(0.92)	(0.41)	(-0.35)	(0.97)
Full Time versus Part Time											
Individual characteristics	30.93	15.10				-3.55				19.38	15.83
	(5.02)*	(2.66)*				(-0.12)				(0.67)	(2.72)*
+ workplace characteristics	30.93	6.72	16.44	1.55	-1.66	20.26	0.41	-41.49	6.67	22.01	7.86
	(4.65)*	(1.80)	(5.20)*	(0.98)	(-0.71)	(0.86)	(0.07)	(-1.56)	(1.12)	(0.69)	(1.45)
Professional											
Male versus Female											
Individual characteristics	21.78	10.36				-21.41				32.84	11.43
	(4.84)*	(3.70)*				(-2.12)*				(3.12)*	(3.17)*
+ workplace characteristics	21.78	3.95	7.76	1.20	2.79	-5.59	9.54	1.64	-2.72	3.22	6.08
	(4.42)*	(1.58)	(4.92)*	(1.02)	(1.53)	(-0.53)	(1.32)	(0.11)	(-0.47)	(0.15)	(2.02)*
Full Time versus Part Time											
Individual characteristics	5.71	6.17				-32.53				32.07	-0.46
	(0.79)	(1.60)				(-1.23)				(1.24)	(-0.07)
+ workplace characteristics	5.71	-0.75	8.64	2.72	3.50	-52.78	-1.62	15.87	-1.14	31.28	-8.40
	(0.77)	(-0.26)	(4.49)*	(2.03)*	(2.18)*	(-2.49)*	(-0.22)	(0.75)	(-0.20)	(0.89)	(-1.53)

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Clerical											
Male versus Female											
Individual characteristics	6.20	4.68				14.27				-12.76	1.51
	(0.61)	(0.72)				(0.78)				(-0.80)	(0.22)
+ workplace characteristics	6.20	-2.53	-5.06	2.25	2.50	1.95	2.88	-72.96	-3.15	80.32	9.03
	(0.54)	(-0.84)	(-0.77)	(0.91)	(0.69)	(0.16)	(0.42)	(-3.06)*	(-0.62)	(3.38)*	(1.32)
Full Time versus Part Time											
Individual characteristics	27.36	17.60				-11.45				21.20	9.76
	(2.12)*	(1.85)				(-0.38)				(0.68)	(1.28)
+ workplace characteristics	27.36	8.94	24.42	5.77	3.24	-9.30	-14.98	-52.88	-0.20	62.35	-15.01
	(1.82)	(2.14)*	(2.91)*	(1.47)	(0.82)	(-0.29)	(-0.90)	(-1.42)	(-0.01)	(1.23)	(-2.09)*
Public											
Male versus Female											
Individual characteristics	6.80	4.25				-7.88				10.43	2.55
	(2.32)*	(2.44)*				(-0.80)				(1.06)	(1.02)
+ workplace characteristics	6.80	1.30	6.57	0.06	-0.52	-10.02	-7.56	6.41	0.37	10.20	-0.60
	(2.56)*	(1.16)	(4.23)*	(0.13)	(-0.60)	(-1.21)	(-2.76)*	(0.51)	(0.30)	(0.62)	(-0.28)
Full Time versus Part Time											
Individual characteristics	8.48	1.39				-26.62				33.70	7.09
	(2.23)*	(0.69)				(-1.60)				(2.12)*	(2.08)*
+ workplace characteristics	8.48	0.14	6.05	0.13	0.25	-10.34	-4.94	33.30	-0.20	-15.91	1.92
	(2.12)*	(0.09)	(3.11)*	(0.33)	(0.24)	(-0.63)	(-1.46)	(1.84)	(-0.13)	(-0.64)	(0.76)

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Education											
Male versus Female											
Individual characteristics	29.29	16.03				5.70				7.56	13.26
	(9.26)*	(9.95)*				(0.62)				(0.73)	(4.31)*
+ workplace characteristics	29.29	3.66	14.21	3.84	0.70	-3.82	5.67	26.50	-0.39	-21.09	6.88
	(9.06)*	(2.09)*	(8.31)*	(2.77)*	(1.85)	(-0.32)	(1.48)	(2.39)*	(-0.47)	(-1.45)	(3.00)*
Full Time versus Part Time											
Individual characteristics	35.13	16.83				16.88				1.42	18.30
	(14.11)*	(8.38)*				(1.23)				(0.10)	(8.21)*
+ workplace characteristics	35.13	6.35	17.55	3.17	0.75	15.43	-14.07	2.75	-0.72	3.92	7.31
	(13.76)*	(4.32)*	(10.55)*	(3.46)*	(1.80)	(1.26)	(-3.47)*	(0.15)	(-0.99)	(0.16)	(3.49)*
Health											
Male versus Female											
Individual characteristics	9.12	8.44				12.13				-11.44	0.68
	(2.31)*	(3.71)*				(1.00)				(-1.02)	(0.22)
+ workplace characteristics	9.12	2.24	4.92	0.06	1.77	16.64	-1.34	56.06	0.49	-71.72	0.13
	(2.12)*	(1.77)	(2.97)*	(0.04)	(2.31)*	(1.85)	(-0.46)	(3.76)*	(0.29)	(-3.74)*	(0.05)
Full Time versus Part Time											
Individual characteristics	20.88	6.35				-0.14				14.67	14.53
	(6.20)*	(2.80)*				(-0.01)				(1.24)	(4.39)*
+ workplace characteristics	20.88	1.99	9.89	4.54	1.99	15.90	1.80	-28.58	1.02	12.32	2.47
	(5.97)*	(1.67)	(6.06)*	(3.78)*	(2.42)*	(1.53)	(0.57)	(-2.40)*	(1.04)	(0.82)	(1.14)

Table A2.5. Decompositions of the earnings gap for each industry, continued.

Arts											
Male versus Female											
Individual characteristics	20.71	4.89				24.61				-8.79	15.82
	(3.71)*	(1.24)				(1.75)				(-0.61)	(3.13)*
+ workplace characteristics	20.71	1.40	5.80	6.00	0.00	23.71	-21.62	-55.86	0.61	60.67	7.51
	(3.60)*	(0.44)	(1.98)*	(1.56)	(0.00)	(1.48)	(-4.80)*	(-3.21)*	(0.17)	(3.03)*	(1.93)
Full Time versus Part Time											
Individual characteristics	24.16	6.03				-2.39				20.53	18.14
	(3.93)*	(1.48)				(-0.11)				(0.90)	(2.85)*
+ workplace characteristics	24.16	3.29	7.93	5.95	-0.08	5.47	-19.32	-3.38	3.90	20.40	7.08
	(4.16)*	(1.09)	(2.98)*	(2.13)*	(-0.05)	(0.34)	(-2.55)*	(-0.14)	(0.98)	(0.63)	(1.33)
Other Community											
Male versus Female											
Individual characteristics	16.99	11.56				-45.46				50.89	5.43
	(2.24)*	(2.01)*				(-2.73)*				(3.01)*	(1.15)
+ workplace characteristics	16.99	4.20	5.23	3.72	-1.61	-16.89	-1.80	6.12	0.57	17.45	5.45
	(2.27)*	(1.10)	(1.27)	(1.33)	(-0.83)	(-0.97)	(-0.36)	(0.30)	(0.14)	(0.65)	(1.03)
Full Time versus Part Time											
Individual characteristics	2.77	-9.96				24.24				-11.51	12.73
	(0.35)	(-1.59)				(0.95)				(-0.43)	(2.11)*
+ workplace characteristics	2.77	-5.50	2.08	9.44	-6.42	19.52	-3.87	5.54	2.06	-20.07	3.17
	(0.36)	(-1.22)	(0.55)	(3.14)*	(-2.21)*	(0.87)	(-0.79)	(0.36)	(0.43)	(-0.79)	(0.64)

Source: WERS 2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.6. Decompositions of the earnings gap for each region.

	Difference	Explained				Unexplained					
		Individual Characteristics	Occupation	Industry	Workplace	Individual Characteristics	Occupation	Industry	Workplace	Constant	Total
North East											
Male versus Female											
Individual characteristics	16.71	6.67				4.65				5.39	10.04
	(2.66)*	(1.42)				(0.33)				(0.36)	(2.45)*
+ workplace characteristics	16.71	2.93	3.21	-1.01	3.12	5.78	1.65	-8.78	-13.59	23.40	8.46
	(2.35)*	(1.22)	(0.95)	(-0.28)	(1.04)	(0.39)	(0.60)	(-2.13)*	(-0.77)	(0.99)	(2.58)*
Full Time versus Part Time											
Individual characteristics	33.14	11.24				-0.59				22.49	21.90
	(5.63)*	(2.54)*				(-0.05)				(1.87)	(5.86)*
+ workplace characteristics	33.14	6.12	10.03	0.24	6.30	27.63	4.24	11.89	-16.67	-16.64	10.45
	(4.79)*	(2.13)*	(2.82)*	(0.08)	(1.98)*	(2.08)*	(0.60)	(1.15)	(-0.96)	(-0.70)	(2.93)*
North West											
Male versus Female											
Individual characteristics	16.60	6.10				7.24				3.26	10.50
	(4.35)*	(2.12)*				(0.83)				(0.36)	(3.48)*
+ workplace characteristics	16.60	2.16	4.47	4.07	1.10	4.24	-6.46	1.43	-7.47	13.08	4.81
	(3.68)*	(1.31)	(2.43)*	(2.50)*	(0.70)	(0.54)	(-3.40)*	(0.50)	(-0.57)	(0.86)	(1.76)
Full Time versus Part Time											
Individual characteristics	35.38	12.91				-11.88				34.35	22.47
	(7.49)*	(3.31)*				(-1.16)				(3.15)*	(6.65)*
+ workplace characteristics	35.38	6.20	11.02	4.99	3.74	10.54	-5.76	14.26	-34.21	24.62	9.45
	(6.44)*	(2.41)*	(5.97)*	(2.87)*	(1.93)	(1.11)	(-2.73)*	(4.29)*	(-2.56)*	(1.42)	(3.43)*

Table A2.6. Decompositions of the earnings gap for each region, continued.

Yorkshire and Humber											
Male versus Female											
Individual characteristics	24.11	9.62				14.52				-0.04	14.48
	(4.70)*	(2.51)*				(1.35)				(-0.00)	(3.47)*
+ workplace characteristics	24.11	3.15	4.44	8.17	3.09	26.33	-1.30	6.13	20.80	-46.70	5.25
	(4.32)*	(1.52)	(1.61)	(3.89)*	(1.62)	(2.38)*	(-0.63)	(2.29)*	(1.57)	(-2.63)*	(1.61)
Full Time versus Part Time											
Individual characteristics	28.42	12.93				7.60				7.90	15.49
	(4.59)*	(3.04)*				(0.56)				(0.53)	(2.50)*
+ workplace characteristics	28.42	5.76	9.63	7.31	1.81	12.48	-0.80	-9.09	48.85	-47.53	3.91
	(4.02)*	(2.49)*	(2.78)*	(3.20)*	(1.14)	(1.07)	(-0.25)	(-2.59)*	(3.45)*	(-2.88)*	(1.05)
East Midlands											
Male versus Female											
Individual characteristics	6.93	1.22				-21.25				26.96	5.71
	(1.29)	(0.34)				(-1.29)				(1.82)	(1.28)
+ workplace characteristics	6.93	0.00	1.94	7.30	-2.57	-30.89	-5.02	3.50	24.31	8.36	0.26
	(1.31)	(0.00)	(0.64)	(2.64)*	(-1.03)	(-2.59)*	(-2.09)*	(1.14)	(1.93)	(0.52)	(0.07)
Full Time versus Part Time											
Individual characteristics	18.66	2.71				-16.16				32.11	15.95
	(3.08)*	(0.62)				(-1.26)				(2.45)*	(3.67)*
+ workplace characteristics	18.66	0.27	9.53	7.65	-4.43	4.66	-11.04	0.39	39.24	-27.63	5.63
	(2.79)*	(0.10)	(3.27)*	(2.75)*	(-2.12)*	(0.46)	(-3.14)*	(0.08)	(2.34)*	(-1.43)	(1.47)
West Midlands											
Male versus Female											
Individual characteristics	13.16	6.43				-0.65				7.37	6.73
	(3.21)*	(2.62)*				(-0.06)				(0.68)	(1.98)
+ workplace characteristics	13.16	3.72	-3.09	3.37	2.75	2.91	-3.90	1.28	7.83	-1.71	6.41
	(3.41)*	(2.33)*	(-1.08)	(1.51)	(1.56)	(0.26)	(-1.95)	(0.42)	(0.46)	(-0.10)	(1.84)

Table A2.6. Decompositions of the earnings gap for each region, continued.

Full Time versus Part Time											
Individual characteristics	29.75	4.68				-0.59				25.66	25.07
	(7.01)*	(1.78)				(-0.05)				(2.07)*	(6.92)*
+ workplace characteristics	29.75	2.60	8.31	4.63	1.83	24.76	-1.93	-1.31	32.58	-41.72	12.39
	(6.59)*	(1.40)	(3.14)*	(2.23)*	(1.17)	(1.88)	(-0.81)	(-0.33)	(2.02)*	(-2.36)*	(3.49)*
East of England											
Male versus Female											
Individual characteristics	18.62	14.06				-15.21				19.78	4.57
	(4.13)*	(4.71)*				(-1.04)				(1.42)	(1.29)
+ workplace characteristics	18.62	5.77	-0.62	4.58	1.54	-3.68	-3.16	1.36	14.13	-1.30	7.35
	(4.02)*	(2.59)*	(-0.23)	(1.83)	(0.87)	(-0.29)	(-1.20)	(0.40)	(1.13)	(-0.09)	(2.10)*
Full Time versus Part Time											
Individual characteristics	31.89	8.62				-25.76				49.02	23.26
	(6.04)*	(2.69)*				(-1.70)				(3.19)*	(5.22)*
+ workplace characteristics	31.89	7.02	7.86	5.66	3.84	1.77	-2.15	-5.95	20.97	-7.13	7.51
	(5.68)*	(2.97)*	(2.71)*	(2.33)*	(2.12)*	(0.14)	(-0.66)	(-1.44)	(1.46)	(-0.40)	(1.87)
London											
Male versus Female											
Individual characteristics	11.48	6.20				-9.37				14.65	5.28
	(2.84)*	(2.82)*				(-0.83)				(1.23)	(1.39)
+ workplace characteristics	11.48	1.56	3.06	0.68	-0.55	0.00	-0.61	-6.32	21.03	-7.37	6.72
	(2.89)*	(1.22)	(1.75)	(0.31)	(-0.52)	(-0.00)	(-0.14)	(-2.19)*	(1.69)	(-0.45)	(2.04)*
Full Time versus Part Time											
Individual characteristics	29.01	10.62				-6.34				24.73	18.39
	(4.88)*	(3.37)*				(-0.42)				(1.51)	(3.23)*
+ workplace characteristics	29.01	5.50	14.43	6.22	2.35	11.85	-1.99	-7.06	19.50	-21.79	0.51
	(4.98)*	(2.61)*	(6.18)*	(2.94)*	(1.65)	(0.85)	(-0.60)	(-1.55)	(1.09)	(-0.89)	(0.11)

Table A2.6. Decompositions of the earnings gap for each region, continued.

South East											
Male versus Female											
Individual characteristics	22.08	11.10				8.61				2.37	10.98
	(7.34)*	(5.19)*				(0.98)				(0.27)	(4.73)*
+ workplace characteristics	22.08	4.07	8.85	2.49	0.53	8.78	-0.54	-1.33	4.82	-5.57	6.15
	(7.05)*	(3.41)*	(5.44)*	(1.61)	(0.80)	(1.13)	(-0.34)	(-0.69)	(0.63)	(-0.55)	(2.84)*
Full Time versus Part Time											
Individual characteristics	38.77	12.26				3.67				22.84	26.51
	(10.59)*	(5.29)*				(0.37)				(2.15)*	(7.96)*
+ workplace characteristics	38.77	5.85	15.18	6.51	2.20	23.98	0.04	8.01	6.30	-29.29	9.03
	(10.11)*	(3.88)*	(8.67)*	(3.63)*	(2.34)*	(2.73)*	(0.02)	(3.16)*	(0.66)	(-2.34)*	(3.62)*
South West											
Male versus Female											
Individual characteristics	22.84	10.91				-1.06				12.99	11.93
	(5.46)*	(4.22)*				(-0.09)				(1.14)	(3.83)*
+ workplace characteristics	22.84	4.30	3.66	2.64	1.56	10.73	-3.16	0.62	11.18	-8.70	10.68
	(5.10)*	(2.64)*	(1.03)	(1.53)	(1.08)	(1.22)	(1.52)	(0.29)	(0.95)	(-0.52)	(3.83)*
Full Time versus Part Time											
Individual characteristics	29.47	10.35				6.25				12.87	19.12
	(6.24)*	(3.20)*				(0.47)				(0.92)	(4.72)*
+ workplace characteristics	29.47	6.12	13.74	4.92	2.20	18.54	3.32	2.08	4.22	-25.66	2.49
	(6.08)*	(2.60)*	(4.49)*	(2.27)*	(1.25)	(1.53)	(1.08)	(0.74)	(0.29)	(-1.28)	(0.83)

Table A2.6. Decompositions of the earnings gap for each region, continued.

Scotland											
Male versus Female											
Individual characteristics	20.59	9.24				-7.17				18.52	11.35
	(5.12)*	(2.78)*				(-0.76)				(1.98)*	(3.71)*
+ workplace characteristics	20.59	6.80	2.63	3.36	1.03	-1.17	-0.74	1.63	12.70	-5.66	6.77
	(4.66)*	(3.20)*	(1.19)	(1.56)	(1.04)	(-0.13)	(-0.39)	(0.77)	(1.36)	(-0.52)	(2.84)*
Full Time versus Part Time											
Individual characteristics	37.01	12.94				-30.81				54.88	24.07
	(6.52)*	(3.02)*				(-2.93)*				(4.42)*	(5.58)*
+ workplace characteristics	37.01	8.40	8.13	6.79	1.49	-21.04	1.83	3.85	7.98	19.58	12.20
	(6.04)*	(2.74)*	(3.73)*	(3.16)*	(1.36)	(-1.57)	(0.71)	(1.07)	(0.72)	(1.25)	(4.15)*
Wales											
Male versus Female											
Individual characteristics	19.88	3.83				12.60				3.44	16.05
	(3.90)*	(1.03)				(0.87)				(0.24)	(4.07)*
+ workplace characteristics	19.88	2.49	3.06	-2.50	4.40	4.51	-9.20	4.70	-20.94	33.36	12.42
	(3.66)*	(1.31)	(0.92)	(-0.86)	(1.73)	(0.35)	(-3.64)*	(1.23)	(-1.10)	(1.33)	(3.59)*
Full Time versus Part Time											
Individual characteristics	28.24	11.36				4.41				12.47	16.88
	(4.51)*	(2.85)*				(0.31)				(0.91)	(3.48)*
+ workplace characteristics	28.24	8.08	9.57	-1.79	6.01	28.80	-2.79	15.83	-0.67	-34.79	6.38
	(4.76)*	(2.88)*	(2.17)*	(-0.54)	(2.02)*	(2.01)*	(-0.97)	(2.62)*	(-0.03)	(-1.54)	(1.78)

Source: WERS 2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.7. Decompositions of the earnings gap for high and low wage workplaces.

	Difference	Explained					Unexplained						
		Individual Characteristics	Occupation	Industry	Workplace	Region	Individual Characteristics	Occupation	Industry	Workplace	Region	Constant	Total
High Wage Workplaces													
Male versus Female													
Individual characteristics	16.09	6.13					-1.66					11.62	9.96
	(8.91)*	(5.92)*					(-0.26)					(1.63)	(5.41)*
+ workplace characteristics	16.09	2.57	5.12	2.59	0.10	-0.22	-8.10	-2.01	1.09	20.01	-0.37	-4.69	5.92
	(10.07)*	(3.00)*	(6.03)*	(3.81)*	(0.23)	(-0.53)	(-1.33)	(-0.71)	(0.70)	(3.01)*	(-0.36)	(-0.52)	(3.75)*
Full Time versus Part Time													
Individual characteristics	14.21	5.32					-28.22					37.10	8.89
	(4.46)*	(3.29)*					(-1.58)					(1.90)	(2.81)*
+ workplace characteristics	14.21	1.93	8.21	3.49	0.56	0.44	1.71	-8.04	0.99	9.52	1.91	-6.51	-0.42
	(4.53)*	(1.44)	(6.63)*	(4.48)*	(1.04)	(1.02)	(0.15)	(-2.40)*	(0.35)	(0.79)	(1.50)	(-0.35)	(-0.18)
Low Wage Workplaces													
Male versus Female													
Individual characteristics	11.43	4.50					7.94					-1.01	6.93
	(6.10)*	(4.44)*					(1.38)					(-0.17)	(4.13)*
+ workplace characteristics	11.43	3.03	1.03	2.99	0.02	0.10	10.19	-1.12	0.99	7.35	-1.12	-12.02	4.26
	(6.21)*	(3.77)*	(0.95)	(3.01)*	(0.05)	(0.33)	(1.72)	(-0.97)	(0.49)	(1.43)	(-1.76)	(-1.42)	(2.33)*
Full Time versus Part Time													
Individual characteristics	21.89	5.57					2.56					13.77	16.33
	(11.91)*	(4.98)*					(0.49)					(2.60)*	(8.49)*
+ workplace characteristics	21.89	3.89	5.11	2.44	0.22	-0.11	3.50	1.05	-0.27	6.99	-0.06	-0.87	10.34
	(11.69)*	(3.96)*	(5.48)*	(3.21)*	(0.72)	(-0.36)	(0.59)	(0.72)	(-0.11)	(1.19)	(-0.10)	(-0.09)	(6.05)*

Source: WERS 2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Table A2.8. Decompositions of the earnings gap for high and low proportion female workplaces.

	Difference	Explained					Unexplained						
		Individual Characteristics	Occupation	Industry	Workplace	Region	Individual Characteristics	Occupation	Industry	Workplace	Region	Constant	Total
High Proportion Female Workplaces													
Male versus Female													
Individual characteristics	17.40	11.06					6.31					0.03	6.34
	(6.94)*	(6.77)*					(0.86)					(0.00)	(3.40)*
+ workplace characteristics	17.40	4.15	6.26	1.37	0.98	0.64	7.37	-0.84	-2.37	15.74	0.37	-16.27	4.00
	(6.64)*	(4.58)*	(5.26)*	(1.52)	(1.82)	(1.40)	(1.01)	(-0.47)	(-0.75)	(1.79)	(0.50)	(-1.46)	(2.30)*
Full Time versus Part Time													
Individual characteristics	27.22	9.66					-8.60					26.16	17.56
	(11.62)*	(6.26)*					(-1.16)					(3.29)*	(7.84)*
+ workplace characteristics	27.22	4.70	11.59	2.77	2.08	0.96	7.39	-5.54	2.37	18.68	0.10	-17.86	5.14
	(10.85)*	(5.01)*	(8.56)*	(3.16)*	(3.60)*	(2.27)*	(1.19)	(-3.14)*	(0.57)	(2.04)*	(0.20)	(-1.67)	(3.18)*
Low Proportion Female Workplaces													
Male versus Female													
Individual characteristics	6.98	2.20					-6.10					10.89	4.79
	(2.72)*	(1.22)					(-0.74)					(1.45)	(1.79)
+ workplace characteristics	6.98	1.09	-1.03	0.59	0.01	-0.51	3.12	-0.76	-1.91	8.65	-0.12	-2.15	6.83
	(2.91)*	(0.87)	(-0.71)	(0.73)	(0.02)	(-1.26)	(0.48)	(-0.34)	(-0.72)	(1.18)	(-0.16)	(-0.21)	(2.87)*
Full Time versus Part Time													
Individual characteristics	16.46	4.92					10.77					0.77	11.54
	(3.43)*	(2.12)*					(0.70)					(0.05)	(2.22)*
+ workplace characteristics	16.46	5.79	7.15	4.02	2.81	-0.64	14.05	-0.66	1.38	3.12	2.39	-22.94	-2.67
	(3.54)*	(3.44)*	(4.25)*	(2.20)*	(2.73)*	(-1.10)	(0.90)	(-0.18)	(0.37)	(0.33)	(1.16)	(-1.25)	(-0.66)

Source: WERS 2011. Notes: t statistics are in the parenthesis below each coefficient. * indicates significance at the 5% level.

Appendix 3. Distributions of Pay Gaps in ASHE.

Figure A3.1. Managerial distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.2. Professional distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.3. Clerical distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.4. Personal Service distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.5. Sales distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.6. Unskilled distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.7. Manufacturing distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.8. Wholesale and Retail distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

Figure A3.9. Education distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

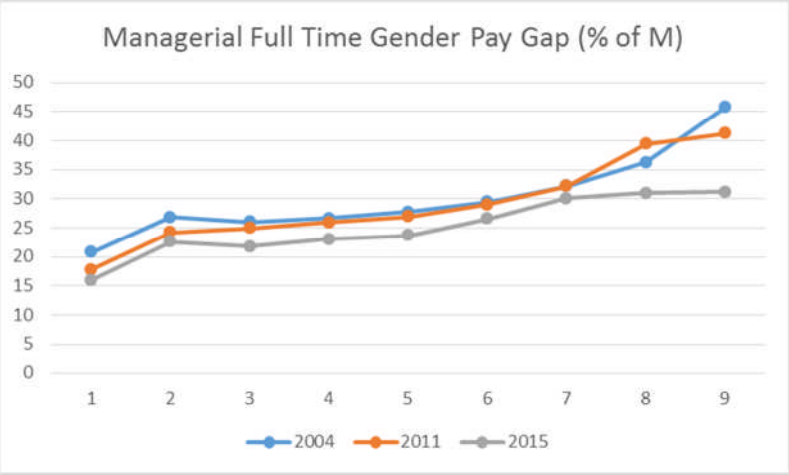
Figure A3.10. Health distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

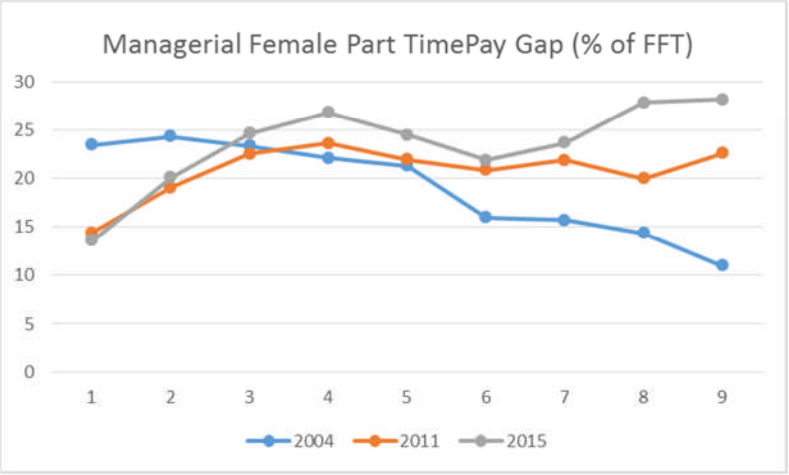
Figure A3.11. Information and Communication distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

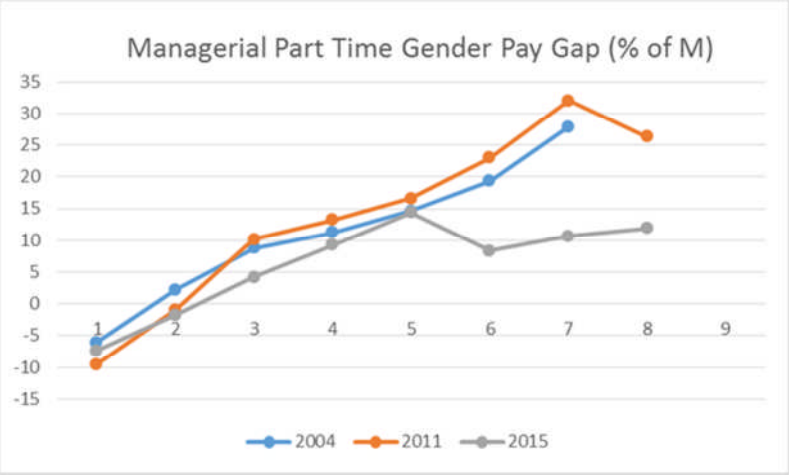
Figure A3.12. Financial distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE

Figure A3.1: Managerial distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







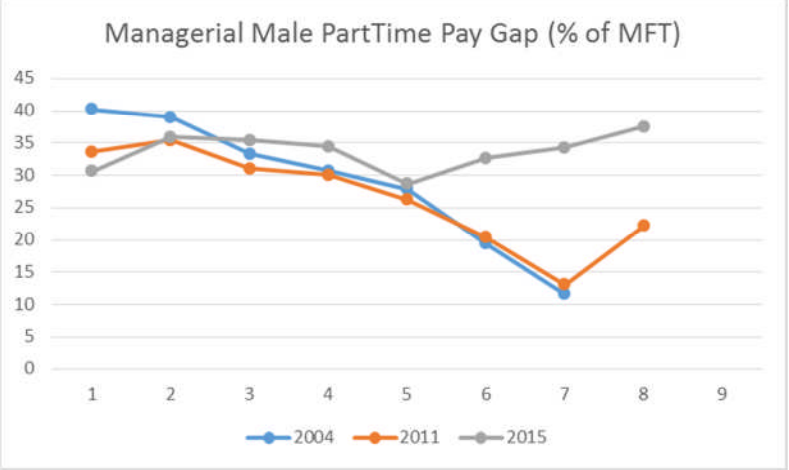
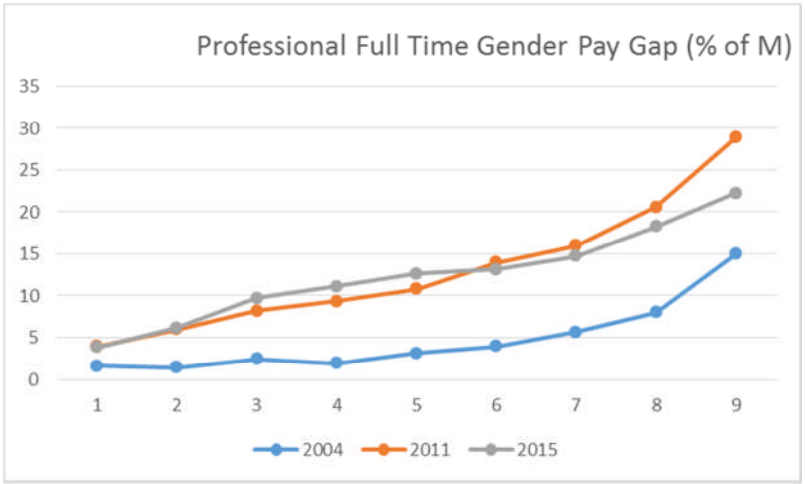
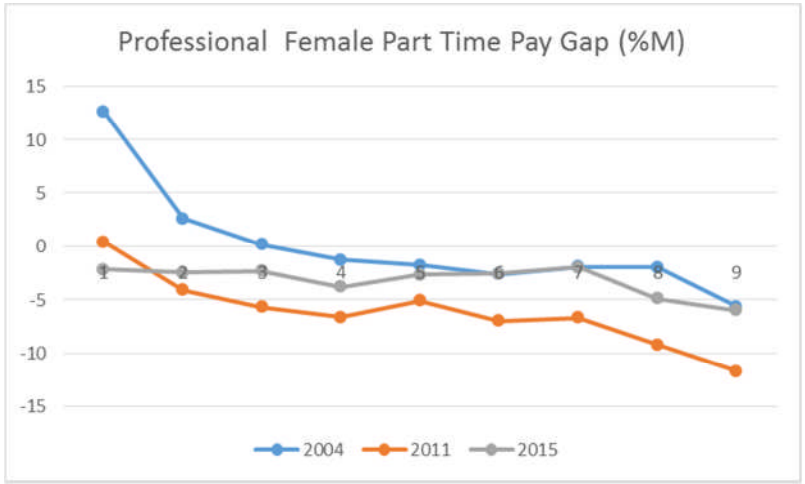
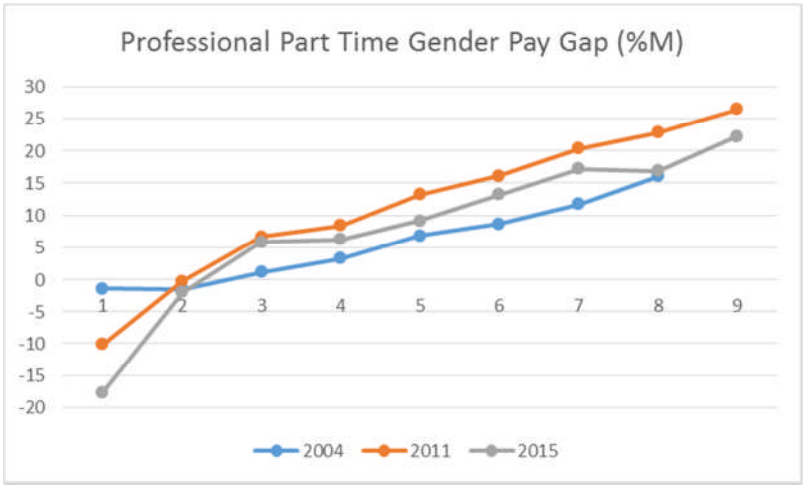


Figure A3.2: Professional distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







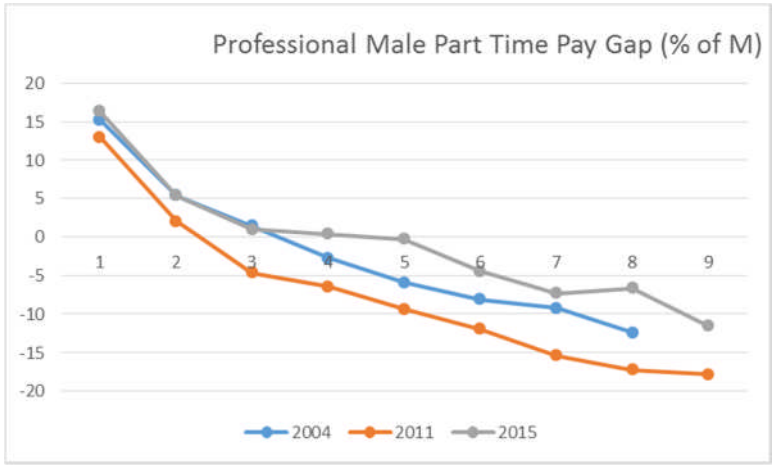
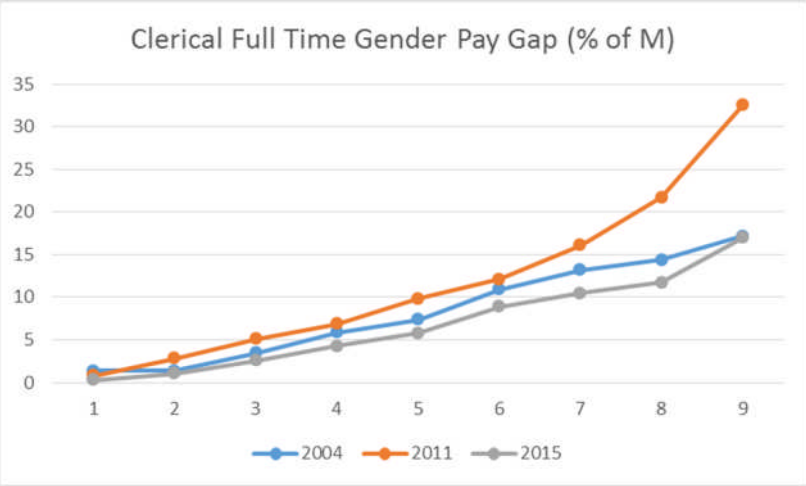
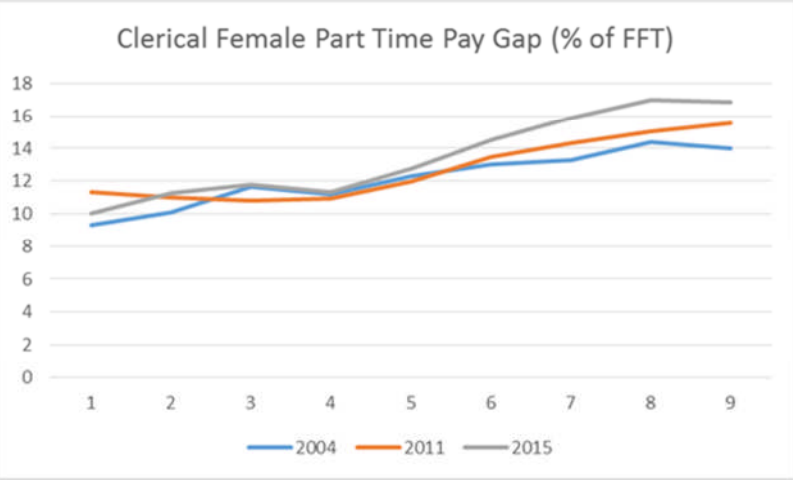
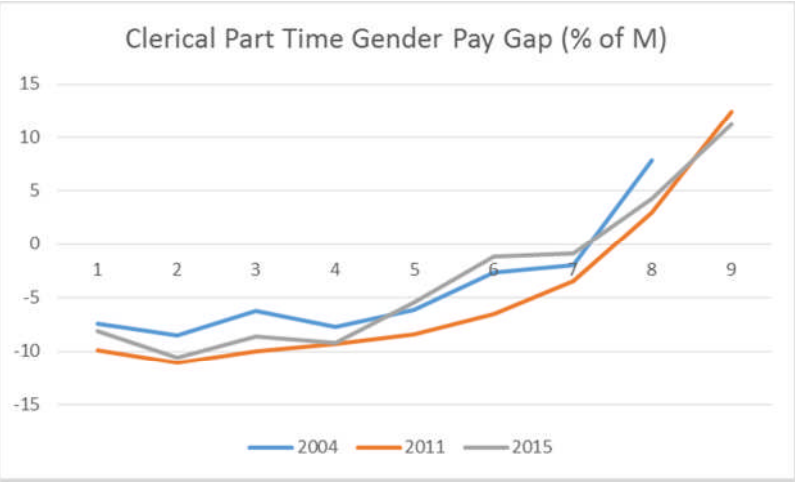


Figure A3.3: Clerical distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







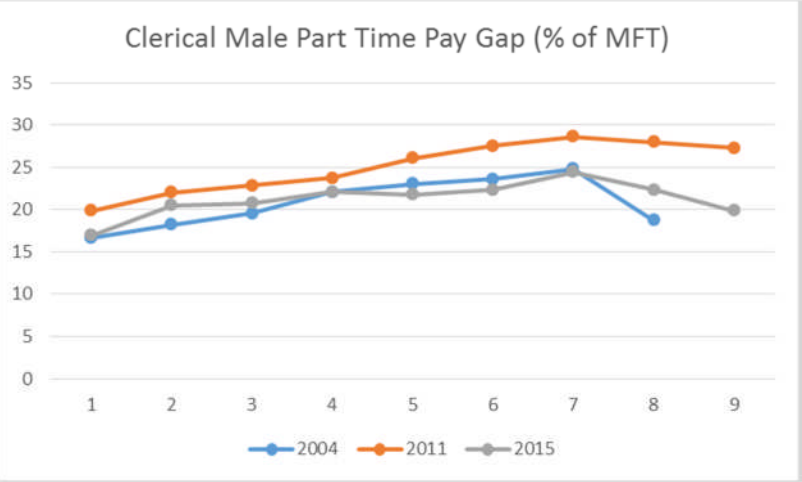
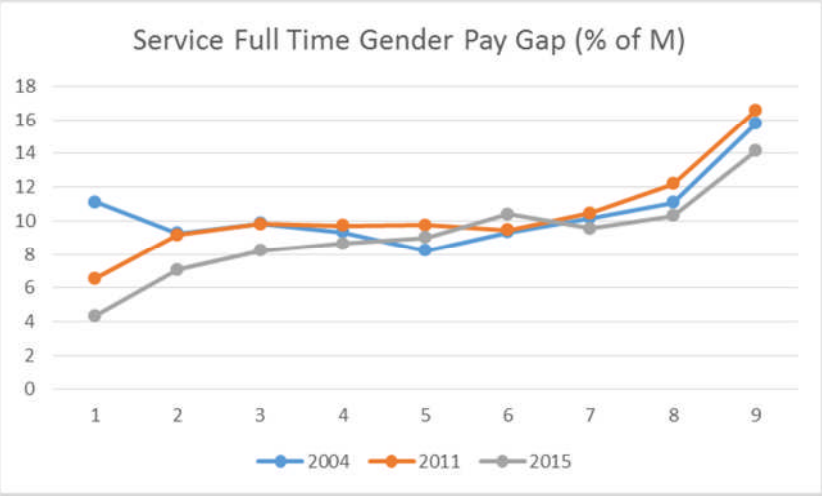
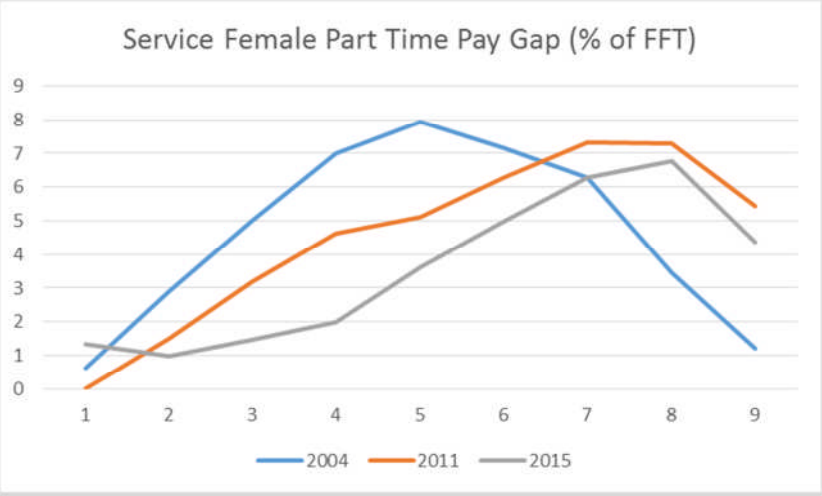
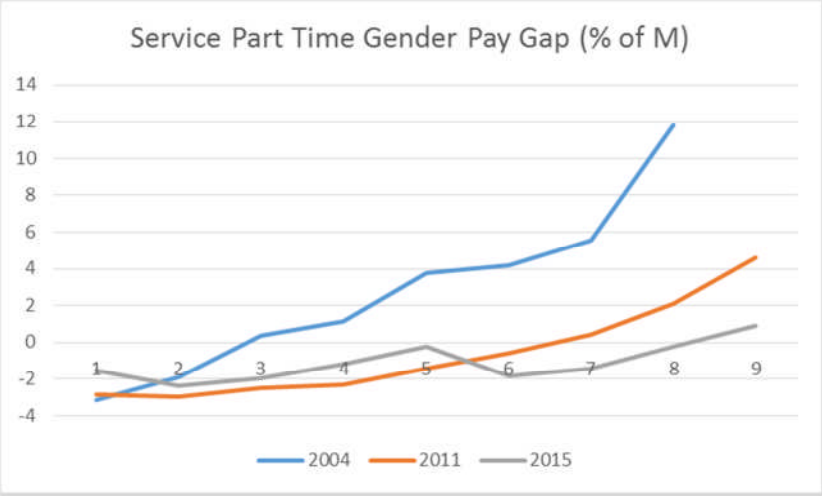


Figure A3.4: Personal Service distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







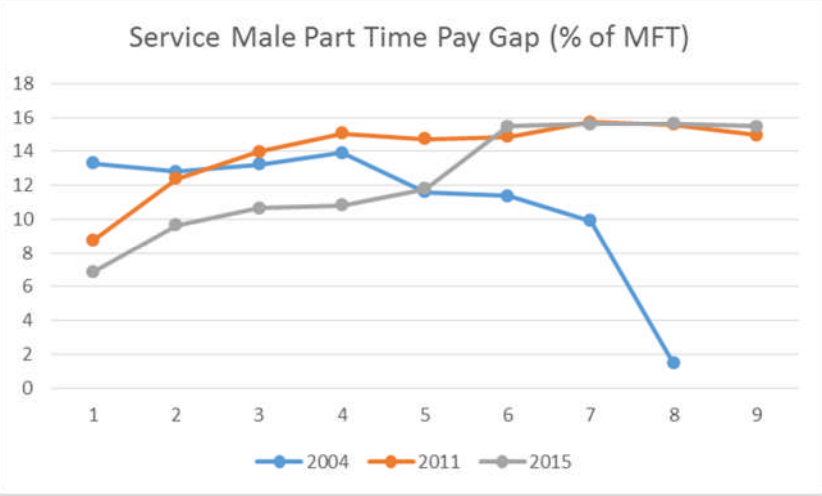
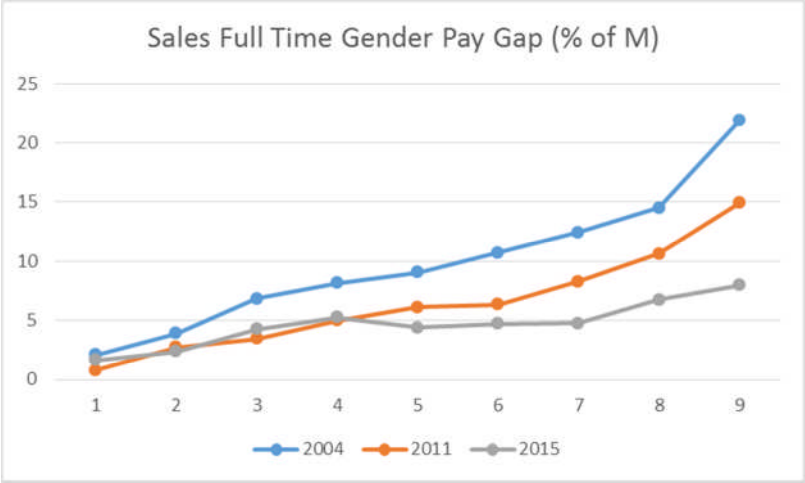
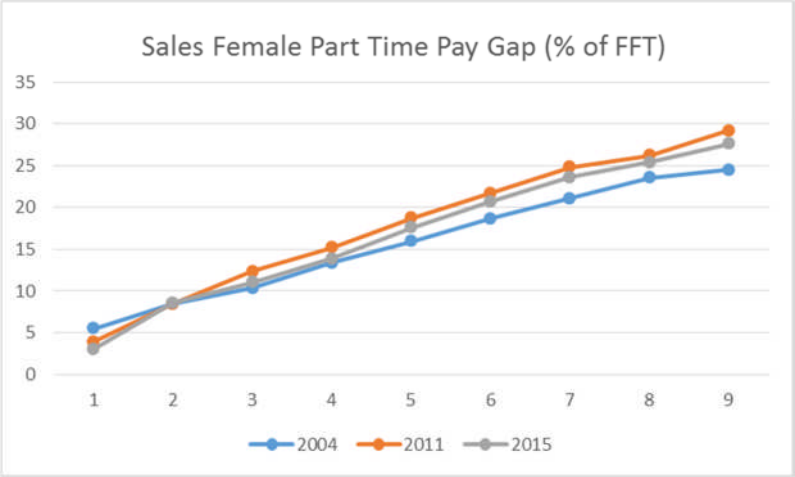
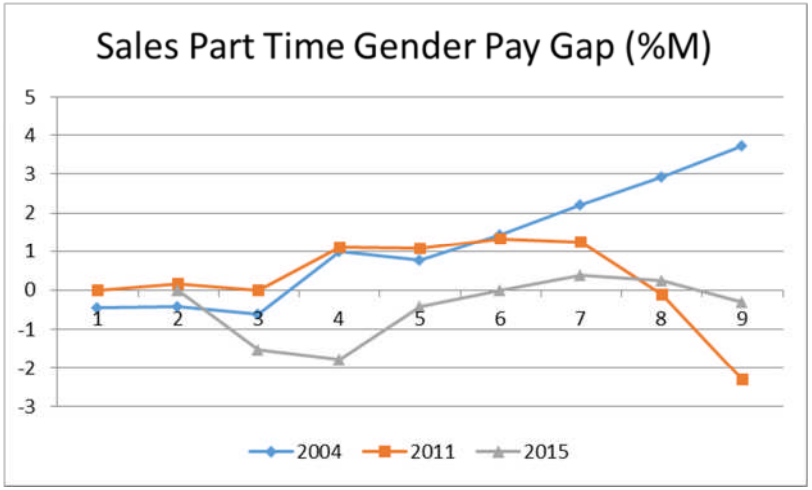


Figure A3.5: Sales distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







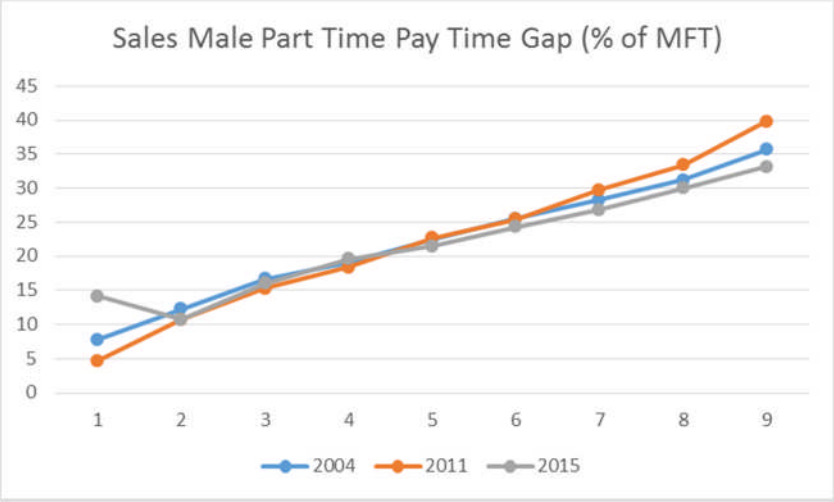
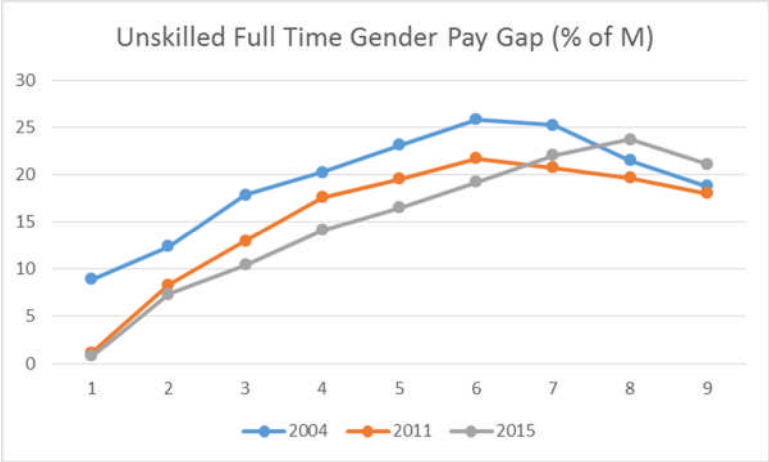
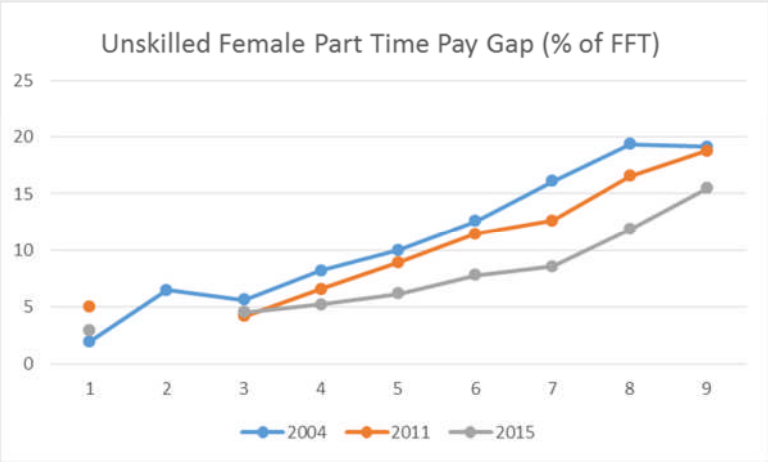
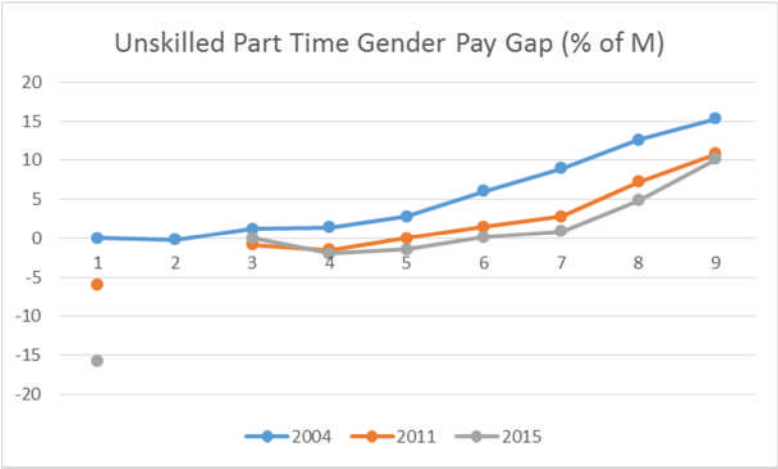


Figure A3.6: Unskilled distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







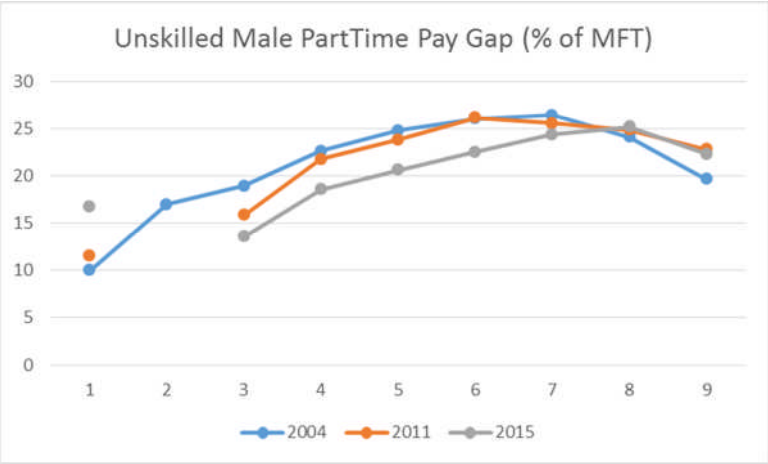
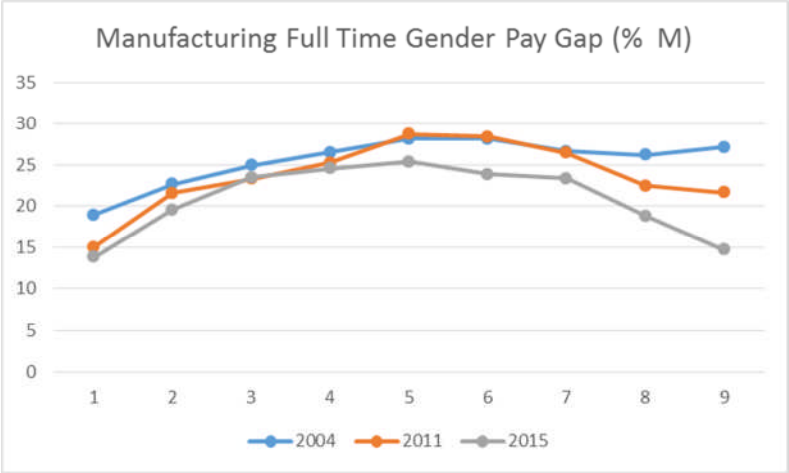
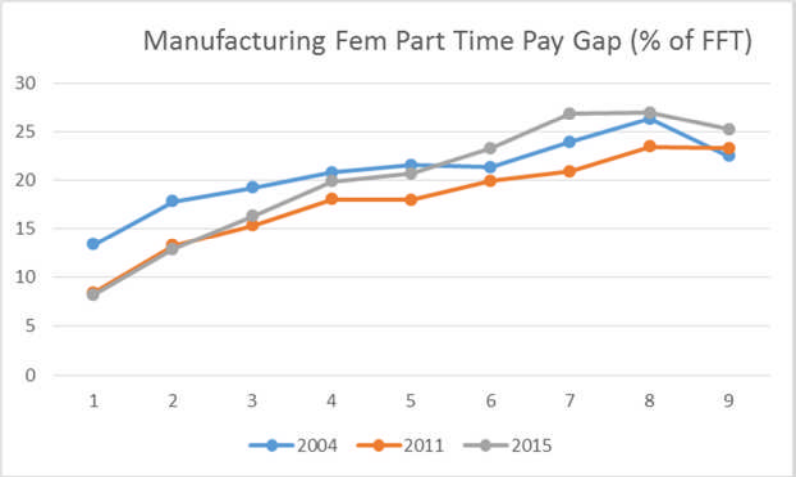
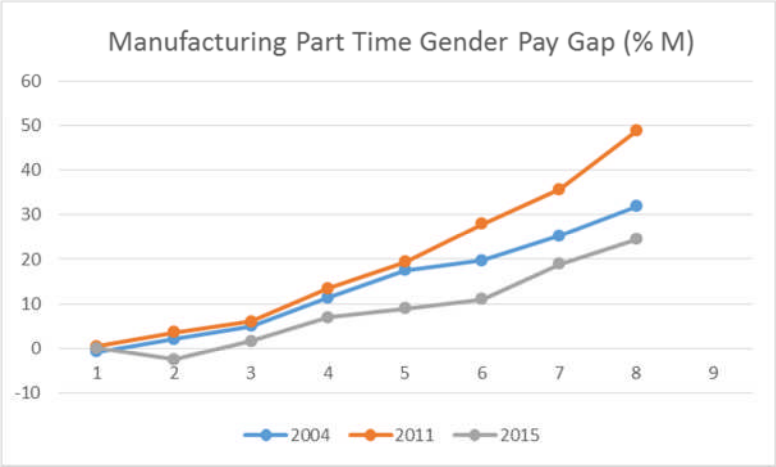


Figure A7.7: Manufacturing distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







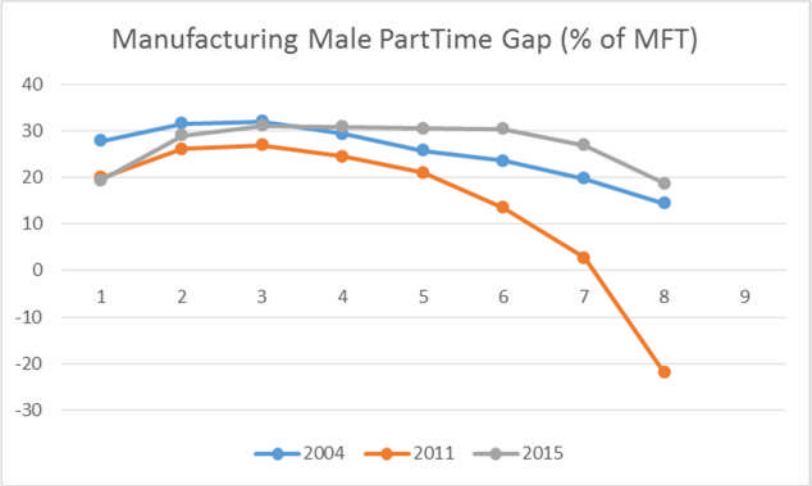
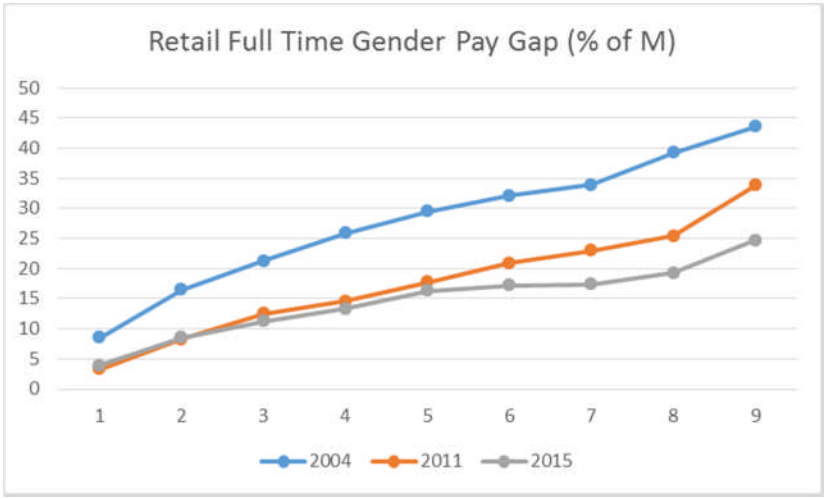
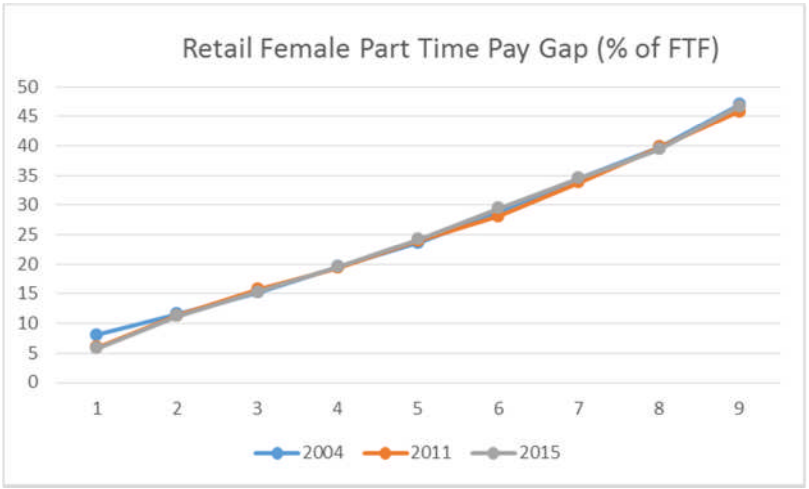
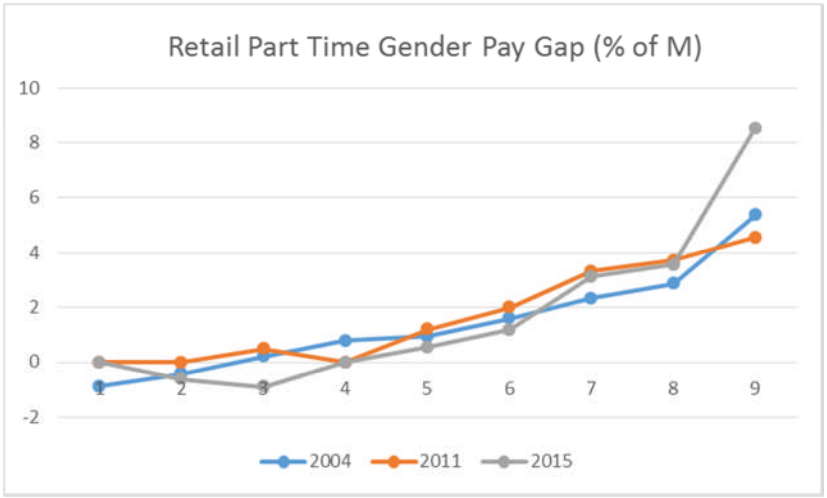


Figure A3.8: Wholesale and Retail distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







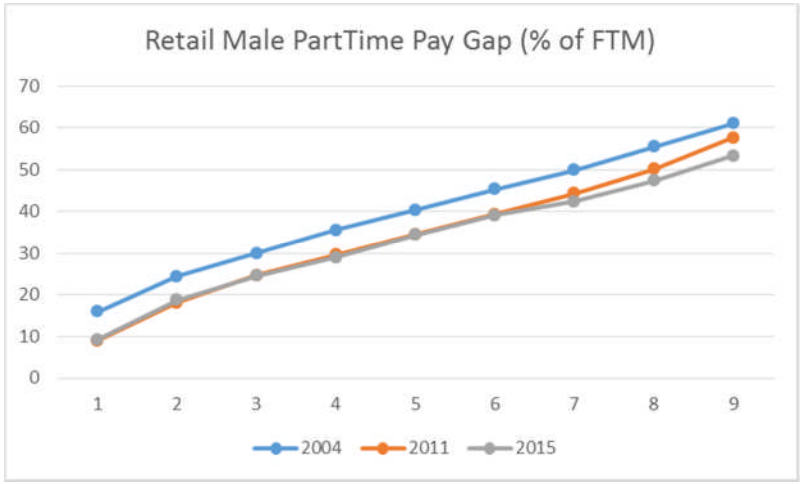
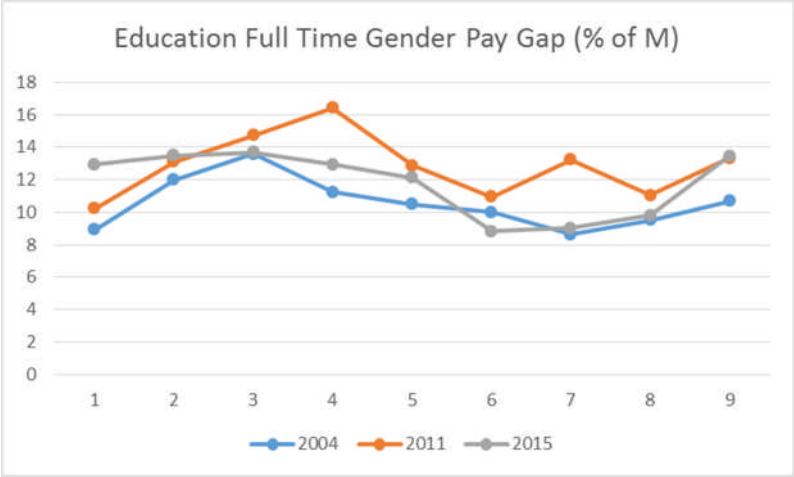
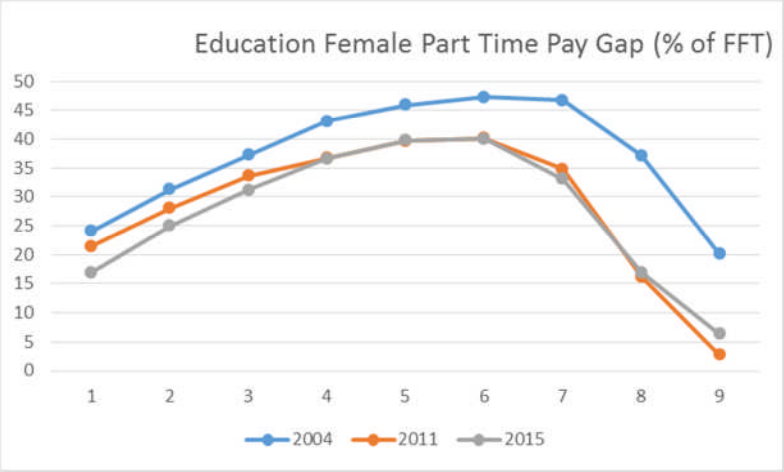
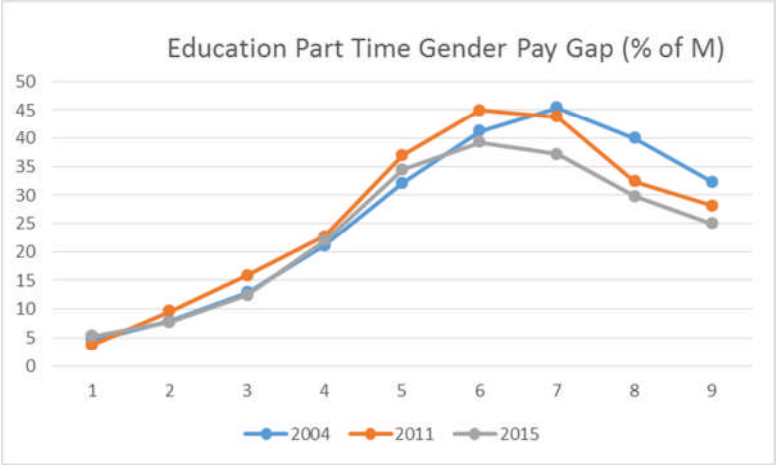


Figure A3.9: Education distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







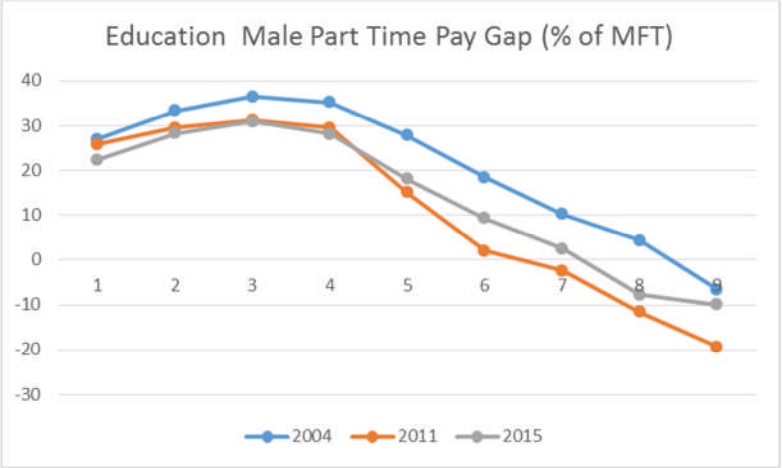
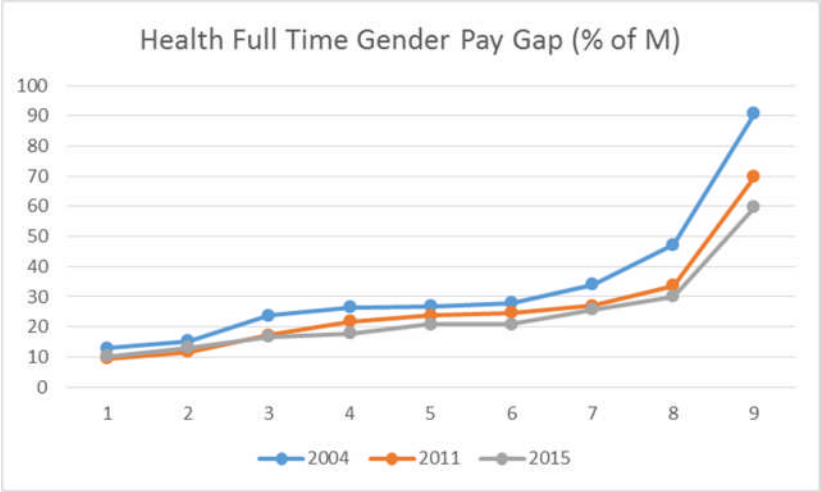
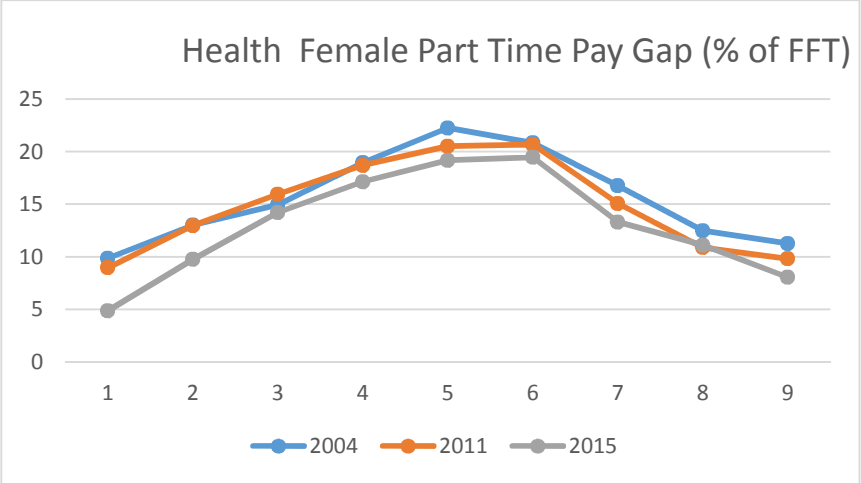
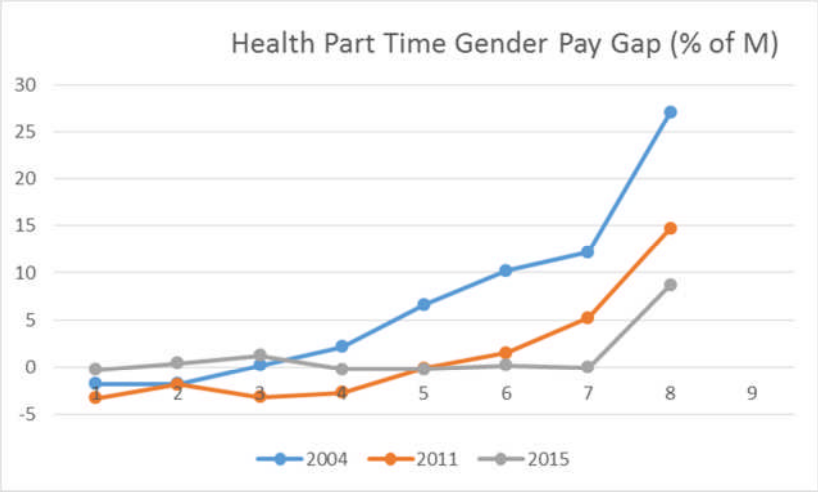


Figure A3.10: Health distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







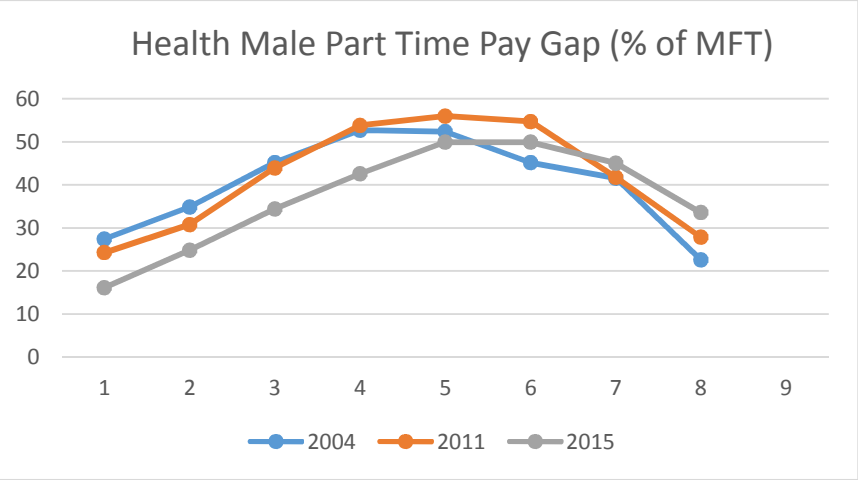
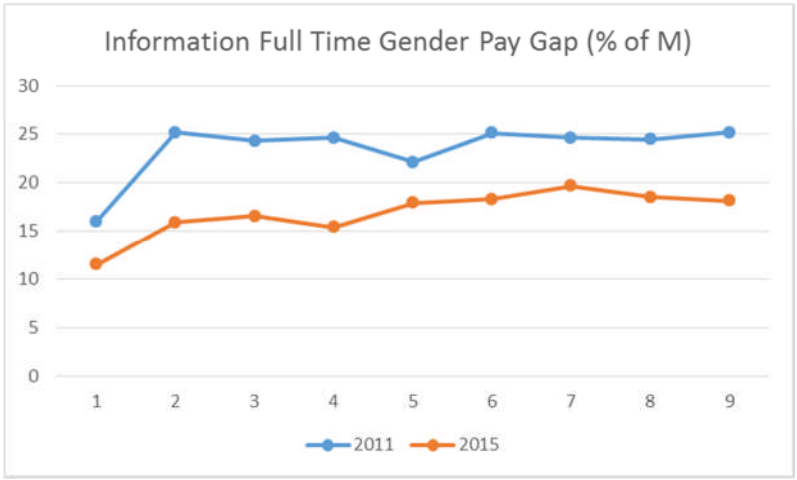
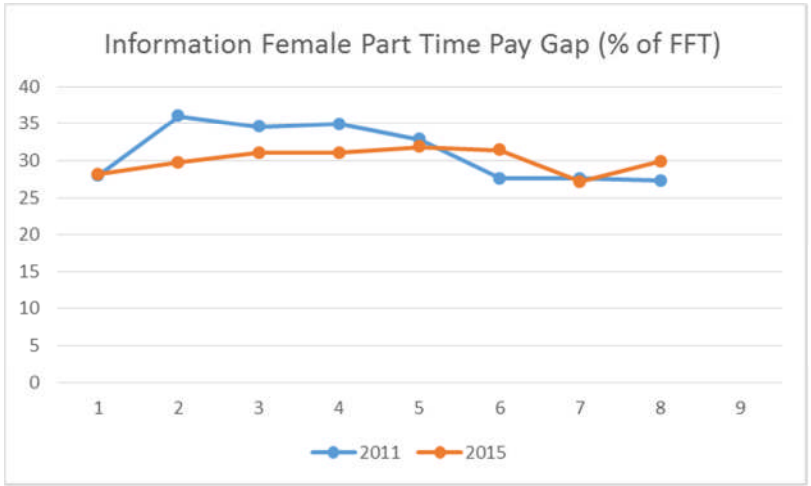
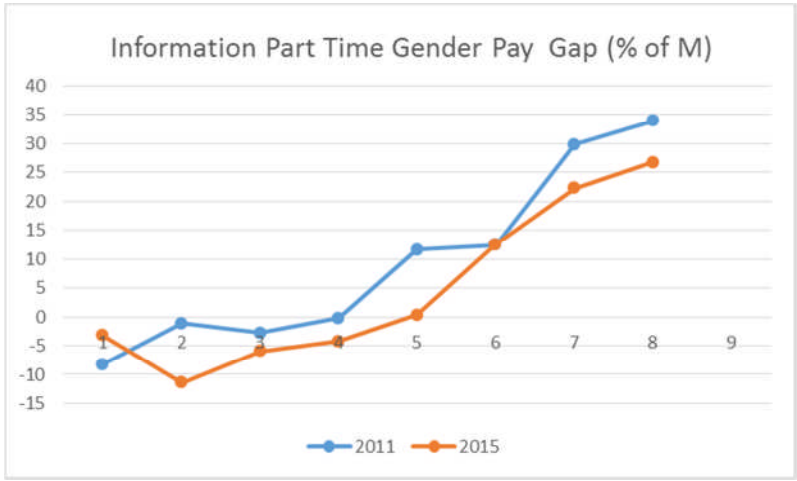


Figure A3.11: Information distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.







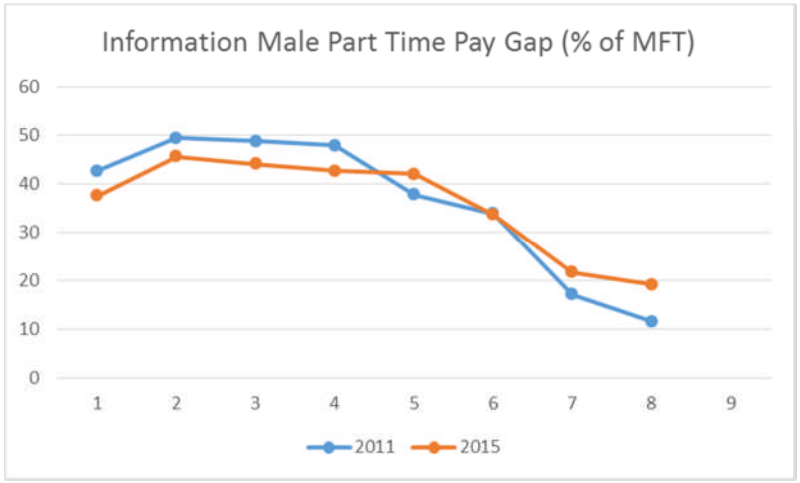
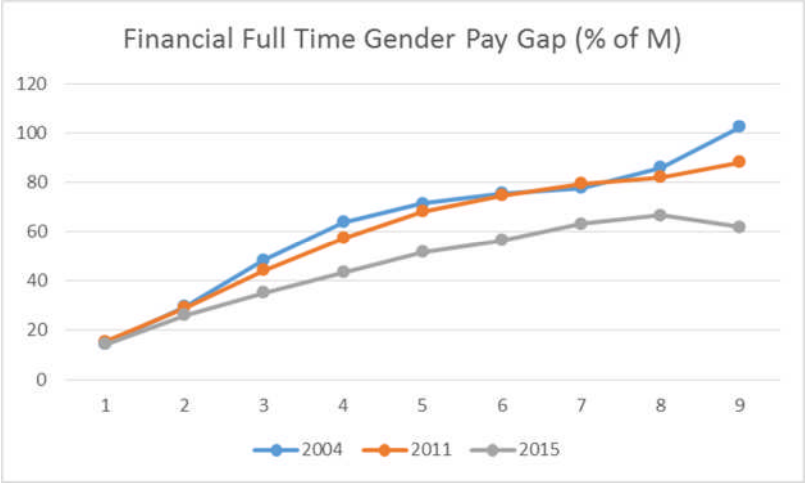
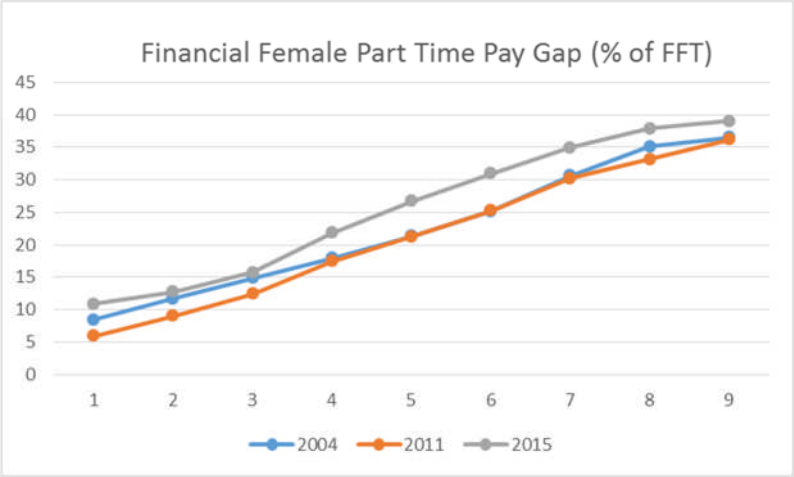
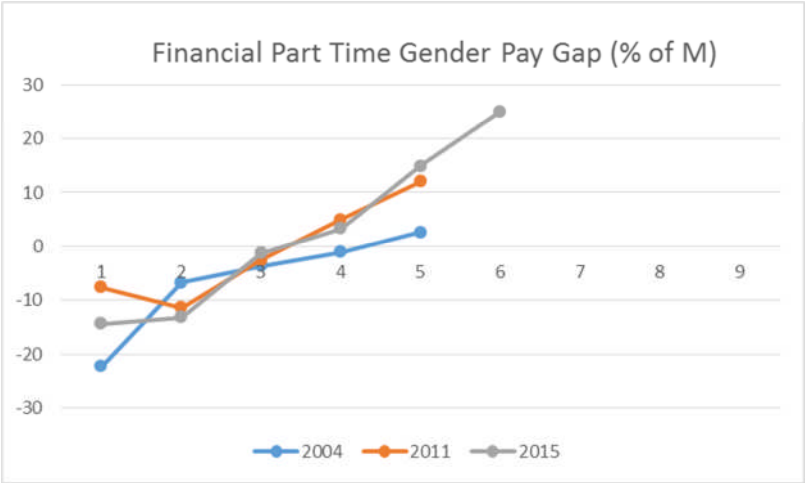
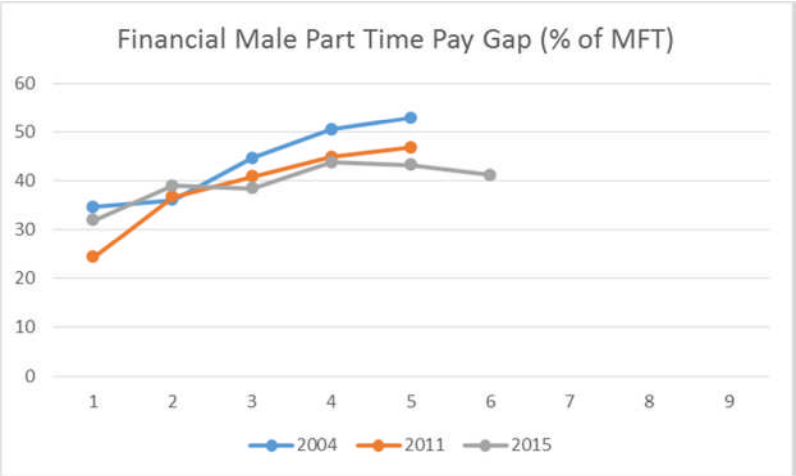


Figure A3.12: Financial distribution of the gender, and within gender full-time versus part-time, pay gaps in ASHE.

The figure shows the percentage pay gaps at nine deciles for each of three years.