# **GLA**ECONOMICS

# Current Issues Note 22 **Patterns of low pay in London**By **Duncan Melville** and **Andrew Harker**







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## Greater London Authority August 2008

## **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: 978-1-84781-182-0

## Cover photograph

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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

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#### 1. Introduction

The London living wage was established in 2005 to tackle poverty by targeting the earnings of low paid employees in the capital. So far the Living Wage Unit (part of GLA Economics) has produced figures on the living wage in the capital and has provided analysis for the living wage implementation group. However, since there is relatively little information on the individual and job characteristics of this target group, the Living Wage Unit also aims to understand better the patterns of low pay in the capital.

The Office for National Statistics (ONS) and the Low Pay Commission provide estimates of low pay in the UK by looking at earnings less than the statutory minimum wage. In addition, they have estimated the proportion of employees earning less than the minimum wage for the different regions of the country including London. They do not however analyse how the earnings distribution in London varies with more than one characteristic at a time (e.g. age or occupation) nor do they consider how many employees are earning less or more than the 2006 living wage in London of £7.05 per hour.

This note focuses on the main features of the patterns of low pay in London, taking the living wage as the threshold for defining low pay. It examines how many people are low paid, and what personal and job characteristics are associated with low pay in the capital. It also assesses how unequal wages are among employees in London and the UK.

This note is published as a replacement for 'Current Issues Note 14: Patterns of low pay in London' which was originally published in March 2007. An error in the method used to calculate the percentage of workers who are low paid in Current Issues Note 14 using data from the Annual Population Survey has recently come to light. In addition, we have decided to change the method we been using so far to calculate the numbers of workers who are low paid. Box 1 explains both of these changes.

#### Box 1: Changes to the approach taken in Current Issues Note 14

In Current Issues Note 14, the percentage of any group of employees who were said to be low paid was calculated as follows: the number of employees in the respective group paid below the relevant earnings threshold divided by the total number of people in employment in that group. This was incorrect because not everyone who is employed is an employee – eq. people who are self-employed. Also this approach did not take into account the fact that data on pay is not available for all employees surveyed by the Annual Population Survey (APS). For example, according to the APS there were 3,331,000 people in employment who were resident in London and of these 2,777,000 were employees in 2005. Furthermore, 355,000 employees were paid less than £7.05 an hour. Hence in Current Issues Note 14 the percentage of low paid workers was calculated as 11 per cent = (355,000 / 3,331,000 \* 100). However this is an underestimate as hourly pay was only recorded for 1,834,000 London employees. Hence the percentage of low paid workers should be calculated as 19 per cent (355,000 / 1,834,000 \* 100). This calculation takes account of the facts that not all employed people are employees and that pay data is missing for 943,000 London employees. This approach implicitly assumes that the missing pay data is distributed in the same way as the pay data that we do have.

While the approach taken in Current Issues Note 14 systematically underestimated the percentage of workers who are low paid, the broad pattern of the incidence of low pay was correct. For example, people of ethnic minority origins were shown to be more likely to be low paid than white people, people with no qualifications were shown to be more likely to be low paid than people with degrees and so on.

As well as correcting the figures for the percentages of various groups of workers we have decided to change the method for calculating the absolute numbers in various groups of workers who are low paid. In Current Issues Note 14, we calculated the number of low paid workers as simply the number reported by the APS without any adjustment for the fact that pay data is missing for around a third of London employees. In this note we take this missing data into account by applying the calculated percentage of employees in the particular group in question who are low paid to the total number of employees in that group. For example, according to the APS in 2005, 762,000 employees resident in London were employed in the public sector, of which 539,000 had hourly pay data recorded for them and 54,000 had recorded pay of less than £7.05 an hour. Hence we calculated that 10 per cent (54,000 / 539,000 \* 100) of London's public sector employees were low paid, defined as hourly pay of less than £7.05 an hour. We then applied this percentage to the total number of public sector employees (762,000) to yield an estimate of the number of low paid public sector employees of 77,000.

## 2. Defining low pay

The number of people defined as low paid depends on both the level at which the low pay threshold is set, and on the data sources used. The most common threshold used, by the Office for National Statistics (ONS), is the national minimum wage, but in the context of London, we employ the living wage threshold. In this note we consider the proportion of employees earning less than £5.05 (minimum wage until September 2006), £6.70 (living wage in 2005) and £7.05 (living wage in 2006).

#### **Box 2: Minimum and Living wages**

**The national minimum wage (NMW) -** The lowest wage permitted by UK law.

**Living wage -** A wage sufficient to meet a certain standard of living for a worker and their dependents. The idea originated in the USA.

**London living wage -** Unlike the NMW, the London living wage is not a statutory wage floor.

#### Information data sources

The two most commonly used earnings datasets in the UK are the annual Labour Force Survey (LFS) now the Annual Population Survey (APS) and the New Earnings Survey

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<sup>&</sup>lt;sup>1</sup> 'Low pay in Britain' by Mark Stewart, in *The State of Working Britain*.

(NES) now the Annual Survey of Hours and Earnings (ASHE). However, both surveys have strengths and limitations, see Boxes 3 and 4.

Box 3: APS

Strengths	Limitations
Largest regular household survey conducted within the UK.	Earnings data is likely to be imperfect owning to proxy responses, on behalf of another person living in the household
Wide range of variables related to individual and job characteristics (e.g. occupation, qualifications, type of job, industry and ethnicity).	
Integrated estimates of the numbers in employment, unemployment and economic inactivity.	

APS has a wealth of information on employee characteristics, but it surveys a smaller sample of employees than ASHE. Also APS can be answered by one person on behalf of the whole household. These proxy responses can introduce error into measures of pay.

Earnings data from NES/ASHE are likely to be more accurate than LFS/APS, because the NES/ASHE sample is constructed from PAYE tax records from employers, (see Box 4). Prior to the introduction of ASHE, NES under-sampled workers with low earnings. ASHE replaced NES in 2004.

**Box 4: ASHE** 

Strengths	Limitations		
Based on employer's payroll records, this	Limited information on individual and job		
ensures a high response rate and a high degree of accuracy of the earnings data.	characteristics, for example no information is available on qualifications held or ethnicity		
The addition of supplementary samples improves the coverage of the whole earnings distribution. Valuable source of data for the low paid.			

ONS has conducted supplementary surveys to augment the data inputs to ASHE specifically, to ensure that low paid individuals are included in the sample. These supplementary samples include businesses with employees:

- who do not appear in the PAYE system;
- working in VAT-only units held on the Inter Departmental Business Register (IDBR);

• who change or start a new job between sample selection and the survey reference period.<sup>2</sup>

As the NES/ASHE does not include information on a range of characteristics, we use both earnings surveys, ASHE and APS, to analyse the patterns of low pay in London.

## 3. Estimating low pay

#### How many low paid are there in London?

As explained before, ASHE and APS data differ and we should expect to see differences in the estimates of low pay that they give. The Greater London Authority (GLA) has access to the APS 2005 dataset, but not to the whole ASHE dataset. GLA Economics commissioned data from the 2005 ASHE from ONS to estimate the number of low paid employees in the capital by age, gender, whether working part-time, occupation and industry, using the three different thresholds mentioned above.

In this section we present estimates of low pay using both the ASHE and the APS datasets. Figure 1 shows the proportion of low paid employees (from the total London workforce) earning less than £5.05 per hour, the level of the national minimum wage in operation between October 2005 and September 2006 and earning less than £7.05 per hour, the level of the London Living Wage in 2006 respectively. It also presents the total number of employees earning less than the two different earnings thresholds considered.

The APS produces a higher estimate of the incidence of low pay at the minimum wage threshold of £5.05 per hour, and at the higher hourly earnings threshold of the living wage of £7.05 in 2006 in comparison to ASHE. It is estimated that between 3 and 7 per cent of the total London workforce earned less than £5.05 per hour depending on whether the APS or ASHE datasets are used. These figures do not necessarily indicate illegal payment of sub-minimum wage rates, as younger workers aged 16-21 and trainees have lower minimum wage rates and these figures are also likely to be affected by measurement error<sup>3</sup>. On the basis of the ASHE data, 15 per cent of the total London workforce is low paid (481,000 employees earned less than the 2006 London living wage of £7.05 per hour). This compares with 19 per cent of, or 537,000, employees who are estimated to be low paid using the APS data.

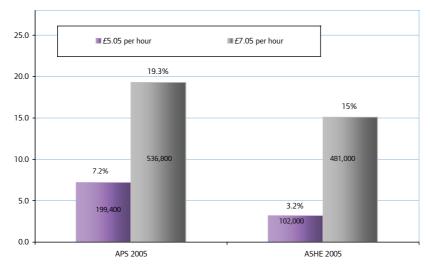
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<sup>&</sup>lt;sup>2</sup> Derek Bird, "Methodology for the 2004 Annual Survey of Hours and Earnings", Labour Market Trends, November 2004, Office for National Statistics.

<sup>&</sup>lt;sup>3</sup> American studies of the minimum wage have shown that some workers overestimate their hours of work leading to too low an estimate of their hourly pay when this is derived by dividing their weekly pay by their reported weekly hours of work.

Figure 1: Low pay estimates in London, working age employees

% of London employees earning less than the different thresholds



Sources: GLA Economics' own calculations based on APS 2005 and information from ASHE 2005 commissioned from the ONS.

Notes: % of employees being low paid for each earnings threshold.

Employers are legally obliged to pay at least the adult minimum wage to workers aged 22 and over who are not trainees. Therefore, we would expect ASHE, an employer survey, to report fewer employees earning less than the minimum wage than the APS where earnings information is reported by employees. Our estimates are based on ASHE data where possible, following ONS advice that this is the best source for measuring low pay. For information on personal characteristics such as ethnicity and qualifications which are not available from the ASHE, we can only report estimates of low pay using APS 2005 data.

#### Who are London's low paid?

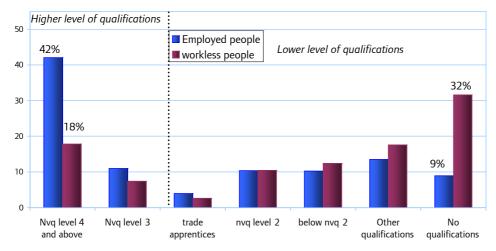
There is strong evidence of a 'low pay, no pay' cycle affecting significant numbers of employees. <sup>4</sup> Low paid employees are more likely to be out of work in the future; those who re-enter the labour market after being unemployed are likely to be in low paid jobs. Low paid individuals therefore are more likely to fall into poverty.

If low paid employees tend to move from periods of low paid work to periods of unemployment then we would expect low paid employees to be more likely not to have a lengthy record of continuous full-time employment. This has implications for these individuals, because not only do they get penalised by not receiving earnings when workless, but they are not developing their skills/experience or receiving training. A higher proportion of workless people do not have qualifications compared to employed people, (see Figure 2).

<sup>&</sup>lt;sup>4</sup> 'Low pay in Britain' by Mark Stewart, in *The State of Working Britain*.

Figure 2: Employed and workless people by qualifications

% of employed or workless people in level of qualifications group



Source: Annual Population Survey (APS) 2005

Figure 3 shows that young employees tend to be low paid, with almost 90 per cent of 16-17 year-olds earning less than the living wage of £7.05 per hour in 2005. The proportion of low paid employees reduces with age until we reach employees aged 50 and over. This is consistent with the general pattern that pay on average tends to rise with age up to a certain point after which average pay falls. Explanations for this include the fact that older people tend to be less qualified and, or more likely to work on a part-time basis relative to other employees.

Figure 3: Low pay in London by age

% of London employees earning less than different earnings thresholds 100 19,000 ■< £7.05 per hour 90 < £5.05 per hour</p> 80 70 85,000 60 50 40 30 122,000 481,000 20 80,000 86,000 89,000 10 0 16-17 year 30-39 year 40-49 year 18-21 year 22-29 year Total 50+ year working age olds olds olds olds

Source: Annual Survey of Hours and Earnings (ASHE) 2005, ONS Note: Working age individuals, including full-time students

Sixteen to twenty one year olds are more likely to be full-time students, and a growing number of full-time students work part-time around their studies, but often in jobs that do not make full use of their skills. Both for this reason, and because young people are at the start of their career and so lack labour market experience, a much higher proportion of young people are low paid. However, as they gain labour market experience and start working full-time, it is clear from Figure 3 that the proportion who

are low paid declines dramatically after the age of 21. This may also reflect the minimum wage as the full adult rate applies only to employees aged 22 and over.

If 16-21 year olds and full-time students are omitted, the proportion of workers who were low paid in 2005 is reduced from 19 per cent of all working age employees to 16 per cent<sup>5</sup>. It is possible that the pattern of low pay across areas, and by industry and occupation, is distorted by the inclusion of full-time students and young people who are disproportionately more likely to be low paid. However, when we analyse these patterns excluding these two overlapping groups they are very similar, with two exceptions. These exceptions are the Wholesale and Retail Trade sector and Sales and Customers Service occupations (see Table 1). Excluding 16-21 year olds and full-time students reduces significantly the proportions of low paid employees in these two related categories.

Table 1: Number of employees in London

Working age employees			Excluding those aged 16-21 year olds and full-time students		
Industry/Occupation	Number of employees earning <£7.05 per hour	% of low paid employees in each category	Number of employees earning <£7.05 per hour	% of low paid employees in each category	
	532.000	100.0	300,000	100.0	
All industries	533,800	100.0	399,800	100.0	
Wholesale and Retail Trade	169,700	31.8	109,300	27.3	
All occupations	534,800	100.0	399,500	100.0	
Sales and Customers service occupations	119,200	22.3	69,100	17.3	

Source: GLA Economics calculations based on APS 2005

With these important exceptions in mind, nevertheless in order to maximise statistical robustness, all the estimates of the proportion of low paid employees from any of the categories studied hereafter refer to working age individuals, including full-time students.

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<sup>&</sup>lt;sup>5</sup> On the basis of APS 2005 data which is used because we cannot tell whether or not individuals are full-time students from ASHE data.

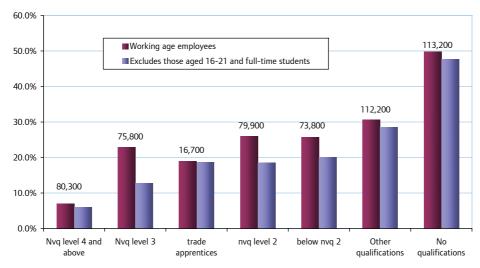
#### Low pay among disadvantaged groups

## Key points are:

- On the basis of 2005 ASHE data, women are significantly more likely to be low paid than men in London. Around 282,000 female employees (19 per cent of all London female employees) are low paid compared to 199,000 male employees (9 per cent). People in part-time jobs are around four times as likely to be low paid as those in full-time jobs. Forty per cent of part-time employees in London and 9 per cent of full-time employees in London are low paid. Parttime work is disproportionately concentrated in low-level occupations and low paying sectors.
- According to 2005 APS data, a higher proportion of ethnic minority workers are low paid compared to their white counterparts. Around 33 per cent of mixed ethnicity individuals, 26 per cent of Asian or Asian British, 26 per cent of Black or Black British, and 29 per cent of Chinese and 'other' ethnicity earn less than the living wage. This compares with around 16 per cent of white employees in London.
- The Asian or Asian British ethnic group comprises people of Bangladeshi, Indian, Pakistani and 'other Asian' origins. People of Bangladeshi and Pakistani origins or other Asian individuals generally do much worse in the London labour market compared to people of Indian origin. So, looking at this group as a whole can mask differences in their labour market outcomes. Considering this group in greater detail, 33 per cent of employees of Bangladeshi and Pakistani origins, 33 per cent of employees of 'other Asian origins' and 22 per cent of employees of Indian origin are low paid.
- Around 23 per cent (64,000) of disabled people earned less than the living wage compared with 19 per cent of non-disabled people (471,200).
- More qualifications appear to provide better job opportunities and wages. Seven per cent of London employees with NVQ level 4 and above, 23 per cent of employees with NVQ level 3 and 50% of employees with no qualifications earned less than the living wage (see Figure 4) among working age employees. When we exclude full-time students and those aged 16-21 year olds from the sample, there is a clear negative association between an individual's chances of being low paid and qualifications. Policies to help individuals acquire skills and 'move up' the labour market are thus important to tacking low pay.

Figure 4: Low pay by level of qualifications

% of London employees earning below £7.05 per hour in each qualification level



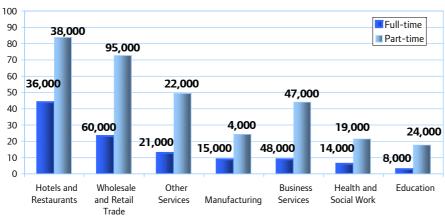
Source: Annual Population Survey (2005)

## In which industries and occupations is low pay concentrated?

Lower paid jobs in London tend to be concentrated in lower level occupations and in the Hotels and Restaurants, and the Wholesale and Retail sectors, especially among employees working part-time. On the basis of ASHE data, there are around 36,000 full-time employees working in Hotels and Restaurants and 60,000 full-time employees in Wholesale and Retail who are low paid. There are also around 38,000 part-time employees in Hotels and Restaurants and 95,000 in the Wholesale and Retail sectors who are low paid. The proportion of part-time employees who are low paid in these industries was 84 per cent and 73 per cent respectively, (see Figure 5). The proportion of part-time employees in business services and other services who are low paid is also high at 44 per cent and almost 50 per cent respectively.

Figure 5: Low pay by industry

% of London employees earning less than £7.05 per hour



Source: Annual Survey of Hours and Earnings (ASHE) 2005, ONS

Note: Working age individuals inclues full-time students

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Among the low paying sectors targeted by the Low Pay Commission, most employees, 224,600, worked in Retail and Hospitality, followed by 22,000 in Security and Cleaning and 20,100 in Social Care, Hairdressing, Agriculture and Textiles combined. The proportion of employees who are low paid (paid below £7.05 per hour) in these categories was 54 per cent, 50 per cent and 38 per cent respectively (see Figure 6). Just over half of all low paid work in London lies inside these sectors.

% of London employees earning below the different wage thresholds in each low paying sector 90 80 ≤ £5.05 per hour ■ < £6.70 per hour
</p>  $\blacksquare$  < £7.05 per hour 70 224,600 60 22,000 50 20,100 40 30 533 800 20 10 All industries Hospitality and Retail Security and Cleaning Social Care, Hairdressing, Textiles and Agriculture

Figure 6: Low pay in low paying sectors

Source: Annual Population Survey (2005)

London low paid employees not surprisingly also tend to work in lower level occupations, particularly, in sales and customer service and elementary occupations, (see Figure 7). More than 60 per cent of employees in sales and customer services and 55 per cent of employees in elementary occupations earned less than £7.05 per hour in 2005 according to data from ASHE.

Figure 7: Low paid by occupation

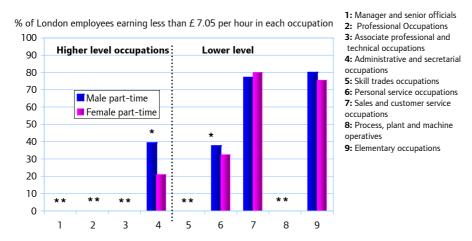
1: Managers and senior officials % of London employees earning less than £7.05 per hour in each 2: Professional Occupations 3: Associate professional and technical occupations 90 Lower level occupations 4: Administrative and secretarial **Higher level occupations** 80 occupations 15% of employees in London 5: Skill trades occupations 70 124,000 earn less than £7.05 per hour 6: Personal service occupations 163,000 60 7: Sales and customer service occupations 50 8: Process, plant and machine operatives 40 9: Elementary occupations 54,000 30 22.000 26,000 20 52.000 10 17,000 \* 17,000 4 5 6

Source: Annual Survey of Hours and Earnings (ASHE) 2005, ONS

Notes: The coefficient of variation (CV), the ratio of the standard deviation over the estimate, helps to assess the quality of an estimate. If the CV is > 20%, the estimate is considered to be unreliable. If CV>10% and CV<=20% it is considered to be acceptable. \* indicates that the estimate is considered acceptable by ONS but that the estimates need to be treated with caution.

As mentioned before, part-time jobs tend to be concentrated in lower level occupations and low paying sectors. Also women are more likely to work on a part-time basis than men. Part-time jobs are normally lower paid.<sup>6</sup> A large majority of women working part-time in lower level occupations such as sales and customer service and elementary occupations earned less than the 2006 level of the living wage on the basis of data from the 2005 APS (see Figure 8).

Figure 8: Low paid working part-time by gender and occupation



Source: Annual Survey of Hours and Earnings (ASHE) 2005, ONS

Notes: \*\* not statistically reliable

Notes: The coefficient of variation (CV), the ratio of the standard deviation over the estimate, helps to assess the quality of an estimate. If the CV is > 20%, the estimate is considered to be unreliable. If CV>10% and CV<=20% it is considered to be acceptable. \* indicates that the estimate is considered acceptable by ONS but that the estimates need to be treated with caution.

## Where do low paid employees live and work?

Even though boroughs in Inner London generally show higher levels of deprivation and worklessness rates in comparison to boroughs in Outer London, a higher proportion of residents in Outer London are low paid than in Inner London (see Table 2).

Table 2: Low paid residents in London

Geography	Number of employees earning less than £7.05 per hour	% of employees in each location earning less than £7.05	% of low paid employees in each location	
Inner London	187,800	18.3	35	
Outer London	347,600	19.8	65	
Total London	536,800	19.3	100	

Source: APS 2005

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<sup>\*</sup> lower quality estimate, but still reliable

<sup>\*\*</sup> indicates it is not statistically reliable.

<sup>&</sup>lt;sup>6</sup> Women in London's Economy, GLA Economics Report, January 2006.

% of London employees earning below the different wage thresholds

30

I < £5.05 per hour < £6.70 per hour < 7.05 per hour

25

187,800

347,600

Figure 9: Low pay by area of residence

Source: Annual Population Survey (2005)

Inner London

This pattern prevails even for other lower earnings thresholds than the 2006 level of the living wage (see Figure 9).

Outer London

Low pay is mainly concentrated in Outer London, with the highest number of low paid workers resident in Croydon (32,200 people), Bromley (28,500), Barnet (26,200) but also in Inner London in Newham (24,300). Figure 10 shows the percentages of workers who are low paid by their borough of residence.

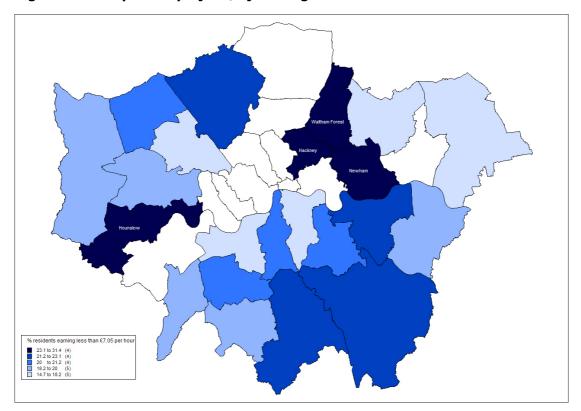


Figure 10: Low paid employees, by borough of residence

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Note: Boroughs in white indicate data which is not statistically reliable.

Sample sizes become small and statistically unreliable when we look at the industries where low paid employees work by borough. Hence Figure 11 shows the proportion of employees by borough working in retail, wholesale, hotels and restaurants, and other services, four broad sectors that have a relatively higher incidence of low pay, using the Annual Business Inquiry (ABI) data for 2004. This does not match the pattern of low paid employees by borough of residence, except both suggest that low pay is concentrated more in Outer London than Inner London.

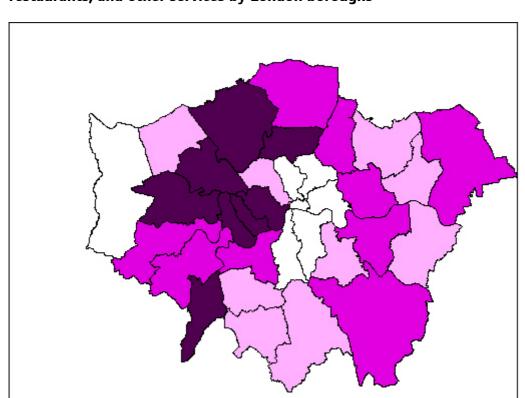


Figure 11: Number of employees working in retail, wholesale, hotels and restaurants, and other services by London boroughs



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A similar geographical pattern is observed when we consider where low paid people work. Fifty per cent of low paid workers work in Outer London. Around 264,400 employees working in Outer London, 145,400 employees working in Inner London outside Central London and 71,600 employees working in Central London earned less than  $\pounds$ 7.05 per hour in 2005 (see Figure 12). People working in Outer London are much more likely to be low paid than those working in Central London or the rest of Inner London.

% of London employees earning less than different earnings thresholds in each location ■ < £5.05 per hour</p> ■ < £6.70 per hour</p> ■ < 7.05 per hour</p> 35 30 264,400 25 145 400 20 15 71,600 10 5 Central London Rest of Inner London Outer London

Figure 12: Low pay by region of workplace

Source: Annual Population Survey (2005)

## 4. Assessing wage inequality in London and the UK

London is a prosperous world city where some individuals earn the highest wages in the country, but also there are large areas of deprivation and poverty. We would expect therefore to observe a large wage gap between those at the top and the bottom of the earnings distribution. How large is wage inequality and how does this compare with the LIK?

As far as we are aware there are no previous studies that have assessed wage inequality in London using Gini coefficients. The Gini coefficient is the most common measure of inequality along with the ratio of the 90<sup>th</sup> percentile wage over the 10<sup>th</sup> percentile wage and the interquartile range of the wage distribution. In this note we focus only on two measures of inequality: the Gini coefficient and the ratio of the 90<sup>th</sup> percentile and the 10<sup>th</sup> percentile of the wage distribution in London and the UK.

The Gini coefficient is generally calculated from the shares of people at particular points in the distribution of interest (in our case earnings), to determine the extent of inequality in the earnings distribution. When the Gini coefficient is equal to zero this reflects complete equality, and when it is equal to one it shows complete inequality. The Gini index is the Gini coefficient expressed as a percentage, and it is equal to the Gini coefficient multiplied by 100. Therefore, the closer this index is to 100 per cent the higher is inequality.

Some economists have calculated trends in Gini coefficients for time periods since the 1970s to assess the degree of wage inequality in the UK, using various datasets such as the Family Expenditure Survey (FES), New Earnings Survey (NES) and Labour Force Survey (LFS).<sup>8</sup> Machin (2003) provides figures on the Gini coefficient for the period 1975-2001 using NES data and from 1994-2001 using LFS data. There is no

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<sup>&</sup>lt;sup>7</sup> See Atkinson (1983), "The Economics of Inequality, Oxford University Press, Oxford, for a detailed explanation on the calculation of the Gini coefficient.

<sup>&</sup>lt;sup>8</sup> "Wage Inequality Since 1975" from The Labour Market Under New labour: The State of Working Britain.

information on earnings from the LFS prior to 1992. The Living Wage Unit derived the Gini coefficient from 2002 onwards, using data from LFS/APS. Figure 13 shows the Gini Indices for men and women in the UK for the period 1975 to 2005. Overall wage inequality increased sharply between the mid-1970s and the mid-1990s for both male and female employees, and in contrast has declined slightly in the last decade.

Gini indices in the UK 35 MALE 33 **FEMALE** 31 29 Labour Force Survey data 27 25 23 21 New Earnings Survey data 19 17 15 1975 1978 1981 1984 1987 1990 1993 1996 1999 2002 2005

Figure 13: Wage inequality in the UK, Gini Indices, 1975-2005

Source: "Wage inequality since 1975" from Stephen Machin and GLA Economics' calculations using LFS/APS various years

Table 3 presents changes in the Gini indices for male and female employees in the UK in different decades. The highest increase in inequality was experienced in the 1980s.

Table 3: Changes in overall hourly wage inequality in the UK, in Gini indices (percentage points %)

	•	-				
Change		Male			Female	
	FES	NES	LFS/APS	FES	NES	LFS/APS
1975-1980	1.7	1.0	NA	-0.3	-0.5	NA
1980-1990	5.6	5.6	NA	6.7	5.0	NA
1990-2001	4.5	4.4	0.8	-0.6	3.5	-0.6
2001-2005	NA	NA	-0.7 <sup>A</sup>	NA	NA	-0.2 <sup>A</sup>

Source: Reproduced from 'Wage Inequality Since 1975', Stephen Machin from "The labour Market under New labour: The State of Working Britain" edited by Richard Dickens, Paul Gregg and Jonathan Wadsworth

Notes: A, this figure was calculated by GLA Economics based on APS 2005.

Although wage inequality increased further between 1990 and 2001 and peaked in 1996, the increase has been more modest in comparison with the growth in wage inequality experienced in the 1980s. From 2003 wage inequality has edged down for both female and male employees in the UK.

Figure 14 presents Gini indices in London and Outside London for all employees, male and female employees, using LFS and APS data for the period 2002-2005. There are

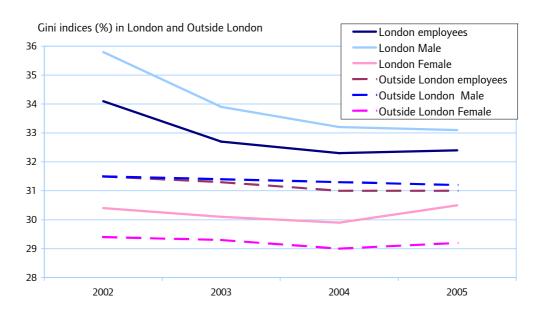
four main points worth noting. First, wage inequality is higher among male and female employees in London than it is for male and female employees in the rest of the UK, respectively, over this period.

Second, the variation in wages between highest and lowest paid employees is higher among men than among women in London and in the rest of the UK. However it is more accentuated in the capital for male employees.

Third, over this period, wage inequality among London employees has reduced, this has been partly due to the decline in wage inequality among male employees in the capital, even though for female employees wage dispersion has increased slightly in 2005.

Fourth, the variation in wages among employees Outside London has remained relatively stable between 2002 and 2005.

Figure 14: Wage inequality in London and Outside London, Gini indices, 2002-05



Source: GLA Economics' own calculations based on LFS/APS various years

### Different points in the earnings distribution

A GLA report investigated earnings inequality in London among full-time employees, looking at the ratio of the 90<sup>th</sup> percentile and the 10<sup>th</sup> percentile over the period 1987-2000 using NES data.<sup>9</sup> They found that the distribution of earnings in London is more unequal than nationally for men over this period.

In this note, we also calculated the ratio of the 90<sup>th</sup> percentile and the 10<sup>th</sup> percentile, as an alternative measure of inequality, using ASHE data for the period 1997-2006. We used figures on a workplace basis, which include commuters working in London. When looking at this ratio in London and in the UK, wage inequality also appears higher in London than in the UK for the period 1997-2006 (see Figure 15). This is consistent

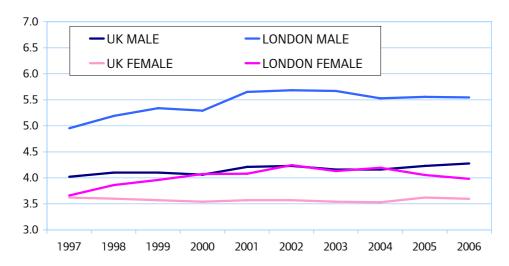
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<sup>&</sup>lt;sup>9</sup> London Divided: Income inequality and poverty in the capital, GLA report, November 2002.

with the picture that emerges from using the Gini coefficient as the measure of inequality.

Figure 15: Wage inequality in London and the UK, 1997-2006

90th percentile/10th percentile hourly pay ratio



Source: Annual Survey of Hours and Earnings (ASHE) various years

Wage dispersion increased among employees in London and the UK, except for UK female employees, between 1997 and 2006. Moreover, the wage distribution of male employees in London was the most unequal. Male employees in London at the top 10 per cent of the earnings distribution earn more than five times than those at the bottom 10 per cent. For female employees in London, wage dispersion has declined slightly after peaking in 2002.

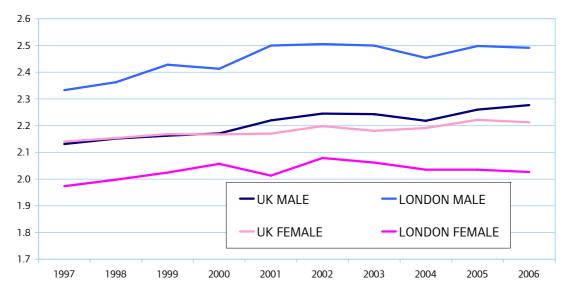
As seen above, the ratio of the 90<sup>th</sup> percentile and 10<sup>th</sup> percentile provides a measure of polarisation at the top and bottom tails of the distribution. However, from a social inclusion point of view, it is important to know whether inequality has increased at the lower end of the distribution rather than at the upper end. This is because, it is at the lower end of the distribution where disadvantaged individuals (low paid employees) are located.

We can breakdown the ratio of the 90<sup>th</sup> percentile and 10<sup>th</sup> percentile into two parts to determine first the difference between higher earners and those in the middle by looking at the ratio of the 90<sup>th</sup> percentile to the 50<sup>th</sup> percentile. Second we can determine the difference between middle earners and those employees at the bottom of the earnings distribution by considering the ratio of the 50<sup>th</sup> percentile to the 10<sup>th</sup> percentile.

Figures 16 and 17 depict these ratios respectively. The ratio of the 90<sup>th</sup> percentile to the 50<sup>th</sup> percentile increased between 1997 and 2006 for both female and male employees in London and the UK. This indicates that top earners are earning increasingly more than typical or middle-income earners.

Figure 16: The  $90^{\text{th}}$  percentile and  $50^{\text{th}}$  percentile hourly pay ratios in London and the UK

90th percentile/50th percentile hourly pay ratio

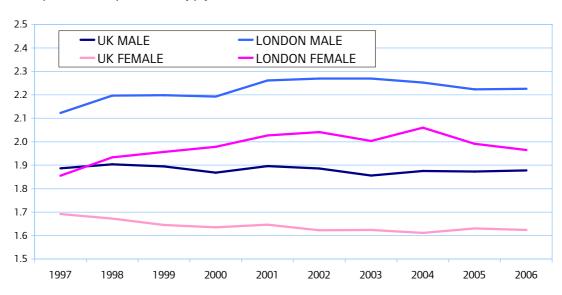


Source: Annual Survey of Hours and Earnings (ASHE) various years

When looking at the ratio of the 50<sup>th</sup> and 10<sup>th</sup> percentile, wage inequality remained relatively the same for men and declined for women in the UK over the same period. In contrast, there has been an increase in wage inequality amongst London employees between those who are in the middle and those at the bottom end of the earnings distribution, (see Figure 17). This indicates that low paid earners, both men and women, have not kept up with the wage growth experienced by those employees at the middle of the distribution of earnings between 1997 and 2006. More encouragingly, there are some signs that this ratio has declined since 2004 for London employees suggesting that the relative position of the lowest paid employees in London has started to improve.

Figure 17: The 50<sup>th</sup> percentile and 10<sup>th</sup> percentile hourly pay ratios in London and the UK

50th percentile/10th percentile hourly pay ratio



Source: Annual Survey of Hours and Earnings (ASHE) various years

## 5. Conclusions

Estimates of low pay will be different depending on the earnings threshold used and the datasets used. In 2005, between 3 and 7 per cent of the London workforce earned less than £5.05 per hour on the basis of ASHE and APS data respectively. Using ASHE data, 15 per cent of the London workforce is low paid (481,000 employees), earning less than the 2006 living wage of £7.05 per hour. This contrasts with 19 per cent of individuals being low paid using APS data.

Young people, women, individuals working in lower level occupations or working in Wholesale and Retail Trade and Hotel and Restaurants sectors are more likely to be low paid employees in the capital.

More surprisingly, even though boroughs in Inner London generally show higher levels of deprivation and worklessness in comparison to boroughs in Outer London, a higher proportion of residents in Outer London are low paid than in Inner London. Indeed, around two thirds of low pay in London is accounted for by Outer London residents. Even when we consider where low paid employees work, 55 per cent of low paid employees are still located in Outer London.

Wage inequality increased in the UK, between the 1970s and the mid 1990s, but since the early 2000s has declined slightly. Wage inequality is higher in the capital compared to outside London.

Wage inequality in London has not increased further between 2001 and 2004. Although amongst female employees it increased slightly in 2005. Finally, the pattern of low pay that we have identified should not be taken as suggesting low pay is inevitable. In particular, people can exit low pay employment by acquiring skills to get a "better job". Thus policies to assist individuals to progress in the labour market are vital to tackling low pay in London.

# **GLA**ECONOMICS

Greater London Authority
City Hall
The Queen's Walk
London SE1 2AA

Tel: 020 7983 4922

Fax: 020 7983 4137

Minicom: 020 7983 4458

Email: glaeconomics@london.gov.uk

www.london.gov.uk/mayor/economic\_unit



