GLAECONOMICS

Living Wage Unit

Working Paper 26

What makes employees more likely to be low paid in London?

Transport for London

LONDON DEVELOPMENT AGENCY

MAYOR OF LONDON

copyright

Greater London Authority
November 2007

Published by
Greater London Authority
City Hall
The Queen's Walk
London SE1 2AA
www.london.gov.uk
enquiries **020 7983 4000**
minicom **020 7983 4458**

ISBN: **978-1-84781-099-1**

Cover photograph
© Daryl Rozario

This publication is printed on recycled paper

For more information about this publication, please contact:
GLA Economics
telephone 020 7983 4922
email glaeconomics@london.gov.uk

GLA Economics provides expert advice and analysis on London's economy and the economic issues facing the capital. Data and analysis from GLA Economics form a basis for the policy and investment decisions facing the Mayor of London and the GLA group. The unit is funded by the Greater London Authority, Transport for London and the London Development Agency.

Contents

Abstract

London is a world city with the highest number of top earners in the UK, but also with the highest child poverty rate in the country. Poverty can be associated with low pay. In previous research, the Living Wage Unit identified various characteristics associated with low pay. This note attempts to quantify for the first time the impact of different characteristics, both individual and job characteristics, on the likelihood of being low paid in London. Our results show that age, level of qualifications achieved, and level of occupation have important influences on the likelihood of being low paid in the capital.

1. Introduction

Over the past year, the Living Wage Unit has undertaken research in order to better understand the patterns of low pay and wage inequality in London. The Living Wage Unit identified various characteristics associated with low pay. Low pay is defined as earnings less than the London living wage. Young people, women, those working part-time and those living in Outer London are all groups who are more likely to be low paid. In addition, wage inequality in the capital is higher than in the rest of the UK. Moreover, the wages of London employees at the bottom of the earnings distribution did not keep up with the growth in median wages between 1997 and 2006.

What this research does not tell us, however is the extent to which these characteristics affect the likelihood of an employee earning less than the London living wage. Economists have estimated the probability of an employee being low paid in the UK, using the National Minimum Wage, as the threshold for low pay. However, these studies are not appropriate in the London context, where the cost of living, in particular housing and childcare, is much higher than in the UK.

Therefore, this note attempts to quantify the impact of different characteristics, both individual and job characteristics, on the likelihood of being low paid in London. We estimate an econometric 'logit model', the standard approach to modelling a variable with only two outcomes (in this case being low paid and not being low paid). This framework will help us to answer questions such as:

- How many times more likely are younger people compared to older people to earn below the London living wage?
- How many times more likely are people without qualifications than people with qualifications to be low paid?
- How many times more likely are people from ethnic minority groups compared to White British and Irish employees to be low paid?

In addition, we investigate the extent to which qualifications help employees, in particular from ethnic minority groups, to get into better paid jobs.

2. How to measure the likelihood of being low paid in London

The logit model is a particular form of a binary regression model. The dependent variable is a dichotomous variable that identifies whether or not a worker is low paid. This variable takes the value 1 if a worker is low paid and 0 otherwise. The explanatory variables (determinants) measure the impact that each of them have on the probability of an employee being low paid.

The logit model is normally expressed as follows:

$$\log(p/q) = \alpha + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_k X_k$$

where *p* represents the probability of being low paid and the β_s measure the impact of the independent variables, X_S, on the probability of being low paid.

Measuring the dependent variable

The robustness of the model depends on how accurately low pay is measured and the range of explanatory variables included in the analysis. Some studies have defined low pay as the bottom 20 per cent of the earnings distribution[1]. Other studies have used 60 per cent of the median wage as the threshold for low pay[2]. Most UK studies and the Office for National Statistics (ONS) use the national minimum wage as the threshold to distinguish low paid earners.[3] In this note, we use the London living wage as the threshold, which is £7.20 per hour, later we discuss the robustness of our model to different measures of low pay.

What individual and job characteristics are relevant to low pay?

We estimate logit models for London with the following independent (explanatory) variables, similar to those used in other related studies, listed below:

- age
- qualifications achieved
- ethnicity
- occupation
- whether working in private and public sector
- whether working part-time or full-time
- business size
- job tenure
- location (region of residence and/or workplace)

[1] Shen Cheng, Doctoral Thesis, Employment and Skills, 2004.
[2] 'Escaping the low pay trap: do labour market entrants stand a chance?' by Dimitris Pavlopulous and Didier Fouarge, University of Tilburg. http://www.iza.org/conference_files/SUMS2006/pavlopoulos_d2646.pdf
[3] Low pay estimates, Press Release, Office for National Statistics, November 2005.

These variables are divided into a list of categories or classes. For instance, the age variable is classified into the following categories; employees aged 16-24 years, aged 25-29, 30-44 years and 45-64 years. Generally, one of these categories is set as the reference category, so for example we take employees aged 30-44 years to compare with other age groups.

The logit model requires a reference category for each of the explanatory variables included in the model (for a detailed description, see Appendix 1).

Box 1. How to interpret probabilities and odd ratios from the logit models

The odds ratio is a measure of the odds of an event occurring in one group compared with the odds of it occurring in another. In this paper, the first group are those who are low paid and the second group are the rest of employees.

If the probability of being low paid is *p* and the probability of not being low paid is *q = 1-p*, then the odds of being low paid are defined as $\frac{p}{q}$ and the odds of not being low paid are defined as $\frac{q}{p}$.

In the logit model, the dependent variable, the logarithm of the odds ratio, is $\log(p/q)$ = log (odds) = logit (*p*). Algebraic manipulation allows us to derive/estimate probabilities of being low paid from estimated logs of the odds ratios.

Odds ratios

For example, suppose that one of our explanatory variables is working part-time or full-time. An odds ratio equal to 1 tells us that employees working part-time are equally likely as full-time employees to be low paid. If the odds ratio is greater than 1, this indicates that employees working part-time are more likely than full-time employees to be low paid. Conversely, if the odds ratio is lower than 1, then employees working part-time are less likely than full-time employees to be low paid.

Convert odds ratios to probabilities

To derive the probability of being low paid given by a certain individual characteristic in this example by hours worked, the following formula can be used:

$$Probability\ of\ being\ low\ paid\ by\ number\ of\ hours\ worked = \frac{odds\ ratio}{(1 + odds\ ratio)}$$

If the odds ratios of being low paid by working part time in London is equal to 4, then the probability of being low paid, if working part-time in the capital, is 4/5 = .80, ie, 80 per cent. Note this is a stylised example, the actual impact of working part-time or full-time on the probability of being low paid is given later in this report.

3. Data sources

The Annual Population Survey (APS) 2005 has been used as the principle source of data in the analysis. The APS is a UK household survey and contains a wealth of information on the personal characteristics of employees including qualifications and ethnicity. For the more detailed investigation of employees from different ethnic minority groups and their qualification level the Census 2001 was used.

The Individual Sample of Anonymised Records (SARs) is a 3 per cent sample (1.84 million records) of the 2001 Census. There are 223,948 individual records in London. The data are completely anonymised so that no individuals can be identified.

4. Sample size

Which individuals are included in the analysis? We are mainly interested in looking at those who work in London. However, among these workers some will live in London and some outside. The econometric analysis considered three different samples:

1. London employed residents only;

2. London employees only; and

3. London employed residents and/or London employees.

5. Odds ratios of being low paid in London

This section presents only the odds ratios of being low paid in London, derived by the logit model as described on page 3, looking at London employed residents and/or London employees. The results of the estimated logit models are presented in Appendix 2 for all workers, and for male and female employees separately.

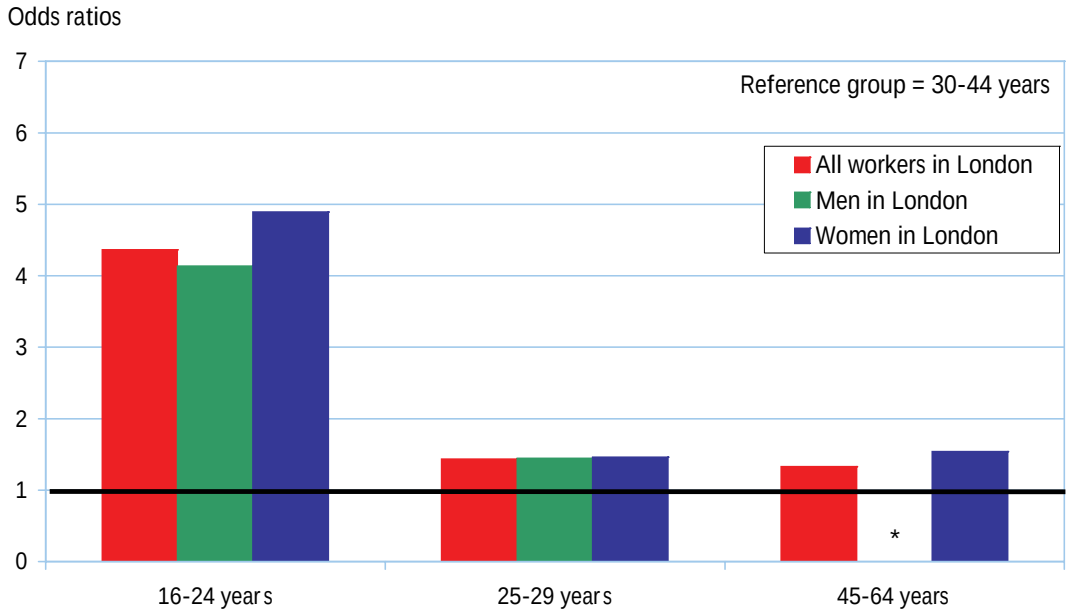
In addition, the odds ratios are provided for London employed residents and for London employees respectively, see Appendices 4 and 5. At the end of this section we compare the different results for the three groupings considered, ie, all workers in London, male workers in London and female workers in London.

Age

Figure 1 shows that workers in London who are 16-24 years old are about four times more likely than those workers aged 30-44 to be low paid in the capital. The odds of being low paid are higher still for 16-24 year old female employees who are five times more likely to earn less than the living wage in London than female employees aged 30-44 years.

Interestingly, female and male employees who are 25-29 years old have similar odds of being low paid in relation to the reference group.

Figure 1: Odds ratios of being low paid in London by age



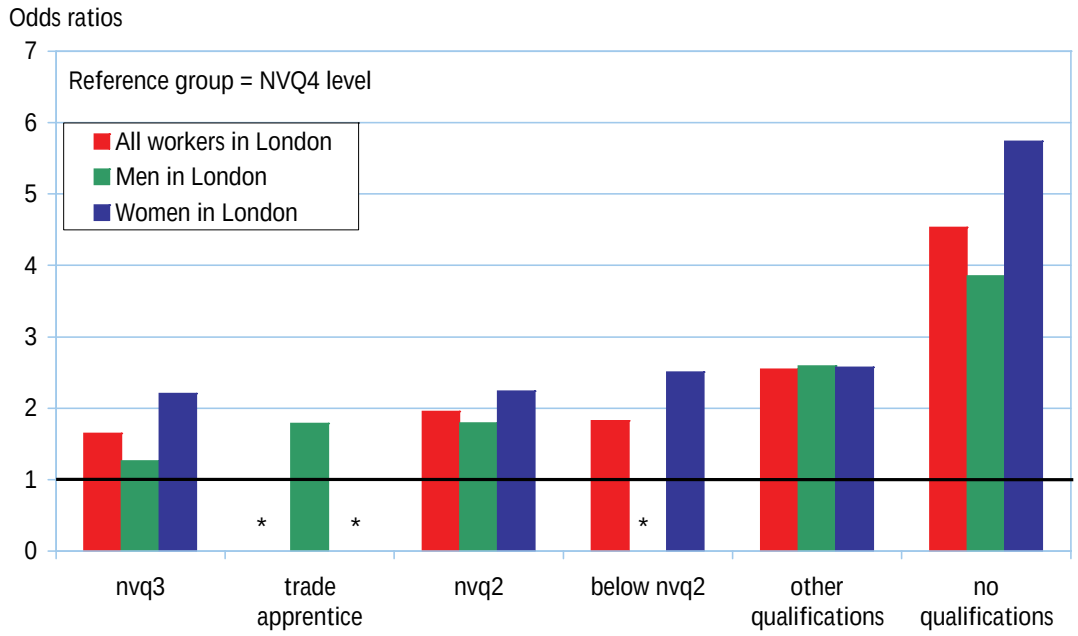
Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

Qualifications

Higher levels of education and skill tend to improve both individuals chances of being in employment and their wage levels in employment. For instance, London employees with no qualifications are 4.5 times more likely than employees with NVQ4 level (degree or equivalent) to be low paid in the capital. Female employees with no qualifications are almost six times more likely than female employees with NVQ4 level qualifications to earn less than the London living wage.

At all levels of qualifications, female employees tend to be more likely to be low paid than male employees with the exception with those with other qualifications, see Figure 2. Other qualifications are often qualifications of migrant workers that were acquired outside the UK. The odds ratio for those holding trade apprenticeships was only significant for male employees in London.

Figure 2: Odds ratios of being low paid in London by qualifications achieved

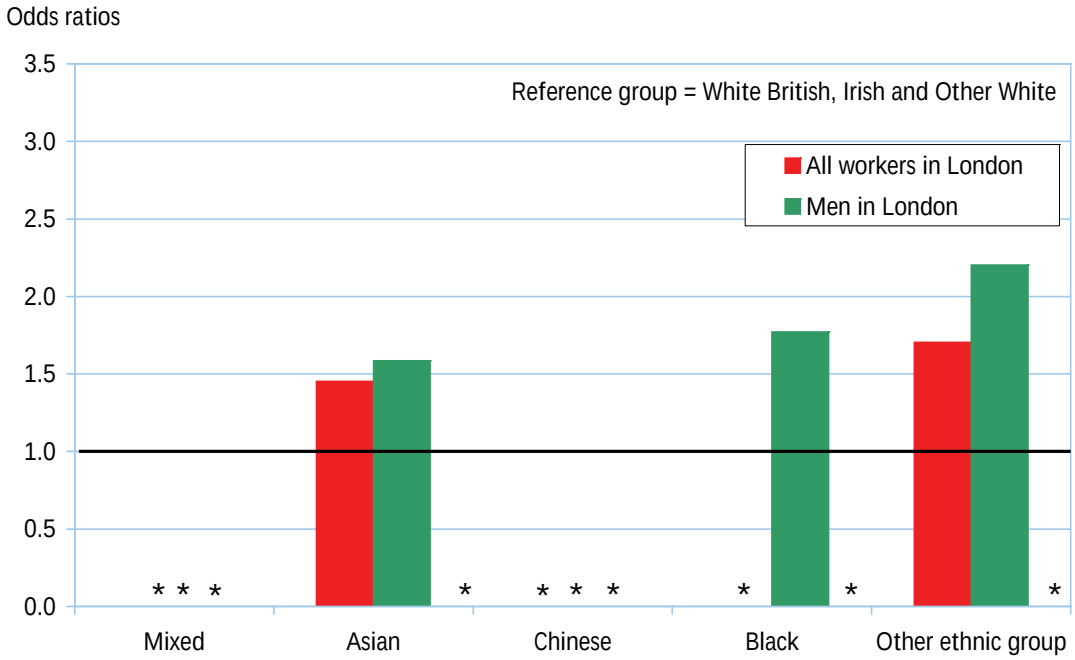


Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

Ethnicity

All male minority ethnic group employees are more likely to be low paid than White British, Irish and Other White male employees where the odds ratios are statistically significant. Estimates of the odds ratios for female employees were not statistically significant for any minority ethnic group.

Figure 3: Odds ratios of being low paid in London by ethnic group



Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

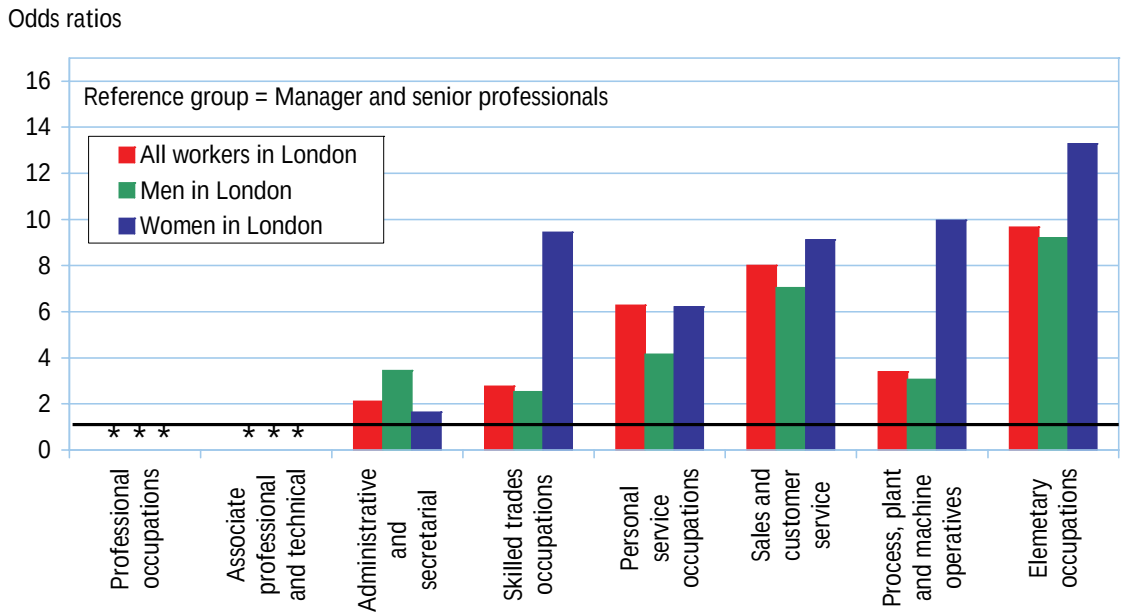
Unfortunately, sample sizes in the APS dataset limit analysis of the impact of ethnicity on the chances of being low paid. Thus in the next section, the relationship between ethnicity, level of qualifications and low pay amongst London employees, using data from the 2001 Census, is explored further.

Occupation

Low level occupations include: personal service; sales and customer services; process plant and machine operatives; and elementary occupations.

Unsurprisingly high level occupations are associated with high pay, while low level occupations are associated with low pay. In fact, women working in elementary occupations are 13 times more likely than female managers and senior professionals to be low paid.

Figure 4: Odds ratios of being low paid in London by occupation



Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

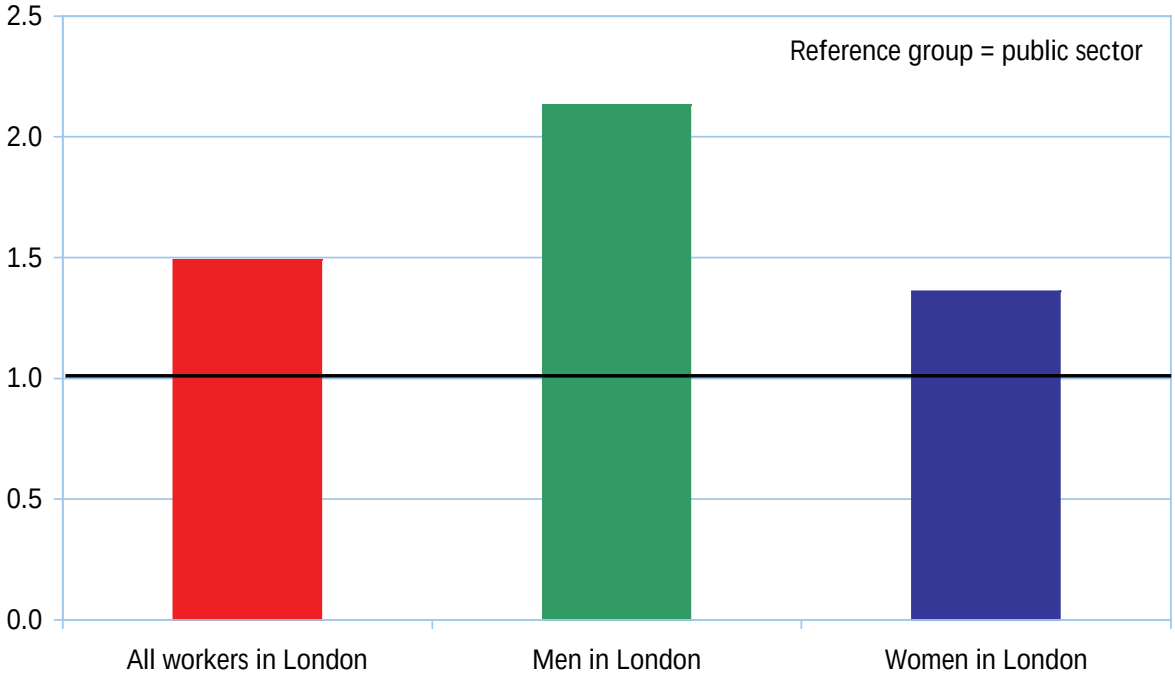
Occupation could be a cause of low pay but it could also be a result of low pay. To assess this, two logit models were estimated, first including the variable occupation and then without this variable. The two models show similarities in the odds ratios for the different explanatory variables considered, except for those employees with no qualifications. The odds ratio for this group increased almost threefold from 4.6 to 12.7 when we excluded occupation from the set of explanatory variables (see Appendices 2 and 3).

Type of sector

London employees, both women and men, working in the private sector are more likely to be low paid than those working in the public sector. This effect is larger for male employees than female employees. Male employees in the private sector are more than twice as likely to earn less than the London living wage than male employees working in the public sector, see Figure 5.

Figure 5: Odds ratios of being low paid in London by sector

Odds ratios

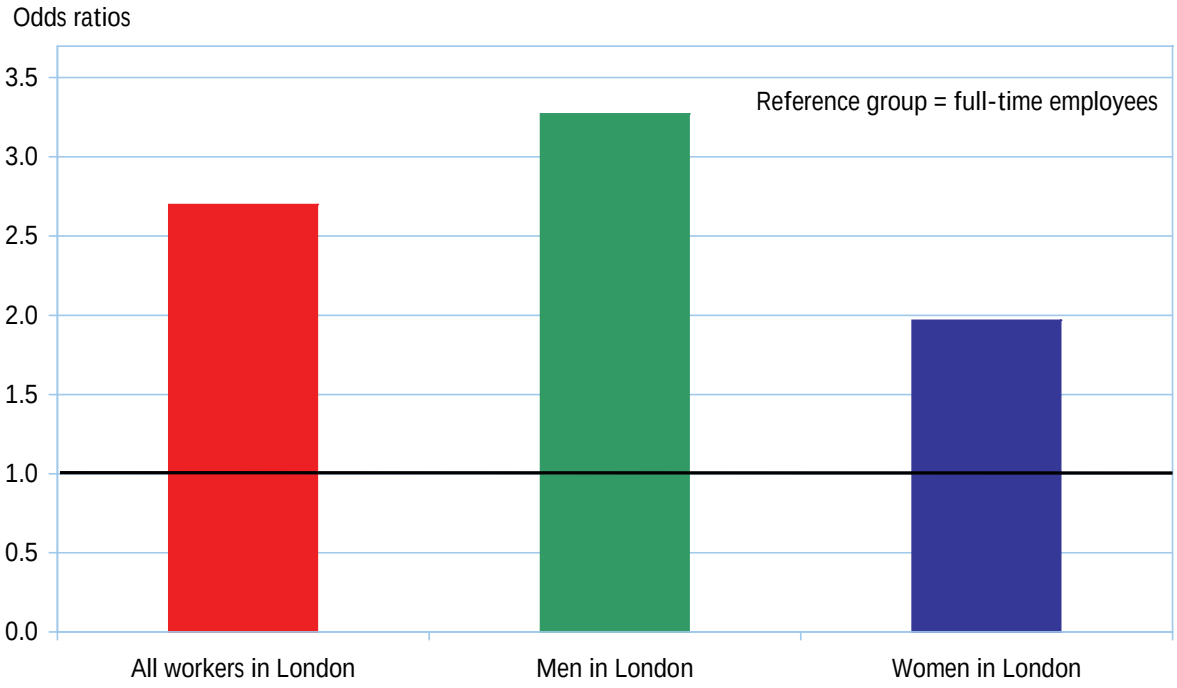


Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
The analysis is based on residents or workers in London

Hours worked

London part-time employees are 2.7 times more likely than full-time employees to be low paid. Male employees working part-time are more than three times more likely than full-time male employees to earn less than the London living wage. This compares with female employees working part-time, who are as twice as likely as women working full-time to be low paid.

Figure 6: Odds ratios of being low paid in London by hours worked

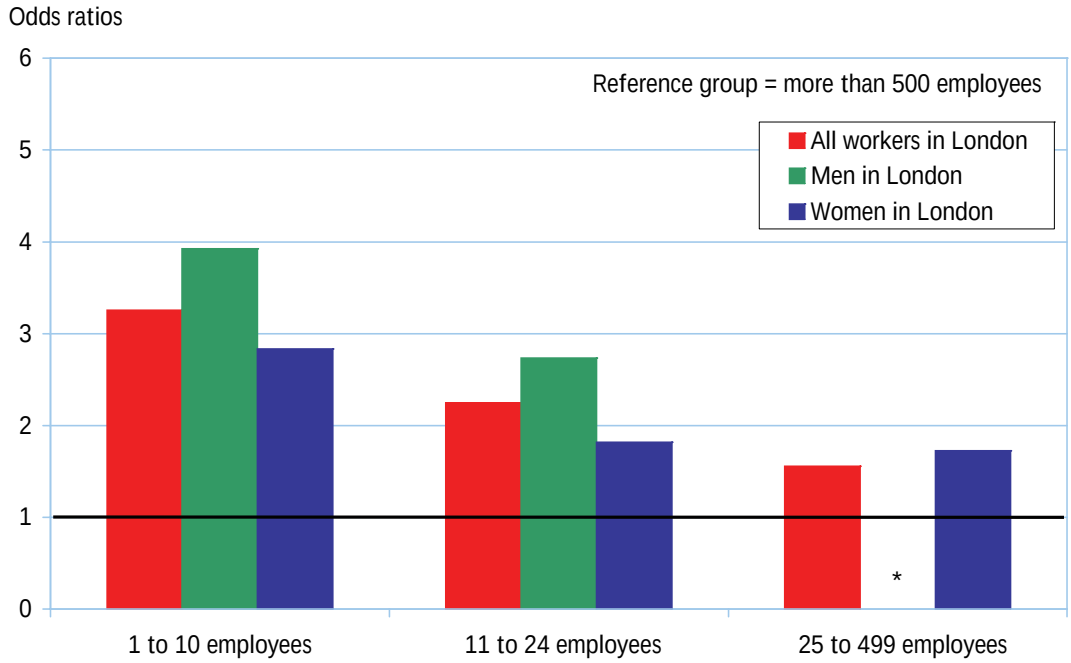


Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
The analysis is based on residents or workers in London

Workplace size

Working for a small workplace with 1-10 employees in London makes employees 3.2 times more likely to be low paid than working in a workplace with more than 500 employees. The impact on male employees of working in small workplaces (less than 25 employees) is greater than for female employees.

Figure 7: Odds ratios of being low paid in London by workplace size

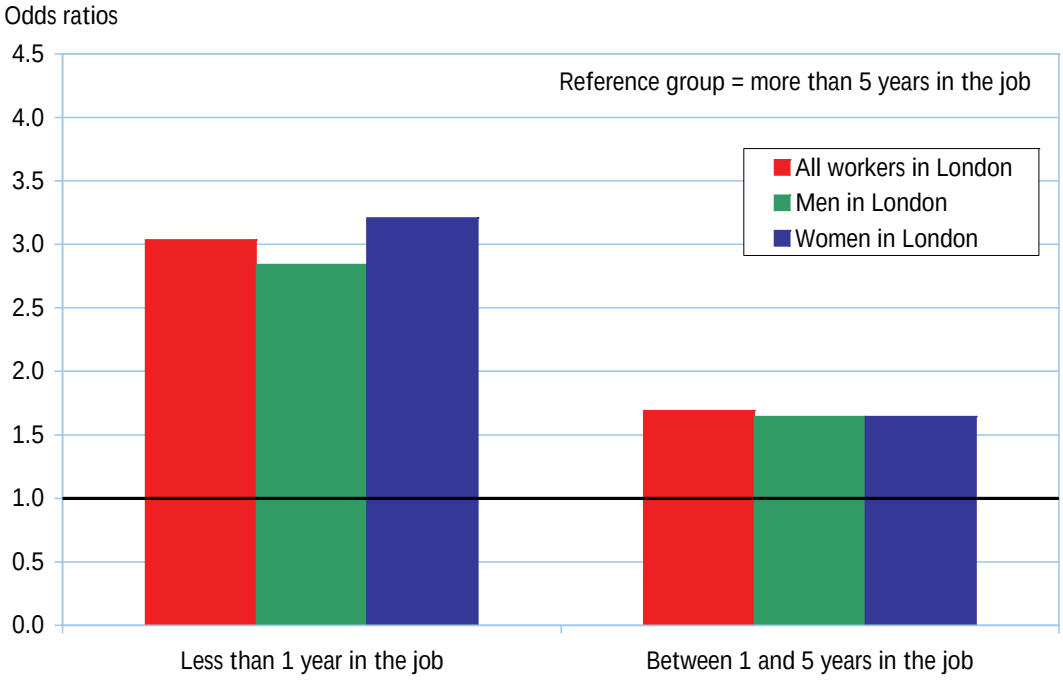


Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

Job tenure

Remaining longer in a job makes workers less likely to be low paid in London. For example, employees who have worked for less than a year in their current job are 3 times more likely to earn less than the living wage than employees who have remained with the same employer for more than 5 years, see Figure 8.

Figure 8: Odds ratios of being low paid in London by job tenure



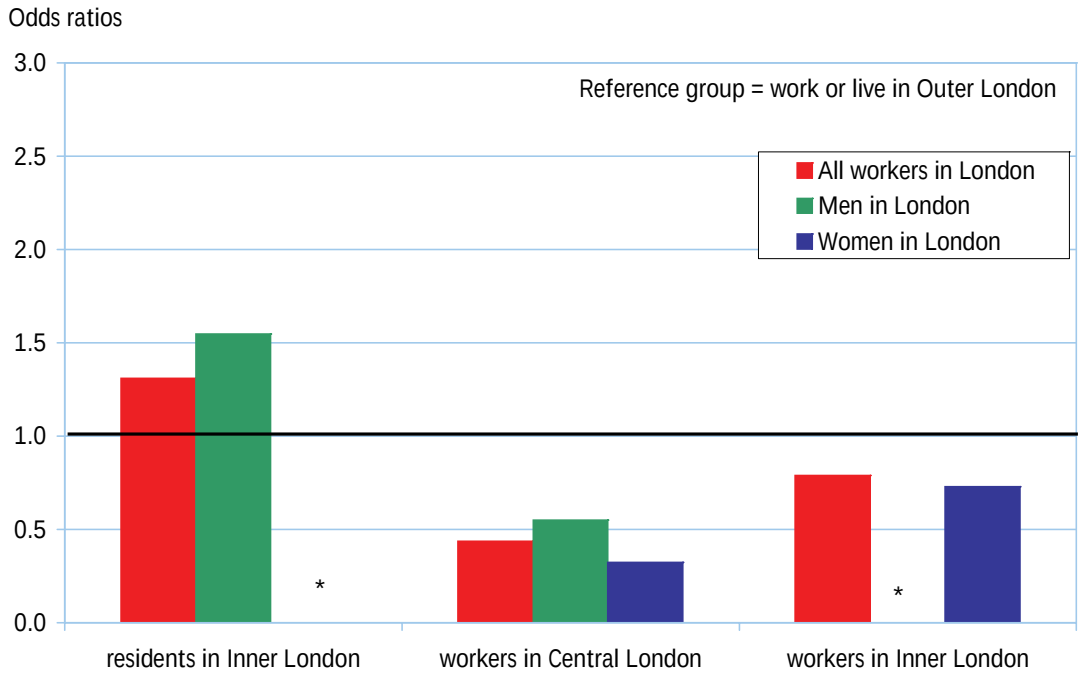
Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
The analysis is based on residents or workers in London

Location

Figure 9 presents the odds ratios of being low paid by area where employed individuals live or work in London. In particular, we considered employed residents in Inner London (excluding Central London) or those individuals working in Central or the rest of Inner London.

Our estimates indicate that employees living in the rest of Inner London are slightly more likely to earn less than the London living wage than those employees living or working in Outer London. In addition, workers in Central London and the rest of Inner London are less likely than those employees living or working in Outer London to be low paid.

Figure 9: Odds ratios of being low paid in London by area



Source: GLA Economics' own calculations based on Annual Population Survey (APS) 2005
*Notes: * indicates not statistically significant*
The analysis is based on residents or workers in London

Other factors

The analysis also assessed the impact of other individual characteristics on the chances of being low paid such as: employees on temporary contracts; the marital status of employees; and employees' home ownership. However, these variables did not have a statistically significant effect.

Comparisons of logit models for differrent classifications of individuals

The results for the estimated logit models appear to be robust across the different groups that were considered: London employed residents; London employees; and London employed residents and/or London employees, and these groupings disaggregated by gender.

The coefficients for the different individual and job characteristics for the three different groupings (all workers in London, male workers in London and female workers in London) considered in our analysis are generally similar. There are a few exceptions for some categories of the age and qualifications variables, see Tables 1A, 1B and 1C.

Table 1A: Comparison of the odds ratios of different individual characteristics for all workers in London

All workers			
Explanatory variable	London employed residents only	London employees only	London employed residents and/or London employees
Ethnicity			
Mixed	*	*	*
Asian	1.4	1.6	1.5
Chinese	*	*	*
Black	*	1.4	*
Other ethnic group	1.6	1.8	1.7
Type of sector			
Private sector	1.5	1.4	1.5
Age group			
16-24 years	4.0	4.8	4.4
25-29 years	1.4	1.6	1.4
45-64 years	1.4	1.4	1.3
Number of hours worked			
Part-time	2.6	2.7	2.7
Qualifications			
NVQ3	1.7	1.7	1.6
Trade apprentice	1.9	1.6	*
NVQ2	2.0	1.8	2.0
Below NVQ2	1.9	2.1	1.8
Other qualifications	2.5	2.7	2.5
No qualifications	4.8	4.7	4.5
Occupation			
Professional occupations	*	*	*
Associate professional and technical	*	*	*
Administrative and secretarial professions	2.0	1.8	2.1
Skilled trades occupations	2.6	3.0	2.8
Personal service occupations	6.4	5.8	6.3
Sales and customer service	8.3	7.7	8.0
Process, plant and machine operatives	3.8	3.5	3.4
Elementary occupations	9.5	9.4	9.7
Workplace size			
1 to 10 employees	3.4	3.6	3.3
11 to 24 employees	2.3	2.5	2.2
25 to 499 employees	1.6	1.7	1.6
Job tenure			
Less than 1 year in the job	3.0	3.3	3.0
Between 1 and 5 years	1.5	1.8	1.7
Area of residence or workplace			
Living in Inner London	*	NA	1.3
Working in Central London	NA	0.6	0.4
Working in Inner London	NA	*	0.8

Source: GLA Economics' own calculations based on the Annual Population Survey (APS) 2005.
*Notes: * indicates that coefficient associated to the odds ratio was not statistically significant.*
NA, refers to non-applicable.

Table 1B: Comparison of the odds ratios of different individual characteristics for male workers in London

Male workers			
Explanatory variable	London employed residents only	London employees only	London employed residents and/or London employees
Ethnicity			
Mixed	*	*	*
Asian	1.5	1.7	1.6
Chinese	*	*	*
Black	1.7	1.9	1.8
Other ethnic group	1.9	2.4	2.2
Type of sector			
Private sector	2.0	2.1	2.1
Age group			
16-24 years	3.6	4.9	4.1
25-29 years	*	1.6	*
45-64 years	*	*	*
Number of hours worked			
Part-time	3.2	3.7	3.3
Qualifications			
NVQ3	*	*	*
Trade apprentice	2.1	1.9	*
NVQ2	1.8	1.8	1.8
Below NVQ2	*	*	*
Other qualifications	2.5	2.7	2.6
No qualifications	4.1	4.2	3.9
Occupation			
Professional occupations	*	*	*
Associate professional and technical	*	*	*
Administrative and secretarial professions	3.4	2.9	3.4
Skilled trades occupations	2.4	2.8	2.5
Personal service occupations	4.2	3.7	4.2
Sales and customer service	7.3	7.4	7.0
Process, plant and machine operatives	3.5	3.4	3.1
Elementary occupations	9.2	9.5	9.2
Workplace size			
1 to 10 employees	4.1	4.0	4.0
11 to 24 employees	2.9	2.8	2.7
25 to 499 employees	*	*	*
Job tenure			
Less than 1 year in the job	2.8	3.3	2.8
Between 1 and 5 years	1.5	1.8	1.6
Area of residence or workplace			
Living in Inner London	*	NA	1.5
Working in Central London	NA	0.7	0.5
Working in Inner London	NA	*	*

Source: GLA Economics' own calculations based on the Annual Population Survey (APS) 2005.
*Notes: * indicates that the coefficient associated to the odds ratio was not statistically significant.*
NA, refers to non-applicable.

Table 1C: Comparison of the odds ratios of different individual characteristics for female workers in London

Female workers			
Explanatory variable	London employed residents only	London employees only	London employed residents and/or London employees
Ethnicity			
Mixed	*	*	*
Asian	*	*	*
Chinese	*	*	*
Black	*	*	*
Other ethnic group	*	*	*
Type of sector			
Private sector	1.4	1.3	1.4
Age group			
16-24 years	4.4	5.0	4.9
25-29 years	1.4	1.6	1.5
45-64 years	1.6	1.6	1.5
Number of hours worked			
Part-time	2.0	1.9	2.0
Qualifications			
NVQ3	2.1	2.1	2.2
Trade apprentice	*	*	*
NVQ2	2.4	1.9	2.2
Below NVQ2	2.6	2.8	2.5
Other qualifications	2.6	2.7	2.6
No qualifications	6.0	5.5	5.7
Occupation			
Professional occupations	*	*	*
Associate professional and technical	*	*	*
Administrative and secretarial professions	1.6	*	1.6
Skilled trades occupations	9.2	10.8	9.4
Personal service occupations	6.6	5.5	6.2
Sales and customer service	9.5	7.9	9.1
Process, plant and machine operatives	10.2	10.4	10.0
Elementary occupations	12.6	12.0	13.3
Workplace size			
1 to 10 employees	3.0	3.5	2.8
11 to 24 employees	1.8	2.2	1.8
25 to 499 employees	1.8	2.0	1.7
Job tenure			
Less than 1 year in the job	3.1	3.1	3.2
Between 1 and 5 years	1.5	1.6	1.6
Area of residence or workplace			
Living in Inner London	0.8	NA	*
Working in Central London	NA	0.5	0.3
Working in Inner London	NA	*	0.7

Source: GLA Economics' own calculations based on the Annual Population Survey (APS) 2005.
*Notes: * indicates that coefficient associated to the odds ratio was not statistically significant.*
NA, refers to non-applicable.

Robustness of the results to different definitions of low pay

To assess the robustness of our results to different definitions of low pay, we estimated the logit models using two different earnings thresholds; the London living wage of £7.20 per hour and the National Minimum Wage of £5.35 per hour (at September 2007).

The odds ratios for some of the explanatory variables showed generally similar magnitudes, independent of the earnings threshold considered. However, using the National Minimum Wage as the earnings threshold, gives results for the odds ratios on ethnicity (for all the different categories) that were not statistically significant. In addition, the odds ratios for employees aged 16 to 24 years, those who work in small workplaces with less than 10 employees and employees in elementary occupations were smaller than those from the logit model using the London living wage as the earnings threshold defining low pay (comparing Tables 1, 2 and 3 from Appendices 2 and 6 respectively).

6. Low pay in ethnic minority groups[4]

When looking at the earnings of the different ethnic groups in London and their qualifications, the APS data is limited by small sample sizes. The Census offers much larger coverage and better information on ethnicity. However, the Census does not yet collect information on earnings and therefore a proxy for low paid earners needs to be found.

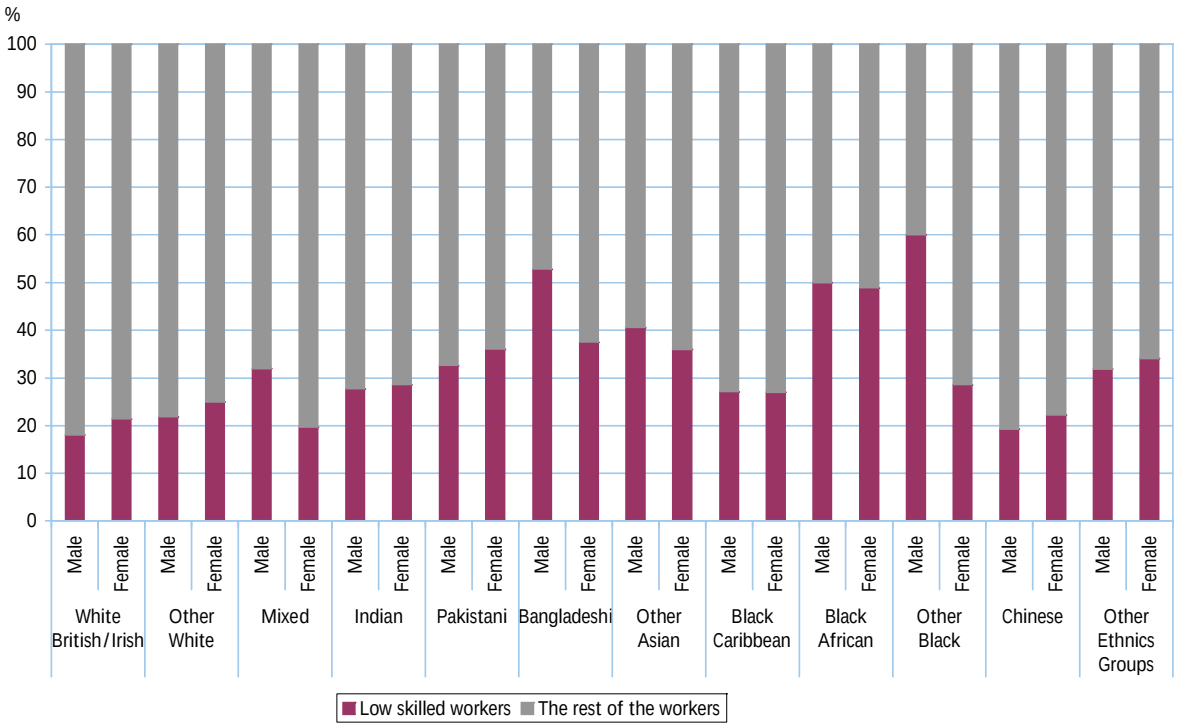
Almost 60 per cent of London employees working in elementary occupations earn less than the London living wage, based on the APS data[5], making low level occupations a good proxy for low pay. The Census 2001 includes information on individuals' occupations. Using data from the Sample of Anonymised Records of the Census 2001, low pay is measured by defining it as employees who work in the following four Standard Occupational Classification (SOC) occupations: (6) skilled agricultural and fishery workers; (7) craft and related trades workers; (8) plant and machine operators and assemblers; and (9) elementary occupations. The occupations listed above are generally low skilled and low paid.

Which ethnic minority groups have the lowest paid workers?

Employment rates among ethnic minority groups are generally lower than those of White British/Irish workers. Workers from ethnic minority groups are normally more concentrated in low paid occupations compared to White British/Irish workers, see Figure 10. In particular, Other Black and Bangladeshi males have the highest propensity to work in low paid occupations, at 60 per cent and above 50 per cent respectively. This contrasts with, almost 20 per cent of White British/Irish male employees working in low paid occupations, and 28 per cent of Indian male employees working in low paid occupations. Chinese employees, both female and male, have the lowest proportions of employees in low paid occupations amongst ethnic minority groups.

[4] This analysis is based on material covered in DMAG Briefing Note in 2007, by Shen Chang.
[5] See Current Issues Note 14: Patterns of Low Pay in London.

Figure 10: Percentage of low paid workers by ethnic groups and gender in London



Source: Census 2001, Sample of Anonymised Records

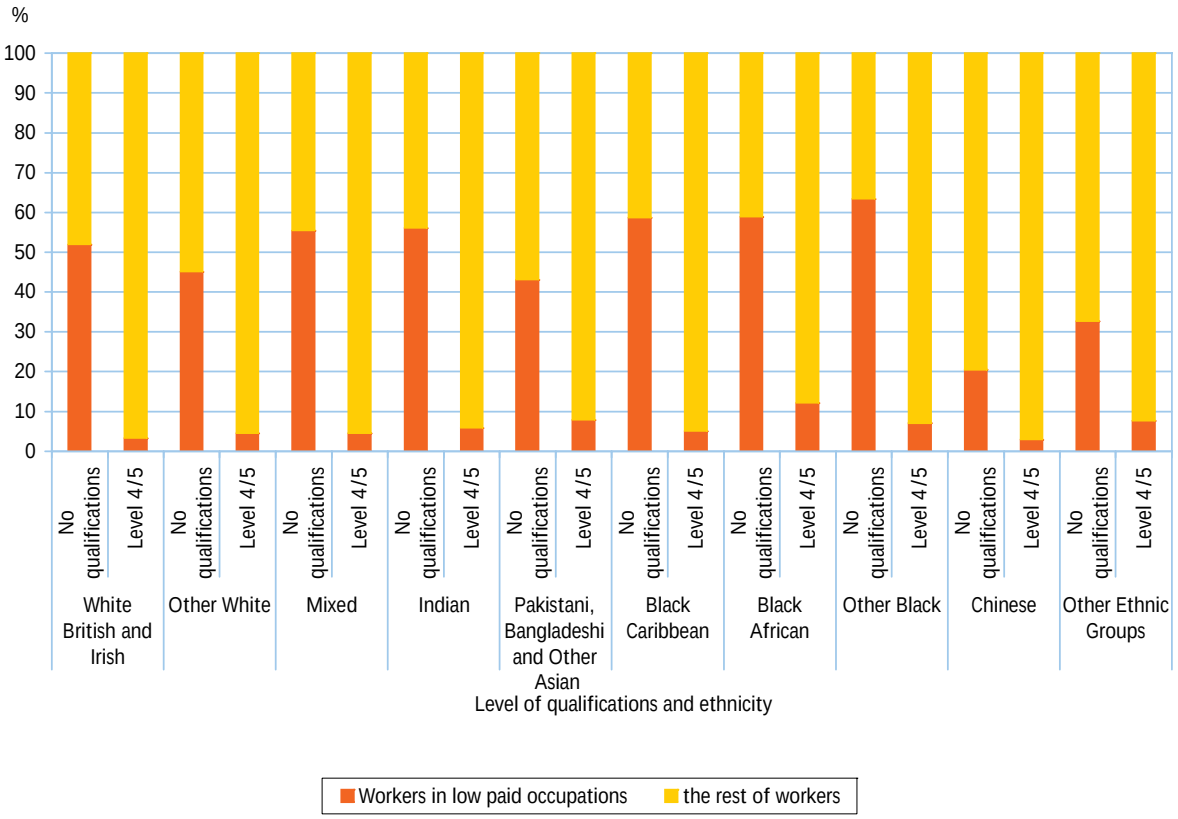
Among female employees across the different ethnic groups, Black African women have the highest proportion of employees working in low paid occupations at 49 per cent, followed by Bangladeshi women at around 37 per cent.

Low paid occupations tend to be associated with low skilled jobs. Therefore, it would be expected that those who work in low paid occupations would generally have lower level qualifications. Figure 11 indicates that the majority of employees from ethnic minority groups working in low paid occupations do not have any qualifications. For example, around 60 per cent of Black Caribbean, Black African and Other Black employees working in low paid occupations have no qualifications compared to around half of White British and Irish employees.

Do qualifications increase individuals' chances of avoiding low pay?

Data from the Census 2001 shows that among highly qualified employees, those from ethnic minorities have higher proportions of individuals working in low paid occupations compared to their White British and Irish counterparts (see Figure 11). Possible reasons for this could be constraints or barriers in the labour market. Chinese employees, however, are the exception: a higher proportion of Chinese workers are in jobs matching their qualifications compared to other ethnic minority groups.

Figure 11: Percentage of low paid workers by qualifications and ethnicity



Source: Census 2001, Sample of Anonymised Records
Notes: Higher level qualifications: people who have Level 4-5 qualifications.

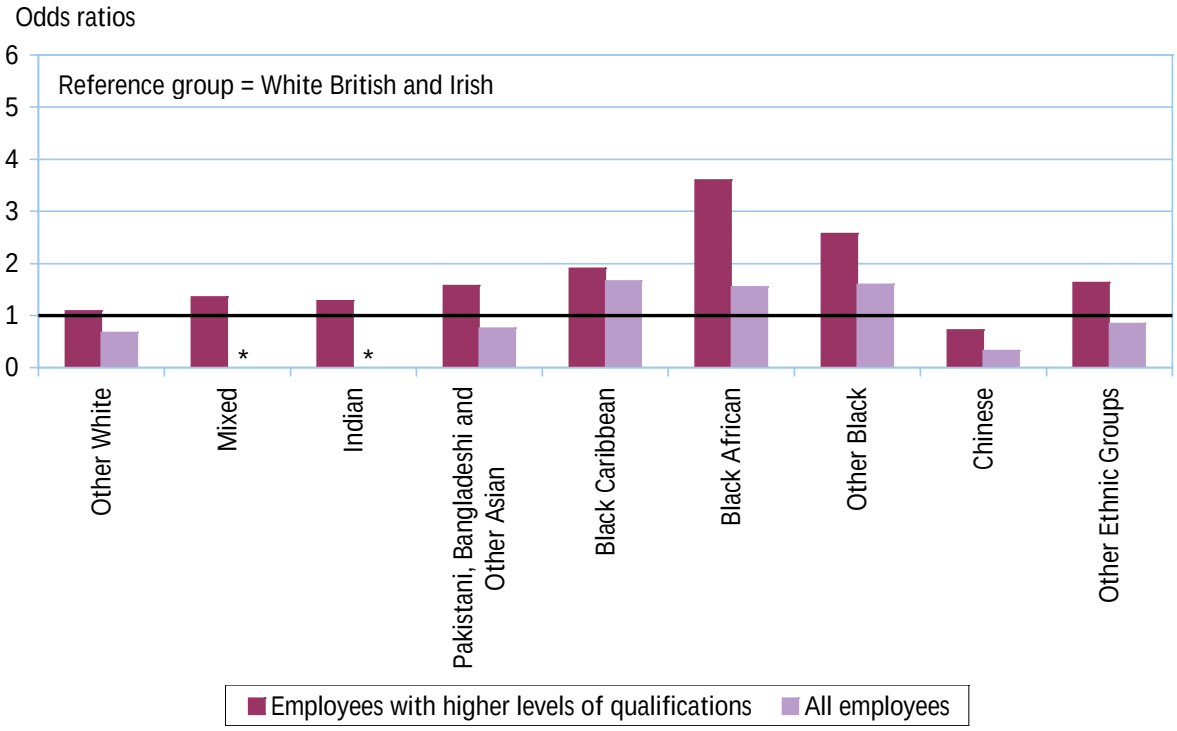
Measuring the impact across ethnic groups of being low paid

To assess the impact that ethnicity and country of birth have on the chances of being low paid, we estimated a logit model using data from the Census 2001.

Figure 12 provides the odds ratios of being low paid in London by ethnicity for all employees and for those employees with a higher level of qualifications. Among all employees, Black Caribbean workers are most likely, 1.7 times, to be low paid compared to White British and Irish workers.

Among highly qualified employees, all ethnic minority groups apart from Chinese, are more likely to be low paid than White British and Irish employees. In particular, highly qualified Black Africans, are almost four times more likely to be low paid than their White British and Irish counterparts.

Figures 12: Odds ratio of being low paid in London by ethnicity



Source: DMAG's own calculations based on Census 2001,Sample of Anonymised Records
*Notes: * indicates not statistically significant*

Only people of Chinese origin are less likely to be low paid than their White British and Irish counterparts for both all employees and those with higher levels of qualifications.

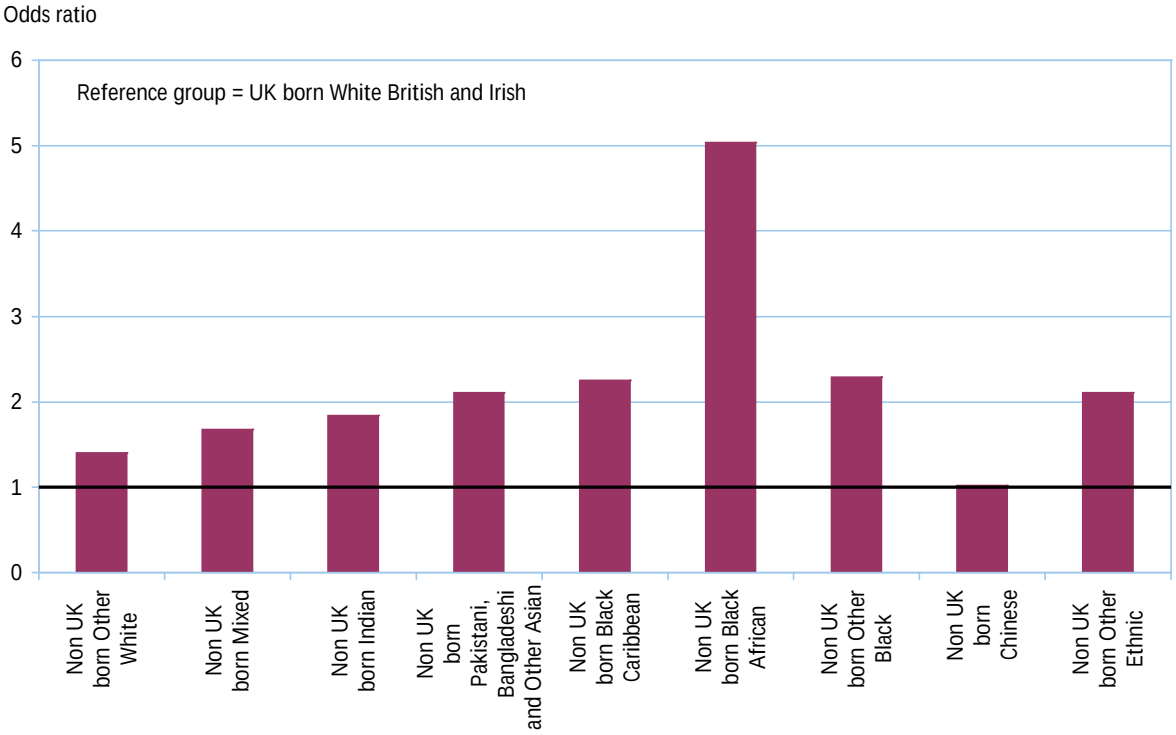
Are immigrants low paid in London?

The Bank of England has investigated whether the characteristics of immigrants, particularly new immigrants, differ from those of the UK born population. They found that new immigrants tend to be more educated than both UK born workers and previous migrants, but are much more likely to be working in low-skilled occupations[6].

The relationship between ethnicity, country of birth and low pay has been investigated. Figure 13 shows the odds ratio of being low paid by combining ethnicity and the country of birth. Not surprisingly, non UK-born ethnic minorities are more likely to be low paid than UK-born White British and Irish people. In addition, among employees from ethnic minority groups those who were born overseas appear to be the most likely to be low paid. This is demonstrated by comparing Figures 12 and 13.

[6] 'The economic characteristics of immigrants and their impact on supply', Quarterly Bulletin 2006 Q4, Bank of England, by Jumana Saleheen and Chris Shadforth.

Figure 13: Odds ratio of being low paid in London by ethnicity, and country of birth



Source: DMAG's own calculations based on Census 2001,Sample of Anonymised Records

7. Conclusions

Our results show that individual and job characteristics such as age, level of qualifications achieved, and level of occupation have important influences on the likelihood of being low paid in London. However, the most important influence increasing the chances of being low paid was working in elementary occupations, especially for female employees.

Qualifications are important for individual employment prospects and for some employees help them to avoid low pay. London employees with no qualifications are 4.5 times more likely to be low paid than those with a degree. Furthermore, unqualified women are nearly six times more likely to be low paid than women with degrees.

However for others, qualifications have less impact in avoiding low pay, particularly among ethnic minority groups and non UK born workers. Among highly qualified individuals from ethnic minority groups, Black African employees are the most likely to be low paid compared to White British and Irish employees. Similarly, Black African workers not born in the UK are much more likely to be low paid than White British and Irish workers, who were born in the UK.

To assess the robustness of our model to differing definitions of low pay, we estimated logit models, using two different earnings thresholds: the National Minimum Wage and the London living wage. The impacts (odds ratios) of many of the individual and job characteristics on the likelihood of being low paid were generally similar for the two earnings thresholds, except for ethnicity (all the categories), for employees aged 16- 24 years, those

who work in small workplaces (less than 10 employees) and those in elementary occupations. The odds ratios for these characteristics impact on the chances of being low paid were smaller when using the National Minimum Wage as the earnings threshold rather than the London Living Wage.

Finally, we also tested the sensitivity of our results to different individual and job characteristics. When we excluded the occupation variable on the grounds that it may be a consequence rather than a cause of low pay, then the odds ratios of the different individual and job characteristics on the likelihood of being low paid were generally relatively similar in size to those in the model including occupation as an explanatory variable. The one exception was for having no qualifications.

Appendix 1. Explanatory variables used in logistic regression explaining individuals' chances of being low paid

Age
16-24 years
25-29 years
30-44 years **(reference group)**
45-64 years

Ethnicity
White British/Irish and Other White **(reference group)**
Mixed
Asian
Chinese
Black
Other ethnic group

Qualifications
NVQ4 level **(reference group)**
NVQ3 level
Trade apprentice
NVQ2 level
Below NVQ2 level
Other qualifications
No qualifications

Whether working full-time or part-time
Working full-time **(reference group)**
Working part-time

Whether working in the public or private sector
Public sector **(reference group)**
Private sector

Occupation
Managers and senior professionals **(reference group)**
Professional occupations
Associate professional and technical
Administrative and secretarial
Skilled trades occupations
Personal service occupations
Sales and customer service occupations
Process, plant and machine operatives
Elementary occupations

Industry
Agriculture and fishing **(reference group)**
Energy and water
Manufacturing
Construction
Distribution, hotels and restaurants
Transport and communications
Banking, finance and insurance
Public administration, education and health
Other services

Workplace size
1-10 employees
11- 24 employees
25-499 employees
more than 500 employees **(reference group)**

Job tenure
Less than 1 year in the job
Between 1 and 5 years in the job
More than 5 years in the job **(reference group)**

Area of residence
Inner London
Outer London **(reference group)**

When looking at area of workplace
Working in Central London
Working in Inner London
Working in Outer London **(reference group)**

Area of residence or workplace
Living in Inner London
Living in Outer London **(reference group)**
Working in Central London
Working in Inner London
Working in Outer London **(reference group)**

Appendix 2. Estimated using London employed residents and/or London employees, with the London living wage as the earnings threshold defining low pay

Table 1: All London employees

Logistic regression with robust standard errors				Numb of obs		8,669
				Wald hi2(32)		1519
				Prob chi2	:	0
Log likelihood	2502.26			Pseu R2	:	0.379
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.1256	0.3431	0.39	0.70	0.62	2.05
Asian	1.4512	0.1853	2.92	0.00	1.13	1.86
Chinese	1.0303	0.4829	0.06	0.95	0.41	2.58
Black	1.2973	0.1956	1.73	0.08	0.97	1.74
Other ethnic group	1.7043	0.3208	2.83	0.01	1.18	2.46
Type of sector						
Private sector	1.4910	0.1579	3.77	0.00	1.21	1.83
Age group						
16-24 years	4.3622	0.5716	11.24	0.00	3.37	5.64
25-29 years	1.4353	0.1911	2.71	0.01	1.11	1.86
45-64 years	1.3303	0.1280	2.97	0.00	1.10	1.61
Number of hours worked						
Part-time	2.6986	0.2456	10.91	0.00	2.26	3.23
Qualifications achieved						
NVQ3	1.6490	0.2342	3.52	0.00	1.25	2.18
Trade apprentice	1.5451	0.3697	1.82	0.07	0.97	2.47
NVQ2	1.9548	0.2601	5.04	0.00	1.51	2.54
Below NVQ2	1.8274	0.2596	4.24	0.00	1.38	2.41
Other qualifications	2.5420	0.3384	7.01	0.00	1.96	3.30
No qualifications	4.5349	0.7042	9.74	0.00	3.35	6.15
Occupation						
Professional occupations	0.6941	0.1408	-1.80	0.07	0.47	1.03
Associate professional and technical	0.9110	0.1628	-0.52	0.60	0.64	1.29
Administrative and secretarial professions	2.1122	0.3268	4.83	0.00	1.56	2.86
Skilled trades occupations	2.7653	0.5399	5.21	0.00	1.89	4.05
Personal service occupations	6.2728	1.0724	10.74	0.00	4.49	8.77
Sales and customer service	8.0091	1.4241	11.70	0.00	5.65	11.35
Process, plant and machine operatives	3.3832	0.6579	6.27	0.00	2.31	4.95
Elemetary occupations	9.6716	1.5917	13.79	0.00	7.01	13.35
Workplace size						
1 to 10 employees	3.2571	0.4290	8.97	0.00	2.52	4.22
11 to 24 employees	2.2446	0.3152	5.76	0.00	1.70	2.96
25 to 499 employees	1.5558	0.1716	4.01	0.00	1.25	1.93
Job tenure						
Less than 1 year in the job	3.0368	0.4106	8.21	0.00	2.33	3.96
Between 1 and 5 years in the job	1.6907	0.1845	4.81	0.00	1.37	2.09
Area of residence or workplace						
Living in Inner London	1.3135	0.1310	2.73	0.01	1.08	1.60
Working in Central London	0.4371	0.0496	-7.29	0.00	0.35	0.55
Working in Inner London	0.7897	0.0838	-2.22	0.03	0.64	0.97

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 2: Male employees

Logistic regression with robust standard errors				Numb	of obs	4,510
				Wald	hi2(32)	749.4
				Prob	chi2 :	0
Log likelihood	1116.29			Pseu	R2 :	0.391
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.1135	0.5458	0.22	0.83	0.43	2.91
Asian	1.5849	0.2996	2.44	0.02	1.09	2.30
Chinese	0.8963	0.7703	-0.13	0.90	0.17	4.83
Black	1.7695	0.4323	2.34	0.02	1.10	2.86
Other ethnic group	2.2034	0.5782	3.01	0.00	1.32	3.69
Type of sector						
Private sector	2.1320	0.4146	3.89	0.00	1.46	3.12
Age group						
16-24 years	4.1329	0.8384	6.99	0.00	2.78	6.15
25-29 years	1.4478	0.2862	1.87	0.06	0.98	2.13
45-64 years	1.0844	0.1653	0.53	0.60	0.80	1.46
Number of hours worked						
Part-time	3.2705	0.6229	6.22	0.00	2.25	4.75
Qualifications achieved						
NVQ3	1.3412	0.3039	1.30	0.20	0.86	2.09
Trade apprentice	1.7887	0.5375	1.94	0.05	0.99	3.22
NVQ2	1.7927	0.3893	2.69	0.01	1.17	2.74
Below NVQ2	1.2471	0.3060	0.90	0.37	0.77	2.02
Other qualifications	2.5879	0.5228	4.71	0.00	1.74	3.85
No qualifications	3.8549	0.9217	5.64	0.00	2.41	6.16
Occupation						
Professional occupations	0.6987	0.2010	-1.25	0.21	0.40	1.23
Associate professional and technical	0.8292	0.2222	-0.70	0.49	0.49	1.40
Administrative and secretarial professions	3.4331	0.9016	4.70	0.00	2.05	5.74
Skilled trades occupations	2.5328	0.6348	3.71	0.00	1.55	4.14
Personal service occupations	4.1557	1.4821	3.99	0.00	2.07	8.36
Sales and customer service	7.0363	1.8994	7.23	0.00	4.15	11.94
Process, plant and machine operatives	3.0577	0.7927	4.31	0.00	1.84	5.08
Elemetary occupations	9.2033	2.1169	9.65	0.00	5.86	14.45
Workplace size						
1 to 10 employees	3.9251	0.7715	6.96	0.00	2.67	5.77
11 to 24 employees	2.7335	0.5590	4.92	0.00	1.83	4.08
25 to 499 employees	1.2934	0.2207	1.51	0.13	0.93	1.81
Job tenure						
Less than 1 year in the job	2.8410	0.5829	5.09	0.00	1.90	4.25
Between 1 and 5 years in the job	1.6441	0.2794	2.93	0.00	1.18	2.29
Area of residence or workplace						
Living in Inner London	1.5474	0.2305	2.93	0.00	1.16	2.07
Working in Central London	0.5487	0.0901	-3.66	0.00	0.40	0.76
Working in Inner London	0.8780	0.1463	-0.78	0.44	0.63	1.22

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 3: Female employees

Logistic regression with robust standard errors				Numb	of obs	4,159
				Wald	hi2(32)	817.6
				Prob	chi2 :	0
Log likelihood	-1329.55	29.5505		Pseu	R2 :	0.387
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	0.8358	0.3248	-0.46	0.64	0.39	1.79
Asian	1.2438	0.2249	1.21	0.23	0.87	1.77
Chinese	1.0063	0.5559	0.01	0.99	0.34	2.97
Black	0.9586	0.1869	-0.22	0.83	0.65	1.40
Other ethnic group	1.2543	0.3419	0.83	0.41	0.74	2.14
Type of sector						
Private sector	1.3599	0.1799	2.32	0.02	1.05	1.76
Age group						
16-24 years	4.8895	0.8748	8.87	0.00	3.44	6.94
25-29 years	1.4648	0.2691	2.08	0.04	1.02	2.10
45-64 years	1.5423	0.1995	3.35	0.00	1.20	1.99
Number of hours worked						
Part-time	1.9665	0.2211	6.01	0.00	1.58	2.45
Qualifications achieved						
NVQ3	2.2042	0.4204	4.14	0.00	1.52	3.20
Trade apprentice	1.1141	0.5458	0.22	0.83	0.43	2.91
NVQ2	2.2379	0.3927	4.59	0.00	1.59	3.16
Below NVQ2	2.5064	0.4655	4.95	0.00	1.74	3.61
Other qualifications	2.5766	0.4708	5.18	0.00	1.80	3.69
No qualifications	5.7403	1.2445	8.06	0.00	3.75	8.78
Occupation						
Professional occupations	0.6789	0.2003	-1.31	0.19	0.38	1.21
Associate professional and technical	0.9948	0.2476	-0.02	0.98	0.61	1.62
Administrative and secretarial professions	1.6448	0.3420	2.39	0.02	1.09	2.47
Skilled trades occupations	9.4458	4.4050	4.82	0.00	3.79	23.56
Personal service occupations	6.2172	1.3657	8.32	0.00	4.04	9.56
Sales and customer service	9.1237	2.2604	8.92	0.00	5.61	14.83
Process, plant and machine operatives	9.9570	3.6121	6.34	0.00	4.89	20.27
Elemetary occupations	13.2806	3.3822	10.16	0.00	8.06	21.88
Workplace size						
1 to 10 employees	2.8346	0.5125	5.76	0.00	1.99	4.04
11 to 24 employees	1.8162	0.3577	3.03	0.00	1.23	2.67
25 to 499 employees	1.7261	0.2562	3.68	0.00	1.29	2.31
Job tenure						
Less than 1 year in the job	3.2074	0.6004	6.23	0.00	2.22	4.63
Between 1 and 5 years in the job	1.6437	0.2449	3.34	0.00	1.23	2.20
Area of residence or workplace						
Living in Inner London	1.1403	0.1581	0.95	0.34	0.87	1.50
Working in Central London	0.3241	0.0530	-6.89	0.00	0.24	0.45
Working in Inner London	0.7279	0.1037	-2.23	0.03	0.55	0.96

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Appendix 3. Estimated using London employed residents and/or London employees, with the London living wage as the earnings threshold of low pay, excluding Occupation

Table 1: All London employees

Logistic regression with robust standard errors				Number of obs =	8,672	
				Wald c hi2(24) =	1367	
				Prob > chi2 =	0	
Log pseudolikelihood =	-2780.3706			Pseudo R2 =	0.31	
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.3984	0.4020	1.17	0.24	0.80	2.46
Asian	1.8100	0.2081	5.16	0.00	1.44	2.27
Chinese	1.3717	0.5462	0.79	0.43	0.63	2.99
Black	1.9995	0.2948	4.70	0.00	1.50	2.67
Other ethnic group	2.2046	0.4142	4.21	0.00	1.53	3.19
Type of sector						
Private sector	1.6137	0.1541	5.01	0.00	1.34	1.95
Age group						
16-24 years	5.6996	0.6739	14.71	0.00	4.52	7.18
25-29 years	1.5415	0.1925	3.47	0.00	1.21	1.97
45-64 years	1.4114	0.1299	3.74	0.00	1.18	1.69
Number of hours worked						
Part-time	3.9280	0.3225	16.66	0.00	3.34	4.61
Qualifications achieved						
NVQ3	2.6359	0.3379	7.56	0.00	2.05	3.39
Trade apprentice	3.0132	0.6221	5.34	0.00	2.01	4.52
NVQ2	3.4276	0.4252	9.93	0.00	2.69	4.37
Below NVQ2	3.9081	0.4981	10.69	0.00	3.04	5.02
Other qualifications	5.0455	0.6090	13.41	0.00	3.98	6.39
No qualifications	12.6500	1.7833	18.00	0.00	9.60	16.68
Workplace size						
1 to 10 employees	3.1288	0.3822	9.34	0.00	2.46	3.98
11 to 24 employees	2.2852	0.2970	6.36	0.00	1.77	2.95
25 to 499 employees	1.6400	0.1705	4.76	0.00	1.34	2.01
Job tenure						
Less than 1 year in the job	3.2741	0.4229	9.18	0.00	2.54	4.22
Between 1 and 5 years in the job	1.7597	0.1854	5.37	0.00	1.43	2.16
Area of residence or workplace						
Living in Inner London	1.4243	0.1333	3.78	0.00	1.19	1.71
Working in Central London	0.3866	0.0419	-8.78	0.00	0.31	0.48
Working in Inner London	0.7524	0.0736	-2.91	0.00	0.62	0.91

Table 2: Male employees

Logistic regression with robust standard errors — Number of obs = 4,512; Wald c hi2(24) = 649.5; Prob > chi2 = 0; Log pseudolikelihood = -1233.9935; Pseudo R2 = 0.327

	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.3807	0.6033	0.74	0.46	0.59	3.25
Asian	1.9930	0.3406	4.03	0.00	1.43	2.79
Chinese	1.1581	0.8563	0.20	0.84	0.27	4.93
Black	2.6282	0.6319	4.02	0.00	1.64	4.21
Other ethnic group	2.7643	0.7328	3.84	0.00	1.64	4.65
Type of sector						
Private sector	2.2177	0.4184	4.22	0.00	1.53	3.21
Age group						
16-24 years	5.6275	1.0100	9.63	0.00	3.96	8.00
25-29 years	1.5863	0.2955	2.48	0.01	1.10	2.29
45-64 years	1.1916	0.1747	1.20	0.23	0.89	1.59
Number of hours worked						
Part-time	4.5926	0.7863	8.90	0.00	3.28	6.42
Qualifications achieved						
NVQ3	2.1398	0.4307	3.78	0.00	1.44	3.17
Trade apprentice	3.1069	0.8314	4.24	0.00	1.84	5.25
NVQ2	3.0548	0.6129	5.57	0.00	2.06	4.53
Below NVQ2	2.7980	0.6209	4.64	0.00	1.81	4.32
Other qualifications	5.0842	0.9212	8.97	0.00	3.56	7.25
No qualifications	10.9214	2.3577	11.07	0.00	7.15	16.67
Workplace size						
1 to 10 employees	3.7419	0.6880	7.18	0.00	2.61	5.37
11 to 24 employees	2.8802	0.5539	5.50	0.00	1.98	4.20
25 to 499 employees	1.3784	0.2220	1.99	0.05	1.01	1.89
Job tenure						
Less than 1 year in the job	2.9570	0.5820	5.51	0.00	2.01	4.35
Between 1 and 5 years in the job	1.6138	0.2693	2.87	0.00	1.16	2.24
Area of residence or workplace						
Living in Inner London	1.6019	0.2224	3.39	0.00	1.22	2.10
Working in Central London	0.5088	0.0787	-4.37	0.00	0.38	0.69
Working in Inner London	0.7913	0.1204	-1.54	0.12	0.59	1.07

Table 3: Female employees

Logistic regression with robust standard errors				Number of obs =		4,160
				Wald c hi2(24) =		683.7
				Prob > chi2 =		0
Log pseudolikelihood =	-1515.9809			Pseudo R2 =		0.301
dummy variable whether or not low paid	**Odds ratios**	Standard errors	t-statistics	p-values	[95% Confidence interval]	
Ethnicity						
Mixed	1.2561	0.4643	0.62	0.54	0.61	2.59
Asian	1.6355	0.2565	3.14	0.00	1.20	2.22
Chinese	1.5111	0.7029	0.89	0.38	0.61	3.76
Black	1.6321	0.3134	2.55	0.01	1.12	2.38
Other ethnic group	1.7054	0.4371	2.08	0.04	1.03	2.82
Type of sector						
Private sector	1.5820	0.1812	4.00	0.00	1.26	1.98
Age group						
16-24 years	6.3004	1.0280	11.28	0.00	4.58	8.67
25-29 years	1.5020	0.2562	2.38	0.02	1.08	2.10
45-64 years	1.5799	0.1887	3.83	0.00	1.25	2.00
Number of hours worked						
Part-time	3.0314	0.3074	10.94	0.00	2.49	3.70
Qualifications achieved						
NVQ3	3.3075	0.5623	7.04	0.00	2.37	4.62
Trade apprentice	3.3345	1.1891	3.38	0.00	1.66	6.71
NVQ2	3.8023	0.6044	8.40	0.00	2.78	5.19
Below NVQ2	4.9614	0.7832	10.15	0.00	3.64	6.76
Other qualifications	5.1628	0.8391	10.10	0.00	3.75	7.10
No qualifications	15.6333	2.9781	14.43	0.00	10.76	22.71
Workplace size						
1 to 10 employees	2.6167	0.4278	5.88	0.00	1.90	3.61
11 to 24 employees	1.7560	0.3078	3.21	0.00	1.25	2.48
25 to 499 employees	1.8427	0.2517	4.48	0.00	1.41	2.41
Job tenure						
Less than 1 year in the job	3.4407	0.6016	7.07	0.00	2.44	4.85
Between 1 and 5 years in the job	1.8106	0.2482	4.33	0.00	1.38	2.37
Area of residence or						
Living in Inner London	1.3147	0.1690	2.13	0.03	1.02	1.69
Working in Central London	0.2796	0.0436	-8.17	0.00	0.21	0.38
Working in Inner London	0.7105	0.0927	-2.62	0.01	0.55	0.92

Appendix 4. London employed residents

Table 1: All London employees

Logistic regression with robust standard errors				Numb	of obs	6,569
				Wald	hi2(30)	1271.5
				Prob	chi2 =	0
Log likelihood	-2132.3981			Pseu	R2 =	0.3594
---------- **Odds ratios**	Standard errors	t-statistics	p-values	[95% Confidence interval]		
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.0499	0.3244	0.16	0.88	0.57	1.92
Asian	1.4286	0.1839	2.77	0.01	1.11	1.84
Chinese	0.9239	0.4427	-0.17	0.87	0.36	2.36
Black	1.2723	0.1897	1.62	0.11	0.95	1.70
Other ethnic group	1.6176	0.3094	2.51	0.01	1.11	2.35
Type of sector						
Private sector	1.5442	0.1701	3.94	0.00	1.24	1.92
Age group						
16-24 years	3.9205	0.5470	9.79	0.00	2.98	5.15
25-29 years	1.4458	0.1997	2.67	0.01	1.10	1.90
45-64 years	1.3782	0.1398	3.16	0.00	1.13	1.68
Number of hours worked						
Part-time	2.6108	0.2446	10.24	0.00	2.17	3.14
Qualifications achieved						
NVQ3	1.6585	0.2549	3.29	0.00	1.23	2.24
Trade apprentice	1.8519	0.4717	2.42	0.02	1.12	3.05
NVQ2	2.0141	0.2841	4.96	0.00	1.53	2.66
Below NVQ2	1.8601	0.2748	4.20	0.00	1.39	2.48
Other qualifications	2.5094	0.3410	6.77	0.00	1.92	3.28
No qualifications	4.8232	0.7772	9.76	0.00	3.52	6.61
Occupation						
Professional occupations	0.7109	0.1531	-1.58	0.11	0.47	1.08
Associate professional and technical	0.8914	0.1703	-0.60	0.55	0.61	1.30
Administrative and secretarial professions	2.0307	0.3359	4.28	0.00	1.47	2.81
Skilled trades occupations	2.6382	0.5512	4.64	0.00	1.75	3.97
Personal service occupations	6.4092	1.1581	10.28	0.00	4.50	9.13
Sales and customer service	8.2751	1.5699	11.14	0.00	5.71	12.00
Process, plant and machine operatives	3.8165	0.7802	6.55	0.00	2.56	5.70
Elemetary occupations	9.4730	1.6426	12.97	0.00	6.74	13.31
Workplace size						
1 to 10 employees	3.3906	0.4741	8.73	0.00	2.58	4.46
11 to 24 employees	2.2927	0.3416	5.57	0.00	1.71	3.07
25 to 499 employees	1.6100	0.1906	4.02	0.00	1.28	2.03
Job tenure						
Less than 1 year in the job	2.9037	0.4130	7.50	0.00	2.20	3.84
Between 1 and 5 years in the job	1.5130	0.1726	3.63	0.00	1.21	1.89
Area of residence						
Living in Inner London	0.9517	0.0846	-0.56	0.58	0.80	1.13

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 2: Male employees in London

Logistic regression with robust standard errors				Numb	of obs =	3,175
				Wald	hi2(30) =	601.14
				Prob	chi2 =	0
Log likelihood	-920.81581			Pseu	R2 =	0.3692
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	1.1308	0.5480	0.25	0.80	0.44	2.92
Asian	1.5365	0.2869	2.30	0.02	1.07	2.22
Chinese	0.8979	0.7855	-0.12	0.90	0.16	4.99
Black	1.6638	0.3981	2.13	0.03	1.04	2.66
Other ethnic group	1.9019	0.5023	2.43	0.02	1.13	3.19
Type of sector						
Private sector	2.0299	0.4005	3.59	0.00	1.38	2.99
Age group						
16-24 years	3.6182	0.7885	5.90	0.00	2.36	5.55
25-29 years	1.4628	0.3026	1.84	0.07	0.98	2.19
45-64 years	1.1112	0.1777	0.66	0.51	0.81	1.52
Number of hours worked						
Part-time	3.1761	0.5922	6.20	0.00	2.20	4.58
Qualifications achieved						
NVQ3	1.3757	0.3418	1.28	0.20	0.85	2.24
Trade apprentice	2.1348	0.6707	2.41	0.02	1.15	3.95
NVQ2	1.7838	0.4221	2.45	0.01	1.12	2.84
Below NVQ2	1.2284	0.3136	0.81	0.42	0.74	2.03
Other qualifications	2.5277	0.5219	4.49	0.00	1.69	3.79
No qualifications	4.1129	1.0165	5.72	0.00	2.53	6.68
Occupation						
Professional occupations	0.7422	0.2246	-0.99	0.32	0.41	1.34
Associate professional and technical	0.8712	0.2468	-0.49	0.63	0.50	1.52
Administrative and secretarial professions	3.3689	0.9554	4.28	0.00	1.93	5.87
Skilled trades occupations	2.3748	0.6325	3.25	0.00	1.41	4.00
Personal service occupations	4.2499	1.5997	3.84	0.00	2.03	8.89
Sales and customer service	7.3245	2.1218	6.87	0.00	4.15	12.92
Process, plant and machine operatives	3.4825	0.9473	4.59	0.00	2.04	5.94
Elemetary occupations	9.2406	2.2540	9.12	0.00	5.73	14.90
Workplace size						
1 to 10 employees	4.0928	0.8532	6.76	0.00	2.72	6.16
11 to 24 employees	2.8539	0.6185	4.84	0.00	1.87	4.36
25 to 499 employees	1.3576	0.2480	1.67	0.09	0.95	1.94
Job tenure						
Less than 1 year in the job	2.7882	0.5934	4.82	0.00	1.84	4.23
Between 1 and 5 years in the job	1.4506	0.2565	2.10	0.04	1.03	2.05
Area of residence						
Living in Inner London	1.1892	0.1607	1.28	0.20	0.91	1.55

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 3: Female employees in London

Logistic regression with robust standard errors				Numb	of obs	3,394
				Wald	hi2(30)	715.74
				Prob	chi2 :	0
Log likelihood	-1173.0068			Pseu	R2 :	0.3704
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	0.7403	0.3031	-0.73	0.46	0.33	1.65
Asian	1.2655	0.2374	1.25	0.21	0.88	1.83
Chinese	0.8121	0.4431	-0.38	0.70	0.28	2.37
Black	0.9754	0.1887	-0.13	0.90	0.67	1.43
Other ethnic group	1.3335	0.3689	1.04	0.30	0.78	2.29
Type of sector						
Private sector	1.4412	0.1998	2.64	0.01	1.10	1.89
Age group						
16-24 years	4.4393	0.8461	7.82	0.00	3.06	6.45
25-29 years	1.4482	0.2733	1.96	0.05	1.00	2.10
45-64 years	1.6381	0.2239	3.61	0.00	1.25	2.14
Number of hours worked						
Part-time	1.9660	0.2311	5.75	0.00	1.56	2.48
Qualifications achieved						
NVQ3	2.1475	0.4379	3.75	0.00	1.44	3.20
Trade apprentice	1.3234	0.7082	0.52	0.60	0.46	3.78
NVQ2	2.4031	0.4376	4.81	0.00	1.68	3.43
Below NVQ2	2.5566	0.4927	4.87	0.00	1.75	3.73
Other qualifications	2.5642	0.4790	5.04	0.00	1.78	3.70
No qualifications	6.0662	1.3559	8.07	0.00	3.91	9.40
Occupation						
Professional occupations	0.6883	0.2160	-1.19	0.23	0.37	1.27
Associate professional and technical	0.9335	0.2474	-0.26	0.80	0.56	1.57
professions	1.6065	0.3529	2.16	0.03	1.04	2.47
Skilled trades occupations	9.1506	4.9247	4.11	0.00	3.19	26.28
Personal service occupations	6.6456	1.5307	8.22	0.00	4.23	10.44
Sales and customer service	9.4524	2.4774	8.57	0.00	5.66	15.80
Process, plant and machine operatives	10.1995	3.8197	6.20	0.00	4.90	21.25
Elemetary occupations	12.5569	3.3192	9.57	0.00	7.48	21.08
Workplace size						
1 to 10 employees	2.9610	0.5688	5.65	0.00	2.03	4.31
11 to 24 employees	1.8302	0.3841	2.88	0.00	1.21	2.76
25 to 499 employees	1.7652	0.2786	3.60	0.00	1.30	2.41
Job tenure						
Less than 1 year in the job	3.0670	0.6059	5.67	0.00	2.08	4.52
Between 1 and 5 years in the job	1.5098	0.2347	2.65	0.01	1.11	2.05
Area of residence						
Living in Inner London	0.7815	0.0952	-2.02	0.04	0.62	0.99

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Appendix 5. London workers only

Table 1: All London employees

Logistic regression with robust standard errors					Number of obs =	8,023
					LR chi 2(31) =	2744
					Prob > chi2 =	0
Log likelihood =	-2242.3599				Pseudo R2 =	0.38
	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	0.9966	0.2728	-0.01	0.99	0.58	1.70
Asian	1.5555	0.1844	3.73	0	1.23	1.96
Chinese	0.7826	0.3411	-0.56	0.57	0.33	1.84
Black	1.3788	0.1930	2.30	0.02	1.05	1.81
Other ethnic group	1.8427	0.3496	3.22	0.00	1.27	2.67
Type of sector						
Private sector	1.4049	0.1457	3.28	0.00	1.15	1.72
Age group						
16-24 years	4.7829	0.5877	12.74	0.00	3.76	6.09
25-29 years	1.5642	0.2034	3.44	0.00	1.21	2.02
45-64 years	1.4271	0.1362	3.73	0.00	1.18	1.72
Number of hours worked						
Part-time	2.7143	0.2420	11.20	0.00	2.28	3.23
Qualifications achieved						
NVQ3	1.6770	0.2320	3.74	0.00	1.28	2.20
Trade apprentice	1.5823	0.3626	2.00	0.05	1.01	2.48
NVQ2	1.8481	0.2491	4.56	0.00	1.42	2.41
Below NVQ2	2.1294	0.2938	5.48	0.00	1.62	2.79
Other qualifications	2.7019	0.3558	7.55	0.00	2.09	3.50
No qualifications	4.6515	0.6935	10.31	0.00	3.47	6.23
Occupation						
Professional occupations	0.7339	0.1511	-1.50	0.13	0.49	1.10
Associate professional and technical	0.8359	0.1499	-1.00	0.32	0.59	1.19
Administrative and secretarial professions	1.8254	0.2794	3.93	0.00	1.35	2.46
Skilled trades occupations	2.9563	0.5677	5.64	0.00	2.03	4.31
Personal service occupations	5.8164	0.9716	10.54	0.00	4.19	8.07
Sales and customer service	7.7098	1.3330	11.81	0.00	5.49	10.82
Process, plant and machine operatives	3.4775	0.6696	6.47	0.00	2.38	5.07
Elemetary occupations	9.3645	1.4975	13.99	0.00	6.84	12.81
Workplace size						
1 to 10 employees	3.6054	0.4486	10.31	0.00	2.83	4.60
11 to 24 employees	2.5145	0.3408	6.80	0.00	1.93	3.28
25 to 499 employees	1.6685	0.1823	4.69	0.00	1.35	2.07
Job tenure						
Less than 1 year in the job	3.2786	0.4413	8.82	0.00	2.52	4.27
Between 1 and 5 years in the job	1.7706	0.1938	5.22	0.00	1.43	2.19
Area of workplace						
Working in Central London	0.5781	0.0690	-4.59	0.00	0.46	0.73
Working in Outer London	1.0987	0.1020	1.01	0.31	0.92	1.32

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 2: Male employees in London

Logistic regression with robust standard errors — Number of obs = 4,123; LR chi2(31) = 1297; Prob > chi2 = 0; Log likelihood = -970.761; Pseudo R2 = 0.401

dummy variable whether or not low paid	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
Ethnicity						
Mixed	0.8006	0.3810	-0.47	0.64	0.31	2.03
Asian	1.6779	0.2917	2.98	0.00	1.19	2.36
Chinese	0.3579	0.2652	-1.39	0.17	0.08	1.53
Black	1.8667	0.4337	2.69	0.01	1.18	2.94
Other ethnic group	2.4030	0.6597	3.19	0.00	1.40	4.12
Type of sector						
Private sector	2.0708	0.4048	3.72	0.00	1.41	3.04
Age group						
16-24 years	4.8563	0.8982	8.54	0.00	3.38	6.98
25-29 years	1.6037	0.3183	2.38	0.02	1.09	2.37
45-64 years	1.1787	0.1780	1.09	0.28	0.88	1.58
Number of hours worked						
Part-time	3.7352	0.6577	7.48	0.00	2.65	5.27
Qualifications achieved						
NVQ3	1.4158	0.3077	1.60	0.11	0.92	2.17
Trade apprentice	1.9426	0.5553	2.32	0.02	1.11	3.40
NVQ2	1.8139	0.3993	2.71	0.01	1.18	2.79
Below NVQ2	1.4014	0.3273	1.44	0.15	0.89	2.22
Other qualifications	2.7324	0.5466	5.03	0.00	1.85	4.04
No qualifications	4.1861	0.9464	6.33	0.00	2.69	6.52
Occupation						
Professional occupations	0.7688	0.2214	-0.91	0.36	0.44	1.35
Associate professional and technical	0.8410	0.2246	-0.65	0.52	0.50	1.42
Administrative and secretarial professions	2.9307	0.7525	4.19	0.00	1.77	4.85
Skilled trades occupations	2.7864	0.6747	4.23	0.00	1.73	4.48
Personal service occupations	3.6691	1.2236	3.90	0.00	1.91	7.05
Sales and customer service	7.4398	1.9837	7.53	0.00	4.41	12.55
Process, plant and machine operatives	3.3672	0.8414	4.86	0.00	2.06	5.50
Elemetary occupations	9.4515	2.1044	10.09	0.00	6.11	14.62
Workplace size						
1 to 10 employees	3.9916	0.7451	7.42	0.00	2.77	5.75
11 to 24 employees	2.7922	0.5655	5.07	0.00	1.88	4.15
25 to 499 employees	1.3370	0.2256	1.72	0.09	0.96	1.86
Job tenure						
Less than 1 year in the job	3.3430	0.6904	5.84	0.00	2.23	5.01
Between 1 and 5 years in the job	1.8383	0.3192	3.51	0.00	1.31	2.58
Area of workplace						
Working in Central London	0.6868	0.1201	-2.15	0.03	0.49	0.97
Working in Outer London	0.9518	0.1394	-0.34	0.74	0.71	1.27

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 3: Female employees in London

Logistic regression with robust standard errors				Number of obs =	3,900
				LR chi 2(31) =	1498.79
				Prob > chi2 =	0
Log likelihood	-1211.839			Pseudo R2 =	0.3821

	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
dummy variable whether or not low paid						
Ethnicity						
Mixed	0.8418	0.2887	-0.50	0.62	0.43	1.65
Asian	1.3420	0.2292	1.72	0.09	0.96	1.88
Chinese	1.1821	0.6540	0.30	0.76	0.40	3.50
Black	1.0293	0.1857	0.16	0.87	0.72	1.47
Other ethnic group	1.3625	0.3687	1.14	0.25	0.80	2.32
Type of sector						
Private sector	1.2874	0.1663	1.96	0.05	1.00	1.66
Age group						
16-24 years	5.0046	0.8685	9.28	0.00	3.56	7.03
25-29 years	1.5701	0.2780	2.55	0.01	1.11	2.22
45-64 years	1.6375	0.2098	3.85	0.00	1.27	2.10
Number of hours worked						
Part-time	1.8965	0.2129	5.70	0.00	1.52	2.36
Qualifications achieved						
NVQ3	2.1271	0.3939	4.08	0.00	1.48	3.06
Trade apprentice	1.2892	0.5827	0.56	0.57	0.53	3.13
NVQ2	1.9470	0.3411	3.80	0.00	1.38	2.74
Below NVQ2	2.7973	0.5036	5.71	0.00	1.97	3.98
Other qualifications	2.7201	0.4892	5.56	0.00	1.91	3.87
No qualifications	5.4589	1.1427	8.11	0.00	3.62	8.23
Occupation						
Professional occupations	0.6816	0.2041	-1.28	0.20	0.38	1.23
Associate professional and technical	0.8285	0.2045	-0.76	0.45	0.51	1.34
Administrative and secretarial professions	1.4312	0.2939	1.75	0.08	0.96	2.14
Skilled trades occupations	10.8364	4.9652	5.20	0.00	4.41	26.60
Personal service occupations	5.5230	1.1940	7.91	0.00	3.62	8.44
Sales and customer service	7.8637	1.8606	8.72	0.00	4.95	12.50
Process, plant and machine operatives	10.3556	4.1030	5.90	0.00	4.76	22.51
Elemetary occupations	11.9157	2.8941	10.20	0.00	7.40	19.18
Workplace size						
1 to 10 employees	3.4558	0.5930	7.23	0.00	2.47	4.84
11 to 24 employees	2.2318	0.4172	4.29	0.00	1.55	3.22
25 to 499 employees	1.9076	0.2824	4.36	0.00	1.43	2.55
Job tenure						
Less than 1 year in the job	3.1093	0.5761	6.12	0.00	2.16	4.47
Between 1 and 5 years in the job	1.6107	0.2373	3.23	0.00	1.21	2.15
Area of workplace						
Working in Central London	0.4631	0.0789	-4.52	0.00	0.33	0.65
Working in Outer London	1.2358	0.1535	1.70	0.09	0.97	1.58

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Appendix 6. Using the National Minimum Wage as the earnings threshold defining low pay, for residents and/or workers in London

Table 1: All London employees

Logistic regression with robust standard errors — Numb of obs = 8,669
Wald hi2(32) = 895.94
Prob chi2 = 0
Log pseudolikelihood = -1562.8663 — Pseu R2 = 0.3039

dummy variable whether or not low paid	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
Ethnicity						
Mixed	0.7784	0.2879	-0.68	0.50	0.38	1.61
Asian	1.2587	0.2036	1.42	0.16	0.92	1.73
Chinese	1.9121	0.8762	1.41	0.16	0.78	4.69
Black	0.8654	0.1676	-0.75	0.46	0.59	1.27
Other ethnic group	1.2408	0.3085	0.87	0.39	0.76	2.02
Type of sector						
Private sector	1.6682	0.2535	3.37	0.00	1.24	2.25
Age Group						
16-24 years	2.8849	0.4301	7.11	0.00	2.15	3.86
25-29 years	1.1619	0.2071	0.84	0.40	0.82	1.65
45-64 years	1.0276	0.1397	0.20	0.84	0.79	1.34
Number of hours worked						
Part-time	2.4877	0.2843	7.97	0.00	1.99	3.11
Qualifications achieved						
NVQ3	1.7014	0.3535	2.56	0.01	1.13	2.56
Trade apprentice	2.1257	0.6910	2.32	0.02	1.12	4.02
NVQ2	1.9991	0.3755	3.69	0.00	1.38	2.89
Below NVQ2	2.1489	0.4451	3.69	0.00	1.43	3.23
Other qualifications	2.4035	0.4558	4.62	0.00	1.66	3.49
No qualifications	4.8496	1.0001	7.66	0.00	3.24	7.27
Occupation						
Professional occupations	0.8825	0.2724	-0.41	0.69	0.48	1.62
Associate professional and technical	0.8862	0.2465	-0.43	0.66	0.51	1.53
Administrative and secretarial professions	1.3218	0.3261	1.13	0.26	0.82	2.14
Skilled trades occupations	2.6166	0.7419	3.39	0.00	1.50	4.56
Personal service occupations	4.4100	1.1031	5.93	0.00	2.70	7.20
Sales and customer service	4.7450	1.1868	6.23	0.00	2.91	7.75
Process, plant and machine operatives	2.4260	0.6944	3.10	0.00	1.38	4.25
Elemetary occupations	5.6709	1.3422	7.33	0.00	3.57	9.02
Workplace size						
1 to 10 employees	2.5354	0.4310	5.47	0.00	1.82	3.54
11 to 24 employees	1.7702	0.3324	3.04	0.00	1.23	2.56
25 to 499 employees	1.2349	0.1937	1.35	0.18	0.91	1.68
Job tenure						
Less than 1 year in the job	3.1897	0.6060	6.11	0.00	2.20	4.63
Between 1 and 5 years in the job	1.6675	0.2842	3.00	0.00	1.19	2.33
Area of residence or workplace						
Living in Inner London	1.2839	0.1766	1.82	0.07	0.98	1.68
Working in Central London	0.5523	0.0919	-3.57	0.00	0.40	0.77
Working in Inner London	0.9151	0.1267	-0.64	0.52	0.70	1.20

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 2: Male employees in London

Logistic regression with robust standard errors				Numb	of obs =	4,510
				Wald	hi2(32)	494.99
				Prob	chi2 =	0
Log pseudolikelihood	-692.248			Pseu	R2 =	0.3258
		Robust				
dummy variable whether or not low paid	**Odds ratios**	Standard errors	t-statistics	p-values	[95% Confidence	interval]
Ethnicity						
Mixed	0.4309	0.2624	-1.38	0.17	0.13	1.42
Asian	1.1451	0.2853	0.54	0.59	0.70	1.87
Chinese	3.4521	2.3749	1.80	0.07	0.90	13.29
Black	0.9291	0.2939	-0.23	0.82	0.50	1.73
Other ethnic group	1.7607	0.5871	1.70	0.09	0.92	3.38
Type of sector						
Private sector	1.8004	0.4776	2.22	0.03	1.07	3.03
Age Group						
16-24 years	2.4865	0.5828	3.89	0.00	1.57	3.94
25-29 years	1.1203	0.2997	0.42	0.67	0.66	1.89
45-64 years	0.8248	0.1795	-0.88	0.38	0.54	1.26
Number of hours worked						
Part-time	3.4132	0.6769	6.19	0.00	2.31	5.03
Qualifications achieved						
NVQ3	1.5784	0.5124	1.41	0.16	0.84	2.98
Trade apprentice	2.0424	0.8711	1.67	0.09	0.89	4.71
NVQ2	2.1608	0.6419	2.59	0.01	1.21	3.87
Below NVQ2	1.7922	0.6061	1.73	0.08	0.92	3.48
Other qualifications	2.8845	0.8023	3.81	0.00	1.67	4.98
No qualifications	4.4197	1.3927	4.72	0.00	2.38	8.20
Occupation						
Professional occupations	1.9286	0.8408	1.51	0.13	0.82	4.53
Associate professional and technical	1.1591	0.5288	0.32	0.75	0.47	2.83
Administrative and secretarial professions	3.6073	1.5967	2.90	0.00	1.52	8.59
Skilled trades occupations	4.4971	1.8183	3.72	0.00	2.04	9.93
Personal service occupations	5.2929	2.6913	3.28	0.00	1.95	14.34
Sales and customer service	6.9229	2.8886	4.64	0.00	3.06	15.68
Process, plant and machine operatives	3.2786	1.3625	2.86	0.00	1.45	7.40
Elemetary occupations	9.0795	3.3922	5.90	0.00	4.37	18.88
Workplace size						
1 to 10 employees	2.5783	0.6774	3.60	0.00	1.54	4.31
11 to 24 employees	2.1195	0.5669	2.81	0.01	1.25	3.58
25 to 499 employees	0.9766	0.2341	-0.10	0.92	0.61	1.56
Job tenure						
Less than 1 year in the job	2.7806	0.8069	3.52	0.00	1.57	4.91
Between 1 and 5 years in the job	1.6307	0.4350	1.83	0.07	0.97	2.75
Area of residence or workplace						
Living in Inner London	1.3779	0.2783	1.59	0.11	0.93	2.05
Working in Central London	0.5768	0.1399	-2.27	0.02	0.36	0.93
Working in Inner London	0.8522	0.1807	-0.75	0.45	0.56	1.29

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Table 3: Female employees in London

Logistic regression with robust standard errors — Numb of obs = 4,159; Wald hi2(32) = 463.67; Prob chi2 = 0; Log pseudolikelihood = -846.4623; Pseu R2 = 0.3041

dummy variable whether or not low paid	Odds ratios	Standard errors	t-statistics	p-values	[95% Confidence interval]	
Ethnicity						
Mixed	0.9919	0.4587	-0.02	0.99	0.40	2.46
Asian	1.2604	0.2837	1.03	0.30	0.81	1.96
Chinese	1.0849	0.6615	0.13	0.89	0.33	3.58
Black	0.7419	0.1878	-1.18	0.24	0.45	1.22
Other ethnic group	0.8056	0.3028	-0.58	0.57	0.39	1.68
Type of sector						
Private sector	1.6406	0.3015	2.69	0.01	1.14	2.35
Age Group						
16-24 years	3.1343	0.6485	5.52	0.00	2.09	4.70
25-29 years	1.1128	0.2755	0.43	0.67	0.68	1.81
45-64 years	1.2160	0.2138	1.11	0.27	0.86	1.72
Number of hours worked						
Part-time	1.8886	0.2828	4.25	0.00	1.41	2.53
Qualifications achieved						
NVQ3	1.9532	0.5318	2.46	0.01	1.15	3.33
Trade apprentice	2.9868	1.6188	2.02	0.04	1.03	8.64
NVQ2	1.9011	0.4703	2.60	0.01	1.17	3.09
Below NVQ2	2.5575	0.6838	3.51	0.00	1.51	4.32
Other qualifications	2.1416	0.5598	2.91	0.00	1.28	3.57
No qualifications	5.3375	1.4945	5.98	0.00	3.08	9.24
Occupation						
Professional occupations	0.3193	0.1486	-2.45	0.01	0.13	0.79
Associate professional and technical	0.6845	0.2438	-1.06	0.29	0.34	1.38
Administrative and secretarial professions	0.6825	0.2045	-1.28	0.20	0.38	1.23
Skilled trades occupations	1.0926	0.7985	0.12	0.90	0.26	4.58
Personal service occupations	3.0087	0.9000	3.68	0.00	1.67	5.41
Sales and customer service	3.3110	1.0360	3.83	0.00	1.79	6.11
Process, plant and machine operatives	2.7058	1.2553	2.15	0.03	1.09	6.72
Elemetary occupations	4.0559	1.2703	4.47	0.00	2.20	7.49
Workplace size						
1 to 10 employees	2.4997	0.5540	4.13	0.00	1.62	3.86
11 to 24 employees	1.3707	0.3679	1.17	0.24	0.81	2.32
25 to 499 employees	1.4477	0.3015	1.78	0.08	0.96	2.18
Job tenure						
Less than 1 year in the job	3.5058	0.8861	4.96	0.00	2.14	5.75
Between 1 and 5 years in the job	1.6298	0.3641	2.19	0.03	1.05	2.53
Area of residence or workplace						
Living in Inner London	1.2101	0.2251	1.03	0.31	0.84	1.74
Working in Central London	0.4945	0.1168	-2.98	0.00	0.31	0.79
Working in Inner London	0.9335	0.1692	-0.38	0.70	0.65	1.33

Notes: t-statistics greater than 2 is significantly different from zero at 5 per cent significance level.

Other formats and languages

For a large print, Braille, disc, sign language video or audio-tape version of this document, please contact us at the address below:

Public Liaison Unit
Greater London Authority
City Hall, The Queen's Walk
London SE1 2AA

Telephone 020 7983 4100
Minicom 020 7983 4458
www.london.gov.uk

You will need to supply your name, your postal address and state the format and title of the publication you require. If you would like a copy of this document in your language, please phone the number or contact us at the address above.

Chinese

如果需要您母語版本的此文件，
請致電以下號碼或與下列地址聯絡

Vietnamese

Nếu bạn muốn có văn bản tài liệu
này bằng ngôn ngữ của mình, hãy
liên hệ theo số điện thoại hoặc địa
chỉ dưới đây.

Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

Turkish

Bu belgenin kendi dilinizde
hazırlanmış bir nüshasını
edinmek için, lütfen aşağıdaki
telefon numarasını arayınız
veya adrese başvurunuz.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

Hindi

यदि आप इस दस्तावेज की प्रति अपनी
भाषा में चाहते हैं, तो कृपया निम्नलिखित
नंबर पर फोन करें अथवा नीचे दिये गये
पते पर संपर्क करें

Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি
(কপি) চান, তা হলে নীচের ফোন্ নম্বরে
বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

Urdu

اگر آپ اِس دستاویز کی نقل اپنی زبان میں
چاھتے ھیں، تو براہ کرم نیچے دئے گئے نمبر
پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى
الاتصال برقم الهاتف أو مراسلة العنوان
أدناه

Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં
જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર
ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.