

Social Policy in Cold Climate

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The Changing Anatomy of Economic Inequality in London (2007-2013)



Polly Vizard, Eleni Karagiannaki, Jack Cunliffe, Amanda Fitzgerald,
Polina Obolenskaya, Stephanie Thompson, Chris Grollman
and Ruth Lupton

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We welcome comments on this paper, to p.a.vizard@lse.ac.uk.

A summary of this report is available at <http://sticerd.lse.ac.uk/dps/case/spcc/srr06.pdf>

List of authors

Polly Vizard is a Senior Research Fellow at the Centre for Analysis of Social Exclusion, LSE.

Eleni Karagiannaki is a Research Officer at the Centre for Analysis of Social Exclusion, LSE.

Amanda Fitzgerald is a Research Officer at the Centre for Analysis of Social Exclusion, LSE.

Jack Cunliffe is a Research Officer at the Centre for Analysis of Social Exclusion, LSE.

Polina Obolenskaya is a Research Officer at the Centre for Analysis of Social Exclusion.

Stephanie Thompson is a Research Associate at the University of Manchester.

Chris Grollman was a Research Officer at the Centre for Analysis of Social Exclusion.

Ruth Lupton is Professor of Education at the University of Manchester

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Summary

This report examines changing patterns of inequality in London during the economic downturn and its aftermath.

- Londoners experienced a continuing squeeze on their living standards between 2007/8 and 2012/13. Median incomes fell by 11 per cent after taking account of housing costs and 3 per cent before housing costs are included. The poorest Londoners were worse off than their counterparts in the rest of the UK in 2012/13.
- Taking account of housing costs in the capital, income inequality grew substantially. After housing costs incomes of the poorest ten per cent living in privately rented accommodation in 2012/13 were as much as 53 per cent lower in real terms than in 2007/8. For those in social housing the fall was 17 per cent. The poorest disabled people also appear to have been hard hit.
- In terms of physical, financial and property wealth, London residents in the bottom third of the distribution (30% of Londoners) were not as rich in 2010/12 as their counterparts in the rest of the UK. Those near the top of the wealth distribution were not only richer than their counterparts elsewhere, but also 26% wealthier than in 2006/8. When pension wealth is included, one in ten London households owned total wealth worth more than £1 million.
- Unemployment grew less rapidly in London than elsewhere between 2007/8 and 2012/13, but started from a higher level. Young Londoners and those from African, Bangladeshi, Caribbean, Pakistani and Mixed ethnic backgrounds were more affected by unemployment than others.
- The proportion who were paid less than the London Living Wage increased substantially. Bangladeshi, Pakistani and Black African, Caribbean or British workers and individuals who experience a disability were especially likely to be paid below the threshold.
- The capital moved further ahead of the rest of the England on educational qualifications. Four out of ten (42%) of Londoners had a degree in 2012/13 compared with 24% elsewhere.

1. Introduction

In this report we examine changing patterns of inequality in London over the period 2007-2013. We examine how the distribution of key economic outcomes - including income and wealth, employment and unemployment, earnings and wages, and educational qualifications - have changed amongst different population groups. Trends in inequality in London over this period are compared to trends in the rest of the country. Particular emphasis is put on moving away from a “population averages” report and instead examining how different groups including: men and women, younger and older adults, individuals who experience disabilities, individuals from different ethnic groups, individuals from different occupational groups and living in different types of accommodation fared over this six year window. We also compare patterns of convergence and divergence between London and the rest of the country, and patterns of inequality between inner and outer London.

London’s relative resilience during the recession, rising house prices and colossal increases in wealth amongst the most well off within the capital are often cited as drivers of inequality within the UK as a whole. Emphasis is put on the regional divide with London increasingly viewed as being uniformly “different” and “pulling away” from the rest of the country. However, this study finds that the capital’s economic success and relative resilience has not translated into lower inequality amongst Londoners themselves.

Economic outcomes against a number of indicators including income, earnings and wages deteriorated over the period and the poorest Londoners and at risk groups have been hard hit. Income after housing costs at the 10th percentile fell by 19% in London over the period 2007/8-2012/13 - a bigger fall than at other points in the distribution, and a bigger fall than elsewhere in the country. The poorest 10% of private renters in London were left with only £39 a week net equivalised household income after their housing costs in 2013. The poorest individuals with disabilities in London also appear to have been hard hit. The percentage of Londoners paid less than the London living wage increased. Wages that are lower than the London Living Wage became increasingly common amongst most population groups over the period 2007/8 to 2012/13, especially amongst individuals who experience disabilities, who work part-time and who are from ethnic minority groups. Unemployment in London – which started off from a higher base than the rest of the country – increased further to 2012/13. As in the rest of the country, young adults were particularly affected. Increases in unemployment in London were also particularly pronounced amongst the Pakistani and Mixed ethnic groups and in Outer London. Meanwhile, in terms wealth, the distribution in London remained more skewed than in the rest of the country. Personal total wealth at the 90th percentile in the capital (including pension wealth) hit the million pound threshold.

The report builds on the methodology for analysing inequality adopted in the report of the National Equality Panel (NEP) ‘*An Anatomy of Economic Inequality in the UK*’. This report sought to provide a detailed national picture of patterns of inequality *between* and *within* different population subgroups in 2007. The report examined key economic outcomes including income and wealth, employment and unemployment, earnings, wages and educational qualifications. Particular emphasis was put on analysing inequalities in the distribution of economic outcomes by characteristics protected in equality

legislation, including gender, age, disability, religion and belief and sexual orientation as well as by socio-economic group and housing status.

The data used in the NEP used generally related to outcomes around 2007. As part of the national Social Policy in a Cold Climate (SPCC) research programme, the NEP baseline has been updated and patterns of change have been evaluated over the period 2007 to 2013 in order to build up a detailed picture of the changing distribution of economic outcomes since 2007 at the national level. Two reports have been published documenting the changing structure of economic inequality at the national level, the first on “winners and losers” in the early years of the crisis between 2007 and 2010 (Hills et al 2014) and the second providing a further update to 2013 (Hills et al 2015).

The evidence provided in these reports informs our overall efforts to evaluate the impact of the economic crisis and recession, and changes in social policy since 2010, on inequality in Britain. However, it is important to note that the latest datasets available that can be disaggregated by the range of characteristics covered in this report (which generally cover 2012/13) are likely to predate the effects of reforms implemented in or after April 2013. Hills et al (2015: 20) note that up to 2012/13, the way most benefits were generally linked to prices was preserved, so that their real value was protected, even as real wages were falling. This meant that, initially at least, those whose incomes came largely from benefits were protected against the worst effects of the recession and tended to reduce income inequality. Changes to benefits and tax credits after this date may have consequences for income distribution which are not reflected in the data covered in this study.

Within the SPCC London research programme, we have built on this national level work to drill down in more detail and provide a more in-depth examination of the anatomy of economic inequality in the capital. Our aim has been to build up an evidence base against the indicators used in the original NEP report at the London level and to disaggregate these by the same set of characteristics that is being applied in the context of the national level work (**Figure 1**). In addition to examining changing patterns in the distribution of economic outcomes by different population groups at the London level, we have also gathered more detailed evidence on patterns of convergence and divergence between London and the rest of the country and on variations between inner and outer London. This report focusses on main findings. However, additional data can be accessed at:

http://sticerd.lse.ac.uk/case/new/research/Social_Policy_in_a_Cold_Climate.asp

Figure 1: NEP indicator dashboard and disaggregation characteristics

- Indicator 1: Net equivalised household income (before and after housing costs)
- Indicator 2: Personal wealth and assets
- Indicator 3: Employment status
- Indicator 4: Weekly earnings
- Indicator 5: Hourly wages
- Indicator 6: Qualifications of the adult population
- Indicator 7: Results at Key Stage 4 (England)

Systematic disaggregation by: gender, age, ethnic group, religion and belief, disability status, sexual orientation, socio-economic group, housing status

In our previous report (Lupton et al 2013), we found that London had become more polarised against a number of indicators over the period 2007 to 2010 and that the poorest in London had been hard hit by the recession. Personal wealth not only increased more at the top than the bottom of the distribution, but wealth inequalities in London also increased faster than in the rest of the country. Looking at trends in inner and outer London separately, it was not clear that the story of London's resilience during the recession extended to outer London.

Here, we extend the analysis by reporting on a longer time window, the period 2007 to 2013. The current report uses data from the Household Below Average Incomes Survey, the 2006/08 to 2010/12 Wealth and Assets Survey to examine the distribution of personal wealth; the 2007/8 and 2012/13 Annual Population Survey (drawing on the Labour Force Survey) to examine patterns of employment, unemployment, wages, earnings and qualifications; and the 2007 and 2013 National Pupil Database to briefly comment on educational achievement over the period. These surveys provided the latest data that could be systematically disaggregated by the range of characteristics which are covered in our analysis at the time of writing. We present a picture of London on the eve of the crisis - where things had reached by 2013 for different groups, and how the changes compare with those in the rest of the country.

The Social Policy in a Cold Climate (SPCC) London research programme has also updated earlier work (Lupton et al 2013) on small area poverty. We update earlier work using the Unadjusted Means-tested Benefit Rate (or UMBR) indicator, which has been developed as conventional measures of poverty (below 60% of median income) are not available at small area level. UMBR takes the number of claimants of various out-of-work benefits and pension credit in an area and divides that count by the number of households in the area. See Fenton (2013) for further details. Broadly speaking, there was little change in the pattern of poverty rates as measured by the UMBR between 2008 and 2013 (with the overall UMBR rate declining slightly and the spatial pattern broadly the same). Closer analysis reveals that there was a slight increase in poverty in outer London between 2008 and 2013 and that most of the neighbourhoods with a rising poverty rate in this period were located in outer London. Also, the proportion of London's poorest neighbourhoods found in outer London increased in the same period. It is important to note that these findings will pick up only the very earliest effects of the changes to the Local Housing Allowance and other benefit changes introduced in April 2013, which are expected to have impacts on the spatial distribution of poverty in the longer term.

The work forms part of a bigger programme funded by the Joseph Rowntree Foundation, Nuffield Foundation, and Trust for London, and is designed to inform public and political debate in the run-up to the next general election in 2015. A central focus is on what happens to economic outcomes and their distribution. *Who are the winners and losers from the changes? What happens to poverty and to inequality, measured in different ways?* The analysis builds on and links to other work produced by the Trust for London particularly its Poverty Profile (MacInnes et al. 2011), and by the Greater London Authority's Intelligence Unit. It aims to provide a more detailed examination of distribution by different population groups.

2. Income and wealth

Changes in net income 2007/8-2012/13

As is well documented elsewhere, there was been a substantial squeeze on living standards in the period following the crisis and recession. The Institute of Fiscal Studies (IFS) note that there was an initial period of protection as countercyclical policies were pursued. Real household incomes continued to grow, albeit slowly, during 2008 and 2009 - and part of the explanation was temporary fiscal stimulus measures. After a peak in 2009/10, however, there were substantial falls in real incomes with a recovery that has been slower than in other recessions (IFS 2015).

Over the period we examine here, 2007/8-2012/13, net household income both before and after housing costs fell at most points of the income distribution over the period within the UK. Net income in London fell substantially both before and after housing costs, with falls of 3% and 11% at the median respectively¹.

Inequality in net weekly equivalised housing income **before** housing costs, as measured by the 90: 10, ratio, did not however increase over the period 2007/8 to the financial year 2012/13². In the UK as a whole, income before housing costs at the 10th percentile rose over the period by 1 % whereas at the 90th percentile there was a fall of 6.2%, resulting in an overall *decrease* in the 90: 10 ratio for net income before housing costs. As the national SPCC paper (Hills et al 2015) notes, this trend is somewhat surprising given trends in unemployment, earnings and wages (which are examined in the subsections below). The real value of benefits was preserved over this period so that even as real wages were falling, individuals whose main incomes come from benefits were protected. At the national level, net household weekly equivalised income **after** housing costs declined across the distribution. The percentage falls at the top of the distribution (-8%) were greater than those at the bottom of the distribution (-6.4%), with the 90:10 ratio again falling³.

¹ We report on trends in net income using data from the Household Below Average Income Survey, based on the Family Resources Survey. Real income figures are expressed in 2012/13 prices. Note that, for income, there are some small differences between the results presented in this London specific report and the national results due to the DWP methodology of pooling data for geographical splits. The impact of these difference were assessed to be small (less than 1%) but some data points may differ slightly. See Appendix 3 for further details.

² The 90:10 ratio is a common measure of inequality. This is a measure of the value an outcome at the 90th percentile of the distribution divided by its value at the 10th percentile. A higher number implies higher inequality. For example, a 90:10 ratio of 5 for income means that if everyone is lined up in order of income, then the person at the 90th percentile of the distribution is five times richer than the person at the 10% percentile of the distribution. Here, we summarise our overall findings on what happened to inequality in London over the period based on the 90:10 measure.

³ As highlighted in the introduction to this paper, and is noted in Hills et al (2015: 20), it is important to note that the real value of most benefits was protected in the period up to 2012/13. Changes to benefits and tax credits after this date may have consequences for income distribution which are not reflected in the data covered in this study.

Table 1: Changes in real net weekly equivalised household income, London and the rest of the UK, before and after housing costs (2007/8, 2012/13 and percentage change 2007/8- 2012/13)

	Before housing costs (BHC) by percentile point							After housing costs (AHC)						
	MEAN	10 th	30 th	50 th	70 th	90 th	90/10 ratio	MEAN	10 th	30 th	50 th	70 th	90 th	90/10 ratio
2007/08 (£s)														
UK excluding London	£549	£225	£339	£454	£599	£904	4.1	£496	£171	£291	£407	£549	£843	4.9
London	£723	£222	£359	£511	£744	£1260	5.7	£627	£139	£265	£434	£648	£1145	8.2
2012/13 (£s)														
UK excluding London	£515	£228	£333	£434	£566	£845	3.7	£450	£161	£270	£373	£504	£773	4.8
London	£667	£221	£355	£493	£713	£1166	5.3	£543	£112	£236	£384	£572	£1032	9.2
Percentage change 2007/8-2012/13														
UK excluding London	-6.1%	1.1%	-2.0%	-4.4%	-5.6%	-6.6%		-9.3%	-6.0%	-7.0%	-8.4%	-8.3%	-8.3%	
London	-7.6%	-0.5%	-1.2%	-3.4%	-4.2%	-7.5%		-13.4%	-19.0%	-10.8%	-11.4%	-11.6%	-9.9%	

Source: DWP/CASE analysis of HBAI dataset

Note: 1.2012/13 prices. See Appendix 1 for details of price adjustment. 2.Covers adults and children.

In the capital, net equivalised weekly household income was higher before and after housing costs both in 2007/8 at the mean and the upper end of the distribution than in the rest of the UK. From the data in **Table 1**, which compares the position in London with that in the rest of the UK (excluding London), it is notable though that the poorest Londoners were worse off in income terms than the poorest elsewhere in the country in 2007/8 and that this picture remained true in 2012/13. At the 10th percentile (before housing costs), and at the 10th and 30th percentiles (after housing costs), income of the poorest Londoners was lower than in the rest of the country in both years. For example, in 2012/13, equivalised household weekly income before housing costs at the 10th percentile was £221 a week in London compared with £228 in the rest of the country. Income after housing costs at the 10th percentile was £112 in London compared with £161 a week elsewhere, and at the 30th percentile was £236 compared to £270 elsewhere (2012/13 prices)⁴.

There were substantial falls in income in London in the wake of the crisis and the economic downturn at all points of the distribution. The falls in London at the mean were bigger than those in the rest of the country (a decline of 7.6% in London compared to 6.1% elsewhere before housing costs, and 13.4% compared to 9.3% after housing costs). At the median, the fall was smaller in London before housing costs (a decline of 3.4% in London compared with 4.4% in the rest of the UK), but bigger in London when housing costs are accounted for (11.4% in London compared with 8.4% in the rest of the UK).

Before housing costs, the falls in income in London were greater at the top end of the distribution than the bottom end, resulting in a decrease in inequality as measured by the 90: 10 ratio (**Table 1** and **Figure 43**). On an after housing costs basis, the falls amongst the poorest Londoners were more substantial than in the rest of the country. The falls in after housing costs income in London at the 10th percentile were also more substantial in percentage terms than those in London at the 90th percentile. This resulted in an increase in income inequality after housing costs in London, with the 90:10 ratio rising to a high of 9.2.

This finding is in line with growing evidence on the impact of housing costs pushing people into poverty in both London and the South East, where housing costs are considerably higher than in the rest of the country (e.g. Aldridge et al 2011). Belfield et al (2014) note that London has a lower before housing costs income poverty rate than the UK average, yet the highest rates of after housing costs income poverty. The authors further find that between 2007/08 to 2009/10 and 2010/11 to 2012/13, London had the smallest falls in housing costs in the country over the period. The falls in mean housing costs were also lower in London than other regions.

⁴ Belfield et al (2014) note that London has a before housing cost income poverty rate lower than the UK average, yet the highest rates of after housing cost income poverty and material deprivation.

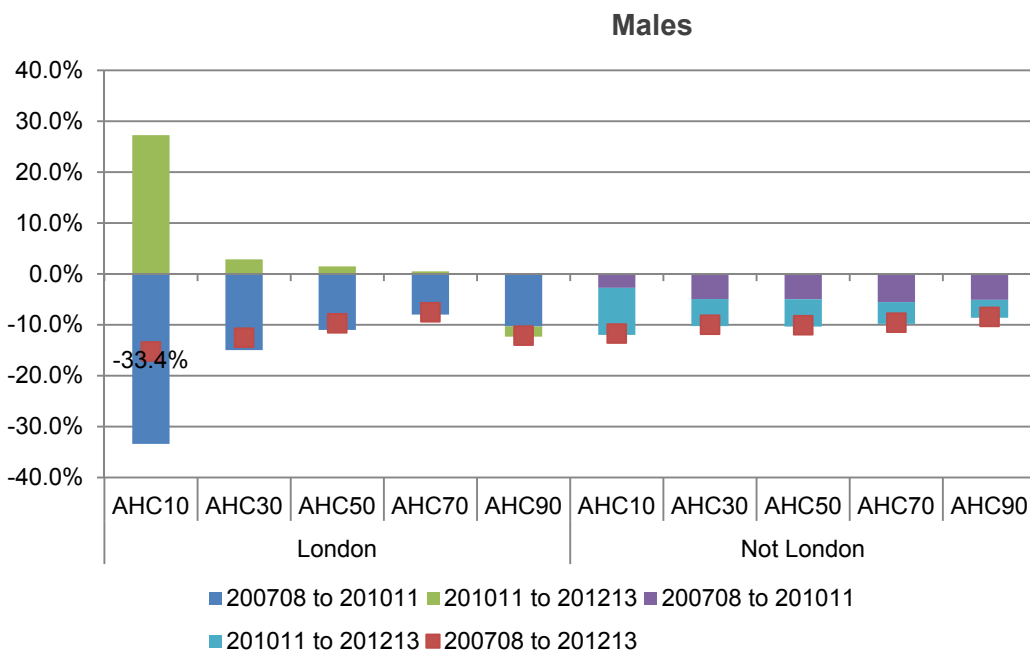
Changes by gender

Looking at the position of men and women separately, the falls in net income after housing costs within London were greater than in the rest of the country for both men and women. However, within London, the falls were most marked amongst men. The falls amongst the poorest men in London (at the 10th percentile) were as much as 33.5%. For the poorest women, the falls (at 15%) were smaller though very substantial (Figure 3).

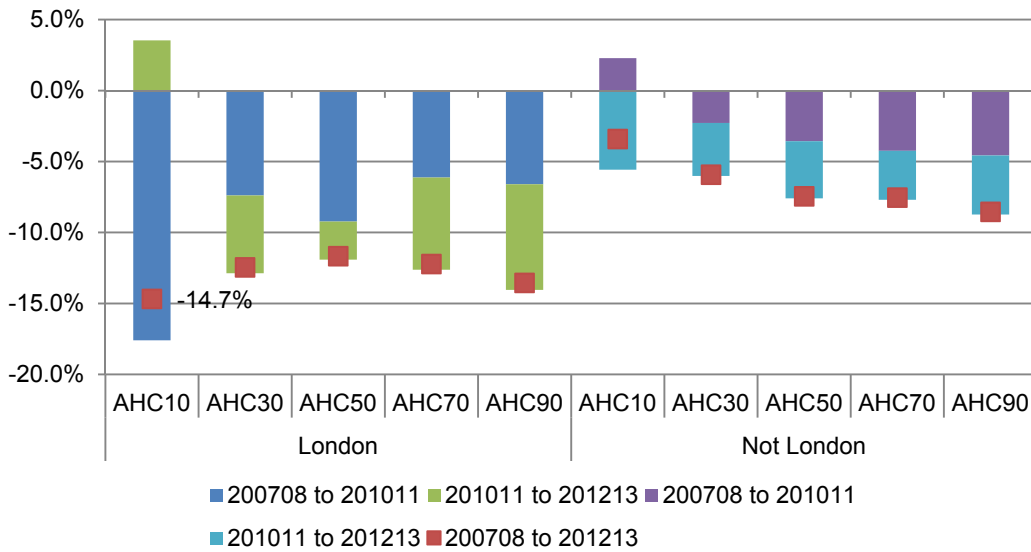
However, whilst the falls for men and women in London differ substantially at the bottom of the distribution, whereas for men the falls were large at the bottom and then smaller higher up the distribution, for women the falls were more even across the whole distribution. This contrasts with the position in the UK as a whole noted in Hills et al (Figure 2.8), with men experiencing substantial and even falls across the distribution, and women doing progressively worse the higher their original income.

As noted in Hills et al (2015), DWP's methodology assumes that households share their incomes equally, so that men and women within couples (and any children) are allocated the same income. Gender differences within the distribution therefore result from differences between household types – for instance reflecting the position of women who are single parents, or single elderly people living alone.

Figure 2: Percentage change in real net weekly equivalised household income after housing costs, London & rest of the UK, 2007/08-2012/13



Females



Source: CASE / DWP analysis of HBAI dataset

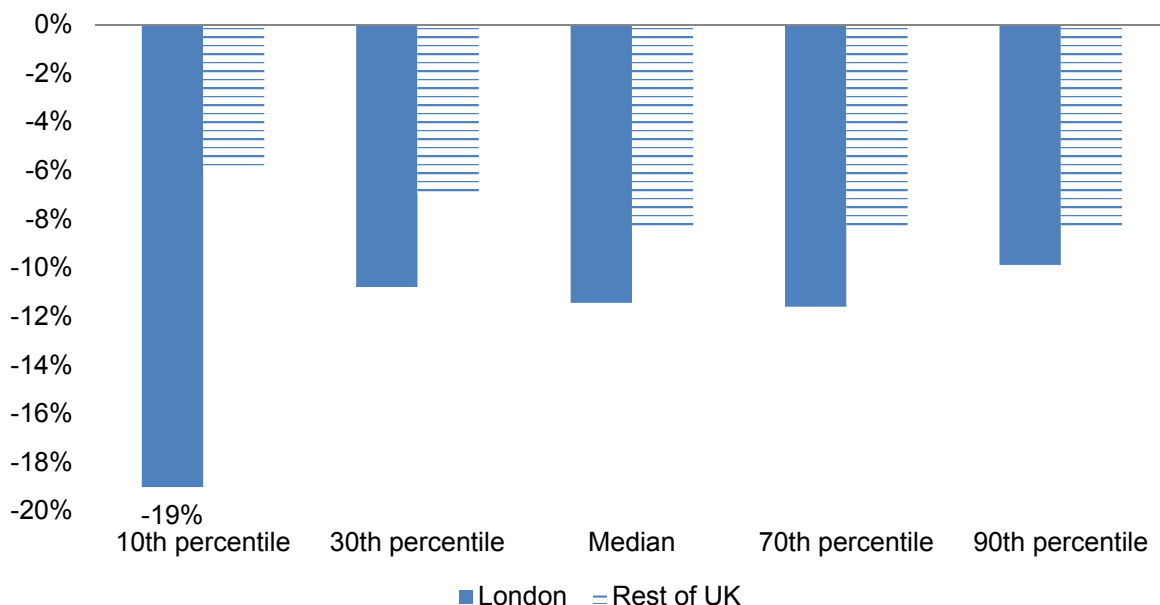
Note:

1. 2012/13 prices. See Appendix 1 for details of price adjustment.
2. Covers adults and children.

Changes amongst the poorest Londoners

Figure 3 reports on overall changes in real net weekly equivalised household income after housing costs at different percentile points in London and the rest of the country. The figure shows a 19% fall in weekly equivalised household income after housing costs for at the 10th percentile in London. This was a bigger fall than at other points in the distribution in London as well as a bigger fall at the 10th percentile than elsewhere in the country. At the 30th, 50th (median), 70th and 90th percentiles the falls were also more pronounced in London than in the rest of the UK. However, the differential in the falls in London and the rest of the UK were most pronounced amongst the poorest 10 percent.

Figure 3: Percentage change in real net weekly equivalised household income after housing costs, London & rest of the UK, 2007/08 -2012/13



Source: CASE / DWP analysis of HBAI dataset

1. 2012/13 prices. See Appendix 1 for details of price adjustment.
2. Covers adults and children.

Changes amongst the poorest Londoners: by disability status

Whilst falls in net weekly equivalised household incomes after housing costs over the period affected almost all groups, the magnitude of their impact varied substantially. **Table 2** shows that across the income distribution, individuals who experience a limiting longstanding illness or disability (LLID) have a systematically lower income than those who do not, before and after housing costs, within London and in the rest of the country in 2012/13. For example, in London in 2012/13, amongst the poorest individuals who experience a disability, net weekly equivalised household before housing costs at the 10th percentile was £193 a week, compared with £226 for those who do not experience a disability. Similar gaps are observed in net weekly equivalised household before housing costs in London at the 50th percentile (median) (£411 compared with £507) and at the 90th percentile (£867 compared with £1186).

For the breakdowns for net income using Family Resources Survey data we use a two-fold classification between those individuals who report that they experience a limiting longstanding illness or disability and those who do not. However, the underlying operational measures of LLID have changed slightly, to the new harmonised Office for National Statistics questions, meaning that strict comparisons in income by disability over time should only be made with caution (for further details, see Appendix 1). **Table 2** can be viewed as providing best estimates for net household income by LLID status in 2007/8 and 2012/13.

Table 2: Real net weekly equivalised household income after housing costs by disability status by percentile point (2007/8 and 2012/13)

2007/8

Before housing costs	MEAN	10 th	30 th	50 th	70 th	90 th
Not London no LLID	£575	£231	£356	£477	£627	£939
Not London LLID	£439	£208	£300	£379	£479	£705
London no LLID	£761	£225	£373	£546	£780	£1314
London LLID	£481	£212	£309	£395	£499	£787

After housing costs	MEAN	10 th	30 th	50 th	70 th	90 th
Not London no LLID	£516	£173	£301	£423	£570	£876
Not London LLID	£411	£164	£262	£350	£461	£690
London no LLID	£661	£139	£277	£460	£667	£1179
London LLID	£414	£141	£229	£314	£440	£751

2012/13

Before housing costs	MEAN	10 th	30 th	50 th	70 th	90 th
Not London no LLID	£537	£232	£343	£452	£591	£880
Not London LLID	£430	£216	£302	£378	£475	£674
London no LLID	£686	£226	£360	£507	£741	£1186
London LLID	£556	£193	£319	£411	£520	£867

After housing costs	MEAN	10 th	30 th	50 th	70 th	90 th
Not London no LLID	£468	£164	£279	£387	£524	£809
Not London LLID	£379	£152	£247	£327	£434	£636
London no LLID	£556	£117	£239	£397	£597	£1048
London LLID	£464	£100	£224	£318	£450	£762

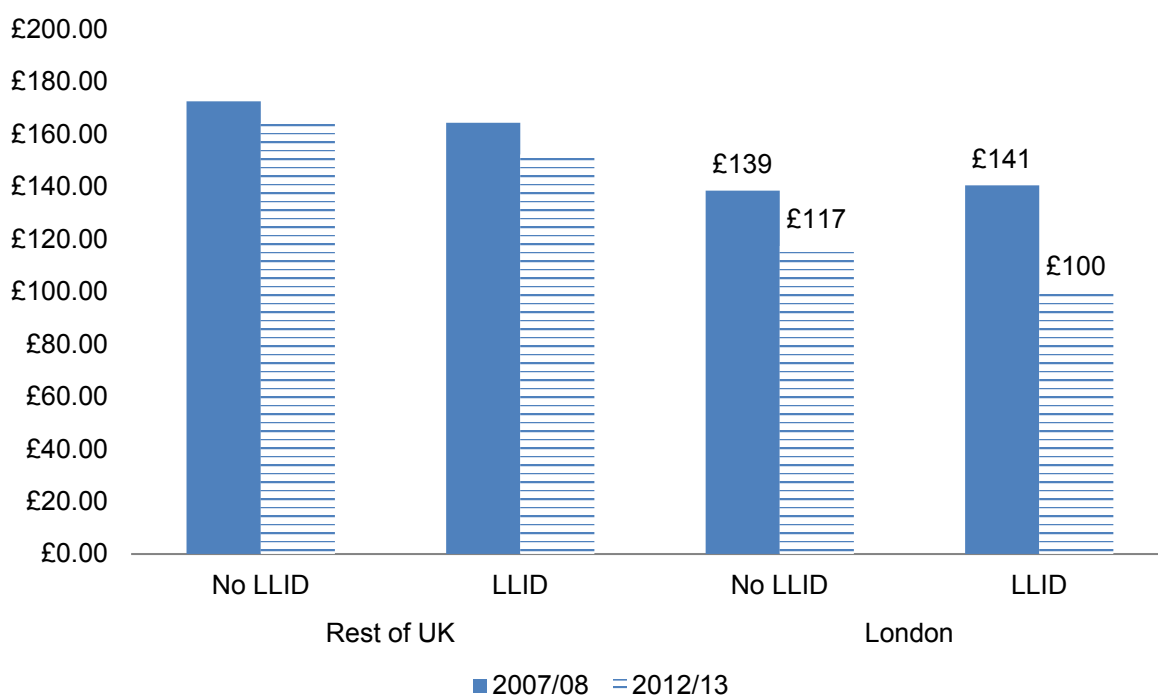
Source: CASE / DWP analysis of HBAI dataset

Note:

1. 2012/13 prices. See Appendix 1 for details of price adjustment.
2. Covers adults and children
3. See Appendix for details of the change in the operational measure of disability used in the FRS in 2007/8 and 2012/13 which affect the comparability of this data over time.

Figure 4 reports on equivalised weekly household income after housing costs at the 10th percentile by disability status within London and the rest of the UK in 2007/08 and 2012/13 (in 2012/13 prices). Subject to the discontinuities associated with the definitional changes highlighted above, best estimates suggest that in London in 2007/08 the poorest 10% of individuals who experience a LLID had a weekly after housing costs income of less than £141. By 2012/13, best estimates suggest that this figure had fallen to £100. This is an apparent fall of around 29% (£41 a week) - double the equivalent figure for Londoners without disabilities and more pronounced than elsewhere in the UK.

Figure 4: Real net weekly equivalised household income after housing costs at the 10th percentile, by disability status, London & rest of the UK, 2007/08 and 2012/13



Source: CASE / DWP analysis of HBAI dataset

Note:

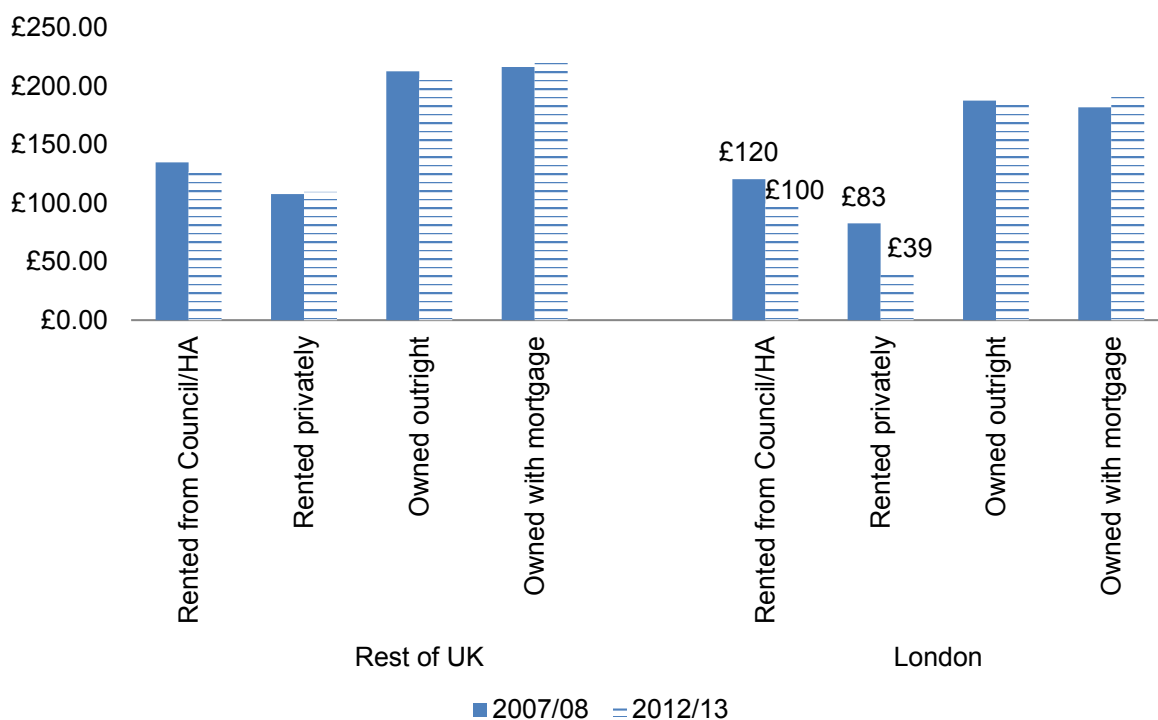
1. 2012/13 prices. See Appendix 1 for details of price adjustment.
2. Covers adults and children
3. See Appendix for details of the change in the operational measure of disability used in the FRS in 2007/8 and 2012/13 which affect the comparability of this data over time.

Changes amongst the poorest Londoners: by housing status

There was also a particularly marked worsening of the position of the poorest private renters in London over the period. **Figure 5** shows changes in equivalised weekly after housing costs incomes at the 10th percentile by housing status in London and the rest of the UK between 2007/8 and 2012/13. The figure shows a staggering 53% fall in weekly income for the poorest 10% renting privately in London, from £83 to £39 per week in 2012/13 prices. This implies that private renters at the 10th percentile in London were left with only £39 of equivalised weekly household income after housing costs in 2012/13.

For those renting from councils and housing associations in London, there was a 17% fall at the 10th percentile. The position of both private renters and those renting from councils and housing associations in London at the 10th percentile contrasts sharply with the position of those with a mortgage, with income after housing costs at the 10th percentile increasing for mortgagees. There were further falls in after housing costs income for private renters in London across the distribution including falls of 18% (£235 to £193) at the 30th percentile; 31% (£408 to £280) at the median; and a fall of 24% (£621 to £473) at the 70th percentile; and a fall of 23% at the 90th percentile (from £1,078 to £789). These percentage falls were not as large as those at the 10th percentile but were nevertheless substantial. Outside London, falls over 10% only occurred among private renters, and then only at the 50th percentile and above.

Figure 5: Real net weekly equivalised household income after housing costs at the 10th percentile, by housing status, London & rest of the UK, 2007/08 and 2012/13



Source: CASE / DWP analysis of HBAI dataset

Note:

1. 2012/13 prices. See Appendix 1 for details of price adjustment.
2. Covers adults and children

Changes in personal wealth 2006/08-2010/12

We report here using three measures of personal wealth⁵. The first measure covers financial wealth and physical wealth. The second covers financial, physical and property wealth. The third (“total wealth”) covers financial, physical and property wealth together with pension rights (that is, with the present net value of future pension entitlements).

Broadly speaking **financial wealth** comprises formal and informal financial assets e.g. bank accounts, stocks and shares, money saved at home) and liabilities (such as formal borrowing, overdrafts and arrears on household bills). **Physical wealth** is the value of physical assets, for example, the value of the contents of a main or other residence including furniture, clothing and TVs; collectable / valuable items; bicycles, cars or other vehicles etc.). **Property wealth** is the value of the main residence for a household and the value of any additional property or properties owned (but not business assets) minus the value of mortgages. **Pension wealth** is the value of person’s private pension income in retirement⁶

⁵ We report on personal wealth using data from the 2006/8 and 2010/12 Wealth and Assets Survey. This covers Great Britain (rather than the UK). The data presented is nominal.

⁶ http://www.ons.gov.uk/ons/dcp171776_362809.pdf

Table 3: Personal wealth, London and the rest of Great Britain 2006/8 and 2010/12 (£ nominal)

	Financial and physical						Financial, physical and property						Total (financial, physical, property and pension)						
	10th	30th	Median	70th	90th	90:10 ratio	10th	30th	Median	70th	90th	90:10 ratio	10th	30th	Median	70th	90th	90:10 ratio	
All Great Britain except London																			
2006/8	6,800	23,000	44,000	77,000	175,900	26	7,700	51,500	147,900	248,200	479,300	62	10,700	76,700	200,100	363,600	774,700	72	
2010/12	7,600	26,300	49,400	84,500	193,000	25	8,800	51,500	146,100	254,000	507,000	58	14,800	88,000	218,700	409,200	895,300	60	
London																			
2006/8	2,800	15,400	34,900	67,300	192,100	69	3,100	22,900	119,900	290,100	597,100	193	3,800	34,200	163,200	375,500	889,000	234	
2010/12	3,100	16,300	40,300	79,600	246,500	80	4,500	26,100	151,000	334,500	749,900	167	6,300	46,800	213,500	472,700	1,088,900	173	

Source: CASE / ONS analysis of Wealth and Assets Survey.

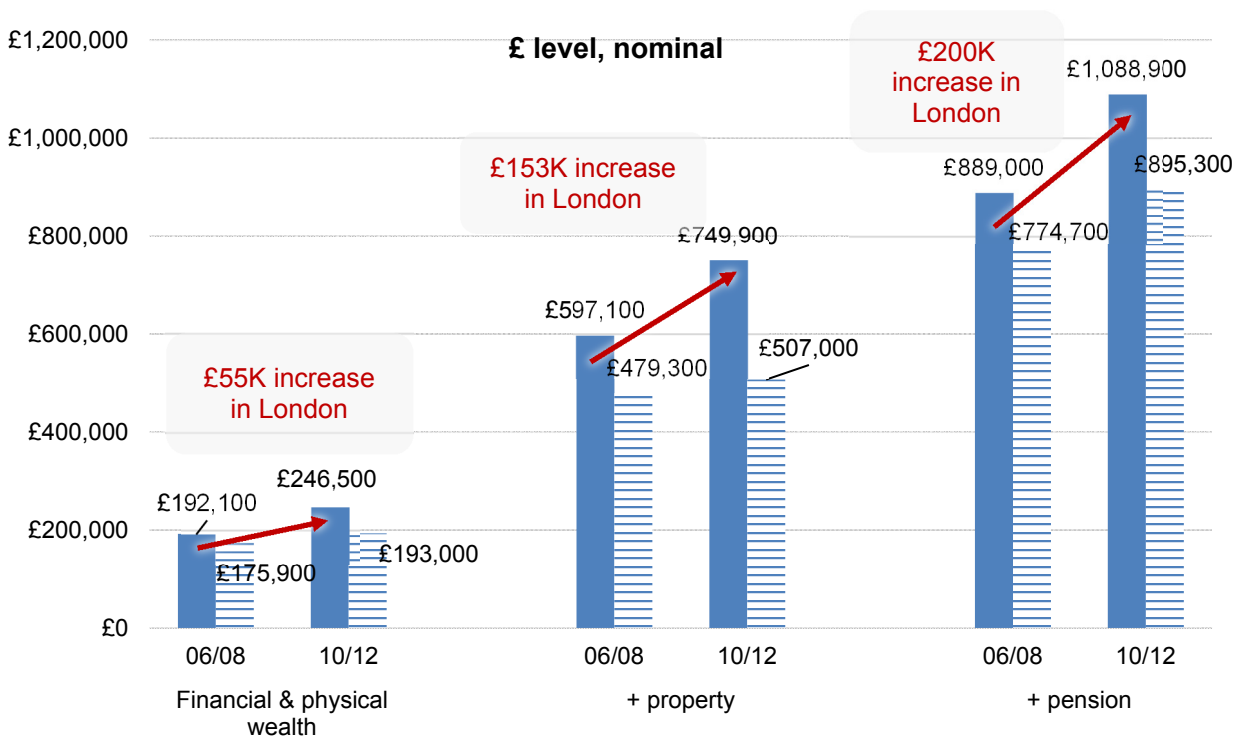
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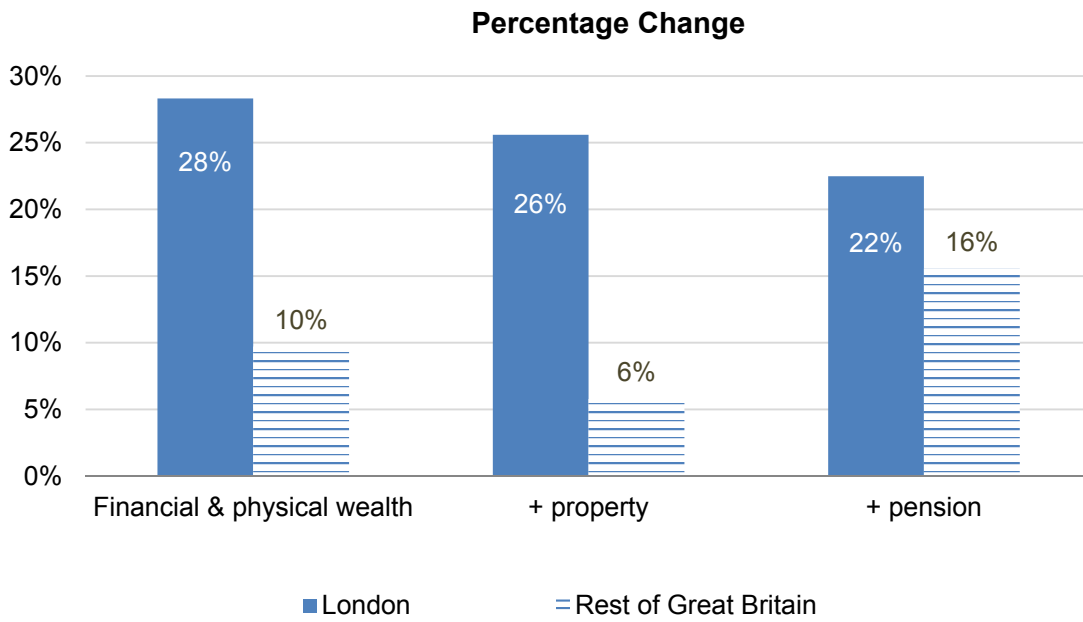
Estimates for 2006/08 are based on a half sample, and frequencies multiplied by a factor of 1.76845

It is widely known that personal wealth in London is higher at the top of the distribution than in the rest of the country. However, as **Table 2** shows that in levels of nominal wealth the bottom and middle of the distribution were lower in London than in the rest of the country. In 2006/8, levels of nominal financial and physical wealth were lower in London than in the rest of Great Britain up to the 90th percentile; levels of nominal financial, physical and property wealth, and total wealth (including pensions) were lower in London than in the rest of Great Britain up to the median. Similar patterns are observed for 2010/12 (with the exception of levels of nominal financial, physical and property wealth, which were lower in London than the rest of Great Britain up to the 30th percentile rather than the median).

At the top of the distribution, at the 90th percentile, levels of nominal wealth in London remained substantially above the national level. In fact, the differential between London and the rest of the country increased over the period – with the wealthiest of the wealthy – that is, the most wealthy Londoners – moving away from the rest. Personal financial and physical wealth increased in London at the 90th percentile by 28% between 2006/8-2010/12. Bringing in property and pension wealth, the increases in personal wealth London at the 90th percentile were 26% and 22% respectively. The increases at the 90th percentile were bigger in London than in the rest of Great Britain. Total personal wealth (including pensions) at the 90th percentile in London went above the million pounds threshold to £1,088,900 (**Figure 6**).

Figure 6: Changes in nominal wealth at the 90th percentile 2006/08 - 2010/12, London and the rest of Great Britain





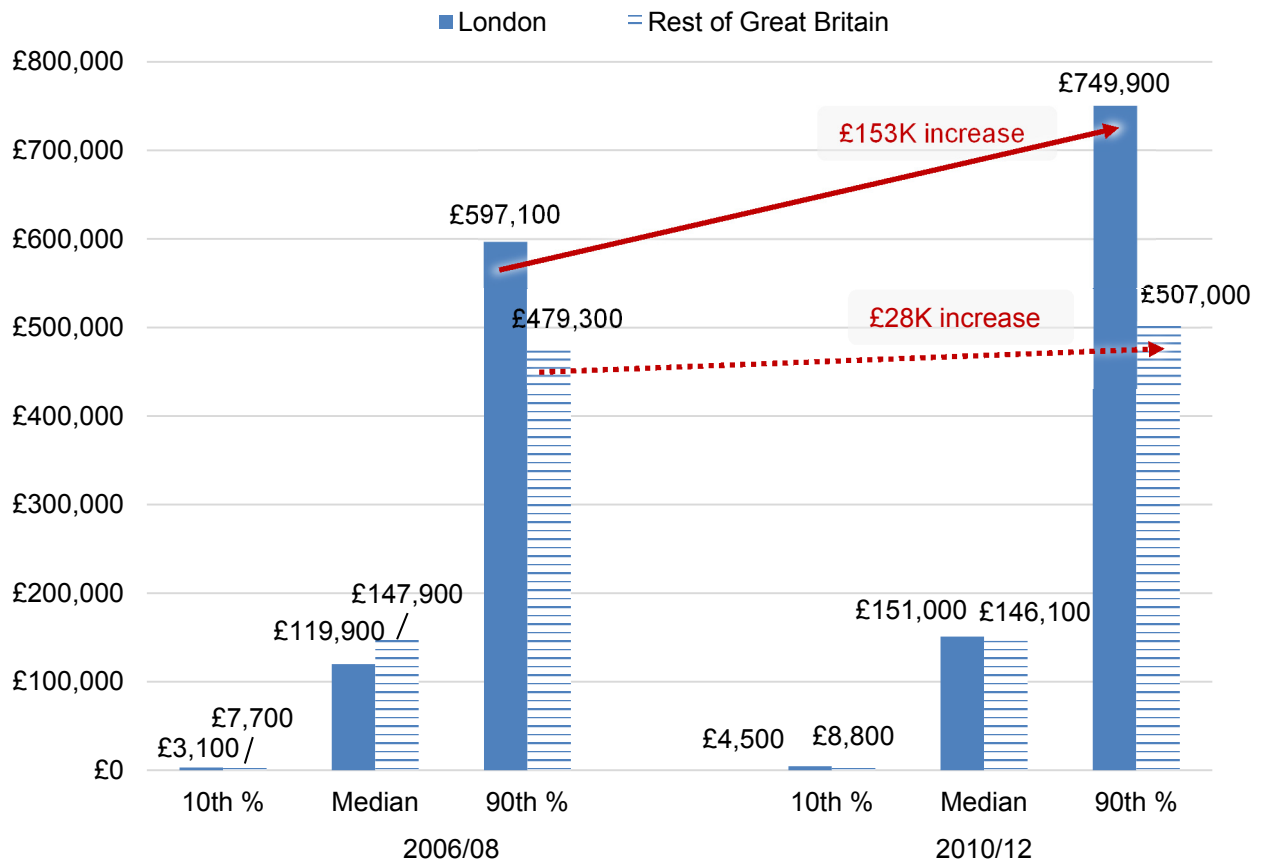
Source: CASE / ONS analysis of Wealth and Assets Survey.

Wealth inequality measured by the 90:10 ratio fell in London over the period 2006/08-2010/12, reflecting the fact that in percentage terms the increases at the bottom of the distribution in London were larger than those at the top. This contrasts with the finding in our previous paper which compared the period 2006/8-2008/10, finding found that, in the wake of the crisis and the economic downturn, the most “wealthy of the wealthy” – that is, the most wealthy Londoners – had gained in relative terms when compared both to the wealthy in the rest of the country, and when compared to the least wealthy in London (Lupton et al 2013). Looking at the longer time window to 2010/12 changes this picture since relative rates of change at top and the bottom of the personal wealth distribution in London are reversed.

To contextualise this trend, it is important to note that the changes in nominal wealth in absolute terms were very small at the 10th percentile when compared to those at the 90th percentile. As Figure 7 shows, in nominal terms the change at the 10th percentile was from £3,100 to £4,500 (a £1,400 increase). However, this change is overshadowed by the much larger nominal change from £597,100 to £749,900 (£152,800 increase) at the 90th percentile (financial, physical and property wealth). Wealth inequality in London remained substantially greater than elsewhere. The 90:10 ratio for wealth (covering financial, physical and property wealth) in London in 2010/12 was a colossal 166.6 compared to 57.6 in the rest of the country) (**Figure 43**).

Figure 7: Absolute changes in wealth in were small at the 10th percentile when compared to those at the 90th percentile

Wealth (financial, physical and property), at 10th percentile, median and 90th percentile, nominal, 2006/08 and 2010/12, London & Rest of Great Britain (£ nominal)



Source: CASE / ONS analysis of Wealth and Assets Survey.

3. Employment

In this section we report on trends in employment and unemployment⁷. Our earlier report (Lupton et al 2013) noted that the fall in full time working had been less sharp in London than in the rest of the country over the period 2007 to 2010. This remains the case looking at the longer time window to 2012/13. Part-time employment and self-employment both increased in London.

Hills et al (2013) noted that the rise in International Labour Organisation (ILO) unemployment rate and the fall in full-time employment is the most obvious change between the pre-crisis situation described in the NEP report and 2010. The decline in full-time employment between 2006/8 and 2010 was greatest for men and for those aged 16-29. There were sharp differences identified by regions, with falls in full-time employment of only 1.7 percentage points in London compared to above 3 percentage points in the West Midlands, Yorkshire, Humberside and the South East.

Hills et al (2015) update this picture to look at change up to 2012/13. At the national level, young adults remained disproportionately affected by the rises in unemployment. Men were worse hit by the recession in the period 2006/8-2010. While male unemployment recovered somewhat in the period 2010-2013, female unemployment rose more during this second period.

Changes in unemployment by population group

However, while the rise in unemployment in London was less than in the rest of the country, it is important to note that baseline unemployment in London in 2007/8 was higher than in the rest of the country (5.1% compared to 4.1%). Furthermore, in 2007/8, some population groups in the capital were disproportionately affected by unemployment. For example, unemployment in the capital was particularly prevalent amongst young adults aged 16-24; individuals who experience a limiting longstanding illness or disability; individuals from the White and Black Caribbean, Other Black, Pakistani and Bangladeshi ethnic groups; those who self-report Muslim religious affiliation; individuals from the Routine and Semi-routine occupational groups; and individuals living in social housing. Similar inequalities in the prevalence of unemployment in London persisted in 2012/13 (Table 4)

⁷ We report on employment status using the Annual Population Survey (based on the Labour Force Survey). We have used APS rather than LFS for the analysis in order to take advantage of the regional boosts in APS (which increases sample size for London both overall and by subgroup). The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Table 4: Percentage of the working age population classified as ILO unemployed, London and the rest of England, 2007/8 and 2012/13

	2007/8		2012/13		Change 2007/8-2012/13			
	Rest of England	London	Rest of England	London	Rest of England		London	
Overall								
All	4.07	5.12	6.24	6.98	2.17	***	1.86	***
Sex								
Men	4.47	5.46	6.83	7.37	2.36	***	1.92	***
Women	3.63	4.76	5.59	6.56	1.96	***	1.80	***
Age								
16-24	9.01	10.01	13.03	13.52	4.02	***	3.51	***
25-30	4.08	4.55	6.88	7.46	2.80	***	2.90	***
30-34	3.46	4.02	5.31	5.65	1.85	***	1.63	**
35-39	3.05	4.30	4.70	5.30	1.65	***	1.00	
40-44	2.80	3.91	4.41	5.51	1.61	***	1.60	**
45-49	2.39	4.51	4.33	5.63	1.94	***	1.12	
50-54	2.74	4.01	3.62	4.92	0.88	***	0.90	
55-59	2.30	2.89	3.77	4.64	1.46	***	1.75	**
60-64	1.14	1.62	2.20	2.49	1.06	***	0.87	
65-69	0.35	0.72	0.50	0.49	0.15		-0.23	
70+	0.03	0.17	0.07	0.13	0.04	*	-0.04	
Disability status (1)								
No LLID	4.08	4.97	6.25	6.69	2.18	***	1.72	***
LLID	4.04	6.02	6.25	8.35	2.22	***	2.34	**
Disability status (2)								
Not disabled	3.93	4.83	6.09	6.59	2.16	***	1.76	***
DDA or Work-limiting disabled	4.67	6.66	6.89	8.62	2.22	***	1.97	**
Disability status (3)								
DDA disabled and work-limiting disabled	4.46	5.76	7.52	8.86	3.06	***	3.10	***
DDA disabled	3.00	6.72	5.91	7.21	2.91	***	0.49	
Work-limiting disabled only	7.65	9.99	9.80	8.97	2.15	***	-1.02	
Ethnicity (10 bands) classification								
White British	3.79	3.66	5.87	5.44	2.08	***	1.78	***
Other White	4.23	4.03	5.64	4.44	1.41	***	0.41	
White and Black Caribbean	13.17	10.42	12.77	15.28	-0.40		4.86	
White and Black African	1.84	10.45	4.20	11.24	2.36		0.79	
White and Asian	3.79	3.49	17.09	8.55	13.30	***	5.06	
Other mixed	7.83	5.98	13.50	13.81	5.68		7.83	**
Indian	5.48	4.52	7.16	6.51	1.68	**	2.00	*
Pakistani	8.48	6.99	10.06	12.21	1.59		5.22	**
Bangladeshi	7.79	11.36	12.04	11.53	4.25	*	0.17	
Other Asian background	5.82	6.21	5.19	7.23	-0.63		1.01	
Black Caribbean	8.38	11.54	13.61	13.27	5.22	***	1.73	
Black African	7.71	9.40	12.84	13.42	5.12	***	4.02	***
Other Black	12.94	11.33	13.79	13.26	0.84		1.93	
Chinese	4.26	4.78	6.81	4.64	2.55		-0.14	
Other ethnic group	6.45	6.63	8.85	7.64	2.40	**	1.01	
Religious affiliation								
Christian	3.58	4.66	5.38	6.81	1.80	***	2.15	***
Buddhist	7.33	6.47	5.86	11.33	-1.47		4.86	
Hindu	6.56	3.68	6.93	7.14	0.36		3.45	***
Jewish	1.84	0.50	3.50	1.84	1.66		1.33	
Muslim	8.04	9.04	10.42	9.97	2.38	***	0.93	
Sikh	4.39	4.64	8.38	4.04	3.99	***	-0.61	
Any other religion	5.68	7.81	6.73	6.19	1.06		-1.62	
No religion	5.03	4.89	7.16	6.18	2.13	***	1.29	**
NS-SEC								
Higher managerial and professional	1.07	1.66	1.34	2.37	0.27	*	0.70	
Lower managerial and professional	1.47	1.84	2.17	3.32	0.70	***	1.48	***
Intermediate occupations	2.60	3.18	2.97	3.96	0.37		0.79	
Small employers and own account workers	1.20	2.02	2.07	2.93	0.86	***	0.91	
Lower supervisory and technical	2.42	4.84	3.40	4.27	0.98	***	-0.57	
Semi-routine occupations	4.42	5.59	5.54	7.31	1.12	***	1.72	*
Routine occupations	5.17	4.80	6.28	7.16	1.11	***	2.36	**
Never worked, unemployed, and nec	11.31	12.19	18.98	17.43	7.66	***	5.24	***
Housing Tenure								
Owned outright	3.05	2.79	4.54	5.24	1.49	***	2.45	***
Being bought with mortgage or loan	2.50	2.72	3.65	4.34	1.15	***	1.62	***
Social Housing	9.71	11.40	14.75	13.50	5.03	***	2.10	***
Individual private landlord	6.49	4.99	8.02	6.57	1.53	***	1.58	***
Other	4.08	3.35	5.02	4.20	0.94		0.84	
Sexual identity								
No	2.28	2.82	3.53	4.21	1.25	***	1.38	***
Yes	3.12	0.96	3.33	2.21	0.21		1.26	

Source: authors calculations using Annual Population Survey

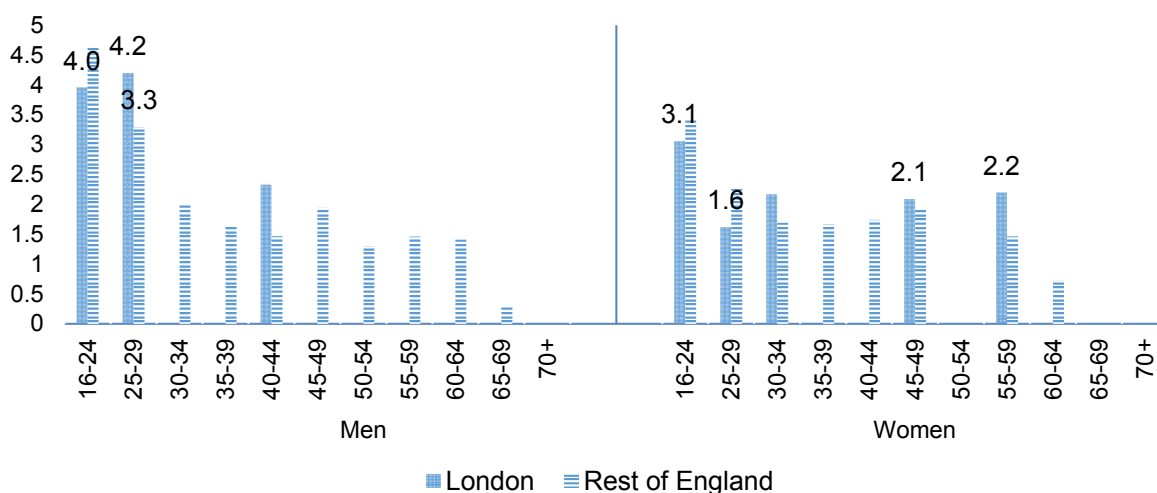
Notes:

1. ***, **, * indicates significance at 1, 5 and 10 percent significance level
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).
3. The APS / LFS sexual identity variable is restricted and couldn't be accessed in the current project. Comparisons here are limited to the population of couples and are based on a survey question which asks individuals if they are same sex cohabiters.

Changes in unemployment by age and gender

Young adults were particularly affected by the rise in unemployment in London (as in the rest of the country). Indeed, the increase in ILO unemployment amongst males aged 25-29 was even greater in London than in the rest of the country. As **Figure 8** shows, amongst males aged 25-29 there was a 4.2% increase in London compared with a 3.3% increase elsewhere. However amongst men aged 16-24, there was a 4% rise in London compared with a 5% rise in the rest of England. Males aged 40-44 also experienced a significant rise 2.3%. The rise in ILO unemployment amongst females was less marked than amongst men in both London and the rest of the country. In London, there was a 3.1% increase for females aged 16-24 and a 1.6% increase amongst females aged 25-29. Females aged 45-49 and 55-59 experienced rises of 2.1 and 2.2% respectively.

Figure 8: Change in the percentage of the working age population classified as ILO unemployed, 2007/08-2012/13, by age and gender – London & rest of England (percentage points, statistically significant changes only)



Source: authors calculations using Annual Population Survey.

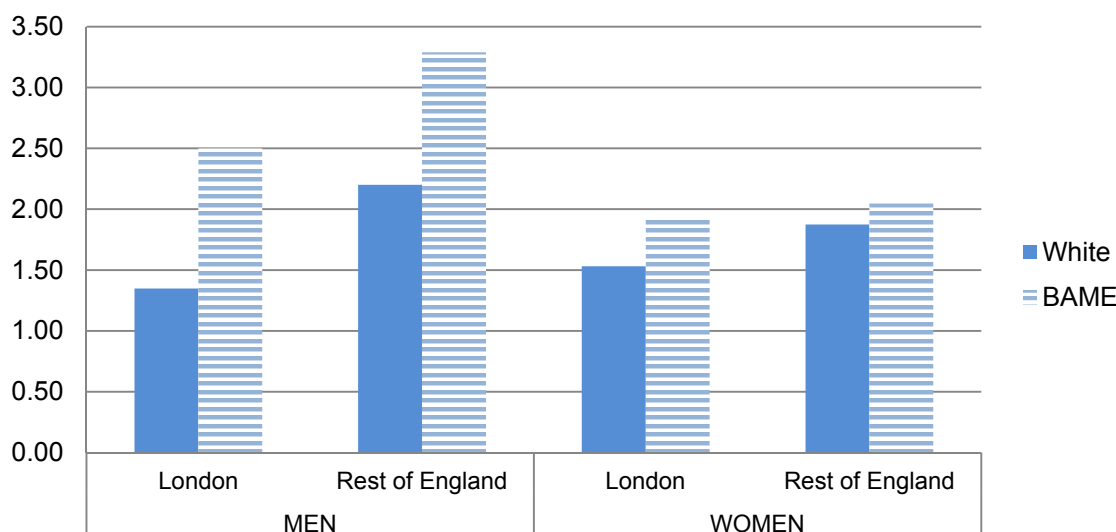
Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Changes in unemployment in London: by ethnic group

As noted above, Table 4 shows that there were substantial variations in experiences of unemployment in London by ethnic group in both 2007/8 and 2012/13. We report below on change between these years using the more fine-grained ethnicity classification used in Table 4 (which is based on ten ethnic subgroups). However, whilst this finer grained ethnicity analysis is preferable, numbers for some subgroups in London can be smaller than is necessary to produce statistically reliable estimates. We therefore begin by looking at overall trends based on a broad distinction between those from White ethnic groups and those from Black, Asian or Minority Ethnic (BAME) groups. This broad-based analysis shows a statistically significant increase in unemployment amongst BAME groups for both men and women. Furthermore, this increase was more substantial than for those from White ethnic groups amongst men in both London and the rest of the country, and amongst women within London (**Figure 9**).

Figure 9: Change in the percentage of the working age population classified as ILO unemployed 2007/08-2012/13, by ethnicity (White v BAME) - London & rest of England (percentage points, statistically significant changes only)



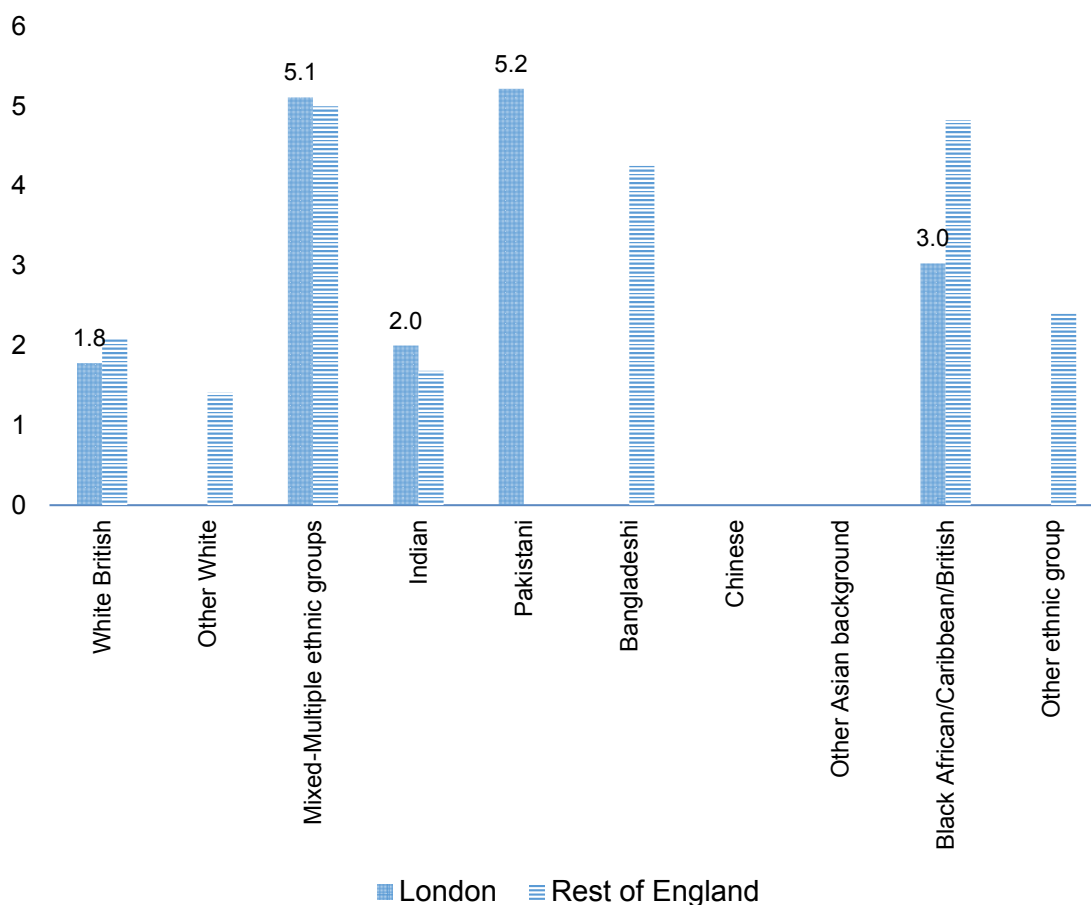
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Finer grained analysis by ethnicity suggests that unemployment in London particularly affected the Pakistani and Mixed ethnic groups. Individuals from the Black African / Caribbean / British ethnic groups also experienced above average increases. Based on a 10 category ethnic group breakdown (for men and women combined), the increase amongst the White British group was 1.8 percentage points. This compared to an increase experienced of 3.0 percentage points amongst the Black/African/Caribbean /British group; of 5.1 percentage points amongst the Mixed/Multiple ethnic group; and of 5.2 percentage points amongst the Pakistani ethnic group (**Figure 10**).

Figure 10: Change in the percentage of the working age population classified as ILO unemployed 2007/08-2012/13, by ethnicity (10 category) - London & rest of England (percentage points, statistically significant changes only)



Source: authors calculations using Annual Population Survey.

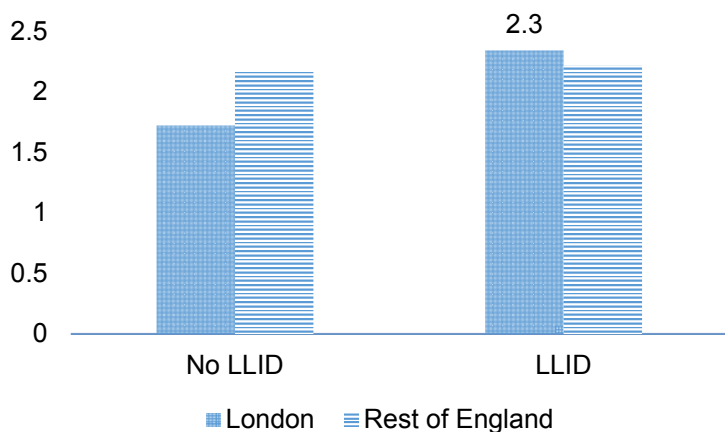
Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be **16-59** for women and **16-64** for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Changes in unemployment in London: by disability status

Strict comparisons by disability over time should only be made with caution since a change in the Labour Force Survey / Annual Population Survey disability question has occurred (on which, see the Appendix 1). Subject to these caveats, best estimates suggest that increases in unemployment were particularly marked in London amongst people who experience a LLID (limiting longstanding illness or disability); and that this increase was particularly high for men with disabilities. Unemployment amongst men who experience a disability increased by 2.9 percentage points in London compared with 2.1 percentage points in the rest of England. Amongst women in London there was no statistically significant change amongst individuals who experience a disability was not significant (whereas in the rest of England there was a statistically significant 2.3 percentage point rise (**Figure 11** and **Figure 12**)).

Figure 11: Change in the percentage of the working age population classified as ILO unemployed 2007/08- 2012/13, by disability status– London & rest of England (percentage points, statistically significant changes only)

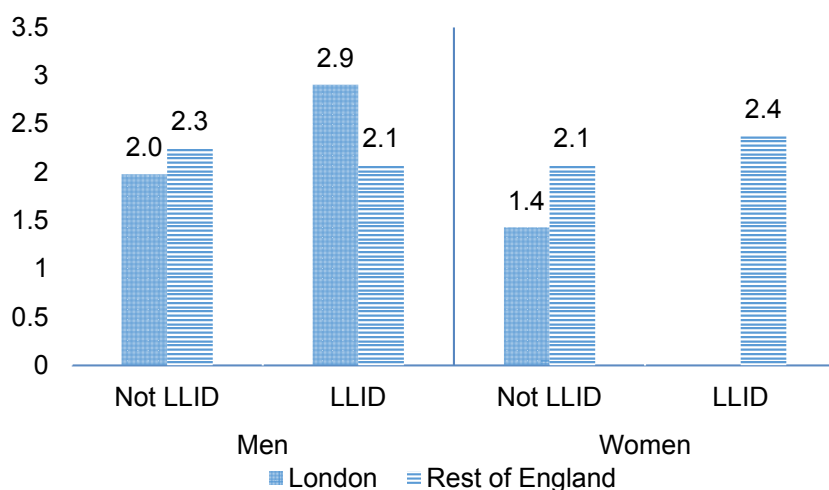


Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Figure 12: Change in the percentage of the working age population classified as ILO unemployed 2007/08-2012/13, by disability status and gender – London & rest of England (percentage points, statistically significant changes only)



Source: authors calculations using Annual Population Survey.

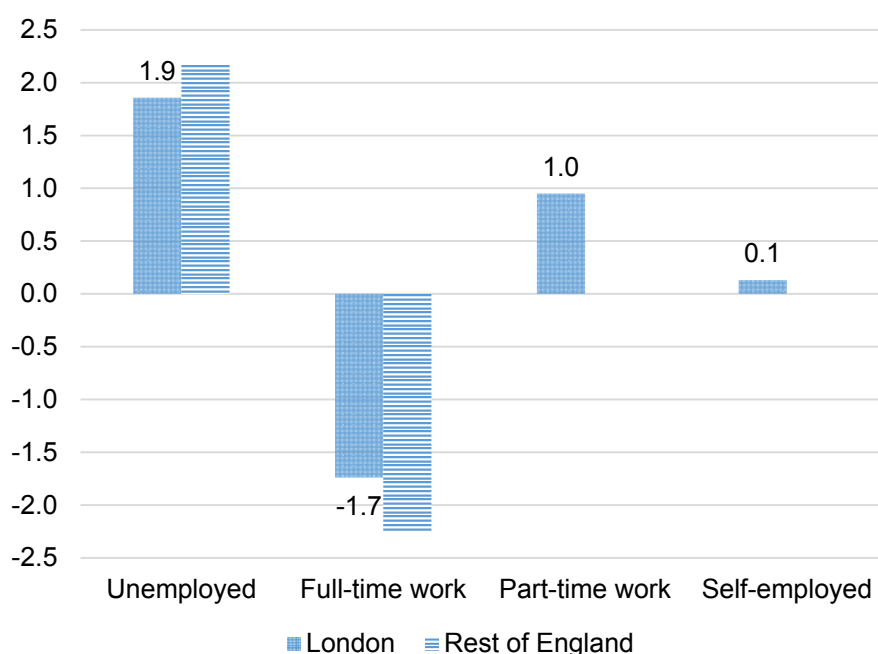
Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be **16**-59 for women and **16**-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

The shift towards part-time work and self-employment

There has been much discussion about the increase in part-time work and self-employment over the period of the recession and downturn. These increases have been particularly pronounced in London. Indeed, as **Figure 13** shows, the increases in part-time work and self-employment were statistically significant in London, whereas in the rest of the country (on average) they were not. Looking at participation in part-time work and self-employment in the capital by gender, the rates went up for both men and women in the capital. The increase in part-time work was statistically significant for men but not women. Conversely, the increase in self-employment was statistically significant for women but not men.

Figure 13: Changes in work status amongst the working age population in London & rest of England, 2007/08 to 2012/13 (percentage points, statistically significant changes only, men and women combined)



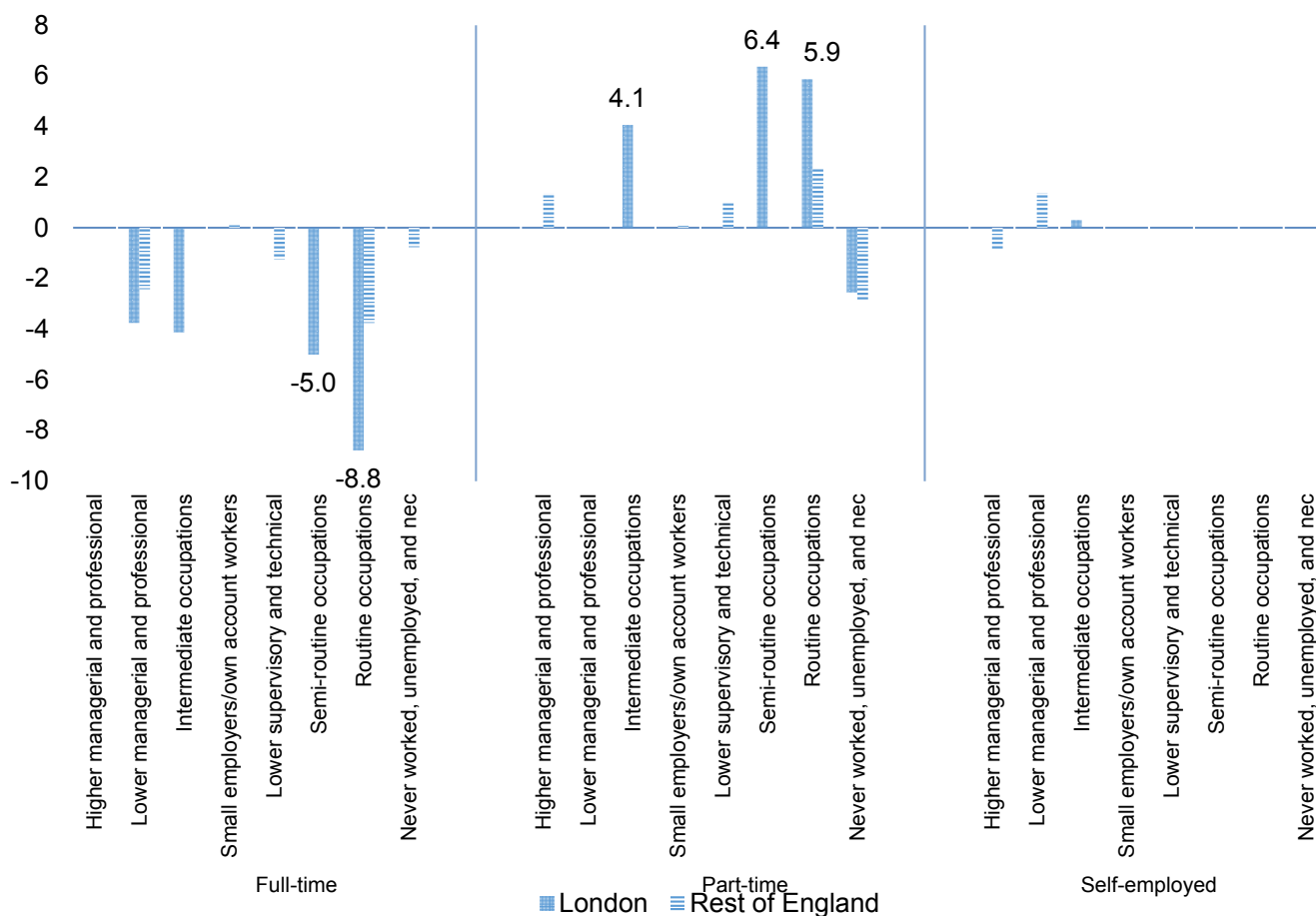
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be **16-59** for women and **16-64** for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

The increases in part-time employment in London were particularly notable in lower skilled jobs. Amongst semi-routine and routine workers there were falls in full time working of 5 and 9 percentage points respectively whilst part-time working increased by 6 percentage points for both occupational groups (**Figure 14**).

Figure 14: Change in employment status within the working age population 2007/08- 2012/13, by socioeconomic group – London & rest of England (percentage points, statistically significant changes only)



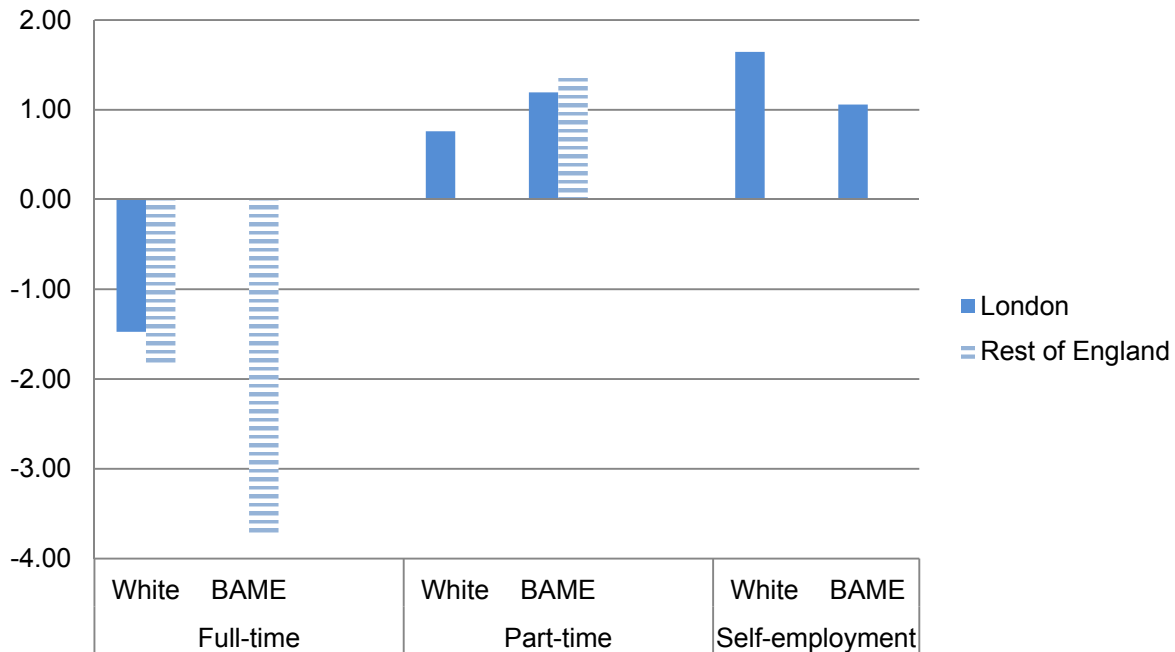
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Analysis by ethnicity suggests there were pronounced increases in part-time work amongst individuals from BAME groups both in London and in the rest of Englandⁱ. In London, there were also substantial increases in self-employment amongst both White and BAME groups. There was a somewhat smaller increase in self-employment amongst BAME groups in the rest of the country (**Figure 15**).

Figure 15: Change in employment status amongst the working age population 2007/08 to 2012/13 by ethnicity (White v BAME) (percentage points, London & rest of the country, statistically significant changes only)



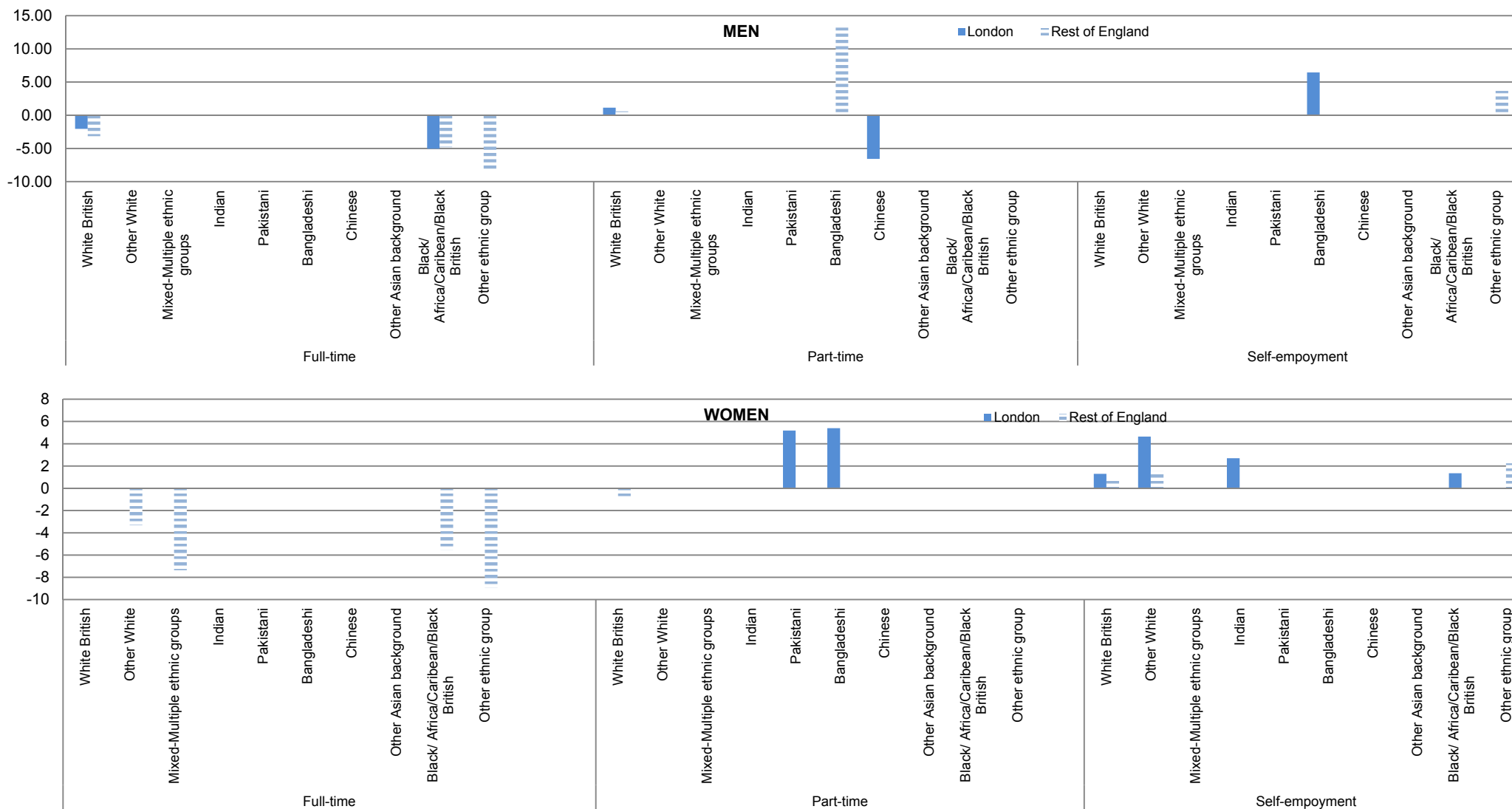
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

More fine-grained analysis by ethnicity suggests that increasing rates of part-time employment were particularly notable amongst Pakistani and Bangladeshi women in London (**Figure 16**).

Figure 16: Change in employment status amongst the working age population by ethnicity (10 categories), 2007/08 to 2012/13, (percentage points, London & rest of the country, statistically significant changes only)



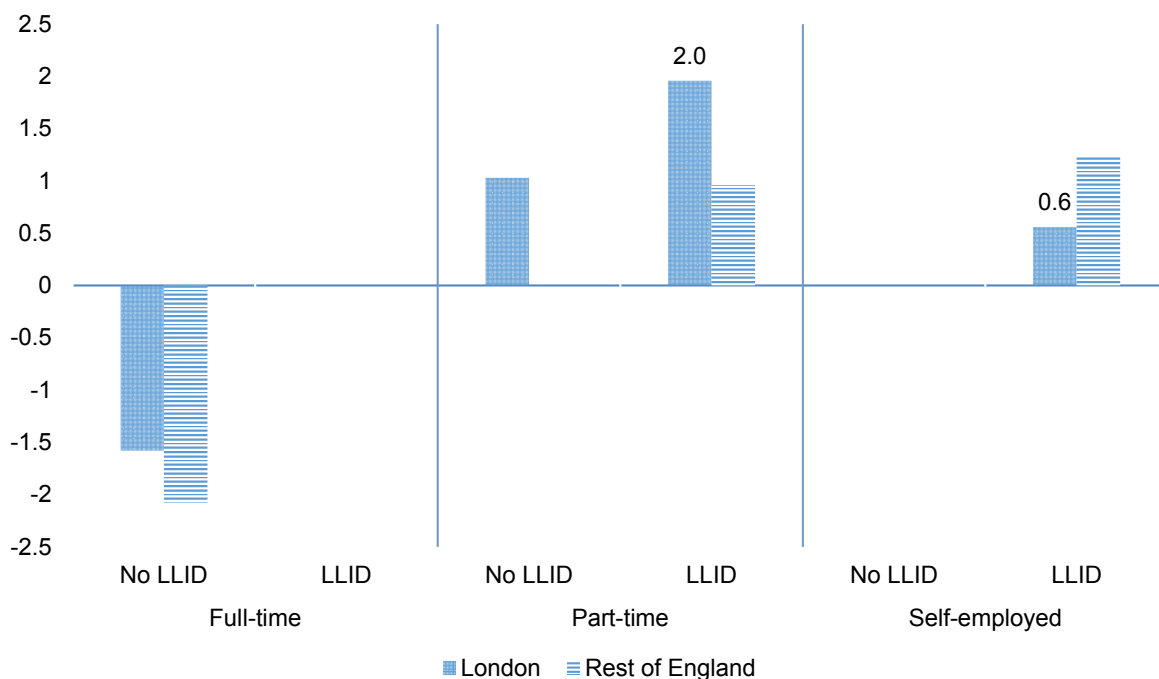
Source: authors calculations using Annual Population Survey.

Note:
 1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).

2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 20)

Strict comparisons by disability over time should only be made with caution since a change in the Labour Force Survey / Annual Population Survey disability question has occurred (on which, see Appendix 1). Here, we provide best estimates for 2007/8 and 2012/13. However, subject to these caveats, our analysis also provides evidence that the shift towards part-time employment in London has disproportionately affected individuals in London who experience a LLID. From the best estimates available, it appears that in London there was a marked 2.0 percentage point increase in part-time employment and a 0.6 percentage point increase in self-employment amongst individuals who experience disabilities. For those who do not experience a disability, there was a significant but smaller increase in part-time working and no significant change in self-employment. Further research into this finding and the nature of the underlying transitions would be particularly illuminating (Figure 17).

Figure 17: Change in employment status amongst the working age population 2007/08-2012/13, by disability status – London & rest of England (men and women combined, percentage points, statistically significant changes only)



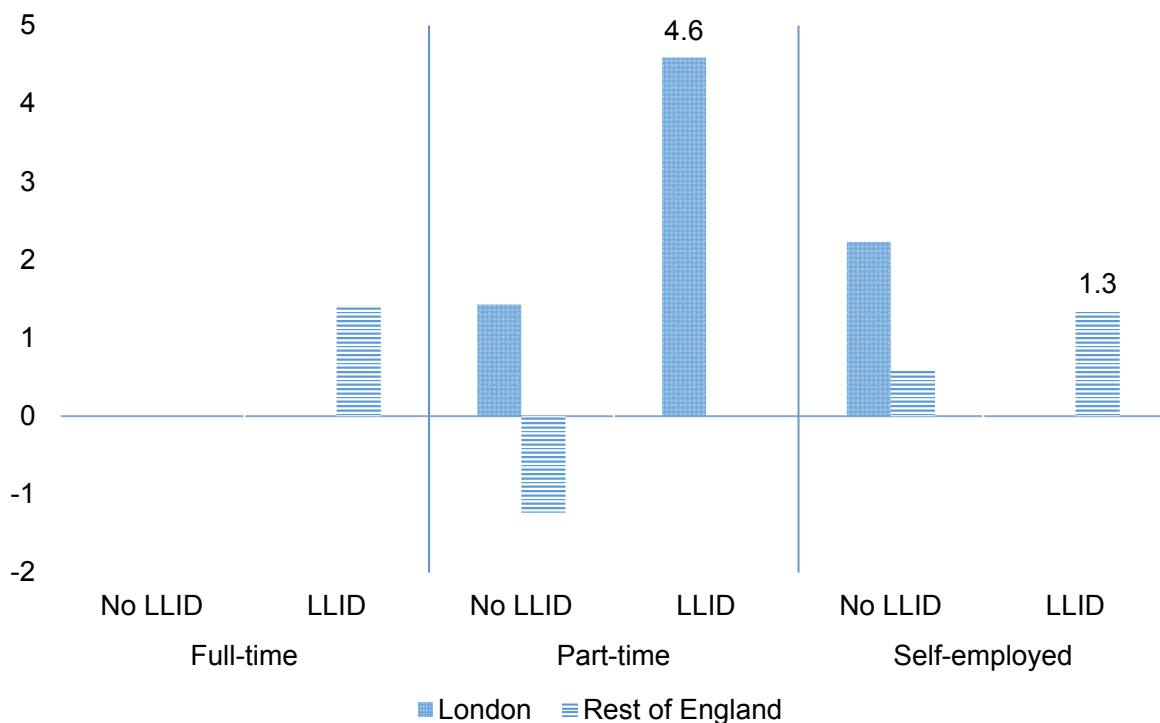
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

The trends towards part-time work appears to be particularly marked for women with disabilities in London. Based on best estimates and the caveats highlighted above, there appears to have been an increase in part-time employment amongst women who experience disabilities in London of around 4.6 percentage points. There was no statistically significant increase for women with disabilities in self-employment in London whereas in the rest of the country there was a 1.3 percentage point increase. However, statistical insignificance could be driven by low sample size (Figure 18).

Figure 18: Change in employment status amongst the working age population 2007/08 to 2012/13, females, by disability status - London and the rest of England (percentage points, statistically significant changes only)



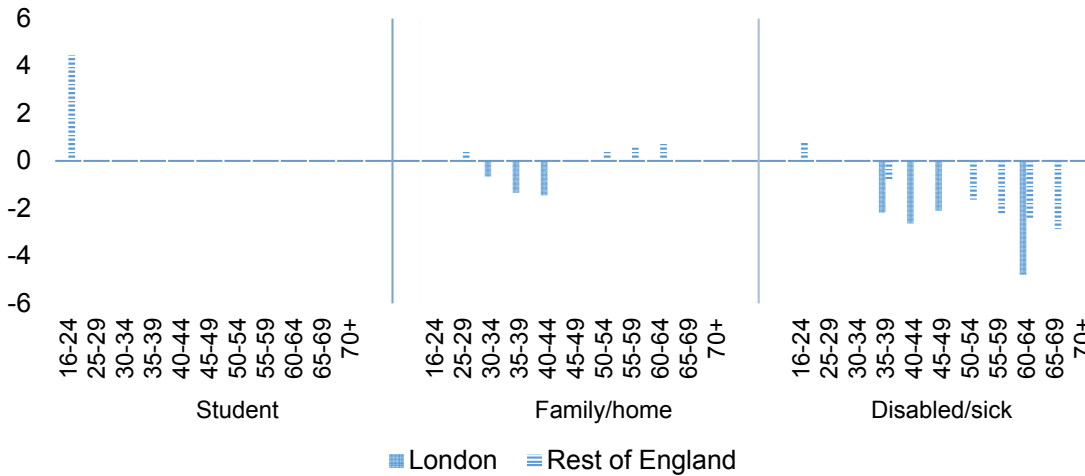
Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. See appendix for further details of the identification of the population with disabilities.
3. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

Whilst there was no significant change in full time working amongst individuals who experience a LLID in London, there was an increase in full time working amongst this group in the rest of England. Inactivity rates in London among disabled or long-term sick decreased significantly (by 0.8% overall) with notable decreases for men in London aged 30-34, 40-4, 45-49 and 60-64 (**Figure 19**) and women aged 35-39 and 55-59.

Figure 19: Change in inactivity amongst the working age population 2007/08-2012/13, males, by age - London and the rest of England (percentage points, significant changes only)

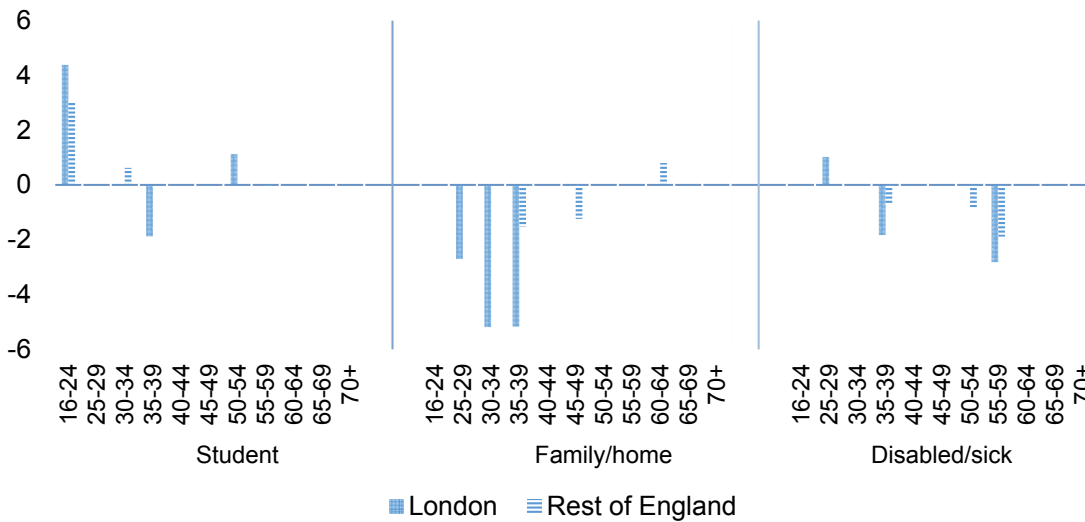


Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population (16-59 for women and 16-64 for men)

Figure 20: Change in inactivity amongst the working age population 2007/08-2012/13, females, by age - London and the rest of England (percentage points, significant changes only)



Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population (16-59 for women and 16-64 for men)

4. Weekly earnings and hourly wages

In this section, we report on earnings and wages using the Annual Population Survey (based on the Labour Force Survey). Earnings and wages are expressed in 2013 prices and have been adjusted by the Consumer Prices Index (CPI). We have used APS rather than LFS for the analysis in order to take advantage of the regional boost samples in APS (which increases sample size for London both overall and by subgroup)⁸.

As is established elsewhere, different surveys, in particular the Labour Force Survey and the Annual Survey of Hours and Earnings (ASHE), provide different estimates of earnings and wages. The Labour Force Survey is often thought to underestimate wages compared to ASHE at the bottom of the distribution and estimates of real wages are sometimes viewed as most reliably made using the Annual Survey of Hours and Earnings which is based on HMRC PAYE records / employer provided information. On the other hand, some groups of more casual workers might be better sampled using the LFS and ASHE does not cover individuals who are under the National Insurance threshold. This could affect estimates at the bottom end of the distribution. Estimates of earnings and wages at the top end of the distribution also differ between the two surveys. There may also be differences in estimates of the relative declines in the magnitude of the decline in earnings and wages in London compared with the rest of the country, affecting assessments of broad patterns of convergence and divergence. Broad comparisons are provided in Appendix 2. For further discussions of the differences, see, for example, Cribb and Joyce (2014) and ONS (2014). In the current analysis, the main reason for using APS/LFS as a basis for our analysis is that ASHE does not support disaggregation by the full range of characteristics covered in this report.

As Cribb and Joyce (2014) and ONS (2014) both note, the big picture of falls in real wages and earnings in the post-recession period is robust to different measures and surveys. On inequalities, Cribb and Joyce (2014) find that, based on ASHE analysis over the period 2008 to 2014, earnings inequality narrowed. Falls at the top of the wage distribution at the national (UK) level were greater than those at the bottom by a considerably margin. This was driven by the pattern after 2011, where falls at the top end of the distribution were particularly marked. The protective role of the minimum wage at the bottom of the distribution has been highlighted in this context, with the minimum wage falling less in real terms than wages further up the distribution (Kelly 2015)⁹.

Our national findings based on APS/LFS also suggest substantial falls in real weekly earnings and hourly wages over the period 2007/8-2012/13. At the all England level, we find larger falls at the top of the distribution than at the bottom of the distribution for earnings (combined full time and part-time, covering both men and women) with overall earnings inequality declining as a result. In relation to wages at the all England level, we find little change in inequality, with similar decreases at the top and bottom of the distribution. However, Hills et al (2015) report that when looking at different groups separately in the UK as a whole over the period 2006/8-2013, inequality increases for some groups.

⁸We report on earnings and wages using the Annual Population Survey (based on the Labour Force Survey). We have used APS rather than LFS for the analysis in order to take advantage of the regional boosts in APS (which increases sample size for London both overall and by subgroup). Earnings and wages are expressed in 2013 prices and have been adjusted by the Consumer Prices Index (CPI). Figures in this section are based on the population of employees without further age restrictions unless indicated.

⁹ See Gavin Kelly quoted in the Guardian 20th January <http://www.theguardian.com/business/2015/jan/30/british-wage-slump-post-financial-crisis-uk> accessed 3 March 2015.

For example, there is a small increase in full time weekly earnings inequality in the UK for men and women (Hills et al 2015: table 2.2; and **Figure 1** this report). Small increases in inequality are observed in the context of hourly wages (for full and part time employees combined, men and women combined (Hills et al 2015: table 2.1) and, within this, wage inequalities for part time employees were more pronounced.

Looking at trends in the capital separately, we find that over the period 2012/13 gross weekly earnings (both full and part time) and hourly wages (both full and part time) fell considerably in London (as in the rest of the country). For full time employees, the overall falls in gross weekly earnings at the mean, median and other points in the distribution were smaller in percentage point terms in London than in the rest of the country. Nevertheless, the declines were substantial across most of the distribution in London, and particularly at the bottom end. The falls at the 90th percentile were notably smaller than in the rest of England.¹⁰

Table 5: Percentage change in gross weekly earnings 2007/08- 2012/13, full-time employees, London and the rest of England (£ at 2013 prices using the CPI)

London								
Mean	sign.	10th	20th	30th	50th	70th	90th	90:10 ratio
-7.88%	***	-7.93	-6.08	-5.78	-3.70	-6.88	-0.37	8.21
Rest of England								
Mean	sign.	10 th	20th	30th	50th	70th	90th	90:10 ratio
-6.34%	***	-8.02%	-8.65%	-7.61	-6.57	-7.09	-6.25	1.93

For part time employees, declines in gross earnings in London were smaller at the bottom of end of the distribution in London than elsewhere in England. However, at the median and the top of the distribution they were more pronounced in London.

Table 6: Per cent change in gross weekly earnings between 2007/08 and 2012/13, part-time employees, London and the rest of England, (£ at 2013 prices using the CPI)

London								
Mean	sign.	10th	20th	30th	50th	70th	90th	90:10 ratio
-3.41	***	-4.08	-0.03	-2.47	-7.33	-4.46	-2.77	1.37
Rest of England								
Mean	sign.	10 th	20th	30th	50th	70th	90th	90:10 ratio
-1.63	***	-5.60	-2.42	-4.64	-5.00	-3.31	-0.98	4.90

¹⁰ Estimates of the relative magnitude of the declines in earnings and wages in London compared to the rest of the country may be different in ASHE and LFS. See Appendix 2 for further details.

FT (2015) highlights a narrowing of the pay gap between April 2008 and April 2014. London is found to have been “squeezed” more than the rest of the UK, challenging the picture of London becoming more “different” to the rest of the country. The finding is based on ASHE data but reproduced using the LFS¹¹ and are reported for all employees (full time and part time) and for men and women combined.

Based on a similar comparator group (that is, all employees and for men and women combined) and the LFS/APS 2007/8 to 2012/13 window, we find the difference in gross weekly earnings between London and rest of England falling over the period considerably across the distribution, with falls in the gap at the 50th percentile (media) from £160 a week to £149 a week (**Table 6**). The percentage changes are observed to be bigger in London than the rest of the country at the mean (9.3% fall compared with a 6.2% fall in the rest of the country), at the 10th percentile (a fall of 9.8 % in London compared with 3.7 % in the rest of the country) and the 30th percentile. Similar falls are observed at the median in London and the rest of the country, whilst the slightly larger falls are observed in the rest of England than London at the upper end of the distribution (**Table 7**).

Table 6: Difference in gross weekly earnings between London and rest of England at percentile points (all employees, men and women, £ at 2013 prices using the CPI)

2007/08								
Mean	sign.	10th	20th	30th	50th	70th	90th	90:10 ratio
£208.39	***	£43.94	£83.55	£112.84	£160.15	£208.16	£402.19	0.38
2012/13								
Mean	sign.	10 th	20th	30th	50th	70th	90th	90:10 ratio
£173.97	***	£32.46	£67.43	£92.16	£148.66	£195.20	£386.53	0.96

Table 7: Percentage change in gross weekly earnings between 2007/08 and 2012/13, all employees at percentile points, London and the rest of England, (£ at 2013 prices using the CPI)

London								
Mean	sign.	10th	20th	30th	50th	70th	90th	90:10 ratio
-9.29	***	-9.74	-10.70	-10.31	-7.07	-6.48	-5.15	5.08
Rest of England								
Mean	sign.	10 th	20th	30th	50th	70th	90th	90:10 ratio
-6.24	***	-3.69	-7.20	-7.06	-7.03	-6.57	-5.70	-2.08

As Hills et al (2015) note, based on the APS/LFS, earnings dispersion in the capital increased over the period. The 90:10 ratio for weekly earnings for full time employees increased from 4.3 to 4.7

¹¹ Pay gap between London and rest of UK narrows, Financial Times March 2nd 2015, accessed March 4th 2015, <http://www.ft.com/cms/s/0/f7f0a9fc-c0fb-11e4-88ca-00144feab7de.html>

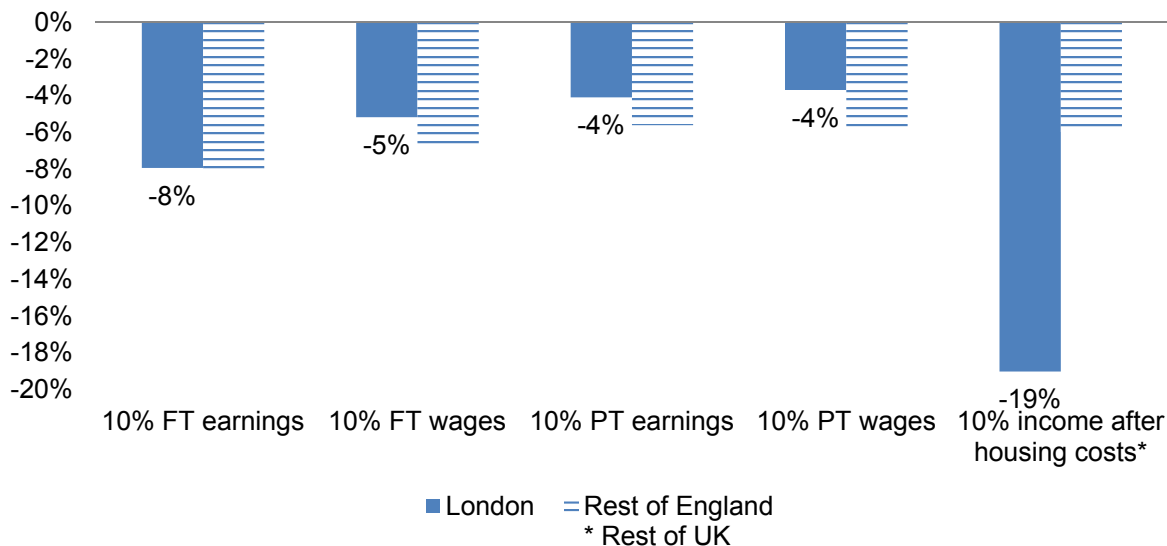
reflecting greater falls in full time weekly earnings at the bottom than at the top. The 90:10 ratios for weekly earnings for part time employees and hourly wages for full time employees were also under pressure over the period (with small increases from 7.3 to 7.4, and from 4.3 to 4.4 respectively). The 90:10 ratio for part-time hourly wages stayed stable at 4.1 (**Figure 43**).

Inequality in earnings and wages as measured by the 90:10 ratio is more unequal in London than in the rest of the country. At the end of the period, 90: 10 ratios were higher than the rest of the country for fulltime weekly earnings (a ratio of 4.7 compared with 3.9); full time hourly wages (a ratio of 4.4 compared with 3.8); and part-time hourly wages (4.1 compared with 3.6). However, the 90:10 ratio for part-time weekly earnings was lower in London than in the rest of the country in 2012/13 (a ratio of 7.4 compared with 7.8) (**Figure 43**).

Declines in earnings and wages amongst the lowest paid in London

Declines in earnings amongst the lowest paid Londoners were pronounced. At the bottom of the distribution in London, at the 10th percentile, there were considerable falls in full and part-time earnings (8% and 4% decreases), and full and part time wages (5% and 4% decreases) as in the rest of the country. Whilst these falls were not of the same magnitude as the fall in net weekly equivalised household income after housing costs in London (a 19% decrease), these were nevertheless substantial (**Figure 21**).

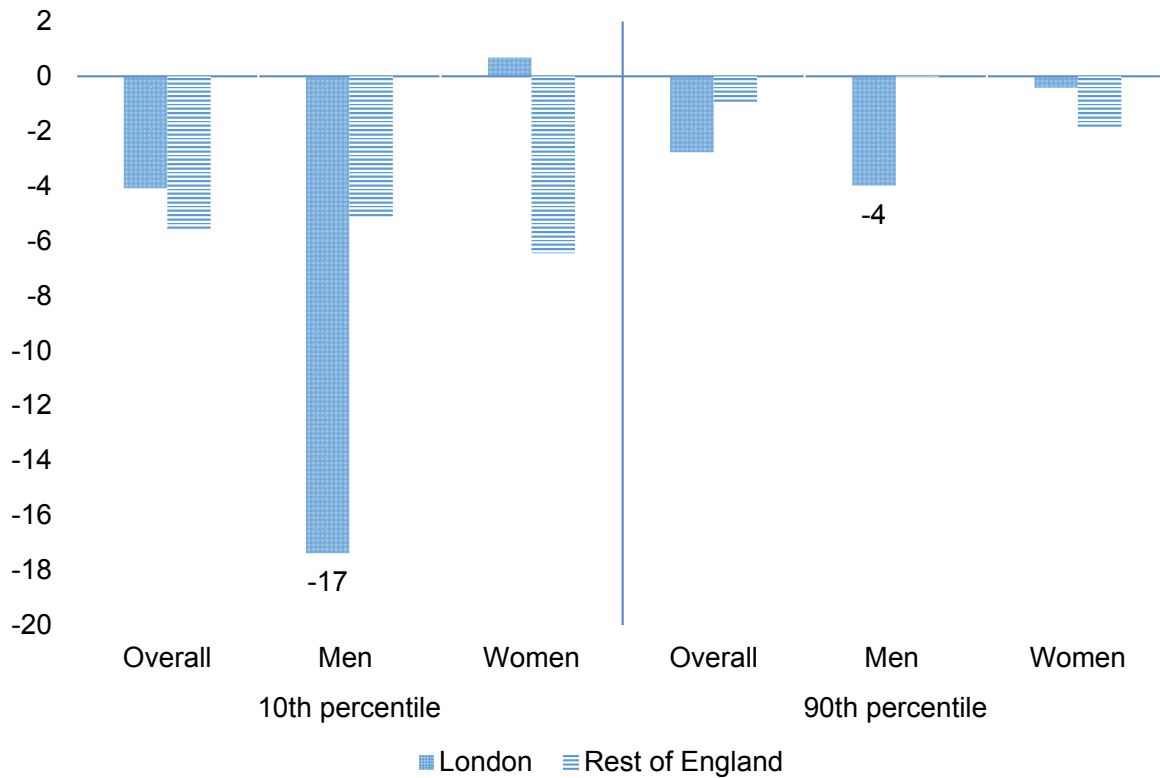
Figure 21 Summary of changes in 10th percentile earnings, wages and incomes in London & rest of England, 2007/08 to 2012/13 (percent change)



Source: authors calculations using Annual Population Survey.
Note: See source tables for relevant notes.

Looking at the 10th percentile in London by gender, men experienced a 17% fall in part-time earnings whereas women experienced a small increase. At the upper end of the distribution, men at the 90th percentile in London also experienced a substantial decline of 4%. Part-time earnings for women at the 90th percentile also declined (**Figure 22**).

Figure 22: Change in real weekly earnings for part-time employees at the 10th and 90th percentiles, 2007/08 to 2012/13, overall and by gender – London & rest of England, percent change)



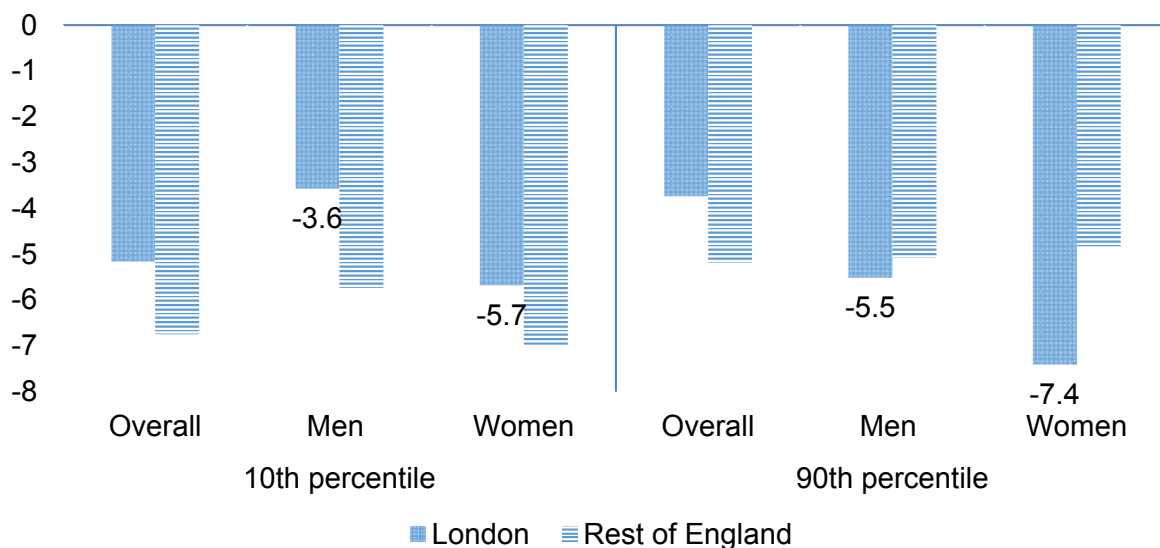
Source: authors calculations using Annual Population Survey.

Note:

1. Values at percentile points are reported if the unweighted base is above a given threshold. See appendix 1 for further details.
2. Figures cover all part-time employees with no age restriction
3. 2013 prices, adjusted using CPI

For men and women combined, in London as well as in the rest of the country, declines in hourly full-time wages were substantial at both the bottom and top of the distribution. In London, there were falls at the 10th percentile of 4% of men and 6 % for women. The falls at the 90th percentile were even greater (5% for men and 7% for women) (**Figure 23**).

Figure 23: Change in real hourly wages for full time employees at the 10th and 90th percentiles 2007/08 to 2012/13, overall and by gender – London & rest of England, percentage change



Source: authors calculations using Annual Population Survey.

Note:

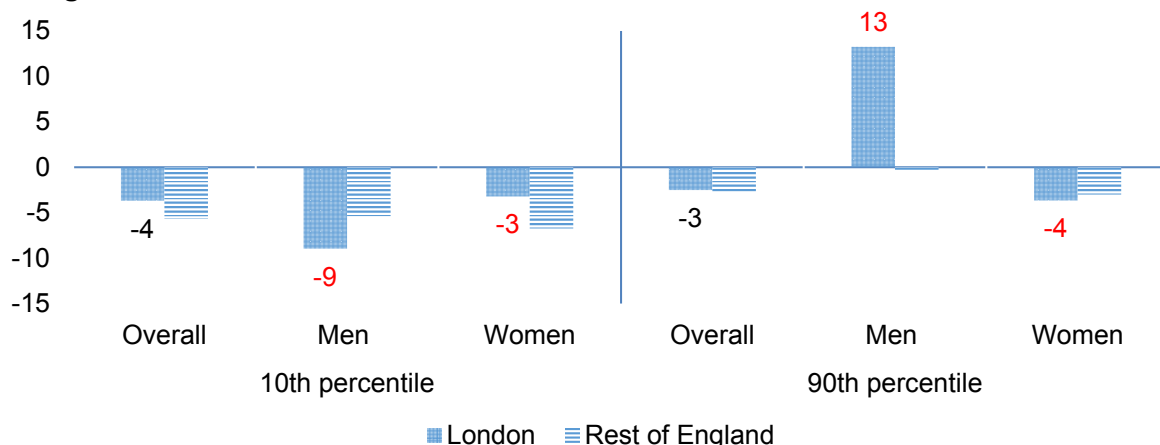
1. Values at percentile points are reported if the unweighted base is above a given threshold. See appendix 1 for further details.

2. Figures cover all full time employees with no age restriction

3. 2013 prices, adjusted using CPI

A somewhat different pattern in changes in hourly part time wages in London is observed. At the 10th percentile, men experienced falls of 9% compared with 3% falls for women. At the 90th percentile, part time wages for men actually increased by 13% whilst women experienced a 4% decline.

Figure 24: Change in real hourly wages for part time employees at the 10th and 90th percentiles 2007/08 to 2012/13, overall and by gender – London & rest of England, percent change



Source: authors calculations using Annual Population Survey.

Note:

1. Values at percentile points are reported if the unweighted base is above a given threshold. See appendix 1 for further details.

2. Figures cover all part-time employees with no age restriction

3. 2013 prices, adjusted using CPI

Percentage of Londoners with hourly wages below the London Living Wage

A growing body of research focusses on the impact of national minimum wage legislation as well as on low pay in London and the policy challenges associated with the London Living Wage (e.g. Manning 2012, Wilson et al 2013, Martit 2014, Hoffman 2014, Levy 2015). Here, we focus on inequalities analysis and variations in the percentages in London living below the living wage thresholds by equality characteristics such as ethnic group and disability¹². Changes in patterns between 2007/8 and 2012/13 are also reported using the thresholds specified in **Table 8**.

As noted in footnote 5, we base the analysis of wages in this report on data from the Annual Population Survey (based on Labour Force Survey). However, these surveys produce different wage estimates (summarised in Appendix 2) and these differences result in different estimates of the percentage living below living wage thresholds. Restrictions are also imposed in some analyses based on ASHE on the population of young adults in low pay analysis (for example, eligibility for adult wages) that are not applied in our analysis (again, see Appendix 2 for details).

Living wage data for 2012/13 based on LFS are also reported in Wilson et al (2013). Whilst the differences in the results presented here and these findings are smaller than differences with those based on ASHE, there are smaller differences that should be noted. These are likely to be accounted for by methodological differences (e.g. exclusions of students from Wilson et al (2013); differences in the precise quarters of LFS which are covered (are based on April 2012-march 2013, whereas the analysis for our most recent year runs to September 2013 (with the exception of disability); and our use of the APS (which includes London boost samples).

In addition, differences with both results based on ASHE and previous analyses based on LFS may be accounted for by differences in the living wage thresholds applied. We have applied the £8.80 threshold as the relevant threshold for 2013 LFS interviews (£8.80 is referred to on the Living Wage Foundation website as the historical rate for London for 2013)¹³. However, this threshold was not announced until November 2013 and the previous threshold of £8.55 is used in a number of other analyses (Markit 2014, Wilson et al 2013).

Using the LFS and applying low pay thresholds based on the London Living Wage¹⁴, we find that there were significant increases in the percentage earning less than the London Living Wage overall (by 4 percentage points); for men and for women (2 and 6 percentage points); for full time and part time workers (3 and 5 percentage points); within inner and outer London (3 and 5 percentage points); for those who experience a LLID and those who do not (4 and 1 percentage points); for White British, Other White and Bangladeshi ethnic groups (by 3, 4 and 14 percentage points). As a result of these trends, in 2012/13, 23% of Londoners were paid at a rate less than the London Living Wage, including 27% of

¹²See footnote 5 on the use of APS/LFS rather than ASHE as a basis for this analysis.

¹³ Living Wage Foundation (website), historical data for London, available at <http://www.livingwage.org.uk/calculation> (accessed February 2015)

¹⁴ The following thresholds have been applied for LFS interviews: £8.80 for 2013 interviews; £8.55 2012 interviews; £7.45 for 2008 interviews; and £7.20 for 2007 interviews. See Table 8 for further details.

women; 25% of those from Mixed/Multiple ethnic groups; 44% of those from the Pakistani ethnic group; 47% of those from the Bangladeshi ethnic group; 31% of those from the Black / African / Caribbean / Black British ethnic group; 32% of those who are both DDA disabled and work-limiting disabled; 44% of those who self-identity as Muslims; and a staggering 50% of those working part time (**Table 8**).

Table 8: Percentage of employees in London with gross hourly wages less than London Living Wage thresholds (2007/8 and 2012/13)

	2007/08	2012/13	Percentage point change 2007/08- 2012/13	
Overall	18.54	22.52	3.98	***
Gender				
Men	15.92	18.14	2.21	**
Women	21.30	27.20	5.89	***
Age				
16-24	46.66	49.97	3.32	
25-30	14.82	23.34	8.53	***
30-34	10.62	17.13	6.51	***
35-39	12.90	16.66	3.76	**
40-44	15.32	18.96	3.64	**
45-49	17.62	20.23	2.61	
50-54	15.27	19.31	4.04	*
55-59	15.97	25.35	9.38	***
60-64	19.43	20.88	1.45	
65-69	33.01	20.43	-12.58	*
70+	33.40	40.83	7.43	
Ethnic group				
White British	13.77	16.92	3.15	***
Other White	18.50	22.62	4.13	**
Mixed-Multiple ethnic groups	19.77	24.96	5.19	
Indian	24.59	25.88	1.29	
Pakistani	33.74	43.83	10.09	
Bangladeshi	33.07	47.13	14.06	**
Chinese	18.64	25.47	6.83	
Other Asian background	40.48	34.11	-6.37	
Black/ Africa/Caribbean/Black British	24.78	30.69	5.91	**
Other ethnic group	34.45	34.76	0.32	
Disability (1)				
No LLID	18.16	22.12	3.97	***
LLID	21.43	22.00	0.57	
Disability (2)				
No LLID or working limiting disabilities	18.03	21.90	3.88	***
LLID or work limiting disabilities	21.86	23.65	1.79	

Disability (3)			
DDA disabled and work-limiting disabled	28.23	32.35	4.11
DDA disabled	15.48	19.54	4.06
Work-limiting disabled only	23.36	30.35	6.99
Not disabled	18.16	22.02	3.86 ***
Religious Affiliation			
Christian	18.09	23.38	5.28 ***
Buddhist	17.73	27.20	9.47
Hindu	28.38	28.06	-0.32
Jewish	10.37	11.07	0.70
Muslim	34.26	43.58	9.32 ***
Sikh	31.57	31.97	0.40
Any other religion	22.56	19.15	-3.41
No religion	12.65	15.03	2.38 *
By area			
Inner London	16.20	19.38	3.19 ***
Outer London	20.07	24.62	4.55 ***
Full-time/part-time status			
Full-time	12.28	14.94	2.66 ***
Part-time	44.22	49.68	5.46 ***

Source: authors calculations using Annual Population Survey.

- Notes: 1. Change refers to the percentage points change in the proportion of employees in London that earn less than the specified London Living Wage level
2. The London Living Wage in 2007 and 2008 was £7.20 and £7.45 respectively. In 2012 and 2013 the level of London Living Wage was set at £8.55 and £8.80 respectively. Individuals were assigned the relevant threshold corresponding to their interview year. The London Living Wage has recently been increased to £9.15.
3. ***, **, * indicates statistical significance at 1, 5 and 10 percent significance level.
4. Figures cover all employees with no age restriction

5. Educational achievement

Hills et al (2015) note that improvements in educational qualifications are an important backdrop to the changes in inequality observed in the post crisis and recession period. In different times, it might have been anticipated that a pattern of rapidly improving qualification levels of the working age population might have been associated with more prosperity. Instead, the decline in living standards documented in the subsections above has occurred in parallel with improving qualifications.

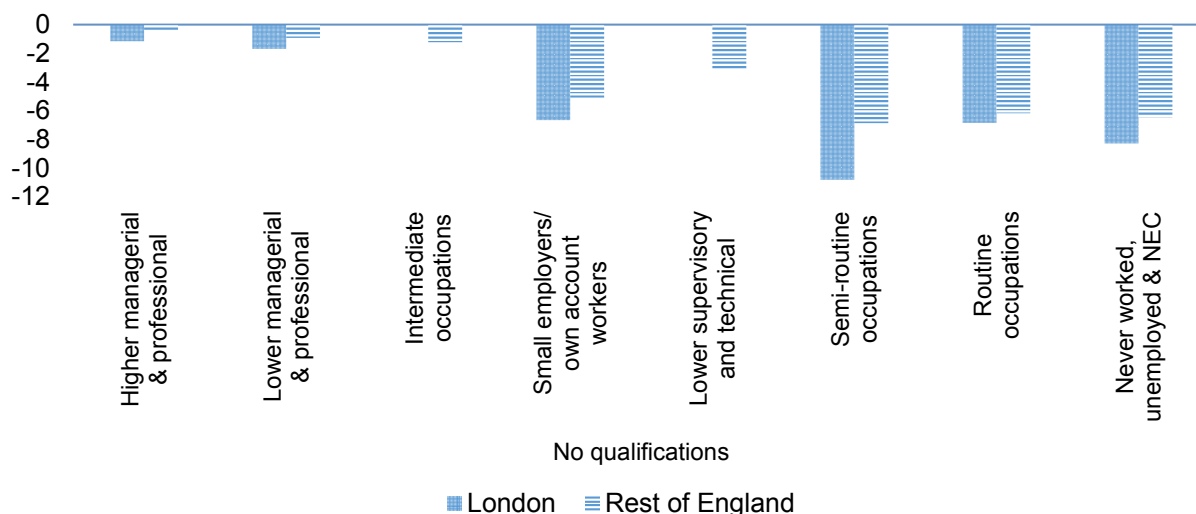
The first NEP update paper (Hills et al 2013) established that there were remarkable increases in the qualifications of the working age population (age 16 to 64 for men and 59 for women) over the period 2006/8-2012/13. These improvements were driven by the improving qualifications of successive cohorts of younger adults who displaced the less qualified population reaching state pension age each year. The improvements in the proportion of working age adults with degrees and higher degrees was particularly marked for women, who overtook men for the first time in both respects. The proportion of working age women with no or low qualifications also fell considerably and had fallen below that for men by 2010. Over the period 2006/8-2010 there were improvements in educational qualifications across the UK, but the pace of change was far greater in London than elsewhere.

Variations in highest educational qualification by socioeconomic disadvantage and ethnicity

London had, in 2007/08, a higher proportion of adults with degree and higher degrees than the rest of the country. 21% of adult Londoners had degrees and 10% had higher degrees, compared with 13% and 6% in rest of the country. The proportion of working age adults with *no* qualifications was similar in London to that elsewhere in 2007/8 (13%). However, the proportion with *low* qualifications (level 1 or below) was higher amongst Londoners than and in the country generally (11% compared with 9%).

Over the period 2007/8-2012/13, the trend towards increasing qualifications was even more marked in London than elsewhere. There was a 10 percentage point increase in those with degrees in London and a 2 percentage point increase in those with higher degrees. This compared with increases of percentage points of 1 and 4 percentage points elsewhere. At the other end of the qualifications spectrum, the proportions with no qualifications and low qualifications also fell more in London, by 5 and 3 percentage points respectively, compared with falls of 4 and 2 percentage points in the rest of the country. This included statistically significant falls substantial falls in the percentage of men with no qualifications amongst Routine, Semi-routine Occupational groups and those who have never worked / are unemployed (**Figure 25**).

Figure 25: Change in percentage with no qualifications by NS-SEC, 2008-2013, men, London and the rest of the country (in percentage points, significant falls only)



Source: authors calculations using Annual Population Survey.

Note:

1. The figure presents statistically significant differences only (where changes are significant at least at the 10 percent significance level).
2. The figures are restricted to the working age population taken to be 16-59 for women and 16-64 for men (for consistency, despite the rise in women's State Pension Age from 2010 to reach above 61 by the middle of 2013).

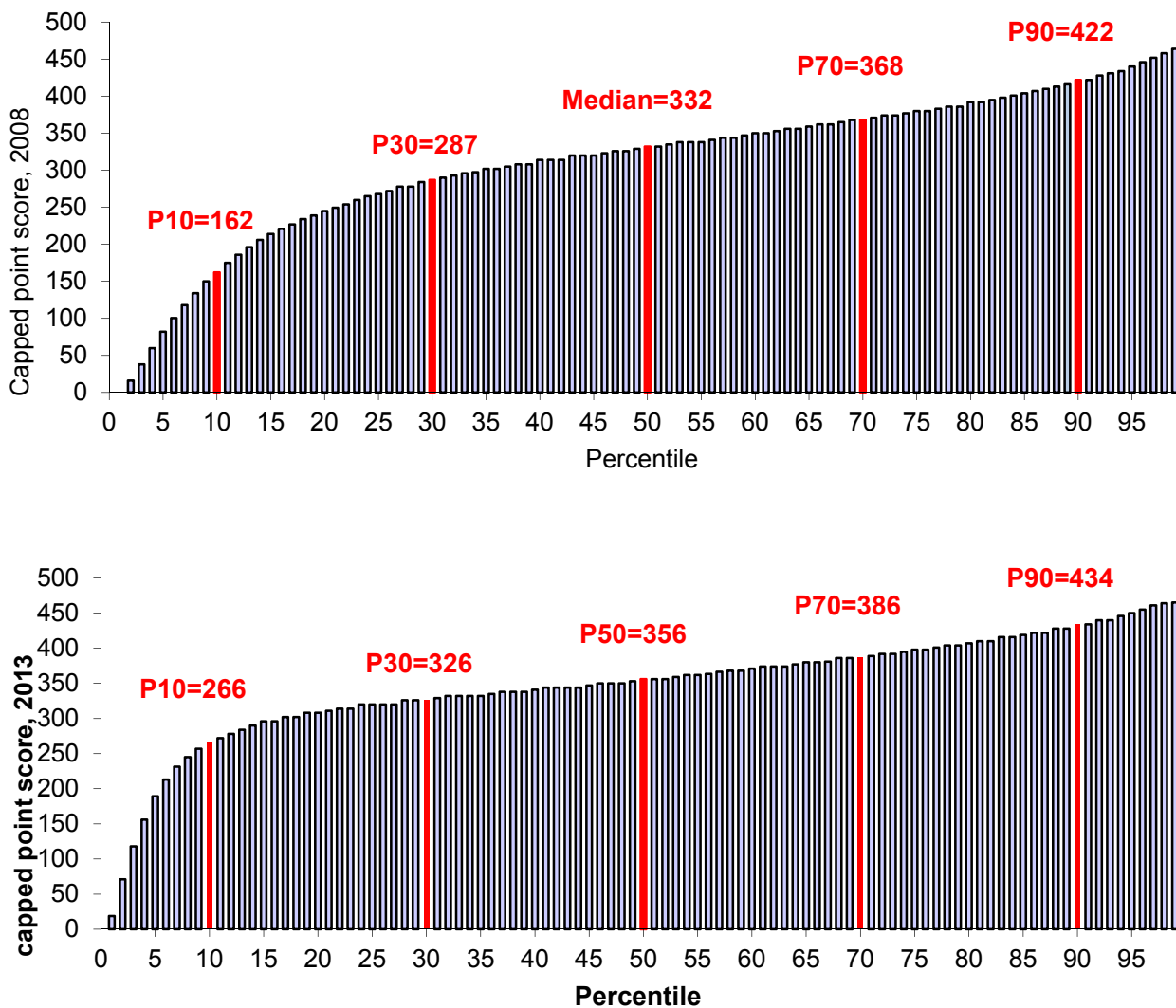
There were significant increases in the percentage of higher degrees and degrees as their highest educational qualification in the capital over the period 2007/8-2012/13 for most ethnic groups. The increases were particularly notably amongst those from the Pakistani, Bangladeshi and Black/African/Caribbean/Black British ethnic groups. The proportion with level 1 or below, or no qualifications, as their highest educational qualification also declined for all ethnic groups with notable declines amongst Pakistani, Bangladeshi and Mixed-Multiple ethnic groups.

Variations in educational achievement at Key Stage 4

Hills et al (2013) reported that there was quite a large improvement in achievement at Key Stage 4 over the period 2007-2010 in the UK as a whole – and that this was particularly for the lower tail of the distribution. By region there was an apparently dramatic rise for London boys from having a median that was behind seven other regions to having the highest regional median (although the regional differences in each year were actually very small).

Figure 26 provides information from the National Pupil Database on the capped points score at the end of Key Stage 4 in London. The capped points score is the total points score obtained by summing the best 8 GCSEs (or equivalents) using weights for different types of qualifications. The figure shows pupil outcomes in the maintained (state funded) sector at different percentile points across the distribution (a so-called 'Pen's Parade' presentation of results) in 2008 and 2013. Achievement across the distribution increased substantially over the period, but the increases at the bottom end of the distribution are particularly marked. The overall (capped) score for achievement at Key Stage 4 in London increased at the 10th percentile between 2008 and 2013 at impressive rate - from 166 to 222 points.

Figure 26: Educational achievement at key stage 4 (capped point score) in 2008 and 2013



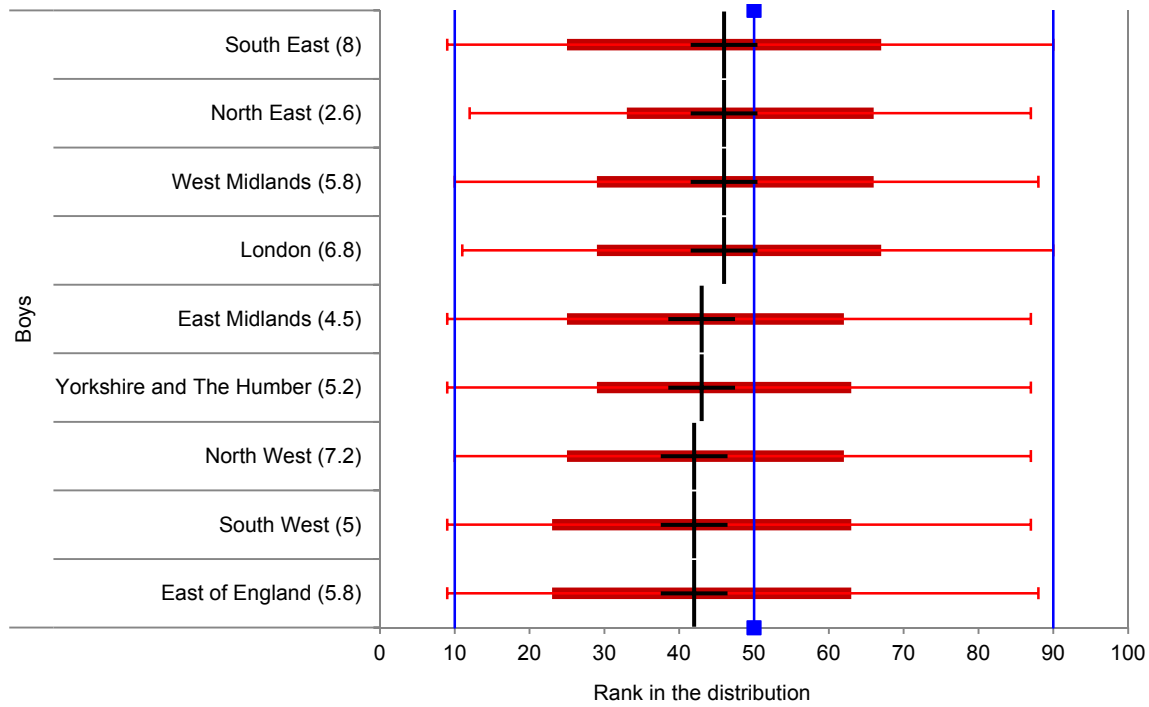
Source: authors' calculations using the 2013 National Pupil Database (provided by the Department for Education)

Note: see Appendix for details of Key stage 4 capped scores.

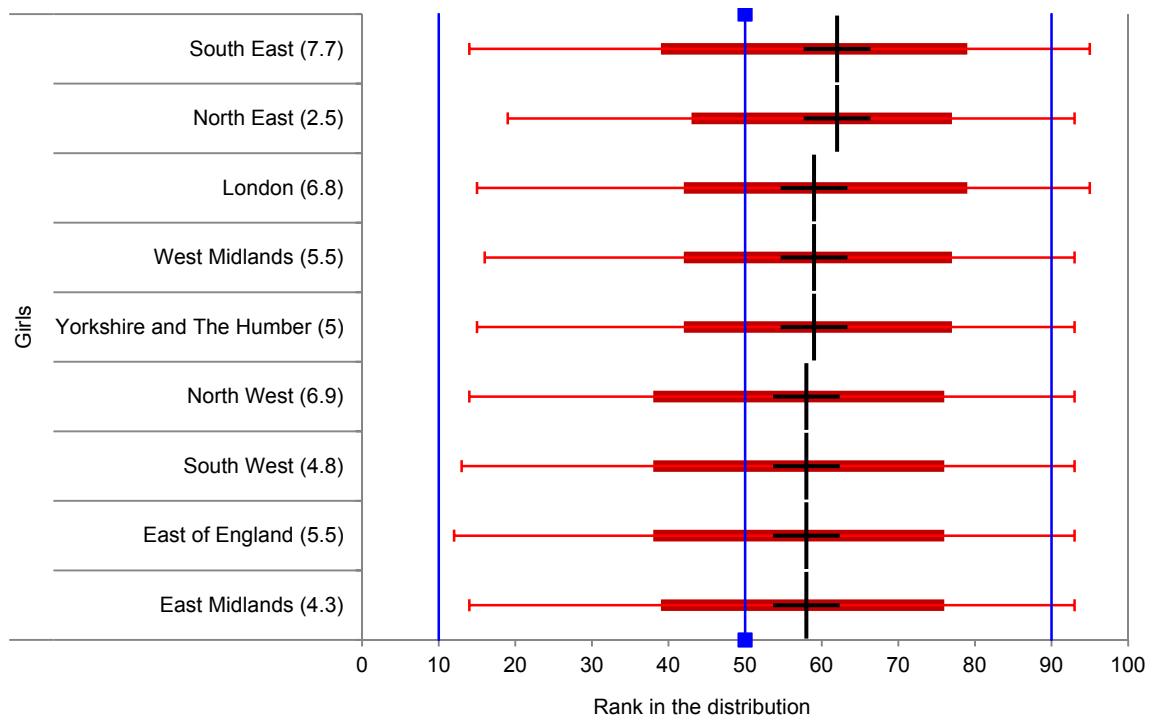
Figure 27 shows the distribution of KS4 results for boys and girls across regions in 2013, relative to the overall distribution of results in England. KS4 results for boys living in London are worse relative to the overall results in England, with most of them achieving below the national median (Figure 27). This is true for the boys across all regions in England, relative to which London is on the better end of achievement across regions together with South East, North East and West Midlands. The girls, on the other hand, are doing better in their KS4 results across all regions compared to the overall in England, with girls in London performing similarly to those in West Midlands and Yorkshire and worse than girls in South East and North East.

Figure 27 KS4 results for boys and girls by region in England (capped point score by region) 2013

a) Boys



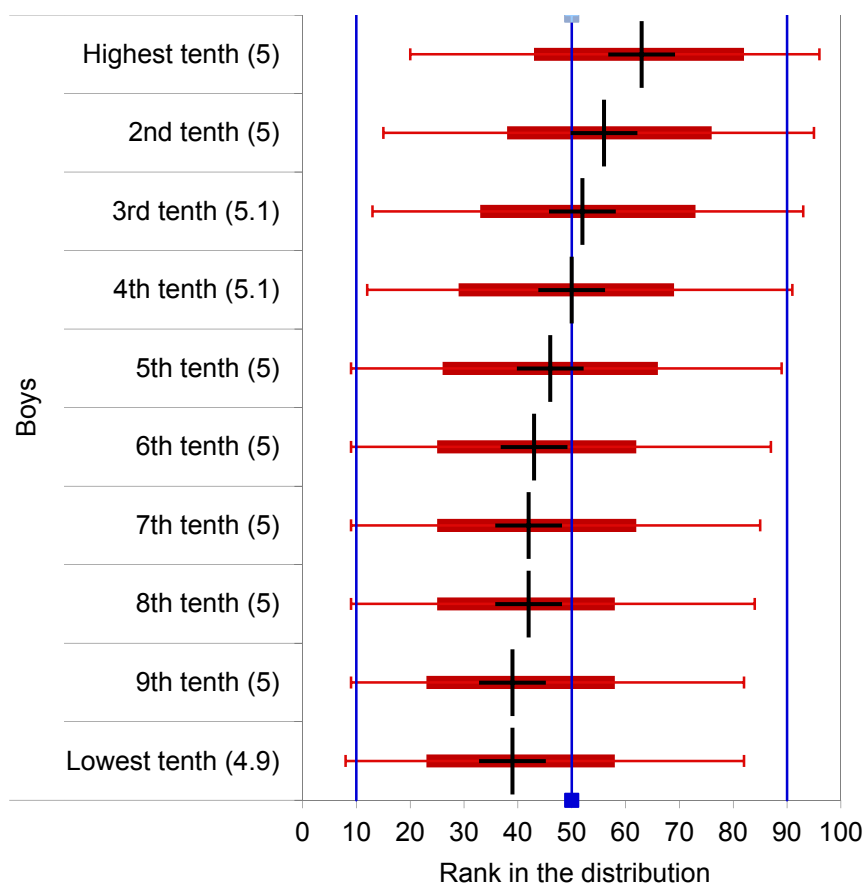
b) Girls



Source: authors' calculations using the 2013 National Pupil Database (provided by the Department for Education)

It is established elsewhere that attainment gaps between disadvantaged and non-disadvantaged children are narrower in London and that this is explained by higher achievement of disadvantaged children in London, the so-called “London effect” (Greaves et al 2014). Nevertheless, the social gradient in educational achievement in the capital by deprivation status remained an important challenge. **Figure 28** is a ‘box and whisker’ chart showing pupil outcomes by socioeconomic disadvantage. The Figure shows the results for boys in terms of their ranking within the overall distribution of scores by decile of deprivation. The black crosses mark achievement at the median for that decile group. The red thin bar shows the 10th to 90th percentile range for each group whilst the red thick bar shows the 30th to 70th percentile range. The numbers on the vertical axis in brackets show the proportion of pupils in each group. The median results for the least deprived pupils (at the highest decile of IDACI) is at the 63th percentile of the overall distribution, while the median for the most deprived boys is ranked just below 40th percentile in the overall distribution of capped point scores. So whilst most boys from the least deprived areas score substantially above the overall median, the majority of the deprived boys – score substantially below it. There is a strong social gradient, with a median capped score for most deprived boys (at the lowest decile of IDACI) of 353, compared with a score of 374 for least deprived boys.

Figure 28: Educational achievement at key stage 4 in 2013 by socio-economic disadvantage (capped point score by IDACI decile, boys)



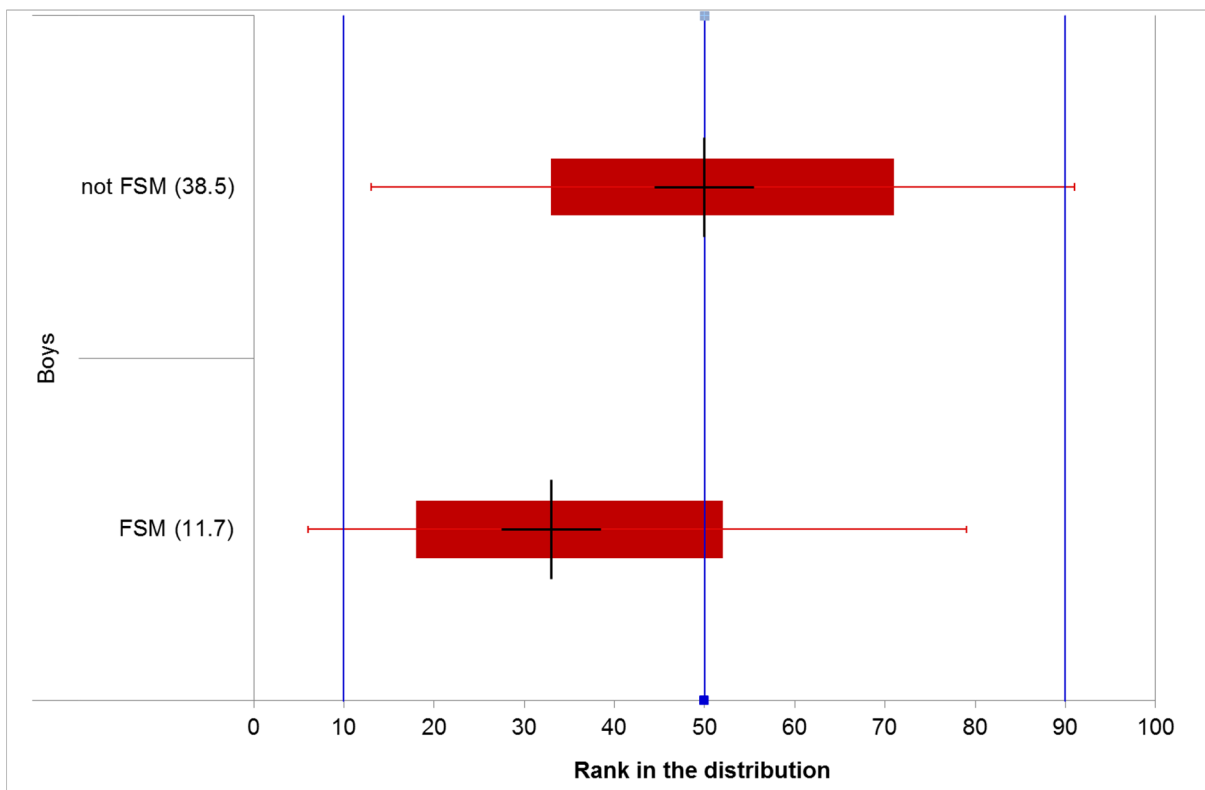
Source: authors calculations using the 2013 National Pupil Database (provided by the Department for Education)

Note: see Appendix for details of Key stage 4 capped scores.

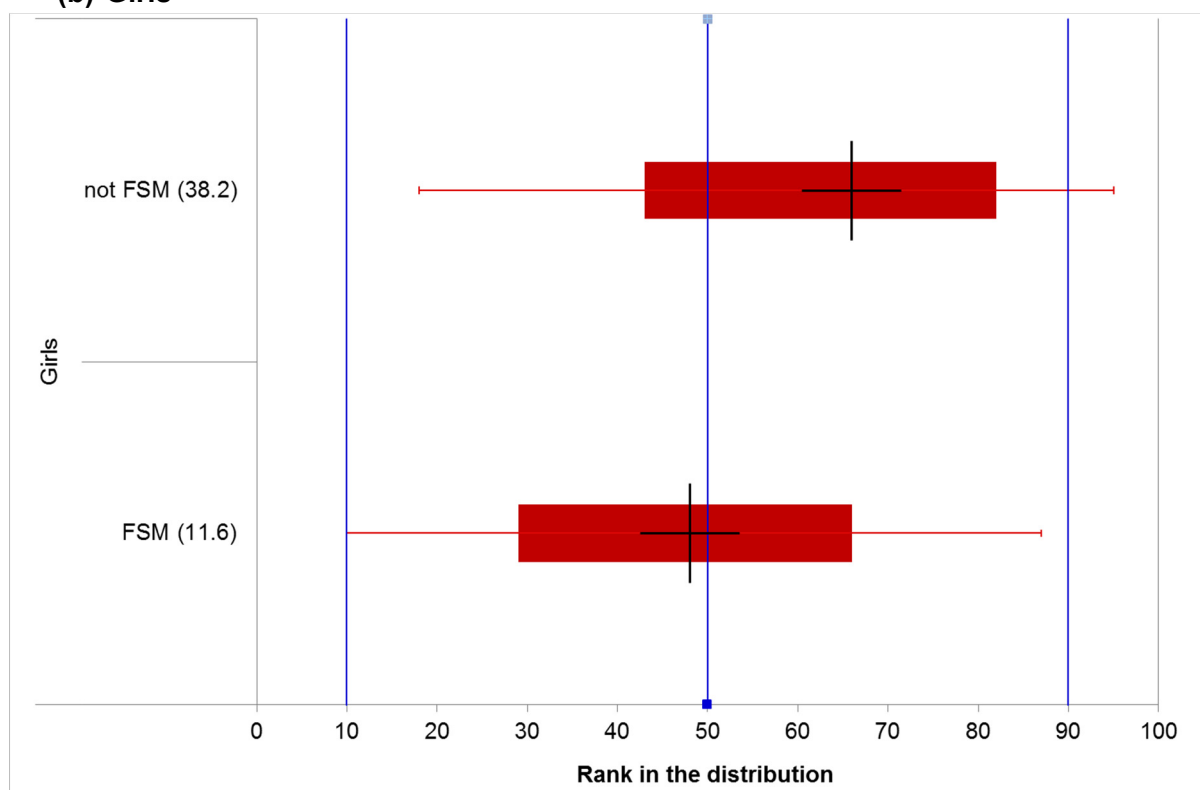
Figure 29 shows that the spread of results for boys not receiving Free School Meals is almost identical to that for all children - with their median identical to the median in the overall distribution of scores. But half of boys receiving free meals come in the bottom third of the overall distribution. There is a gender difference in the capped point score results by eligibility for free school meals, with the distribution of capped point scores among FSM girls being just below that of all children, a stark difference to FSM boys. On contrast, non-FSM girls are doing much better than all children combined, with their median score at the 66th percentile of the overall distribution.

Figure 29: Educational achievement at key stage 4 (capped point score), 2013, by free school meal status

(a) Boys



(b) Girls



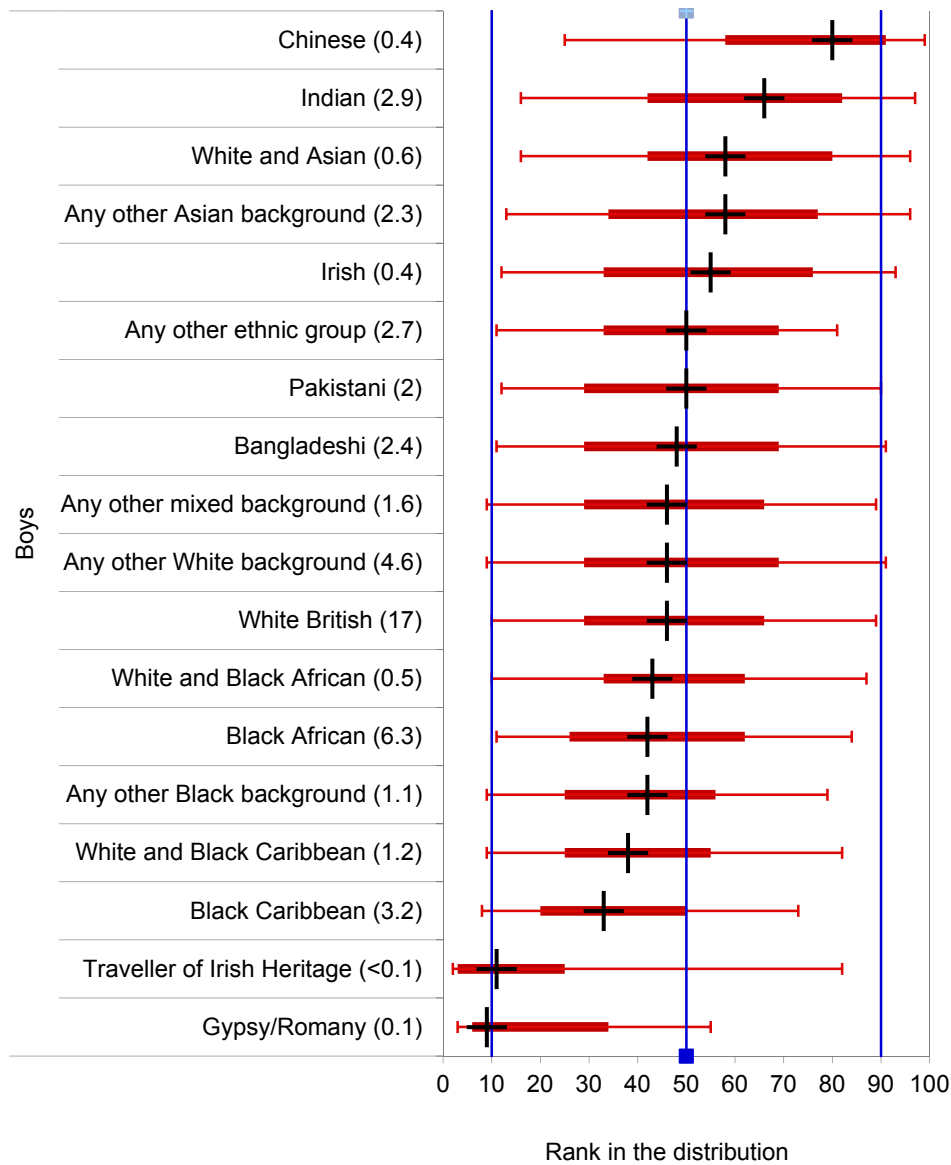
Source: authors calculations using the 2013 National Pupil Database (provided by the Department for Education)

Note: see Appendix for details of Key stage 4 capped scores.

Greaves et al (2014) report that the so-called London effect persists even when characteristics such as ethnicity are controlled for. Nevertheless, the relatively high achievement of boys and girls from the Chinese, Indian, White and Asian and Any other Asian ethnic groups remained higher than for the White British, Black and Mixed ethnic groups in 2013 – particularly amongst boys. Achievement was lowest amongst children with Traveller, Gypsy and Romany ethnic groups (**Figure 30**)¹⁵.

¹⁵ Lupton and Thompson (2015) examine rising trends over the period 2008 and 2013, including improvements in attainment amongst the most disadvantaged children and consequent narrowing of attainment gaps by disadvantage. Important reversals in these trends occurred in 2014 and are also evaluated.

Figure 30: Educational achievement at key stage 4 in 2013 by ethnicity (capped point score, boys)



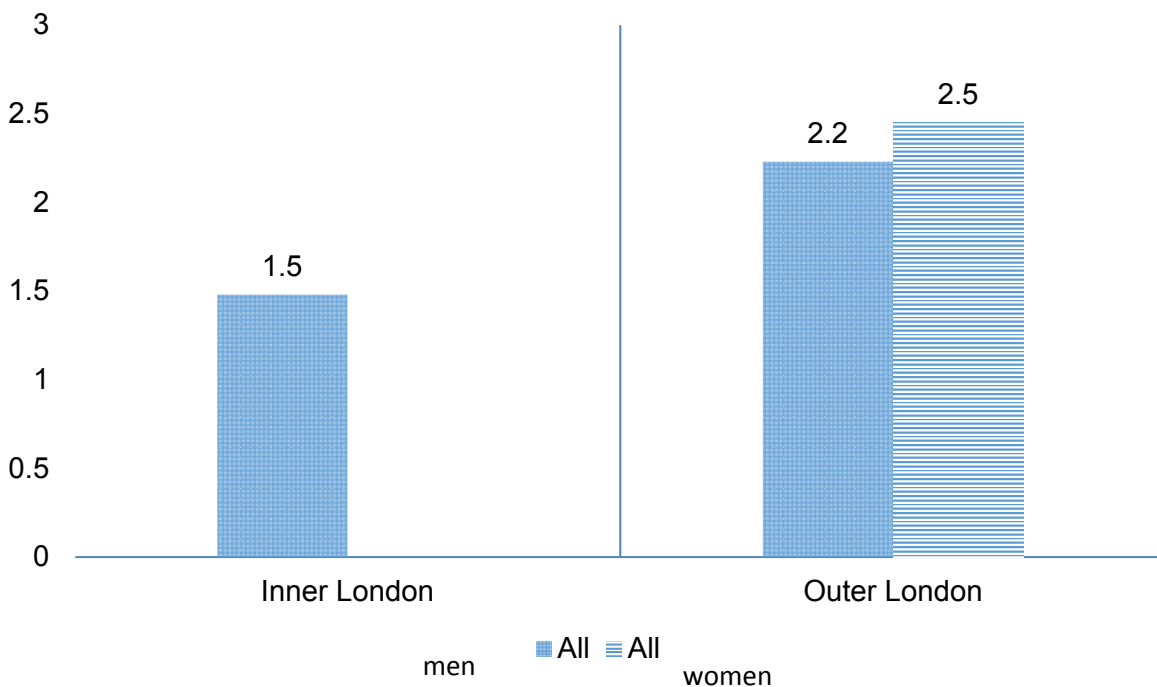
Source: authors calculations using the 2013 National Pupil Database (provided by the Department for Education)

Note: see Appendix for details of Key stage 4 capped scores.

6. Variations between Inner and Outer London

A growing body of literature points towards growing disadvantage in Outer London¹⁶. This picture is upheld by our analysis. The increases in unemployment in Outer London were more pronounced than those in Inner London (2.2 percentage points for men and 2.5 percentage points for women in Outer London, compared to a 1.5 percentage point increase for men and no statistically significant increase for women in inner London (**Figure 31**).

Figure 31: Change in unemployment by gender, Inner and Outer London, 2007/8-2012/13 (percentage points, statistically significant changes only)



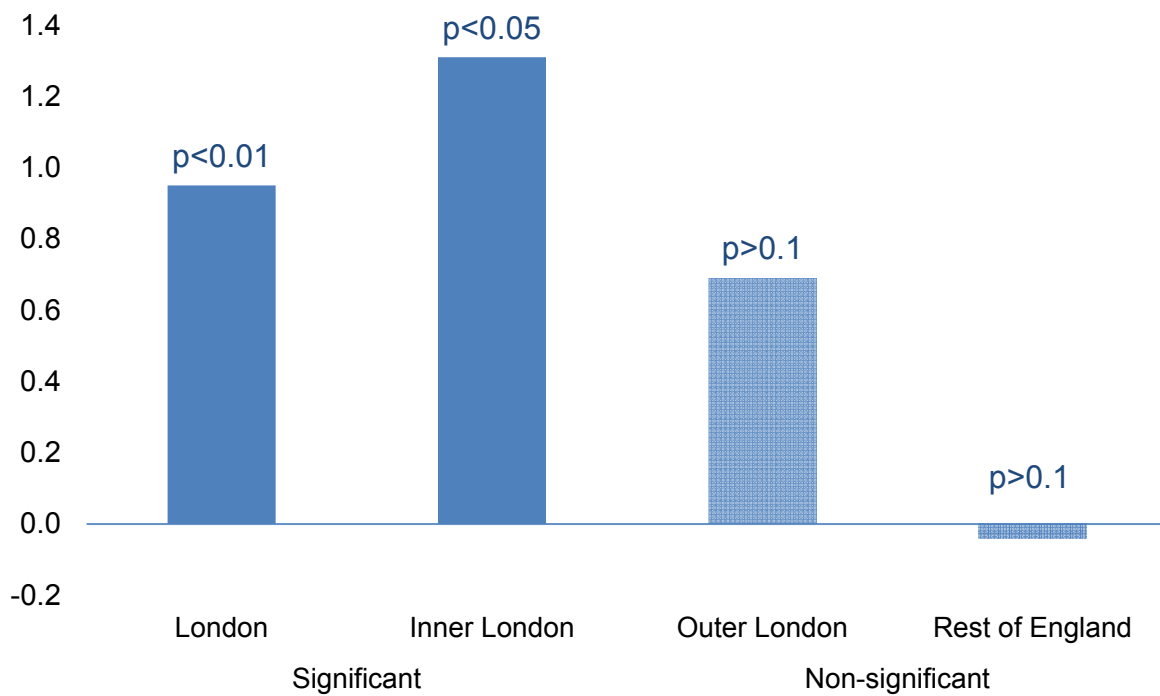
Source: authors calculations using Annual Population Survey.

Note: the figure presents statistically significant differences only (where changes are significant at least at the 90 percent significance level).

Furthermore, the significant increase in part-time working was only experienced in Inner London. This is illustrated in Figure 32, shows statistically significant changes in the percentage in part-time work between 2007/8 and 2012/13 in Inner and Outer London. The increase in the percentage in part-time work in Inner London is observed to be statistically significant, whereas the increase in part-time work in Outer London is not.

¹⁶ See Appendix 1 for the definition of Inner and Outer London used in the APS/LFS analysis.

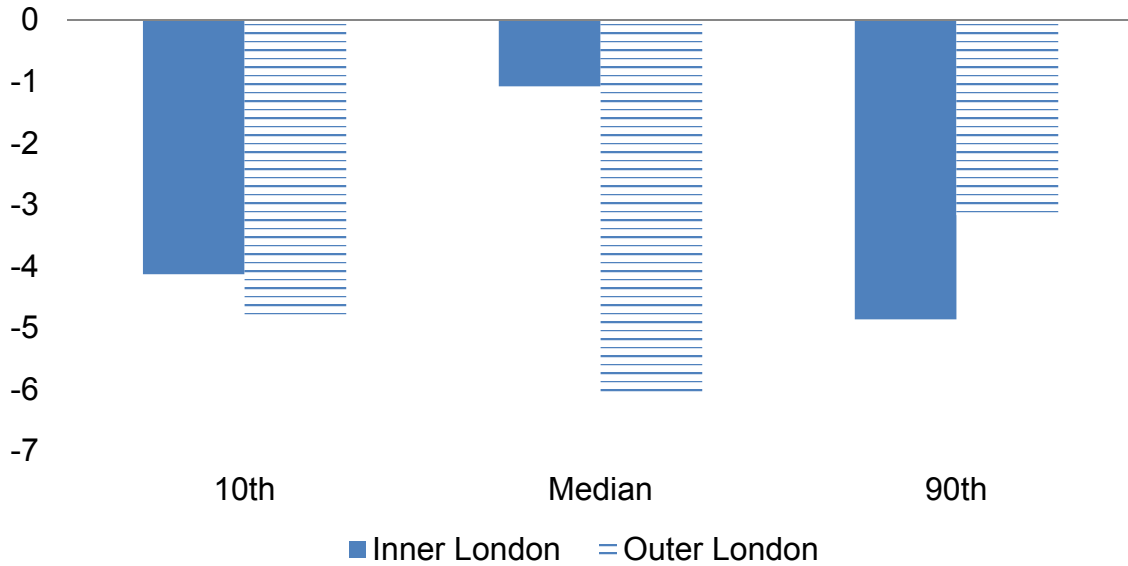
Figure 32: Statistically significant changes in part-time work 2007/08 to 2012/13 (percentage point change)



Source: authors calculations using Annual Population Survey.

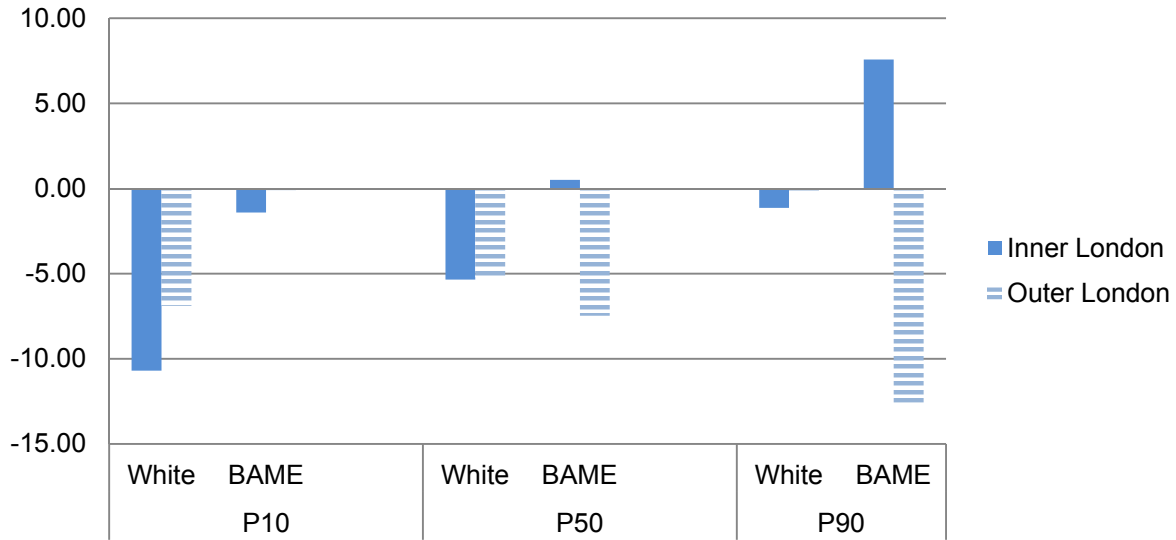
The falls in hourly full time wages were also higher in Outer London at the 10th percentile and median. In contrast, amongst those at the top of the distribution in London, the falls in hourly full time wages at the 90th percentile were more pronounced in Inner London (5%) (**Figure 33**).

Figure 33: Changes in hourly full-time wages at the median, 10th and 90th percentiles 2007/08 to 2012/13 – inner & outer London, percent change



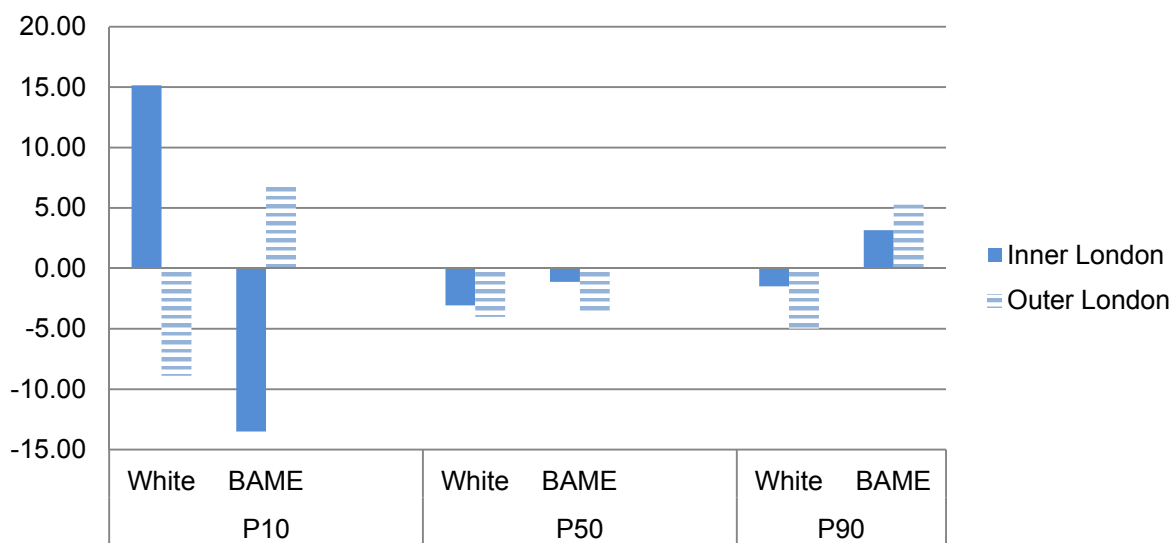
Source: authors calculations using Annual Population Survey.

Figure 34: Percentage change in earnings for full time employees 2007/08-2012/13 at the 10th, 50th, and 90th percentiles, by ethnicity – Inner London vs Outer London



Source: authors calculations using Annual Population Survey.

Figure 35: Percentage change earnings for part-time employees 2007/08-2012/13 at the 10th, 50th, and 90th percentiles, by ethnicity – Inner London vs Outer London



Source: authors calculations using Annual Population Survey.

Within London, it appears to be Inner London in particular that is driving the trend towards higher qualifications with higher overall percentages in Inner London with higher degrees and degrees, and a lower percentage with low or no qualifications. There were significant increases in the proportion with degrees and higher degrees, and significant falls in the proportion with no or low qualifications, in both Inner London and Outer London over the period 2007/8-2012/13. However, whilst the improvements between 2007/8 and 2012/13 at the top end were generally most marked in Inner London (with greater increases in those with higher degrees and degrees) but falls in those with low and no qualifications were greater in Outer London (**Table 9**).

Table 9: Change in highest educational attainment, 2008-2013, Inner and Outer London, percentage points

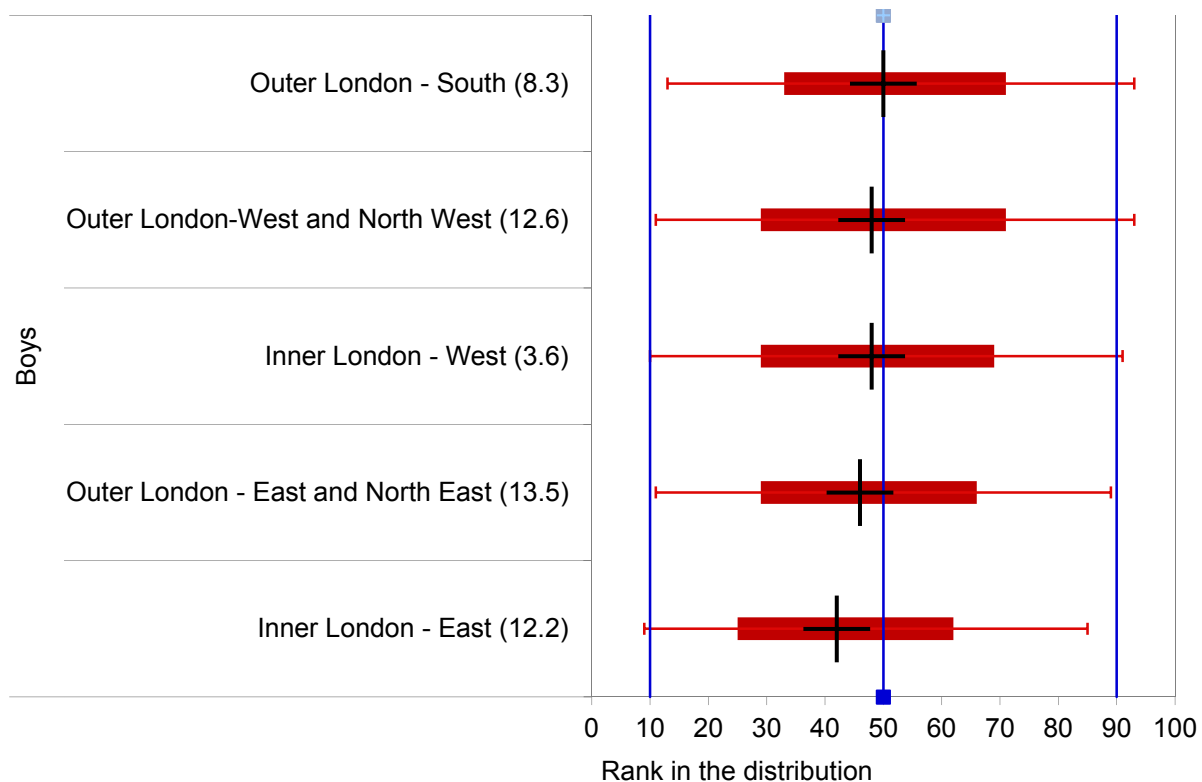
	Higher degree		Degree		Higher Education		GCE A Level or equivalent		GCSE grades A-C or equivalent		Level 1 or below		No qualification		Don't know
Inner London															
All	2.00	***	10.32	***	0.95	**	-1.95	***	-3.71	***	-2.94	***	-4.63	***	-0.03
Men	2.21	**	10.25	***	0.80		-2.52	**	-4.31	***	-2.36	***	-4.27	***	0.20
Women	1.76	*	10.40	***	1.15	*	-1.35		-3.07	***	-3.57	***	-5.02	***	-0.30
Outer London															
All	1.72	***	8.64	***	0.72	*	0.45		-2.30	***	-3.62	***	-5.84	***	0.23
Men	1.67	**	7.09	***	1.07	*	-0.57		-0.65		-3.48	***	-5.34	***	0.21
Women	1.79	***	10.32	***	0.35		1.57	*	-4.11	***	-3.78	***	-6.38	***	0.25

Source: authors calculations using Annual Population Survey.

1. ***, **, * indicates significance at 1, 5 and 10 percent significance level
2. See Appendix 1 for definitions of Inner London and Outer London.

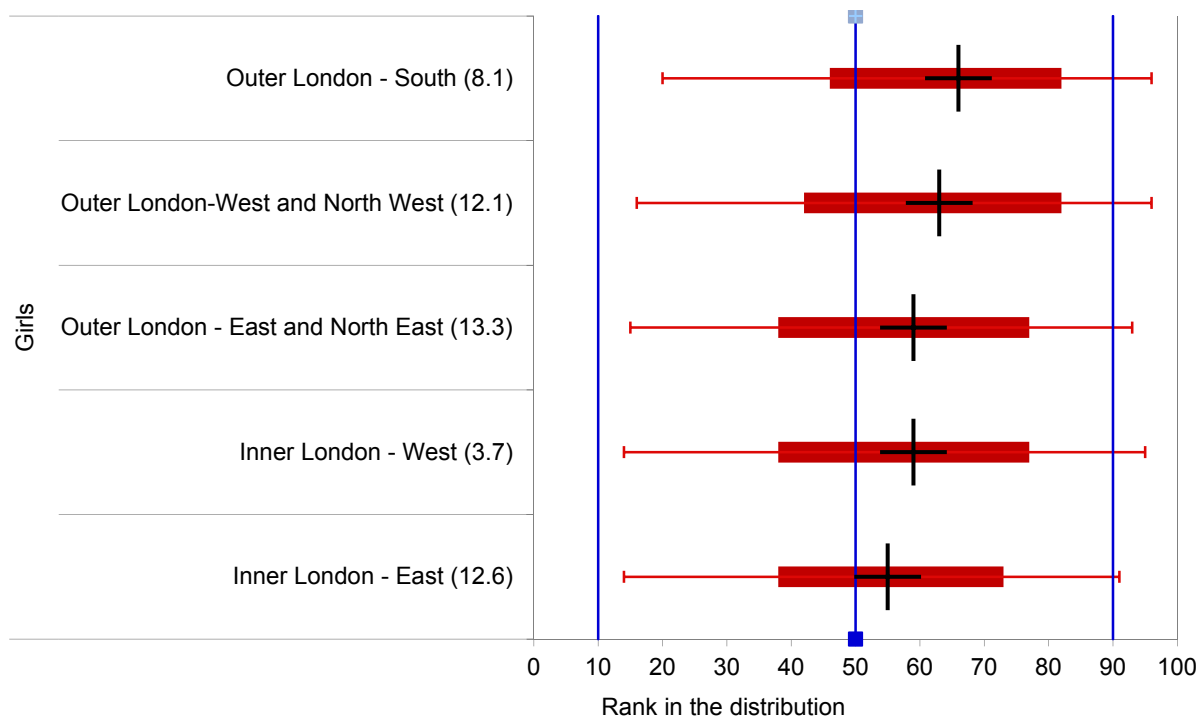
Analysis of educational attainment at Key stage 4 by NUTS3 area and gender for 2013 shows girls doing better than boys at the 10th percentile, the median and the 90th percentile in all areas (Inner London East and West, Outer London East and North East, South, West and North West). Capped scores at key stage four were highest in Outer London (South) and lowest in Inner London (East) for both males and females (**Figure 36** and **Figure 37**). This finding, though, should be considered in the context of the notable improvements in educational attainment within Inner London in recent years, including by disadvantaged children, in recent years (the so-called “London effect”, c.f. Greaves et al 2014).

Figure 36: Achievement at Key Stage 4, boys, 2013



Source: authors calculations using the 2013 National Pupil Database (provided by the Department for Education)

Figure 37: Achievement at Key Stage 4, girls 2013



Source: authors calculations using the 2013 National Pupil Database (provided by the Department for Education)

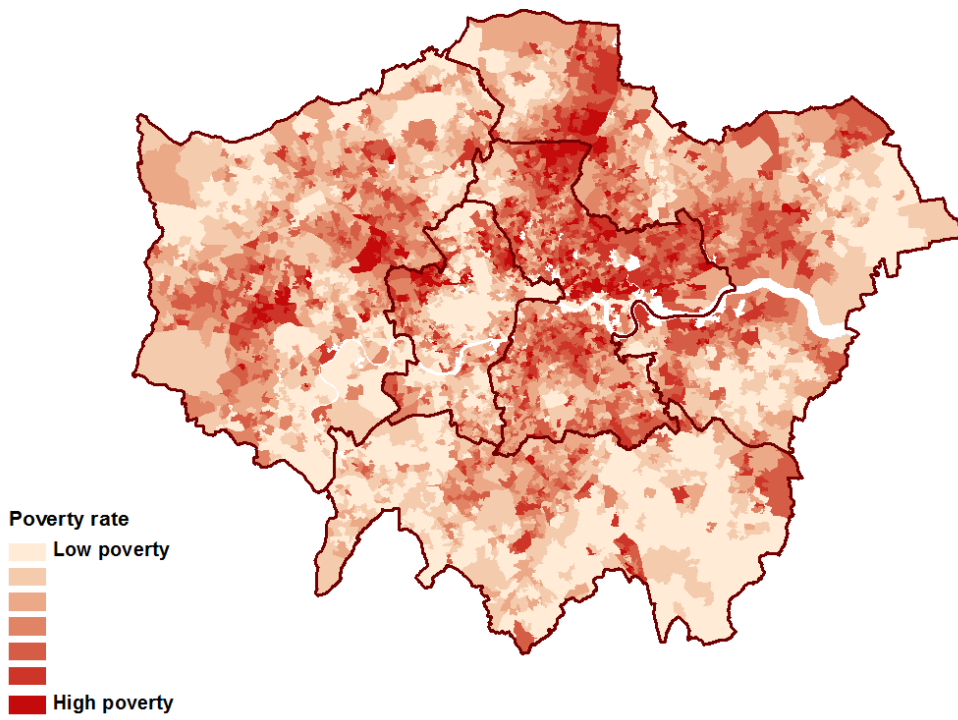
Variations in small area poverty rates

We have also looked at how the spatial distribution of poverty, at a sub-regional and neighbourhood level, has changed in London. Conventional measures of poverty (below 60% of median income) are not available at small area level, so our analysis uses a poverty indicator developed by Fenton (2013) – the Unadjusted Means-tested Benefits Rate (UMBR). UMBR takes the number of claimants of various out-of-work benefits and pension credit in an area and divides that count by the number of households in the area.¹⁷ A higher UMBR means a higher proportion of people receiving out of work benefits, relative to the total number of households in a given neighbourhood. Although this is a direct measure of out-of-work poverty, including pensioner poverty, it is adopted because it is more closely related than any other set of administrative measures to conventional measures of poverty when these are compared at higher spatial scales (Fenton 2013).

Figure 38 shows the pattern in 2008, just as recession was about to set-in. **Figure 39** then shows the pattern in 2013, by which time there were some signs of recovery. Broadly speaking there is not much difference in how higher and lower poverty were distributed across the city in these two years. It is important to note that these findings will pick up only the very earliest effects of the changes to the Local Housing Allowance and other benefit changes introduced in April 2013, which are expected to have impacts on the spatial distribution of poverty in the longer term.

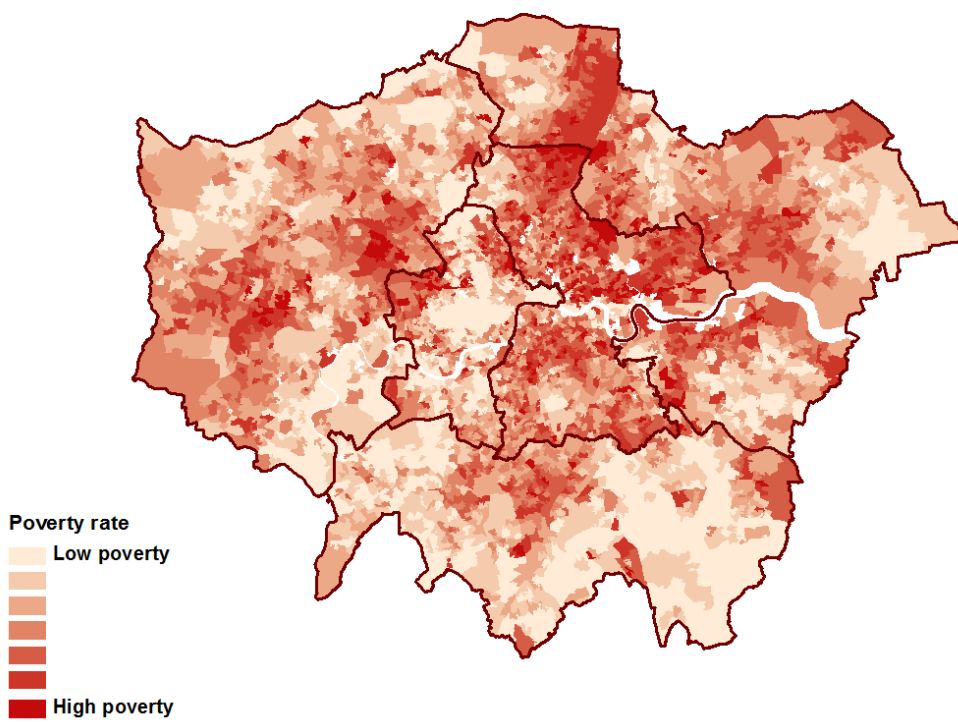
¹⁷ The benefits are: Income Support, Job-Seekers Allowance, Employment and Support Allowance and the guarantee element of Pension Credit.

Figure 38: UMBR poverty rate in 2008 by London lower super output areas



Source: CASE UMBR data set, 2014

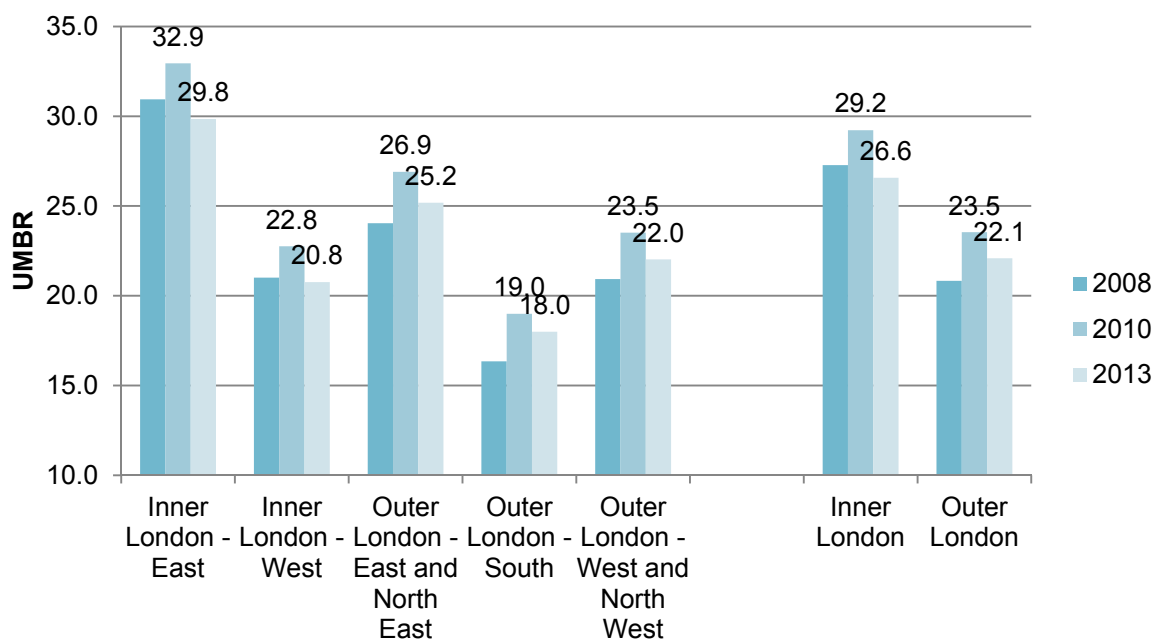
Figure 39: UMBR poverty rate in 2013 by London lower super output areas



Source: CASE UMBR data set, 2014

Between 2008 and 2013 UMBR went up then down. A recession effect is seen in our poverty indicator between 2008 and 2010. During this period the UMBR rate for London as a whole rose from 23.5 per cent to 25.9 per cent.¹⁸ In four of the five sub-regions UMBR also rose by more than 2 per cent points above its 2008 level by 2010 (Figure 40).

Figure 40 : Overall UMBR of London sub-regions and regions 2008, 2010, 2013



Source: CASE UMBR data set, 2014

Most of the rise in UMBR between 2008 and 2010 occurred between 2008 and 2009 (Table 10: Year-on-year change in UMBR, 2008 to 2013). This means that, in general, London's neighbourhoods were becoming poorer between 2008 and 2009.

Table 10: Year-on-year change in UMBR, 2008 to 2013

	UMBR	Change year-on-year				
	2008	2009	2010	2011	2012	2013
London	23.5	+2.4	0.0	-0.2	-0.4	-1.3
Inner (IL)	27.3	+2.0	-0.1	-0.4	-0.8	-1.5
Outer (OL)	20.8	+2.6	+0.1	-0.1	-0.2	-1.1
IL - E	30.9	+2.1	-0.1	-0.4	-0.8	-1.9
IL - W	21.0	+1.8	-0.1	-0.4	-0.7	-0.9
OL - E&NE	24.0	+2.8	+0.1	+0.1	-0.3	-1.5
OL - S	16.4	+2.6	+0.1	0.0	0.0	-1.0
OL - W&NW	20.9	+2.6	0.0	-0.3	-0.2	-0.9

Source: CASE UMBR data set, 2014

¹⁸ This increase, more than two per cent points, is the largest percentage point increase for London overall seen between any two year interval during 2001 and 2013.

By 2013 UMBR for each sub-region had fallen from its 2010 value by at least one per cent point (Figure 40). The UMBR for inner London began to fall earlier than that for outer London. Outer London South was the last sub-region to show any fall in the poverty rate. The improvement observed between 2010 and 2013 took place, in all cases, largely between 2012 and 2013 (Table 10). This fall is accounted for partly by a fall in JSA claims in London as the economy recovered and partly by changes in benefit eligibility.

An increase in poverty in outer London

It is clear from Figure 40 that UMBR in outer London and in each of the outer London sub-regions had not returned to its 2008 level by 2013. This is in contrast to inner London, where both sub-regions had, by 2013, a lower UMBR than in 2008. The overall level of poverty then, as indicated by UMBR, rose in outer London (by slightly more than 2 per cent points) during 2008 and 2013. In the same period it fell by a little under 1 per cent point in inner London.

Change in UMBR can be driven more-or-less by either of its two components (claimants and households). Change in each component is shown in **Table 11**.

Table 11: Percentage change in claimants and households by sub-region, IL/OL, 2008-13

	Claimants 2008	Claimants 2013	Change 2008- 13	Hholds 2008	Hholds 2013	Change 2008- 13
Inner London	362,031	376,050	+4%	1,327,117	1,415,242	+7%
Outer London	390,839	434,952	+11%	1,876,059	1,968,682	+5%
IL - East	259,255	270,115	+4%	837,994	905,036	+8%
IL - West	102,776	105,935	+3%	489,123	510,206	+4%
OL - East & NE	160,108	176,013	+10%	665,849	698,943	+5%
OL - South	80,686	92,635	+15%	493,423	514,644	+4%
OL - West & NW	150,045	166,304	+11%	716,787	755,095	+5%

Source: CASE UMBR data set, 2014 (claimant counts from NOMIS, households estimated from census 2001 and 2011)

The fall in the poverty rate in inner London between 2008 and 2013 was mainly driven by the addition to that area of households. For inner London the larger percentage increase was in the household figures (+7%). The claimant count rose in this area between 2008 and 2013 (+4%). In contrast, in outer London the rise in UMBR between 2008 and 2013 was driven principally by an increase in the claimant population (+11%).

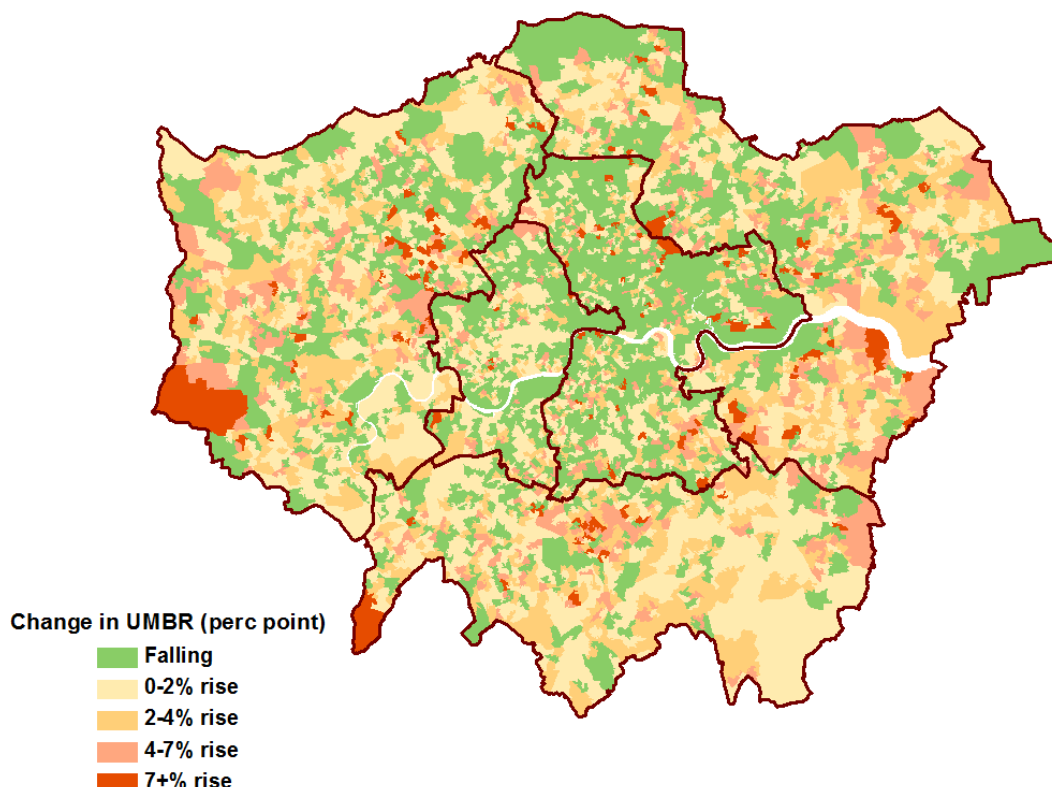
At a sub-regional level there was a difference between inner London West and inner London East. Inner London East experienced a larger percentage increase in the household count. In outer London the largest percentage increase in the claimant population occurred in outer London South (+15%).

Neighbourhoods with rising poverty were concentrated in Outer London

Between 2008 and 2013 the UMBR rate increased in a little under two thirds of London neighbourhoods. In just under half of these cases the rise was small, less than 2 per cent.

Figure 41 shows how neighbourhoods with a rising poverty rate were located across London.

Figure 41: Change in UMBR, 2008-13



Source: CASE UMBR data set, 2014

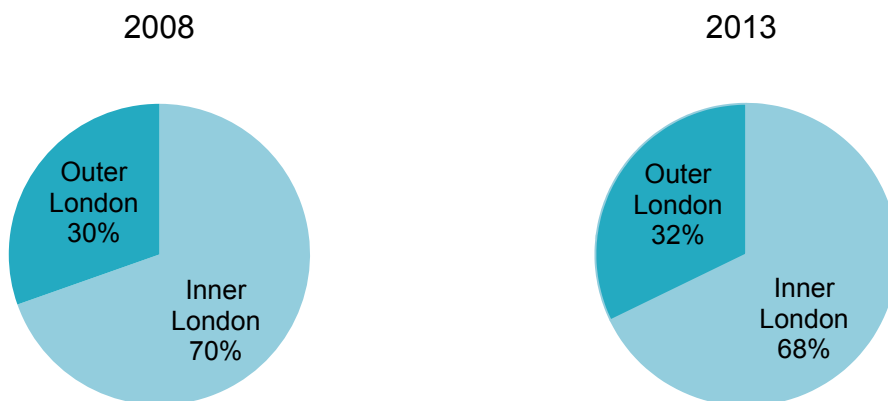
A general pattern emerges that more of the rising poverty rate neighbourhoods were in outer London. Overall, close to three quarters of the total number of neighbourhoods with rising UMBR during 2008-13 were in outer London. Proportionately this distribution meant that almost three quarters of outer London's neighbourhoods had rising poverty in this period compared to just under half of inner London's neighbourhoods.

Taking the top two bands only – cases where the rise in UMBR is above 4 per cent, so most notable – 15 per cent of outer London's neighbourhoods are in these upper bands compared to 9 per cent of inner London's neighbourhoods.

Slightly more high poverty neighbourhoods in outer London by 2013

The result of these changes was a slight increase in the proportion of high poverty neighbourhoods (those with 45% UMBR or higher) in outer London (Figure 42), continuing the trend seen earlier in the 2000s (Lupton et al. 2013).

Figure 42: Inner London/Outer London change in high poverty neighbourhoods, 2008 and 2013



Source: CASE UMBR data set, 2014

Table 12 shows that the fall in the proportion of high poverty neighbourhoods in inner London was driven by changes in inner London East. The rise in outer London’s share of high poverty neighbourhoods occurred in outer London South and outer London North and West.

Table 12: Distribution of poorest neighbourhoods across London sub-regions, 2008 and 13

UMBR 45+%		
	2008	2013
IL - E	54.9	52.4
IL - W	14.7	15.4
OL - E & NE	14.7	14.2
OL - S	2.39	3.75
OL - W & NW	13.3	14.2
	100	100

Source: CASE UMBR data set, 2014

7. Discussion and conclusion

London's relative resilience during the recession, rising house prices and colossal increases in wealth amongst the most well off within the capital are often cited as drivers of inequality within the UK as a whole. Emphasis is put on the regional divide with London viewed as being uniformly "different" and "pulling away" from the rest of the country. However, this study has shown that the capital's economic success and relative resilience has not translated into lower inequality amongst Londoners themselves. Wealth at the top of the distribution increased substantially between 2006/08 and 2010/12. Meanwhile, between 2007/8 and 2012/13, income for the poorest Londoners fell substantially.

London became more unequal in the period following the economic downturn against some but not all of the indicators considered in this report. The 90:10 ratios increased and / or were under pressure for income after housing costs (from 8.2 to 9.2); full-time weekly earnings (from 4.3 to 4.6); part-time weekly earnings (7.3 to 7.4) and full-time hourly wages (4.3 to 4.4). The 90:10 ratio for part-time hourly wages remained unchanged (at 4.1). Inequality as measured by the 90:10 ratio declined for income before housing costs (from 5.7 to 5.3) and for wealth (from 192.6 to 166.6) (**Figure 43**). As noted in section 1, the decline in the 90:10 ratio for wealth should be interpreted in the context of the staggeringly high base figure for wealth inequality in the capital in 2006/08 as well as the magnitude of the absolute increases in levels of nominal wealth amongst the richest Londoners (who became £152,000 more wealthy at the 90th percentile).

Inequality in the capital remained substantially higher than in the rest of the country at the end of the period. In 2012/13, inequality as measured by the 90:10 ratio was greater in London than the rest of the country in relation to income before housing costs, income after housing costs (a ratio of 9.2 compared with 4.8 in the rest of the country); wealth (a colossal ratio of 166.6 compared to 57.6 in the rest of the country); full-time weekly earnings (a ratio of 4.6 compared with 3.9 in the rest of the country); full-time hourly wages (a ratio of 4.4 compared with 3.8 in the rest of the country); and part-time hourly wages (4.1 compared with 3.6 in the rest of the country). The 90:10 ratio for part-time weekly earnings was a little lower in London than in the rest of the country (a ratio of 7.4 compared with 7.8) (**Figure 43**).

Economic outcomes against a number of indicators deteriorated and the poorest Londoners and some at risk groups were hard hit in the wake of the economic downturn. Income after housing costs at the 10th percentile fell by 19% in London over the period 2007/8-2012/13 - a bigger fall than at other points in the distribution, and a bigger fall than elsewhere in the country. The poorest 10% of private renters in London were left with only £39 a week net equivalised household income after their housing costs in 2013. The poorest individuals with disabilities in London also appear to have been hard hit. The percentage of Londoners paid less than the London Living Wage increased. Wages that are lower than the London Living Wage became increasingly common amongst most population groups over the period 2007/8 to 2012/13, especially amongst individuals who experience disabilities, who work part-time and who are from ethnic minority groups. Unemployment in London – which started off from a higher base than the rest of the country – increased further to 2012/13. As in the rest of the country, young adults were particularly affected. Increases in unemployment in London were also particularly pronounced amongst the Pakistani and Mixed ethnic groups and in Outer London.

Figure 43: Inequality in London v the rest of the country – summary of changes in 90:10 ratios between 2007/8 and 2012/13

	Full-time weekly earnings	Part-time weekly earnings	Full-time hourly wages	Part-time hourly wages	Wealth (financial, physical & property)*	Income before housing costs	Income after housing costs
90:10 ratios in 2007/08							
London	4.3	7.3	4.3	4.1	192.6	5.7	8.2
Not London	3.8	7.4	3.7	3.5	62.2	4.1	4.9
90:10 ratios in 2012/13							
London	4.7	7.4	4.4	4.1	166.6	5.3	9.2
Not London	3.9	7.8	3.8	3.6	57.6	3.7	4.8

Notes: * Wealth time points are 2006/08 and 2010/12. FT = full-time; PT = part-time; AHC = after housing costs. Not London = Rest of England for earnings and wages, rest of Great Britain for wealth, rest of UK for income

Further research will be required to evaluate whether the position of the poorest and lowest paid Londoners has improved over the period 2013-15. However, our examination of detailed data on the position of different population groups up to 2012/13 suggests that economic outcomes for some of the poorest, lowest paid and most at risk Londoners deteriorated in the wake of the economic crisis and subsequent downturn, whilst wealth at the top of the distribution grew, and inequality against some indicators increased. As the 2015 General Election and 2016 Mayoral Election approach, the findings set out in this report show that disadvantage and inequality in the capital are major challenges whoever gains power.

Appendix 1: Further details of surveys and variables

Discontinuities in the definition of equality characteristics

There are a number of discontinuities which affect the analysis and the consistency of the definition of equality characteristics over time.

APS/LFS

Disability status:

Disability is identified at the individual level. The disability variable used for the analysis is based on the LLID concept and is the best measure of disability under the Equality Act 2010 (and previously, the concept of “*DDA disabled*”). Individuals are classified as experiencing a long-standing illness or health problem that limits their day-to-day activities. (We have not made use of the information under “work limiting disability) for the London analysis.

The results from the 2007/2008 and 2012/2013 cannot strictly be directly compared. This is because (1) there was a change to the question formulation (with the addition of a short introduction at the start of the disability module which prepares respondents to the questions of the module.¹⁹ The LFS User guide (2013) states: “the earlier estimates can still be considered ‘best estimates’ for those periods and should give a robust picture of changes over time, however, direct comparisons between pre- and post-Q1-10 estimates should not be made” (2013: 7). This change increased the proportion identified as experiencing difficulties nationally.

There was a further change to the identification of the population with disabilities in the LFS in April 2013. However, we do not make use of data after March 2013 for the London analysis, so that our results are not affected by this finding.

We have adopted this approach because one of the variables used to construct the disability status variable is missing from APS dataset after April 2013. Therefore, where APS outcomes are disaggregated by disability the most recent year data only cover 2012 (last quarter) and 2013 (first quarter) i.e. to end March 2014. The full year would have run until sept 2013.

Given that we have not included a full year of data for 2012/13 disability breakdowns, sensitivity checking was undertaken to examine whether seasonality would be likely to impact on our results by disability. We found that seasonality is unlikely to change our findings, based on the analysis below.

¹⁹ The change in the introduction of the disability module was the following: “*I should now like to ask you a few questions about your health. These questions will help us estimate the number of people in the country who have health problems.*”

Seasonal variation in employment based on data from APS April 2012 to March 2013

	Q1 2013 (January to March)	Q3 2012 (April to June)	Q4 2012 (July to September)	Q1 2013 (October to December)
Employed, full time	26.15	26.92	25.72	26.99
Employed, part-time	12.75	12.38	13.10	12.65
Employed, time unknown	0.64	0.71	0.58	0.61
Self-employed	7.50	6.93	6.78	7.38
ILO unemployed	6.25	5.99	6.40	5.98
Inactive, student	2.49	1.83	1.82	2.21
Inactive, looking after family/home	6.53	6.64	7.05	6.40
Inactive, disabled/long-term sick	30.45	31.20	30.67	30.40
Inactive, retired	3.22	3.17	3.44	3.35
Inactive, other reason/no reason given	4.02	4.23	4.43	4.04

Occupational group

In 2007/08 the classification was based on the SOC 2000 classification while in 2012/13 on the SOC 2010 classification. According to the LFS User guide (2013), based on the SOC 2010 classification: (1) the numbers coded as managers and senior officials has decreased. (2) the professional occupations major group is likely to have increased as a corollary of this. (2013: 6).

Ethnicity and religion

According to the LFS User guide (2013), changes were introduced to the ethnicity and religion questions in 2011 to bring them in line with the census questions. According to ONS (2013a) these changes produced some reduction in reporting of 'white' ethnic group and an increase in 'Mixed/multiple ethnic groups', 'Indian' and 'Pakistani'. Impact on dynamics of response is unclear and therefore trend analysis should be treated with caution.

The 10 category ethnic variable includes the following subcategories:

- White British
- Other White
- White and Black Caribbean
- White and Black African
- White and Asian
- Other mixed
- Indian
- Pakistani

Bangladeshi
Other Asian background
Black Caribbean
Black African
Other Black
Chinese
Other ethnic group

For binary analysis, “White” includes the White British and other White categories. “Black, Asian or Minority Ethnic Groups” covers all other categories. Note that the other White category covers

FRS

DWP (*) notes that the 2012/13 FRS adopted the new harmonised questions on disability as outlined on the ONS website. The resulting classification is designed to measure the core population of currently disabled people in line with the Equality Act definition. As a result of the inclusion of the new disability question in the 2012/13 FRS, the FRS user guide recommends that “comparisons between figures in 2012/13 and previous years should be made with caution”.

From DWP (2014):

FRS questions 2004/05 to 2011/12 Health

The FRS/HBAI definition for an adult with a disability is if they answered **yes** to the ‘Health’ question and **yes** to any of the difficulties listed in ‘DisDif’.

Health

Do you have any long-standing illness, disability or infirmity? By 'long-standing' I mean anything that has troubled you over a period of at least 12 months or that is likely to affect you over a period of at least 12 months.

If 'yes' to Health.

Health Problem Limit Activities

HProb

Does this physical or mental illness or disability (Do any of these physical or mental illnesses or disabilities) limit your activities in any way?

If 'yes' to Health.

Health Problems cause Difficulties

DisDif

SHOW CARD E1 Does this/Do these health problem(s) or disability(ies) mean that you have substantial difficulties with any of these areas of your life? Please read out the numbers from the card next to the ones which apply to you. PROBE: Which others?

1. Mobility (moving about)
2. Lifting, carrying or moving objects
3. Manual dexterity (using your hands to carry out everyday tasks)
4. Continence (bladder and bowel control)
5. Communication (speech, hearing or eyesight)
6. Memory or ability to concentrate, learn or understand
7. Recognising when you are in physical danger
8. Your physical co-ordination (e.g.: balance)
9. Other health problem or disability
10. None of these

FRS questions 2012/13

The FRS/HBAI definition for an adult with a disability is if they answered **yes** to the 'Health1' and **yes, a lot** or **yes, a little** to the 'Condition' question.

- **Longstanding illness or disability**
- **Health1**

Do you have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more?

1. Yes
2. No
3. Don't know (spontaneous)
4. Refusal (spontaneous)

If 'yes' to **Health1**.

- **Health Problems cause Difficulties**
- **Dis1**

SHOW CARD E1 Do any of these conditions or illnesses affect you in any of the following areas?

1. Vision (for example blindness or partial sight)
2. Hearing (for example deafness or partial hearing)
3. Mobility (for example walking short distances or climbing stairs)
4. Dexterity (for example lifting and carrying objects, using a keyboard)
5. Learning or understanding or concentrating
6. Memory
7. Mental Health
8. Stamina or breathing or fatigue
9. Socially or behaviourally (for example associated with autism, attention deficit disorder or Asperger's syndrome)
10. Other
11. Refusal (spontaneous)

Ask if Health1=Yes

- **Limiting longstanding illness**
- **Condition**

Does your condition or illness/do any of your conditions or illnesses reduce your ability to carry-out day-to-day activities?

1. Yes, a lot
2. Yes, a little
3. Not at all

INTERVIEWER: Day to day activities include washing and dressing, household cleaning, cooking, shopping for essentials, using public or private transport, remembering to pay bills, lifting objects from the ground or lifting objects from a work surface in the kitchen.

WAS

ONS (2014) notes that WAS includes a household questionnaire and an individual questionnaire. The WAS methodology involves trying to interview all adults in the household with some exceptions. Some things are measured purely at the household level, such as main residence property wealth, physical wealth in household. Others are measured at the individual level, such as property other than main residence, financial assets, loans etc. The main reason for aggregating and reporting at the household level is due to the difficulties associated with deciding which individual to assign household values to, though this is something we are planning to look at in future.

Individuals are not specifically asked if anyone in the household has a disability. A household is defined as including at least one individual with a disability, if one or more individuals within the household interviewed reported an activity limiting disability.

Individuals are not specifically asked about disability benefits, and the questionnaire suggests this does not exclude proxy respondents. Also, if an individual indicates they receive the care or mobility components of Disability Living Allowance, they are asked which individual within the household this is received for. At Wave 2 the benefits section specifically allowed individuals to opt out, and many did. Therefore a definition based on benefits could not be done on a consistent basis for the three waves of data.

Definition of inner and outer London used in APS/LFS analysis

Inner London

AA: City of London
AG: Camden
AM: Hackney
AN: Hammersmith and Fulham
AP: Haringey
AU: Islington
AW: Kensington and Chelsea
AY: Lambeth
AZ: Lewisham
BB: Newham
BE: Southwark
BG: Tower Hamlets
BJ: Wandsworth
BK: Westminster

Outer London

AB: Barking and Dagenham
AC: Barnet
AD: Bexley
AE: Brent
AF: Bromley
AH: Croydon
AJ: Ealing
AK: Enfield
AL: Greenwich
AQ: Harrow
AR: Havering
AS: Hillingdon
AT: Hounslow
AX: Kingston upon Thames

Further information on continuous variable sample size reporting rules

Continuous variables:

If sample size less than 30 – we report nothing

If sample size between 30 and 100, we report the median and mean only

If sample size between 100 and 200, then we report p30, median, mean and p70

If sample size 200 or over, then we report p10, p30, median, mean, p70 and p90

Further information on analysis using the National Pupil database

The capped points score is the total points score obtained by summing the best 8 GCSEs (or equivalents), using appropriate weights for different types of qualifications. This was done by the Department for Education, and included as a derived variable in the National Pupil Database. Missing scores on this variable (pupils with no exam record but with a record in the school census) were set to zero as per advice of the Department of Education.

Further information on analysis using HBAI / FRS

BHC uprating uses a bespoke index derived by ONS: all items RPI excluding Council Tax (agg4111).
AHC uprating uses one of ONS standard published series: RPI excluding Housing.

In the HBAI dataset each individual is allocated an income based on the total net income (after direct taxes and including benefits) of the household to which they belong. This income is adjusted to be equivalent to that of a couple with no children by using adjustment factors depending on the size and composition of the household, allowing for the way in which larger households enjoy some economies of scale compared to smaller ones in relating living standards to their total income. The method assumes that income and living standards are equally shared within the household, which is clearly not the case in many cases.

Appendix 2: Comparison of estimates of wages based on APS/LFS and ASHE

In this report we examine earnings and wages using the Annual Population Survey (based on the Labour Force Survey). We have used APS rather than LFS for the analysis in order to take advantage of the regional boosts in APS (which increases sample size for London both overall and by subgroup).

Estimates of real wages are often viewed as most reliably made using the Annual Survey of Hours and Earnings and the Labour Force Survey is often thought to underestimate wages compared to ASHE. On the other hand, since ASHE is based on employer reported wage information, some groups of more casual workers might be better sampled using the LFS. The key reason for using APS/LFS as a basis for our analysis in this report is that ASHE does not support disaggregation by the full range of characteristics covered in this report.

The Table below compares the hourly and weekly earnings for all employees of the two surveys at different points of the distribution in 2008 and in 2013. For both hourly and weekly earnings, at all the points of the distributions and in both years, the figures are lower in the LFS than in the ASHE. This difference is slightly more pronounced for weekly pay at the bottom end of the distribution in both years and for hourly wages in 2013. But for hourly wages in 2008 the difference in figures at the top of distribution is more pronounced between LFS and ASHE data. Despite some dissimilarities indicated above, the inequality shown by the two series is very similar with a somewhat larger difference in the 90:10 ratio in weekly earnings.

Gross hourly wages and weekly earnings (£, nominal) as reported by LFS and ASHE, all employees, UK

	2008				2013				Percentage change 2008 to 2013		
	P10	P50	P90	90:10 ratio	P10	P50	P90	90:10 ratio	P10	P50	P90
LFS											
Gross hourly wages	5.5	9.9	21.3	3.9	6.0	10.8	23.8	4.0	8.5	9.5	11.7
Gross weekly earnings	107	363	813	7.6	115	390	885	7.7	7.5	7.4	8.9
ASHE											
Gross hourly wages	6.0	10.6	23.7	3.9	6.6	11.6	25.4	3.9	9.5	9.1	7.2
Gross weekly earnings	117	389	856	7.3	124	415	910	7.3	6.0	6.7	6.3

Source: ASHE figures are from ONS (2014)¹ and ONS (2009)¹; Labour Force Survey, UK

Using LFS data, we get larger increase in nominal figures for London compared to UK between 2008 and 2013 – so that means a smaller real decrease in both wages and earnings for full-time employees in London compared to the UK overall. ASHE data, on the other hand, shows that between 2008 and 2013, there was a larger increase in nominal wages and earnings in the UK compared to London - which means a larger real decrease in earnings and wages in London over the period.

Full-time employees weekly earning and hourly wages (nominal), in LFS and ASHE

	hourly wages			weekly earnings		
	2008	2013	% change 2008 to 2013	2008	2013	% change 2008 to 2013
LFS						
United Kingdom	11.0	12.1	9.7	447.9	481.0	7.4
London	14.2	15.8	11.7	556.2	615.0	10.6
ASHE						
United Kingdom	11.9	13.0	9.6	479.1	517.4	8.0
London	15.8	17.2	8.7	613.3	654.8	6.8

Source: ONS 2014c; Labour Force Survey (UK)

London Living Wage estimates based on ASHE data:

Market (2014) report the below living wage in the uk as 20% 2012, 21% 2013 and 22% in 2014. For London, a figure of 17% is presented for 2014.

Resolution Foundation (Whittaker and Corlett 2014): refer to a London figure of 17% and a GB figure of 20% for 2013.

The table below provides ONS published data on the proportion of employee jobs in London which paid less than the London Living Wage in April each year, from ASHE. The overall estimates for this proportion were 16.9% in 2012 and 17.7% in 2013, compared with our estimate of 22.52%.

	A: Proportion of employee jobs in London which paid less than the London Living Wage in April each year, from ASHE	B: Number of employee jobs in London in March each year, from the Workforce Jobs series (thousands)	C: Estimated number of employee jobs in London which paid less than the London Living Wage (thousands)
2008	13.2	4,309	569
2009	13.0	4,291	558
2010	13.2	4,219	557
2011	15.0	4,257	639
2012	16.9	4,424	748
2013	17.7	4,561	807
2014	19.4	4,726	917

Sources: Annual Survey of Hours and Earnings (ASHE) and Workforce Jobs series, Office for National Statistics.

Notes:

1. The ASHE figures are for employees aged 16 and over on adult rates of pay, whose pay for the survey pay-period was not affected by absence; pay is defined as gross pay per hour excluding overtime, shift premium payments and payments in kind.
2. In Column A, the London Living Wage used is the one in place at the time of the survey, i.e. the one that was announced the previous year.
3. Over the period shown here there are two discontinuities in the ASHE data: i) in 2011 when weighting of ASHE was affected by the move to the 2010 Standard Occupational Classification; and ii) in 2013 when the weighting of ASHE was adjusted to the 2011 Census. Together these increased the estimated proportion of employee jobs paid less than the London Living Wage by around half a percentage point.

Source: Response to Mayor's Question No: 2014/5918.

Data requested by: Greater London Authority Economics (GLA Economics), City Hall, London

Data request: To respond to Mayor's Question No. 2014/5918 for both (a) the total number and (b) proportion of jobs in London that paid less than the London Living Wage in each year since 2008.

Data requested on: 09-Dec-14

Data produced on: 10-Dec-14

Data sources: Annual Survey of Hours and Earnings (ASHE) and Workforce Jobs series, Office for National Statistics.

Available at: www.ons.gov.uk/ons/.../jobs-in-london-paying-less-than-the-london-living-wage

London Living Wage estimates based on LFS:

Results reported in Wilson et al (2013)

Table 3.1: Proportion of those in work earning below the living wage by disadvantaged group, Apr 2012–Mar 2013

	London	UK
Overall	21%	25%
Females	24%	31%
Disabled people	24%	28%
BAME groups	29%	31%
Lone parents	42%	44%
16-24 year olds	47%	58%
People with no qualifications	54%	52%
50-64 year olds	22%	22%

Source: Quarterly Labour Force Survey, Office for National Statistics. Analysis is limited to working age people who are not full-time students.

London Poverty profile estimates of the proportion earning less than the London Living Wage

LLP methodology involves using ASHE (where relevant characteristics are available) and LFS (where additional characteristics are applied). Similar thresholds have been applied to the analysis in the current paper in previous exercises. LFS estimates are similar to those presented in this paper. For example, see:

Proportion low paid based on LFS 2011/2013 average

	Low paid
Pakistani or Bangladeshi	44%
Black African	41%
Black Caribbean	27%
Indian	25%
Other White	27%
White British	17%

Source: <http://www.londonpovertyprofile.org.uk/indicators/topics/low-pay/>.

Appendix 3: Comparison of findings for London in this report and Hills et al (2015)

For income, there are some small differences between the results presented in this London specific report and the regional results for London reported in Hills et al (2015). This results from differences in the methodology applied by DWP methodology in pooling data for geographical splits for the results reported in Hills et al (2015). Broadly speaking, for the regional splits reported in Hills et al (2015), point estimates from the (inflated) last 3 years are averaged for 2012/13. This methodology is not applied in the current report, where the income figures for London and the rest of the UK are based on the 2012/13 data set with no averaging. The impact of these difference were assessed to be small (less than 1%) but some data points may differ slightly.

	Before housing costs						After housing costs					
	MEAN	10	30	50	70	90	MEAN	10	30	50	70	90
London analysis 1213 London results	667.46	221.08	354.57	493.42	712.52	1165.94	542.94	112.22	236.47	384.39	572.50	1031.65
London analysis 0708 London results	722.53	222.12	358.92	511.03	743.69	1260.22	627.19	138.57	265.06	434.04	647.61	1144.71
Change 0708 to 1213 (£)	55.07	1.04	4.35	17.61	31.17	94.27	84.26	26.36	28.59	49.64	75.11	113.06
% change	7.6%	0.5%	1.2%	3.4%	4.2%	7.5%	13.4%	19.0%	10.8%	11.4%	11.6%	9.9%
National analysis 1213 London results	670.27	223.48	357.28	488.44	701.89	1151.44	550.33	113.17	239.26	382.70	576.68	1026.94
National analysis 0708 London results	722.53	222.12	358.92	511.03	743.69	1260.22	627.19	138.57	265.06	434.04	647.61	1144.71
Change 0708 to 1213 (£)	52.26	-1.36	1.64	22.58	41.80	108.78	76.87	25.40	25.80	51.34	70.93	117.76
% change	7.2%	-0.6%	0.5%	4.4%	5.6%	8.6%	12.3%	18.3%	9.7%	11.8%	11.0%	10.3%
Percentage points difference between changes	0.39	1.08	0.76	-0.97	-1.43	-1.15	1.18	0.69	1.05	-0.39	0.64	-0.41
Difference between 1213 London and national report London figures (£)	2.80	2.40	2.71	-4.97	-10.63	-14.51	7.39	0.95	2.79	-1.69	4.18	-4.70

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