

Compendium

Earning, learning and business churning: revealing London's industrial economy in 2015



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Business, jobs and pay in London's Professional, Scientific and Technical Activities, 2015

An analysis of the workforce and business activity in the Professional, Scientific and Technical Activities industry sector in London. This article presents the scale of jobs in Professional, Scientific and Technical Activities in London, and how it has changed over time. It then discusses earnings in the sector, differences in pay by sex and proceeds to map business activity across the capital. Finally we look at breaking down the workforce, by qualification levels, sex and employment status, looking at the individual industrial divisions, to build a picture of economic activity in this sector in London as of 2015.



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1 . Main points

The Professional, Scientific and Technical Activities industry section in London generated £40,832 million of Gross Value Added (GVA) in 2014, which was 11.2% of London's total GVA, and 2.5% of the UK's total GVA.

Professional, Scientific and Technical Activities was the largest sector in London in 2015 by both numbers of jobs, 765,000 or 13.7% of London employment, and numbers of workplaces, 108,960 or 21.8% of London's workplaces.

Head offices and management consultancies have seen job levels increase in London by 266.2% (up 189,000 jobs) between 1996 and 2015, which accounted for over 1 in 9 (11.8%) of the increase in all jobs across London.

Average (median) hourly real earnings (excluding overtime) in Professional, Scientific and Technical Activities in London decreased by £2.63 per hour (down 11.6%) between 2008 and 2015, compared to a decrease of £1.72 per hour (down 9.8%) for London employees in general. This was calculated using national Consumer Prices Index figures, as data are not available at the London level.

2 . Introduction

The Professional, Scientific and Technical Activities industry section is a microcosm of London's overall economy. The economic success of this section mirrors that of the city itself, the growth in jobs leading London's overall job growth, and the section represents London's highly qualified workforce. Professional, Scientific and Technical businesses are spread across the capital but are highly concentrated in the centre. Gross Value Added (GVA) figures indicate that in 2014, this industry section in London provided £40,832m of GVA, which was 11.2% of London's total GVA, and 2.5% of the UK's total GVA.

The industrial sectors analysed in this article are based upon¹ the [UK Standard Industrial Classification \(SIC\) 2007](#). Professional, Scientific and Technical Activities include a range of high-skilled and specialised activities, made up of the following industrial divisions:

- legal and accounting activities
- activities of head offices; management consultancy activities
- architectural and engineering activities; technical testing and analysis
- scientific research and development
- advertising and market research
- other Professional, Scientific and Technical Activities
- veterinary activities

This analysis is part of a series of articles entitled [Earning, Learning and Business Churning: revealing London's industrial economy](#), which analyse patterns of activity in industries in London. Data used in this analysis has been used to create the [Economic Evidence Base](#) by the Greater London Authority, which forms the economic basis of the Mayor of London's [London Plan](#). This article gives detail about a particular industrial sector, whereas the Economic Evidence Base provides a more comprehensive understanding of London's economy.

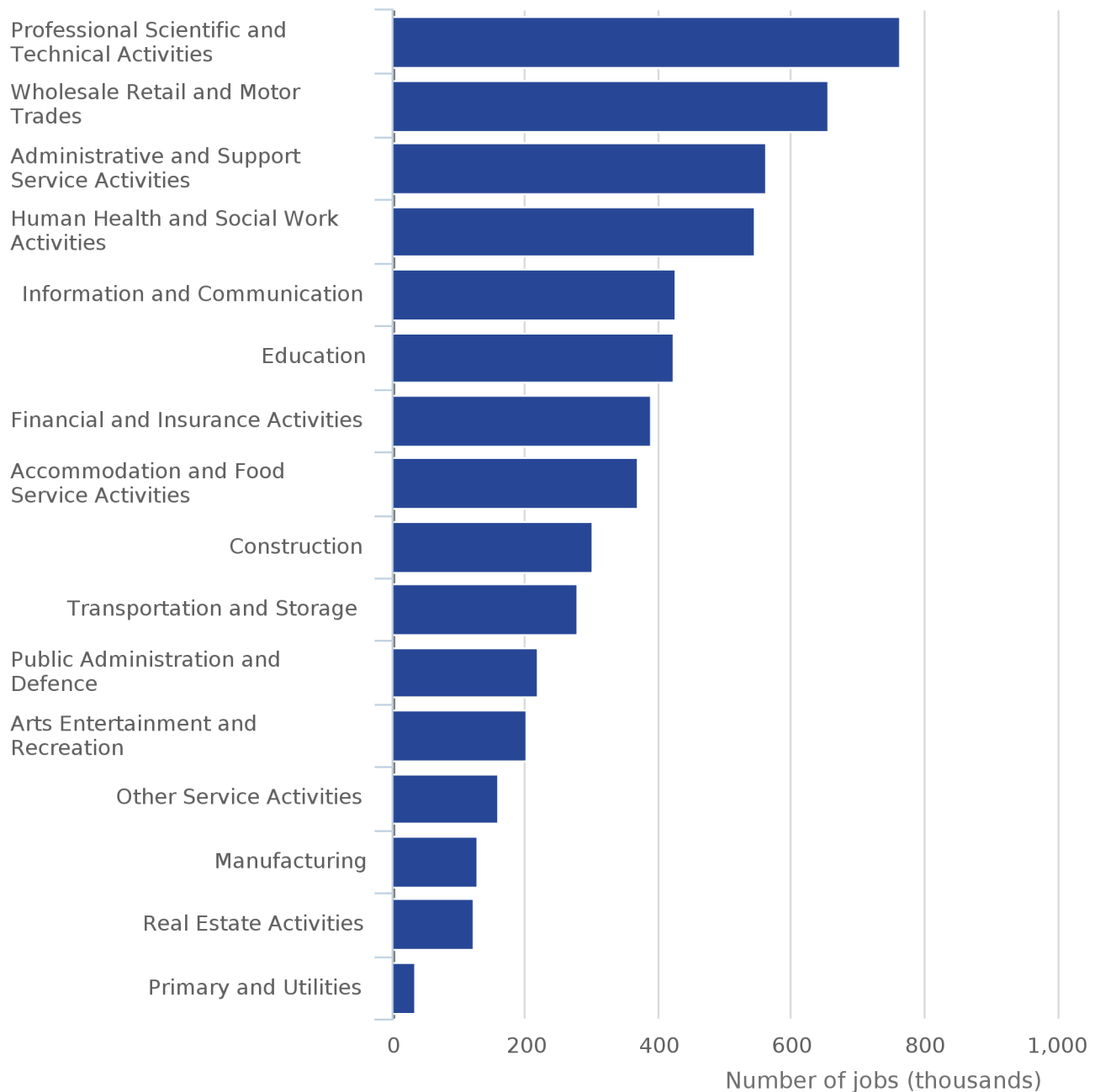
Notes for Introduction

1. To analyse London's economy, we group industrial sections A, B, D and E to create the group "Primary and Utilities", split section G into two parts: "Wholesale and motor trades", which is the combination of industrial divisions 45 and 46, and "Retail", which is division 47, and exclude sections T and U as they are too small to be analysed effectively.

3 . Jobs in 2015

Professional, Scientific and Technical Activities represented the largest industrial sector in London in 2015, according to estimates from [Workforce Jobs](#), as shown in Figure 1. The sector comprised 765,000 jobs, or 13.7% of all employment in the capital. The Professional, Scientific and Technical Activities sector has gone from strength to strength over the past 2 decades, where between 1996 and 2015 the number of jobs almost doubled from 399,000 to 765,000 jobs. This represents the highest percentage increase in jobs of any sector in London.

Figure 1: London jobs by industrial sector, 2015



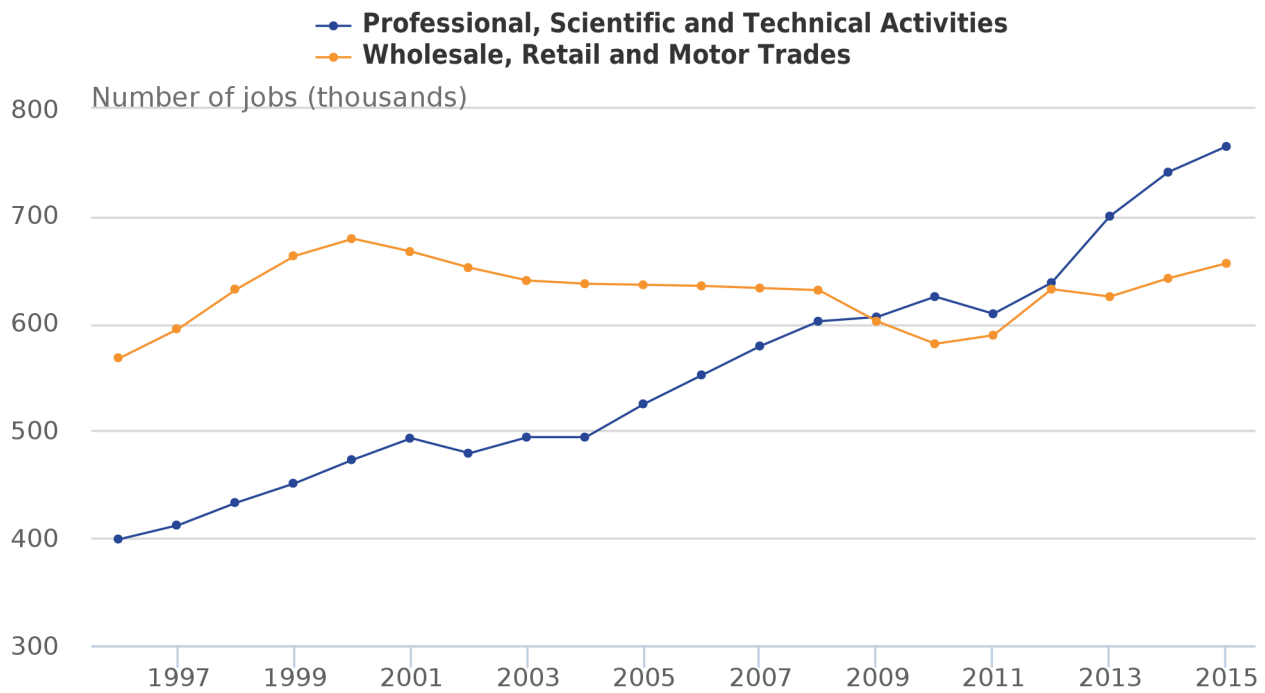
Source: Workforce Jobs, Office for National Statistics

Notes:

1. The industrial sectors presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), except sections A, B, D and E have been combined to create new classification "Primary and Utilities".

Figure 2 helps to colour this picture further. In 2009, Professional, Scientific and Technical Activities overtook the Wholesale, Retail and Motor Trades sector, and in doing so became the largest industry sector in London measured by number of jobs. Of additional note is the sector's apparent resilience to the global financial crisis from 2008 onwards, with no strong decline in jobs in the years that followed.

Figure 2: London jobs in Professional, Scientific and Technical, and Wholesale, Retail and Motor Trades industry sectors, 1996 to 2015

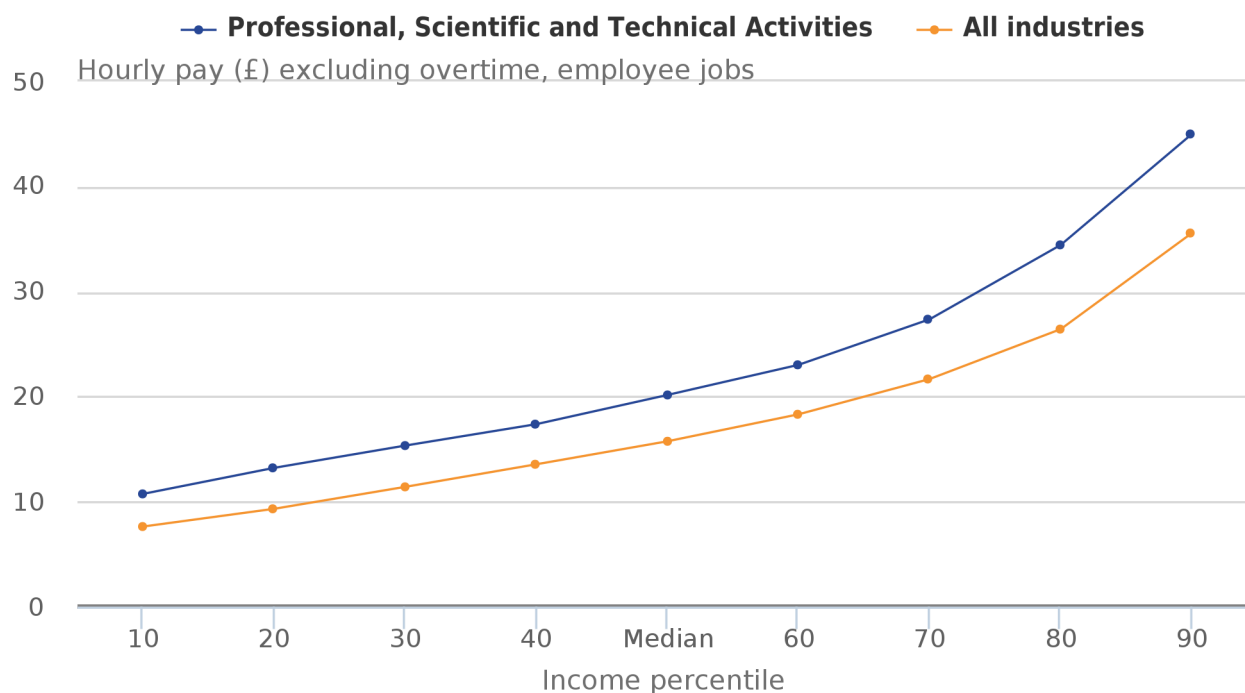


Source: Workforce Jobs, Office for National Statistics

4 . Earnings

Jobs in Professional, Scientific and Technical Activities have clearly grown rapidly over the past 20 years. Data from the [Annual Survey of Hours and Earnings \(ASHE\)](#) enable us to see how well jobs in the sector in London pay.

Figure 3: Earnings in Professional, Scientific and Technical activities in London, 2015



Source: Annual Survey of Hours and Earnings (2015, provisional)

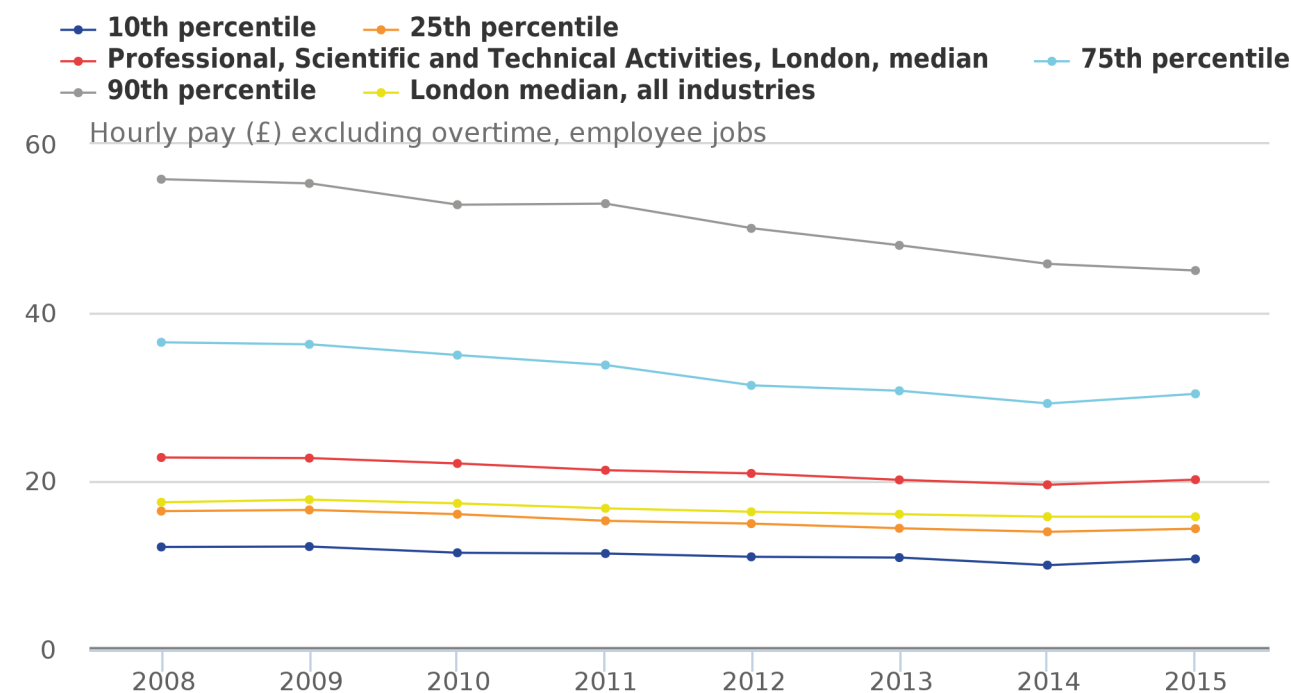
Notes:

1. To aid in interpretation of this chart, the 50th percentile is the point below which 50% of workers in the income distribution lie, and represents average (median) earnings. The 90th percentile represents the top 10% earners, and the 10th percentile represents the lowest 10%.

Average (median) hourly employee earnings (excluding overtime) in the section in London in 2015 were £20.15, compared to £15.74 for all industries across London (28% higher). This can be seen in Figure 3. Moreover, earnings in the sector are higher than the London average for all income percentiles; as such, jobs in the section are comparatively well paid. In fact, only 5.6% of employees in Professional, Scientific and Technical Activities in 2015 were earning below the London Living Wage¹, which was £9.15 at the time ASHE was collected. However, it must be noted that data for 2015 are provisional, and are subject to revision.

The picture of earnings over time is less positive than that of a snapshot of earnings in 2015, with real earnings in the sector in decline. Average (median) hourly real earnings (excluding overtime) in Professional, Scientific and Technical Activities in London decreased by £2.63 per hour (down 11.6%) between 2008 and 2015, compared to a decrease of £1.72 per hour (down 9.8%) for London employees in general, as shown in Figure 4. National Consumer Prices Index figures have been used to adjust for inflation, as data are not available at the London level, although the impact of inflation may differ in the London region compared to national figures. After taking national price levels into account, earnings in the sector – and for London's employees in general – have in fact been falling.

Figure 4: Real earnings in Professional, Scientific and Technical activities in London, 2008 to 2015



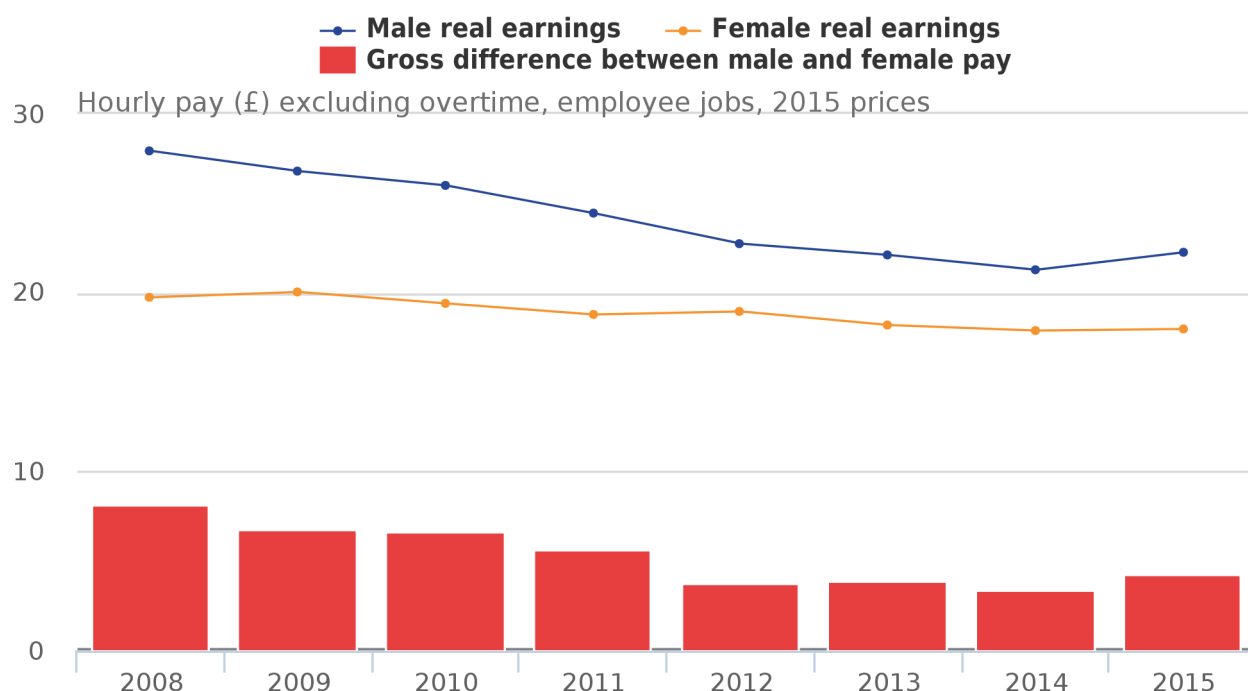
Source: Annual Survey of Hours and Earnings (2008-2014 revised, 2015 provisional), Consumer Prices Index

Notes:

- 1. Earnings have been adjusted for inflation using national-level Consumer Prices Index figures, as no regional-level figures are available. This adjustment accounts for changes in prices over time, assuming London workers experience similar levels of inflation to the national level.
- 2. To aid in interpretation of the chart, the 50th percentile is the point below which 50% of workers in the income distribution lie, and represents average (median) earnings. The 75th percentile represents the top 25% of earners, and the 25th percentile represents the lowest 25% of earners.

We can see in Figure 5 that between 2008 and 2015, the hourly real earnings (excluding overtime) of women in Professional, Scientific and Technical Activities in London have declined by £1.77 per hour, or 9.0%, but not as much as the same figures for men in the section in London, which fell by £5.67 per hour, or 20.3%. As such, the gross difference in male and female earnings in this sector in London has been shrinking over time.

Figure 5: Differences in real pay between men and women in Professional, Scientific and Technical Activities, London, 2008 to 2015



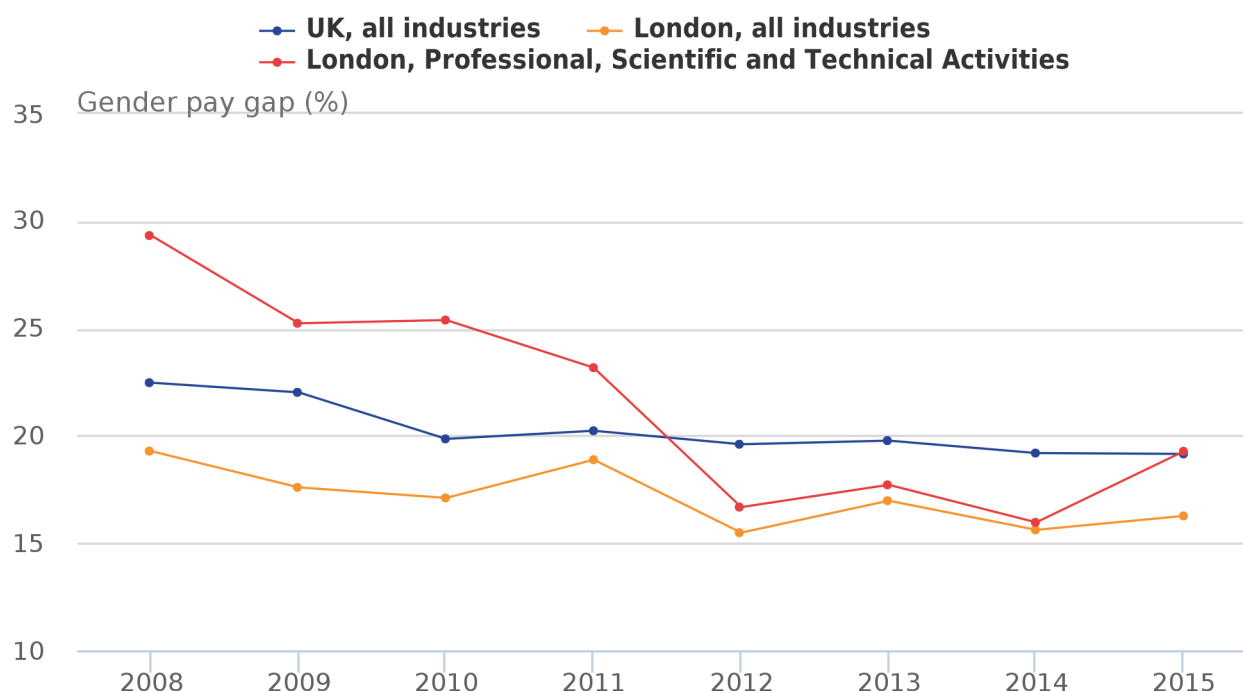
Source: Annual Survey of Hours and Earnings (2008-2014 revised, 2015 provisional)

Notes:

1. Earnings have been adjusted for inflation using national-level Consumer Price Index figures, as no regional-level figures are available. This adjustment accounts for changes in prices over time, assuming London workers experience similar levels of inflation to the national level.
2. The lines show earnings by sex, and the bars at the bottom show the gross difference between male and female earnings.

We can also look at the gender pay gap² in Figure 6. There is no single measure that adequately deals with the complex issue of the differences between men's and women's pay, issues including differences in occupations, working patterns and age distributions. We have calculated the gender pay gap using the same methodology as explained in [Annual Survey of Hours and Earnings: 2015 Provisional Results](#), using median hourly earnings (excluding overtime), and it should be noted that the figures do not show differences in rates of pay for comparable jobs.

Figure 6: Gender pay gap in London and the UK, with a breakdown of Professional, Scientific and Technical activities, 2008 to 2015



Source: Annual Survey of Hours and Earnings (2008-2014 revised, 2015 provisional)

Notes:

1. The gender pay gap refers to the percentage difference between male and female hourly earnings, using the calculation: $100 - (\text{female hourly pay} / \text{male hourly pay}) \times 100$. This is a basic comparison and does not show differences in rates of pay for comparable jobs.

The gender pay gap in Professional, Scientific and Technical Activities in London has been declining faster than the overall pay gap in London and the UK more widely, as shown in Figure 6. For the section in London, the gender pay gap has shrunk by 10.0 percentage points between 2008 and 2015; the UK gender pay gap shrank by 3.3 percentage points, and the London gender pay gap shrank by 3.0 percentage points. The provisional data for 2015 indicate that male earnings have increased relative to female earnings, and this may have resulted in the gender pay gap increasing; however, it must be stressed that data for 2015 are provisional only, and are subject to revision.

Notes for Earnings

1. Estimates of proportions of employees earning below minimum wage rates are calculated using the [methodology recommended calculating estimates of low pay](#).
2. The gender pay gap refers to the percentage difference between male and female hourly earnings. The calculation is: $100 - (\text{female hourly pay} / \text{male hourly pay}) \times 100$.

5 . Locating London's Professional, Scientific and Technical jobs

Figure 7 maps out employees in the Professional, Scientific and Technical Activities industry using data from the [Inter-Departmental Business Register](#). Data were available for the whole section excluding head office and management consultancy activities, and then for head office and management consultancy activities separately.

The section excluding head office and management consultancies is reflective of London, with jobs clustering around the centre. It should however be noted that there are pockets of jobs dispersed across the capital too; for example, there are areas with 1,000 to 24,000 employees per square kilometre in Harrow, Croydon and Richmond upon Thames.

Figure 7: Number of employees (per square kilometre) in Professional, Scientific and Technical Activities (excluding head office and management consultancy activities) in London MSOAs, 2015

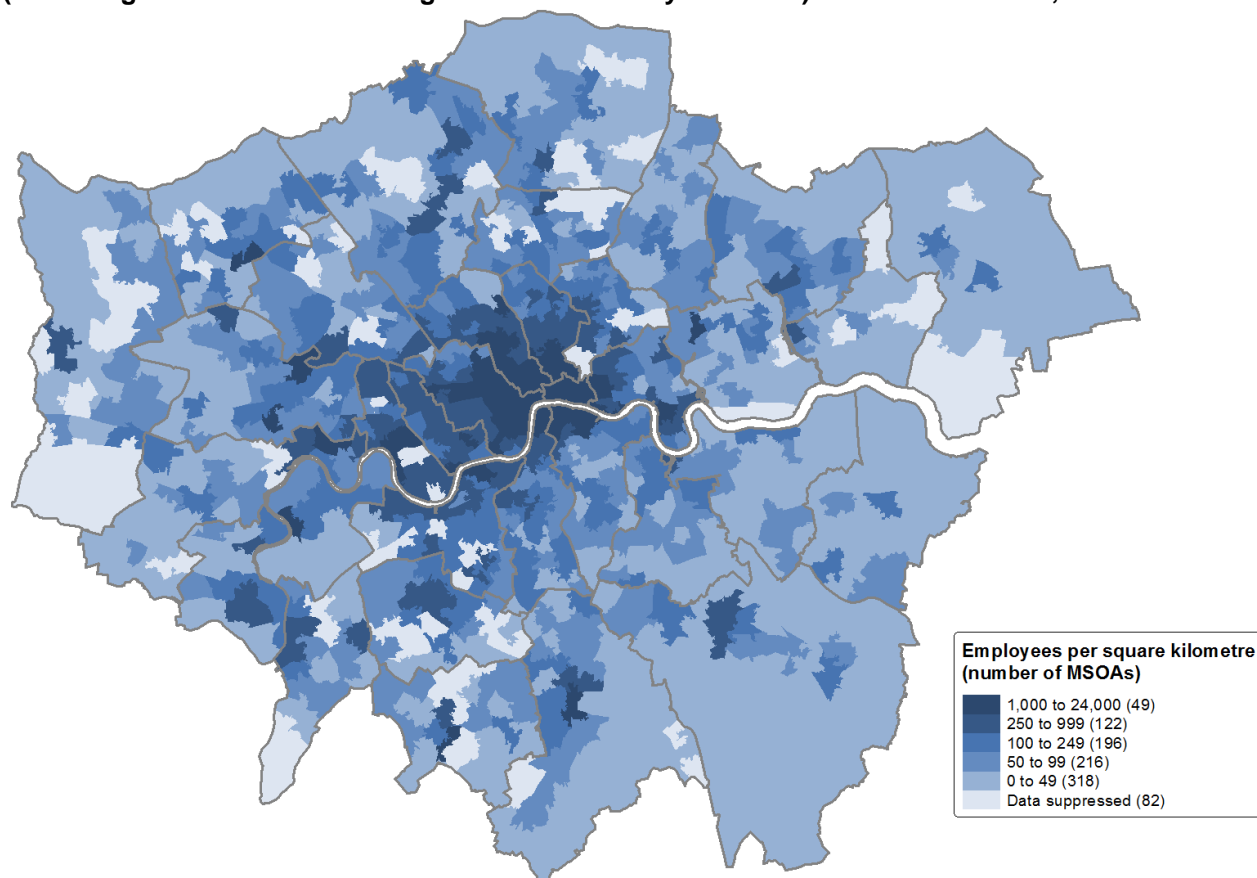
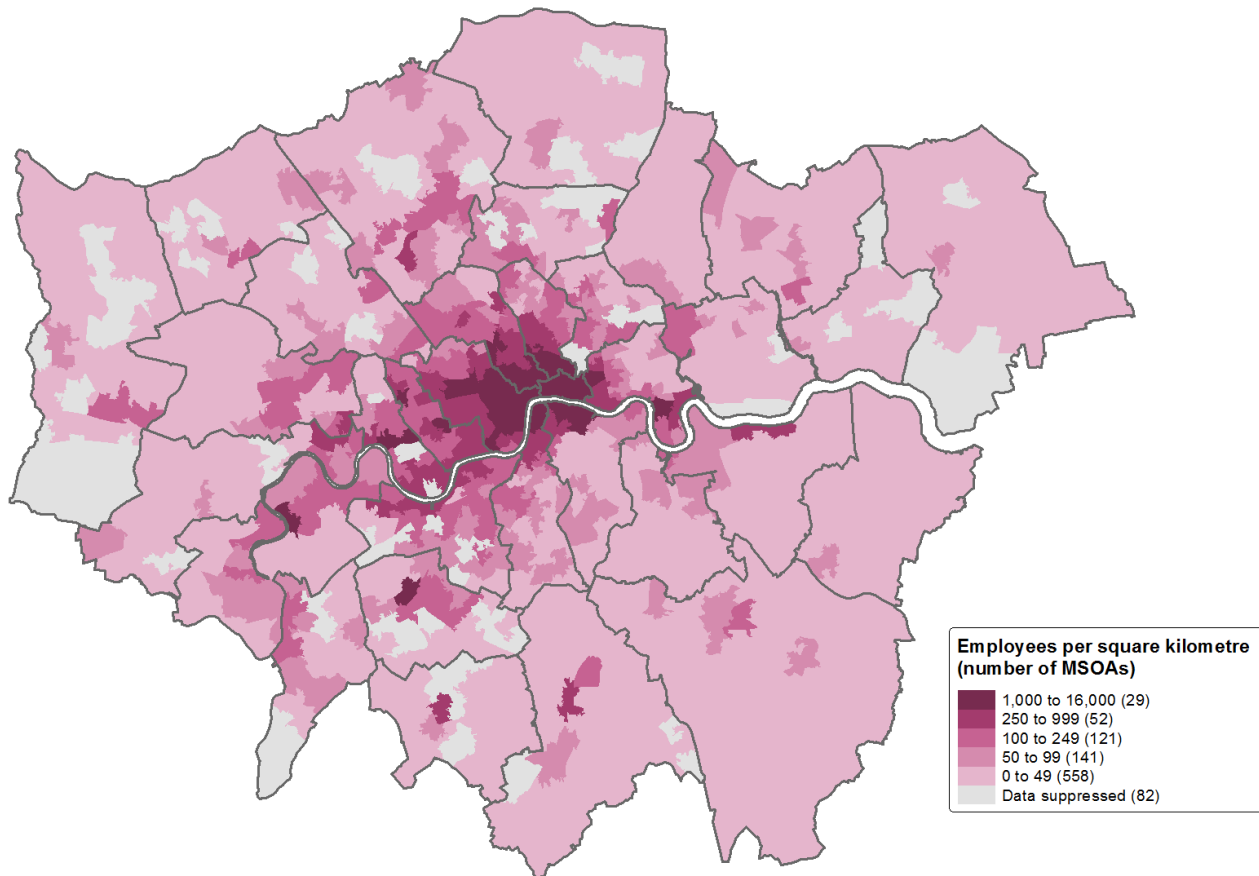


Figure 8 maps head office and management consultancy activities to paint a slightly different picture, with high concentration in the centre. This makes intuitive sense, given that the broader Professional, Scientific and Technical sector contains accounting and legal activities, many of which one would expect to be located in high streets outside of the centre. Head offices, on the other hand, will tend to want to be in the centre, with optimal access to commuter routes, the prestige of central London and the potential benefits of agglomerating amongst other businesses.

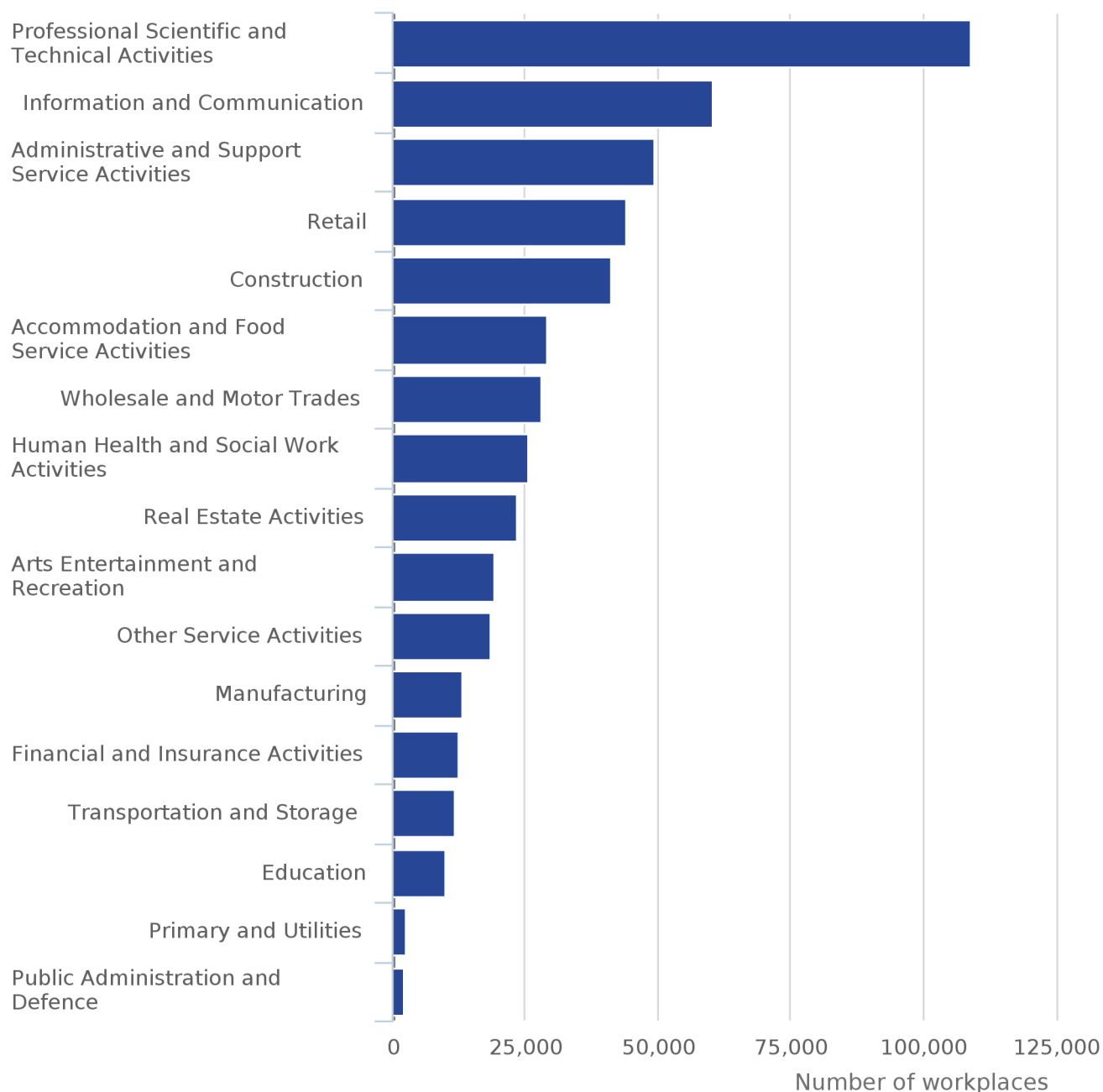
Figure 8: Number of employees (per square kilometre) in head office and management consultancy activities in London MSOAs, 2015



6 . Workplaces and who works in them

The current strength of Professional, Scientific and Technical Activities in London is evidenced by its very high number of workplaces¹, as shown again in the [Inter-Departmental Business Register](#) data in Figure 9. As of 2015, the section featured 108,960 workplaces across the capital, comprising just over 1 in 5 (21.8%) of all workplaces in the city.

Figure 9: Number of workplaces in London by industry sector, 2015



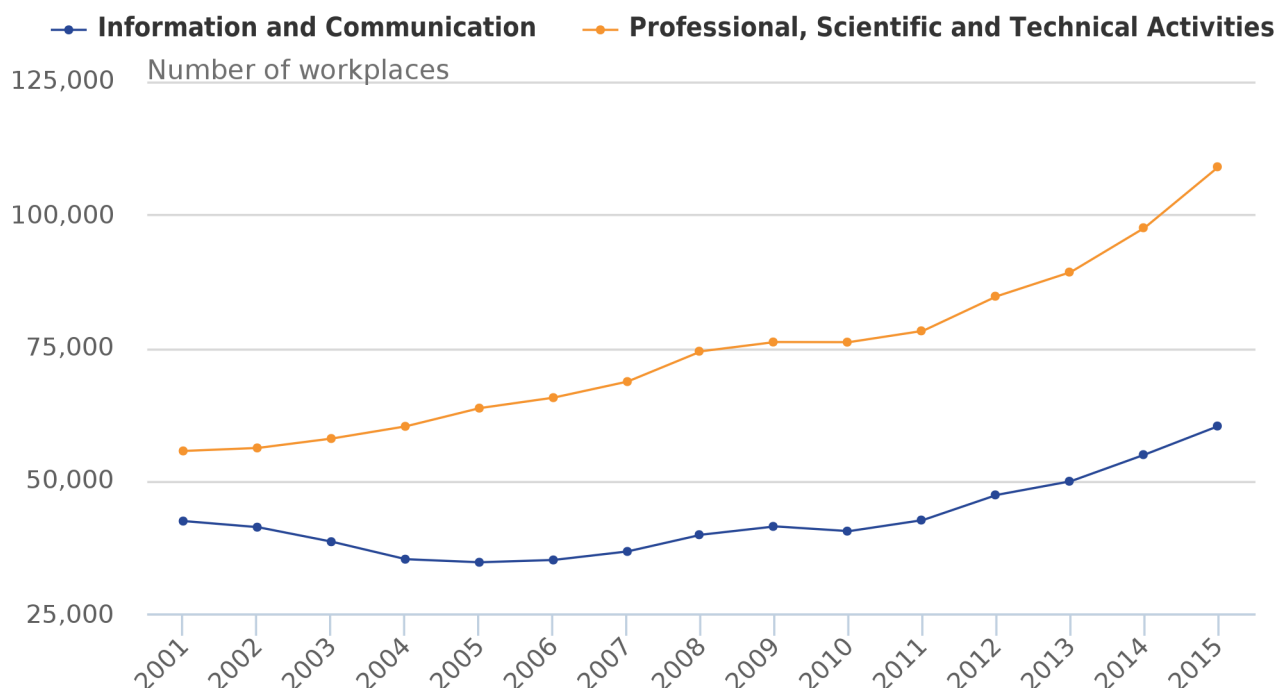
Source: Inter-Departmental Business Register

Notes:

1. The industrial sectors presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), except sections A, B, D and E have been combined to create new classification "Primary and Utilities", and section G has been split as: divisions 45 and 46 combined to become "Wholesale and motor trades" and division 47 forms "Retail".
2. In 2015, the IDBR extended the coverage of businesses to include a population of solely PAYE-based businesses that were previously excluded because of a risk of duplication. At UK level, 105,000 businesses have been added in 2015. A more detailed note explaining these changes can be found on our [website](#).

As we saw with the number of jobs in the section, the number of workplaces has also grown rapidly over the past 15 years. This is shown in Figure 10. Between 2001 and 2015, the number of Professional, Scientific and Technical workplaces nearly doubled, from 55,530 to 108,960. Of particular note is that 94.3% of this change is accounted for by change in small enterprises – those with 0 to 9 employees – which saw its numbers of workplaces in London increase from 49,715 to 100,095.

Figure 10: Number of workplaces in London in selected industry sections, 2001 to 2015



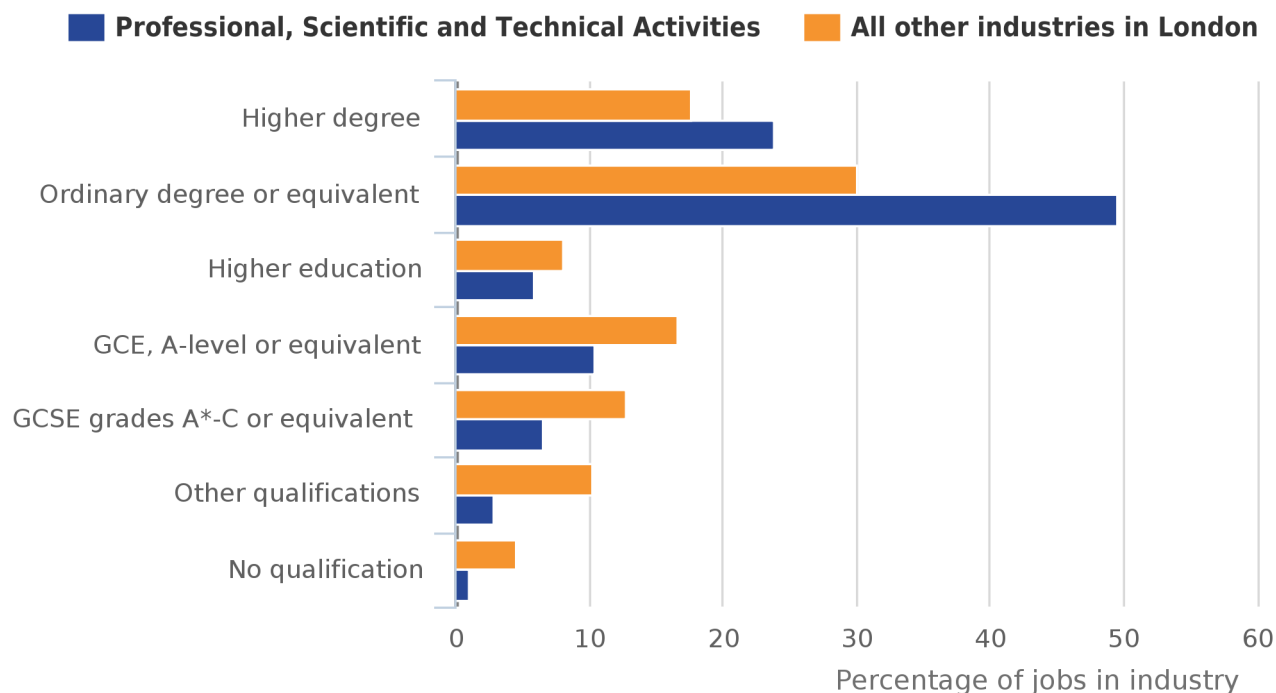
Source: Inter-Departmental Business Register

Notes:

1. Information and Communication is shown as it is the second largest industry section in London terms of workplaces in 2015.
2. An increase in numbers of workplaces (and employees) between 2011 and 2012 should be treated with caution. At UK level, nearly half of the increase (31,000 of 68,000 enterprises) was attributable to improvements to HM Revenue and Customs computer systems leading to previously excluded businesses being added to the IDBR.
3. In 2015, the IDBR extended the coverage of businesses to include a population of solely PAYE-based businesses that were previously excluded because of a risk of duplication. At UK level, 105,000 businesses have been added in 2015. A [more detailed note explaining these changes](#) can be found on our website.

Data from the [Annual Population Survey](#) provide us with insight on workforce characteristics, as shown in Figure 11. The Professional, Scientific and Technical workforce represents London's economic strengths in terms of its skill levels; just less than three-quarters (73.4%) of jobs in the section in 2015 were held by those who are degree-educated, compared to just short of half (47.8%) for all other industries in London.

Figure 11: Professional, Scientific and Technical jobs by highest qualification of job-holder, London 2015



Source: Annual Population Survey

Notes:

1. The highest educational qualifications follow the standard ONS categories, except the top category "Degree or equivalent" has been split to show "Higher degree" and "Ordinary degree or equivalent" separately. Further information on these categories is available in the [Labour Force Survey \(LFS\) User Guide](#).

Notes for Workplaces and who works in them

1. Workplaces are referred to as "local units" in the Inter-Departmental Business Register.

7 . Taking a closer look

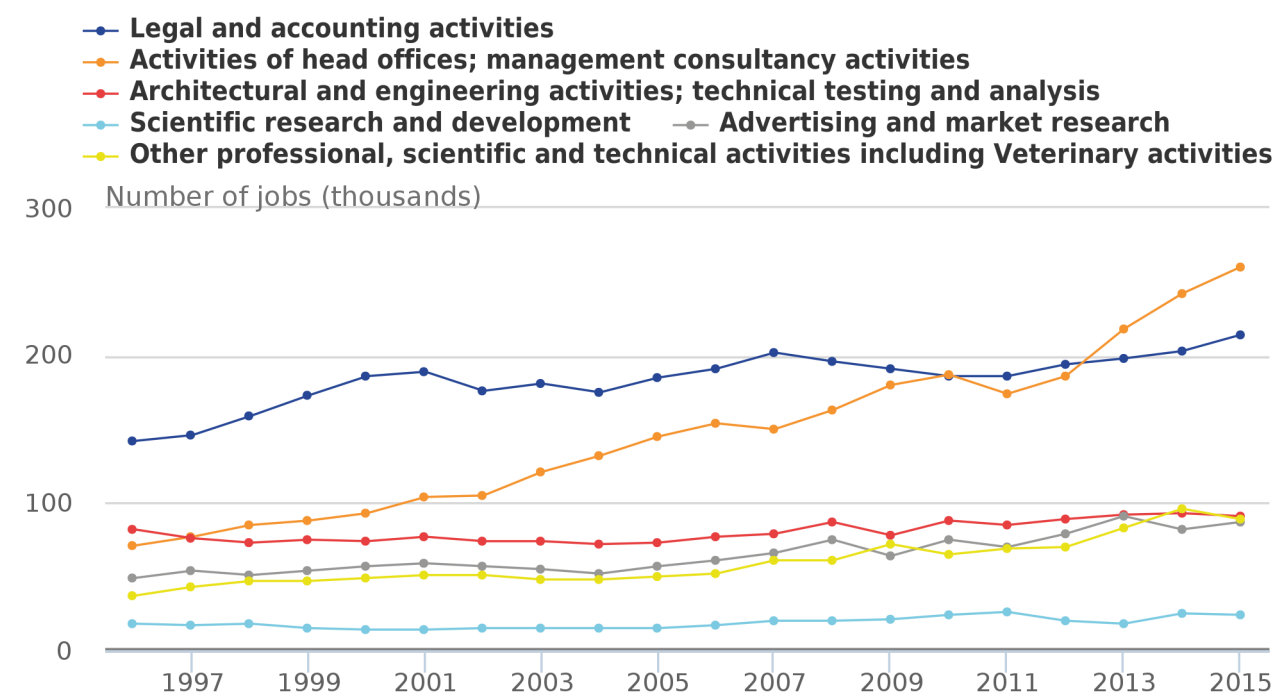
This article has so far considered the Professional, Scientific and Technical section as a whole; the remainder of the article will investigate its constituent divisions:

- legal and accounting activities
- activities of head offices; management consultancy activities
- architectural and engineering activities; technical testing and analysis
- scientific research and development
- advertising and market research
- other Professional, Scientific and Technical Activities
- veterinary activities

Workforce Jobs data in Figure 12 show that the division that performed particularly strongly between 1996 and 2015 is that of head offices and management consultancies, seeing job levels increase by a striking percentage of 266.2% (189,000 jobs), compared to increases for the section as a whole of 91.7% (366,000 jobs). Indeed, as of 2015, jobs in head office and management consultancies accounted for just over one third (34.0%) of all jobs in its section. The increase in jobs in head office and management consultancies over this period accounted for just over half (51.6%) of the increase in jobs in Professional, Scientific and Technical Activities, and over 1 in 9 (11.8%) of the increase in all jobs across London.

Legal and accounting activities have also seen strong growth, accounting for 20.0% of the increase in jobs in its parent section between 1996 and 2015, and just over 4.5% of the increase in jobs in London as a whole. This is shown in Figure 12.

Figure 12: Jobs in London by Professional, Scientific and Technical divisions, 1996 to 2015



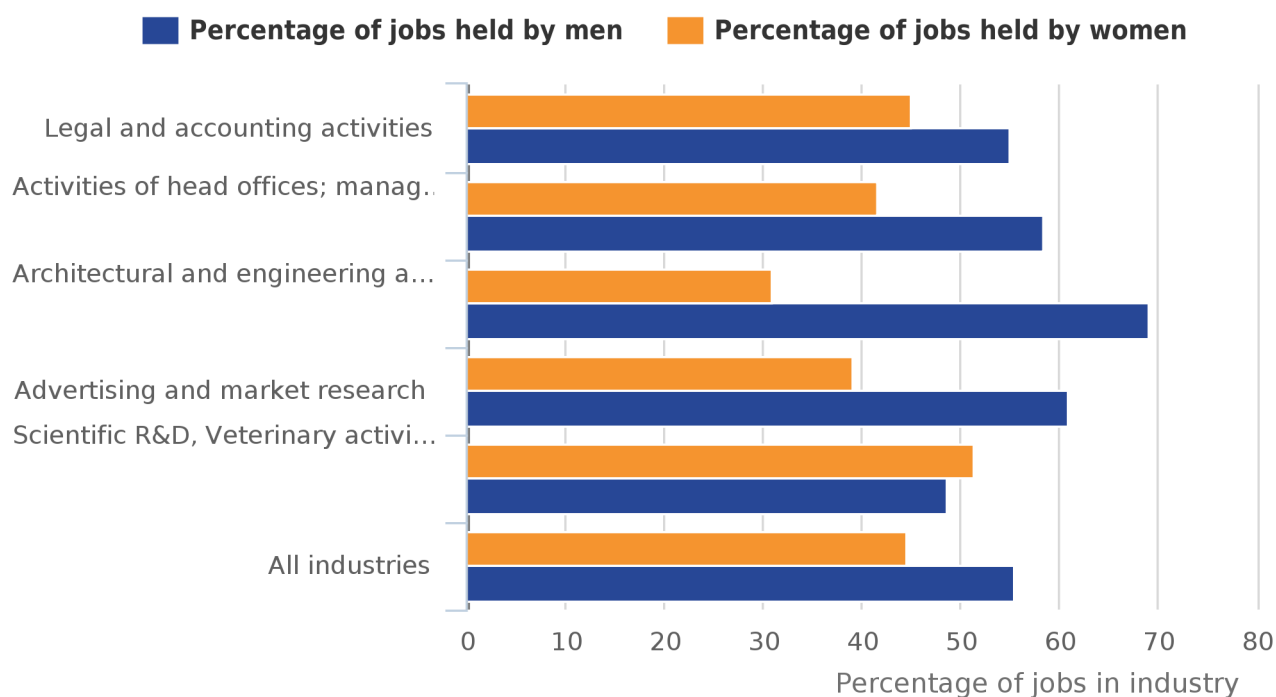
Source: Workforce Jobs, Office for National Statistics

Notes:

1. Industrial divisions Veterinary activities and Other Professional, Scientific and Technical Activities have been combined to enable statistical analysis for London.

Annual Population Survey data looking at the workforce in each division can also be quite telling; for example, the gender balance in terms of employment exhibits much variation between divisions, even though the section as a whole bears close resemblance to London’s workforce in general. Figure 13 depicts this information, with only 30.8% of jobs in the “architecture and engineering; technical testing and analysis” division held by women.

Figure 13: Jobs in divisions of Professional, Scientific and Technical Activities by sex of job-holder, London, 2015



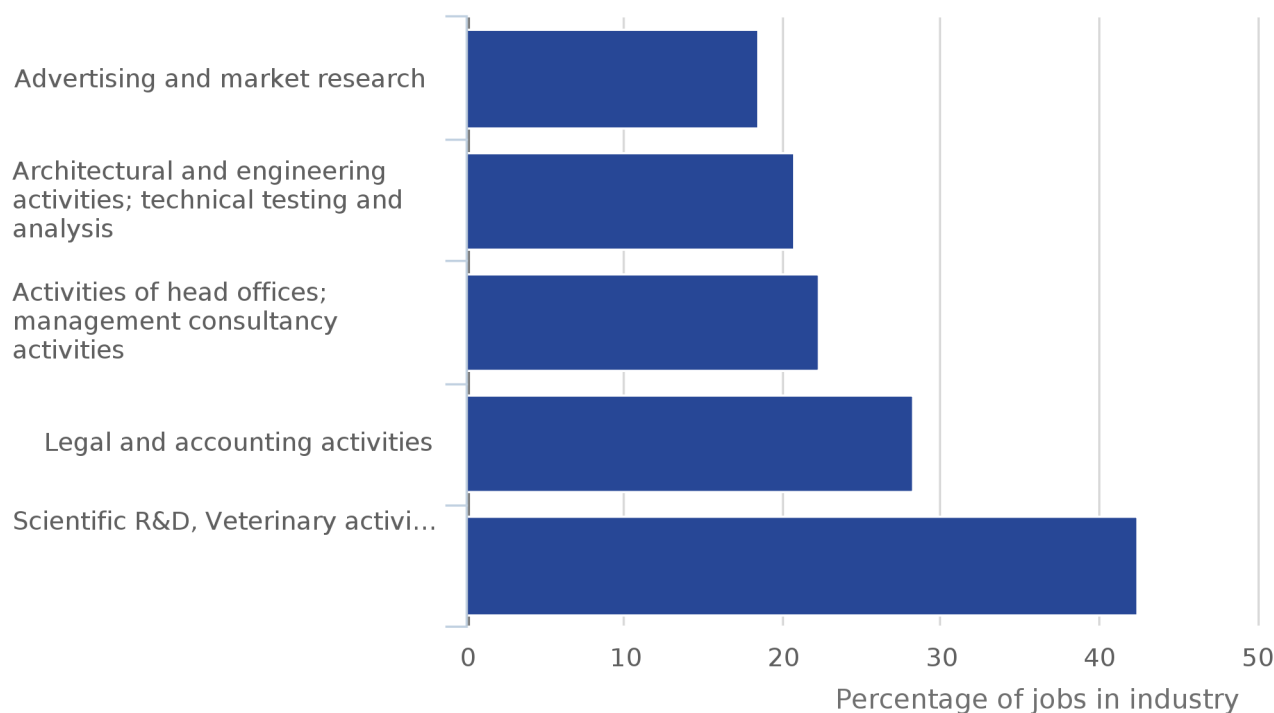
Source: Annual Population Survey

Notes:

1. Industrial divisions Scientific research and development; Veterinary activities; and Other Professional, Scientific and Technical Activities have been combined to enable statistical analysis for London.

There is also much variation between divisions in levels of self-employment, as can be seen in Figure 14. The percentage of self-employed jobs in the Professional, Scientific and Technical Activities section as a whole is 26.5%, compared to 18.0% for London overall. However, there is marked divisional variation, with 42.5% of jobs being self-employed in the combination of divisions scientific research and development; veterinary activities; and other Professional, Scientific and Technical Activities.

Figure 14: Self-employed jobs as a percentage of all jobs in Professional, Scientific and Technical Activities in London, 2015



Source: Annual Population Survey

Notes:

Industrial divisions Scientific research and development; Veterinary activities; and Other Professional, Scientific and Technical Activities have been combined to enable statistical analysis for London.

Compendium

Business, jobs and pay in London's Accommodation and Food Services, 2015

An analysis of the workforce and business activity in the Accommodation and Food Service Activities industry section in London. This article presents a breakdown of jobs in Accommodation, and in Food and Beverage Services, in London, with reference to the working patterns, age structure, countries of birth and qualifications held by the workers. It then reviews earnings in the sector, and maps out the employment across London, to build a picture of economic activity by this sector in London as of 2015.



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1 . Main points

The Accommodation and Food Service Activities industry grew rapidly in London between 1996 and 2015 – by 163,000 jobs (79%). This section had the third highest percentage growth of all industry sectors in London over this period.

Food and Beverage Service Activities accounted for 82% of the 163,000 section-level increase in jobs in London between 1996 and 2015. Moreover, the Food and Beverage Service Activities division has consistently been larger than the Accommodation division in London, comprising 4 in 5 jobs in the section in any year over the period 1996 to 2015.

69.5% of jobs in Accommodation and Food Service Activities in London were held by job-holders born outside of the UK or British Overseas Territories in 2015. For Accommodation the figure is 79.8% and for Food and Beverage Service Activities it is 67.0%.

One-quarter of those employed in Accommodation and Food Service Activities in London in 2015 held a degree or higher degree and a further quarter held either foreign or vocational qualifications.

The average (median) hourly wage (excluding overtime) in Food and Beverage Service Activities was £1.41 less than the £9.15 [London Living Wage](#) in place at the time of survey in 2015. For Accommodation, the average hourly wage was 14 pence less than the London Living Wage. In Accommodation and Food Service Activities as a whole, more than two-thirds (67.5%) of employee jobs in were earning below the London Living Wage in 2015.

2 . Introduction

This article examines the characteristics of the Accommodation and Food Service Activities industry section in London. Gross Value Added (GVA) data indicate that this section in London was worth £10,952 million in 2014, which was 3.0% of London's GVA and 0.7% of the UK's GVA. This article paints a picture of an industry section that has performed reasonably well in relation to others in London and which features a workforce that stands out in a number of ways, most notably in its low levels of pay.

The industrial sectors analysed in this article are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#) and the Accommodation and Food Service Activities section can be broken down as follows:

1. Accommodation

- Hotels and similar accommodation
- Holiday and other short-stay accommodation
- Camping grounds, recreational vehicle parks and trailer parks
- Other accommodation

2. Food and Beverage Service Activities

- Restaurants and mobile food service activities
- Event catering and other food service activities
- Beverage serving activities

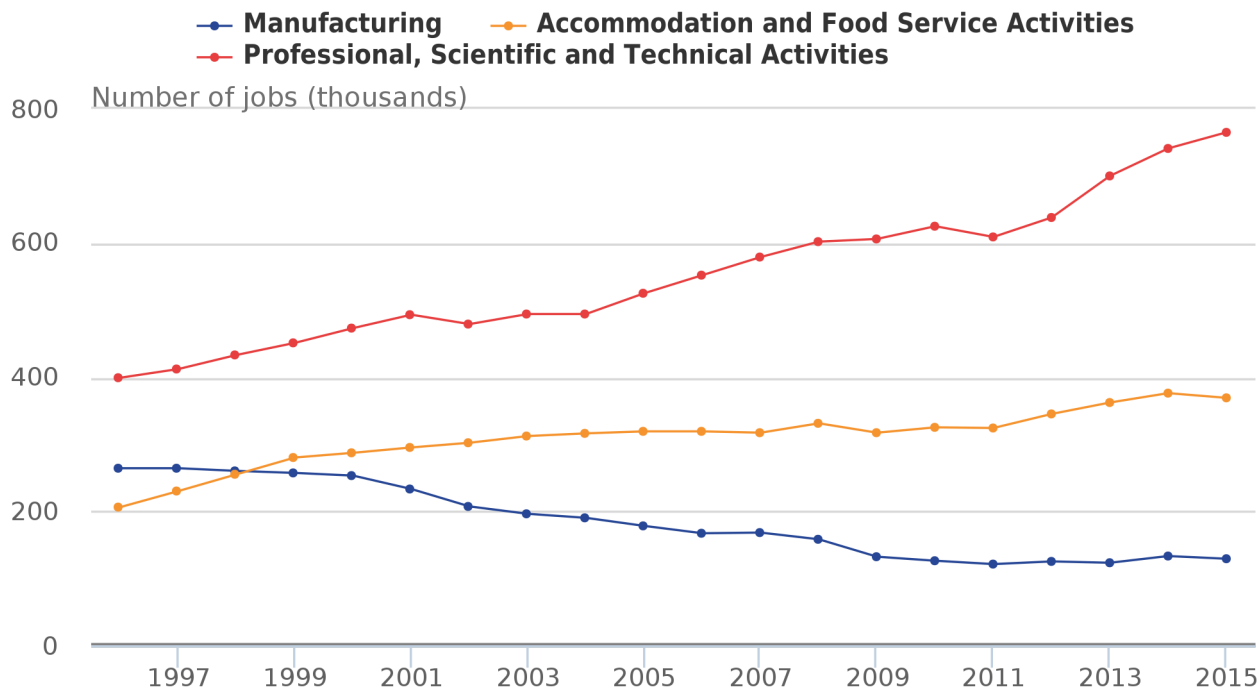
This industry section includes the provision of short-term accommodation for tourists and the provision of meals and drinks fit for immediate consumption, but excludes long-term accommodation (covered under Real Estate) and the preparation of food and drink not fit for immediate consumption (covered by Manufacturing). Because of the structure of London's economy we group industrial sections A, B, D and E to create the group "Primary and Utilities" and split section G into 2 parts: "Wholesale and motor trades", which is the combination of industrial divisions 45 and 46 and "Retail", which is division 47. We typically exclude sections T and U from the analysis as they are too small in London to analyse effectively.

This analysis is part of a series of articles entitled [Earning, Learning and Business Churning: revealing London's industrial economy](#), which analyse patterns of activity in industries in London. Data used in this analysis has been used to create the [Economic Evidence Base](#) by the Greater London Authority, which forms the economic basis of the Mayor of London's [London Plan](#). This article gives detail about a particular industrial sector, whereas the Economic Evidence Base provides a more comprehensive understanding of London's economy.

3 . Who works in Accommodation and Food Services?

Based upon estimates from [Workforce Jobs](#) data, there were 369,000 jobs in Accommodation and Food Service Activities in London in 2015, which comprised 7% of London's total employment. The section grew rapidly in London between 1996 and 2015 – by 163,000 jobs – as shown in Figure 1. In terms of percentage change in jobs, Accommodation and Food Service Activities was the third strongest performing sector¹ in London over this period, with numbers of jobs increasing by 79%.

Figure 1: Number of jobs in Accommodation and Food Service Activities and selected industry sections in London, 1996 to 2015

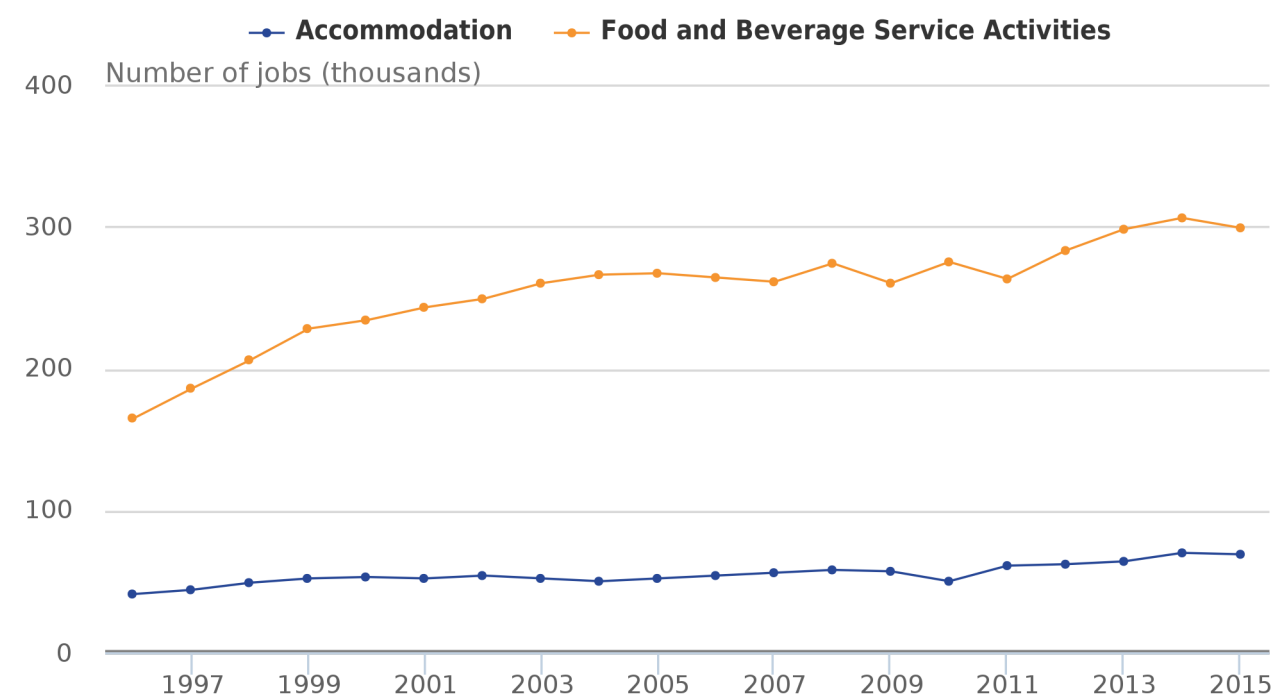


Source: Office for National Statistics – Workforce Jobs estimates

Notes:

1. The sectors of highest growth (Professional, Scientific and Technical Activities) and lowest growth (Manufacturing) in London are also shown to give context.

Figure 2: Number of jobs in Accommodation, and Food and Beverage Service Activities, in London, 1996 to 2015

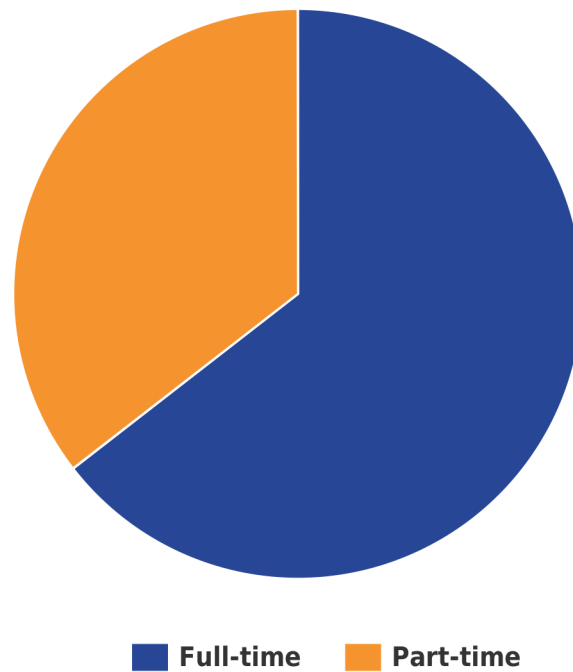


Source: Office for National Statistics – Workforce Jobs estimates

Breaking the section down to its Accommodation and Food and Beverage Service Activities divisions can add detail, as illustrated in Figure 2. The Food and Beverage Service Activities division has seen higher jobs growth than Accommodation, whereby Food and Beverage Service Activities accounted for 82% of the 163,000 section-level positive change in jobs in London between 1996 and 2015. Moreover, Food and Beverage Service Activities have consistently been by far the larger of the 2 divisions in London, comprising no fewer than 4 in 5 jobs in the section in any year over the period 1996 to 2015.

Figure 3: Working patterns in Accommodation and Food Service Activities in London, 2015

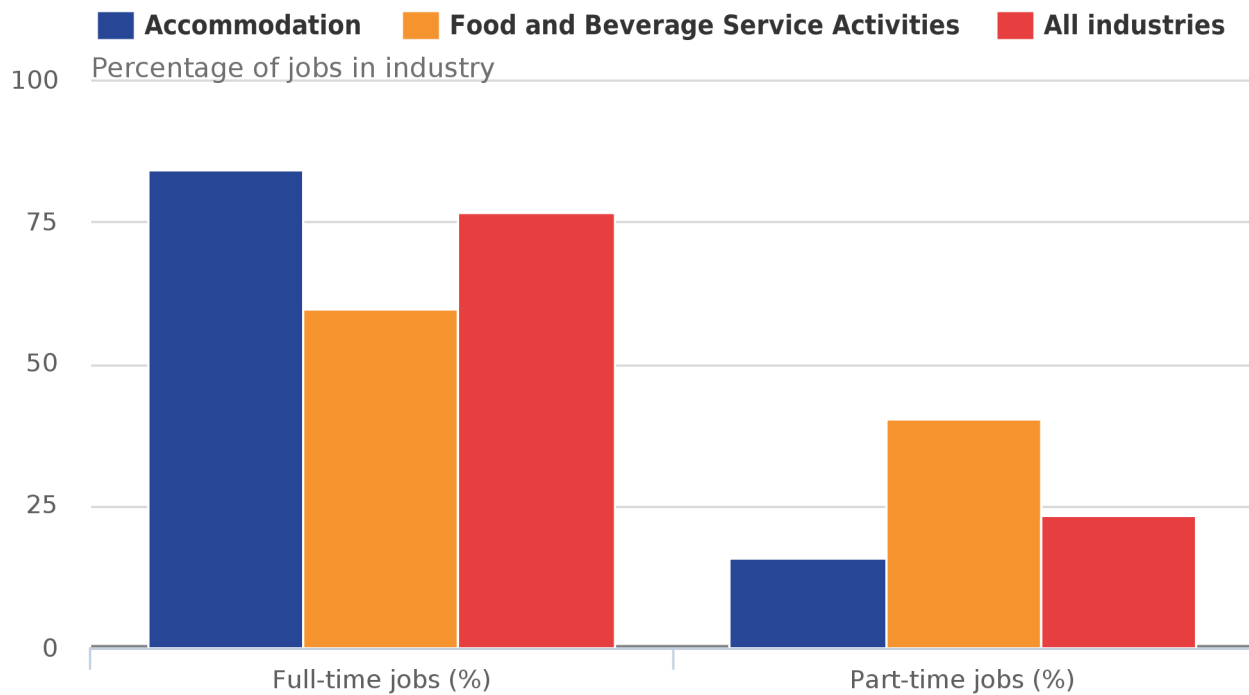
Total jobs: 369,000



Source: Office for National Statistics – Workforce Jobs and Annual Population Survey

[Annual Population Survey](#) data help to highlight the various ways in which the Accommodation and Food Service Activities workforce stands out in relation to other industries in London. A relatively large proportion of jobs in Accommodation and Food Service Activities were part-time in 2015, standing at 35.5% of employment in the section in London. This compares with 24.4% for all industries across London. A more nuanced look at the data reveals that it is the Food and Beverage Service Activities division of the section, rather than the Accommodation division, behind this difference. Of the jobs in Food and Beverage Service Activities, 40.2% were part-time, compared with only 15.8% in Accommodation, in London in 2015. This can be seen in Figure 4.

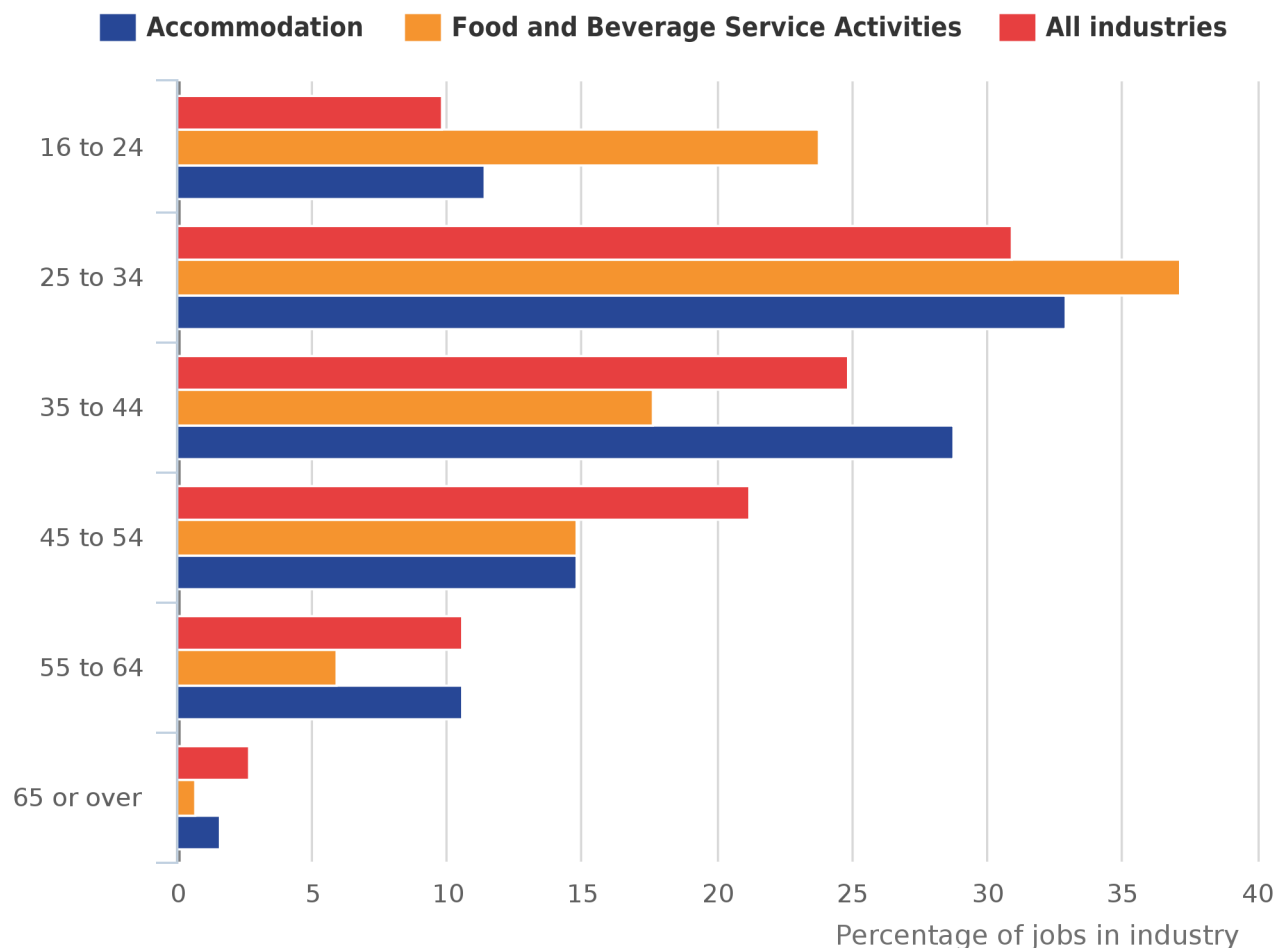
Figure 4: Working patterns in the divisions of Accommodation and Food Service Activities in London, 2015



Source: Office for National Statistics – Annual Population Survey

Age is another way in which the section stands out in relation to other industries in London, especially in Food and Beverage Service Activities. Almost a quarter (23.8%) of jobs in this division were held by workers aged 16 to 24 in London in 2015, as shown in Figure 5. The workforce is generally younger than that of Accommodation and other industries. For the section as a whole, more than 1 in 5 jobs (21.4%) were held by workers aged 16 to 24.

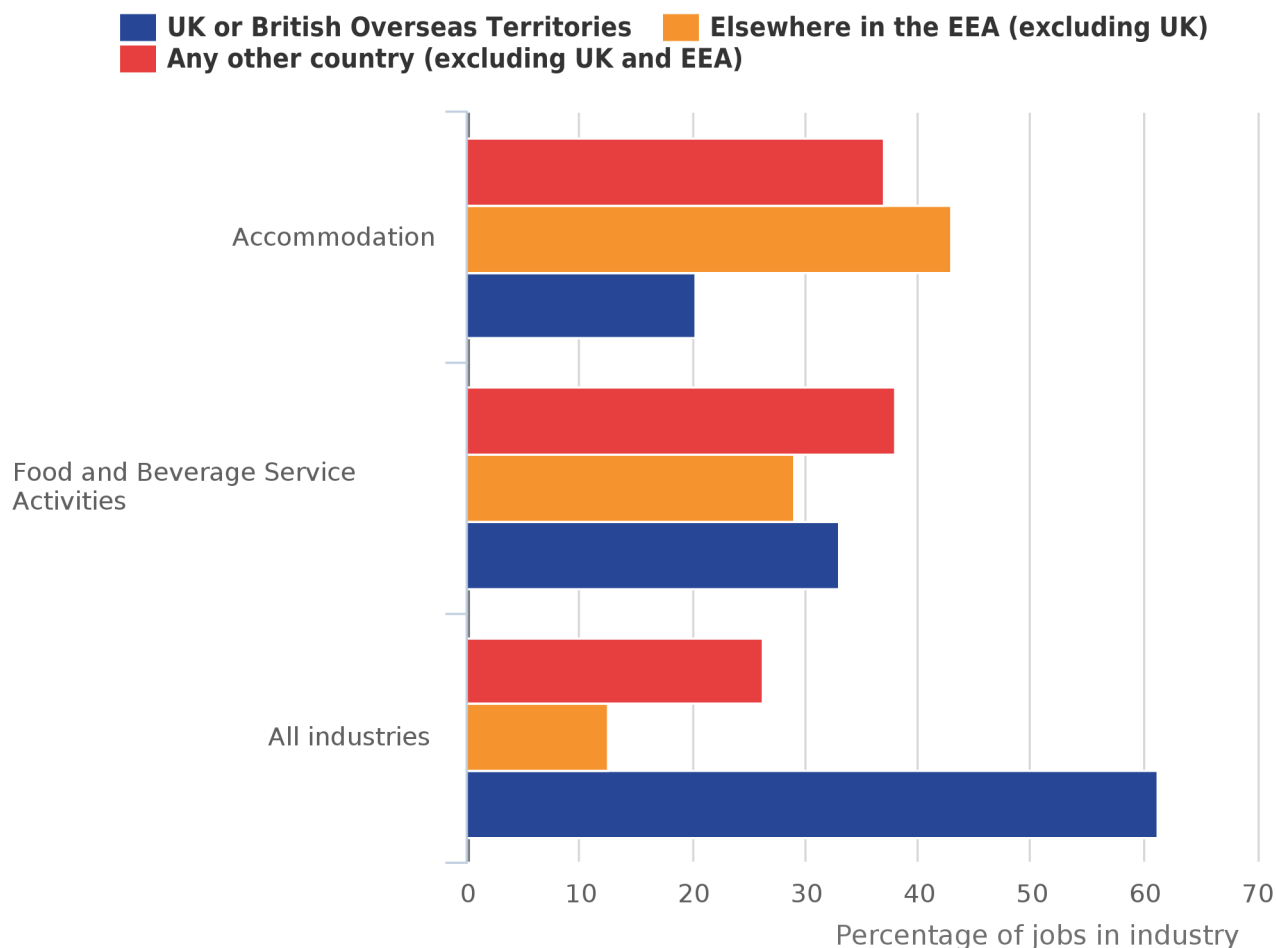
Figure 5: Accommodation and Food Service Activities jobs in London by age of job-holder, 2015



Source: Office for National Statistics – Annual Population Survey

Figure 6 shows that 69.5% of the jobs in Accommodation and Food Service Activities in London in 2015 were held by job-holders born outside of the UK or British Overseas Territories². For Accommodation the figure is 79.8% and for Food and Beverage Service Activities it is 67.0%. This compares with a figure for all industries in London of 38.7%.

Figure 6: Accommodation and Food Service Activities jobs by country of birth of job-holder, London 2015



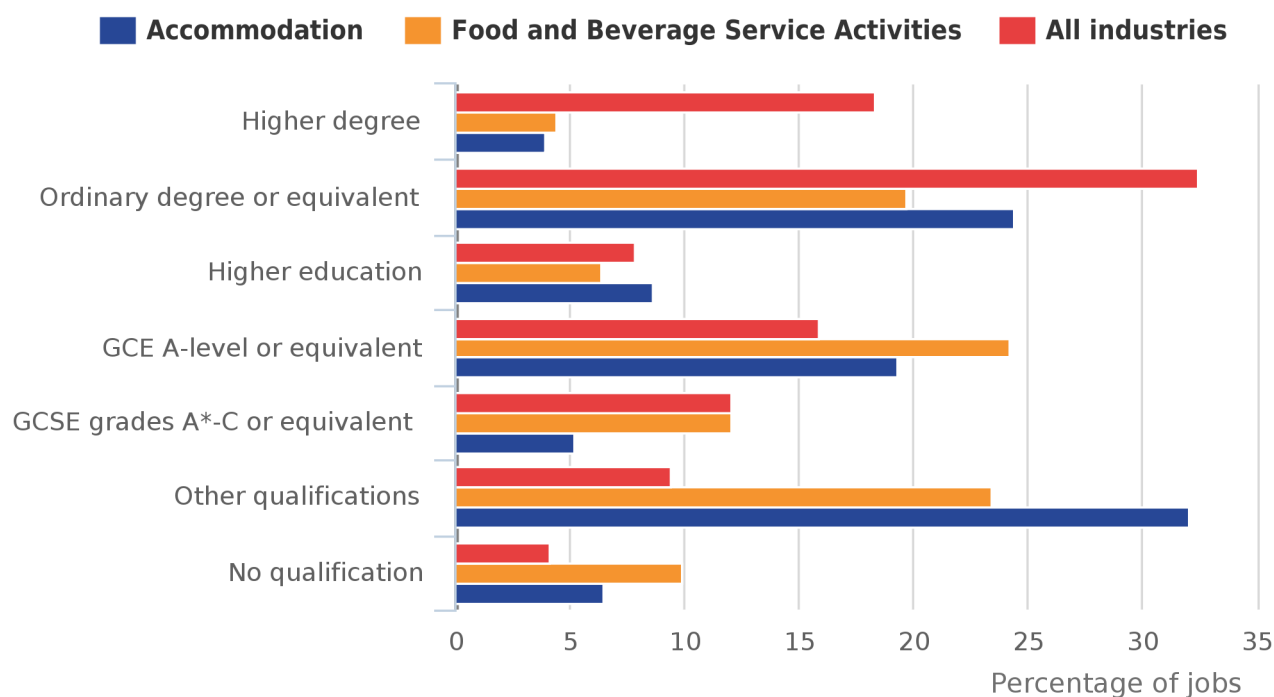
Source: Office for National Statistics – Annual Population Survey

Notes:

1. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.
2. The European Economic Area (EEA) includes: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, the Republic of Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. The EEA specifically excludes: Andorra, Monaco, San Marino and Vatican City. Although Iceland, Liechtenstein and Norway are not members of the European Union (EU), their citizens have the same rights as EU citizens to enter, live in and work in the UK

Half of the jobs in the section were classified as elementary occupations, according to the [Standard Occupational Classification 2010](#). These occupations involve mainly routine tasks that rarely require formal educational training. As such, we would expect the workforce to hold fewer qualifications than other industries. This is, to some extent, true, as Figure 7 shows. However, the difference is not as stark as we might expect; one-quarter of those employed in the section held a degree or higher degree. In addition, one-quarter of those employed in the section hold “other qualifications”, which includes foreign and vocational qualifications.

Figure 7: Accommodation and Food Service Activities jobs in London by highest qualification of job-holder, 2015



Source: Office for National Statistics – Annual Population Survey

Notes:

1. The highest educational qualifications follow the standard ONS categories, except the top category "Degree or equivalent" has been split to show "Higher degree" and "Ordinary degree or equivalent" separately. Further information on these categories is available in the [Labour Force Survey User Guide](#).

Overall, Annual Population Survey data indicate that in 2015 the Accommodation and Food Service Activities workforce in London was younger, more likely to be working part-time and more likely to have been born overseas, compared to other industries in London. It is difficult to say why a sizeable proportion of workers in this section are quite well-educated, but several theories include:

- a large proportion of jobs are held by young people with qualifications, who are working in the sector temporarily before moving on to roles that require higher qualifications
- a large proportion of jobs are held by immigrants with qualifications that are not recognised in the UK; there is some evidence for this given that a quarter of jobs are held by those with "other qualifications"
- London generally attracts high-skilled individuals and there is increased competition for highly qualified jobs

These ideas are not mutually exclusive and there may of course be other theories which explain why there are many individuals working in the section that are well-educated. However, it should be stressed that these are just theories, and would need to be tested more rigorously.

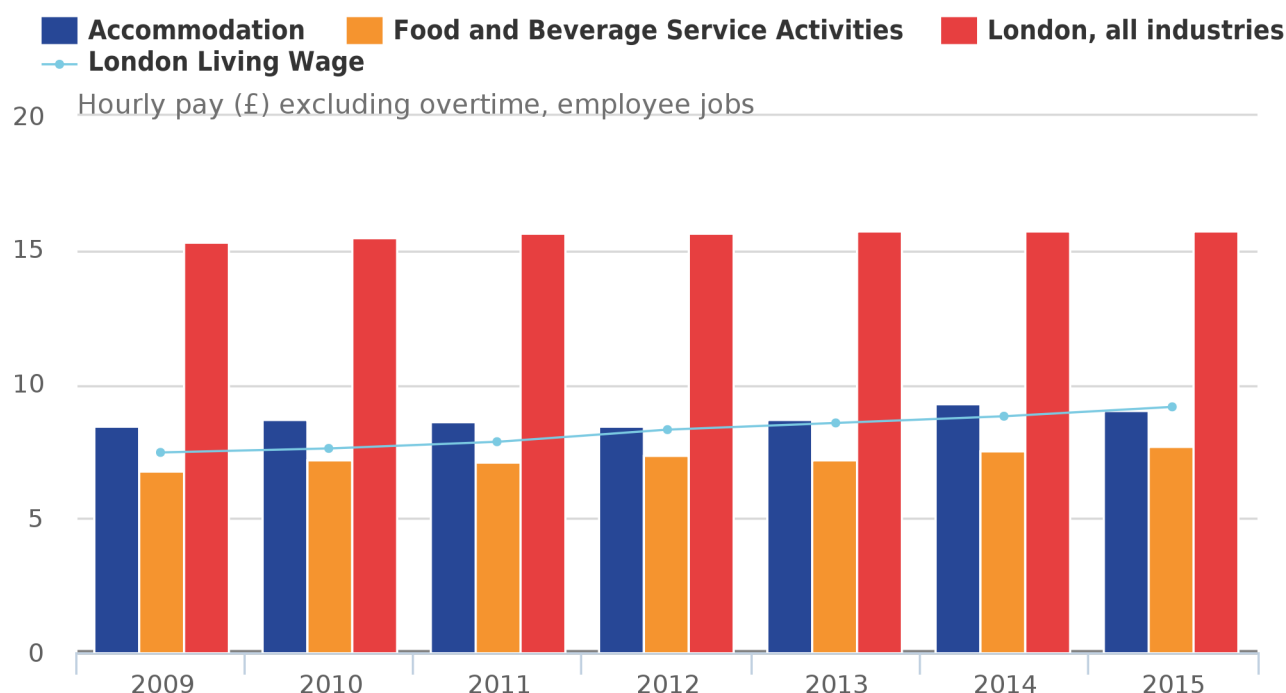
Notes for Who works in Accommodation and Food Services?

1. As explained in the introduction, industrial sections A, B, D and E are combined into one industrial grouping, section G is split into 2 sectors, and sections T and U are excluded, meaning we typically analyse 17 industrial sectors of London's economy.
2. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.

4 . Earning a living

Data from the [Annual Survey of Hours and Earnings \(ASHE\)](#) enable us to look at the earnings of the section in London. As shown in Figure 8, average (median) hourly earnings (excluding overtime) in London in 2015 were £9.01 per hour for Accommodation and £7.74 for Food and Beverage Service Activities. This compares to an average of £15.74 for all industries in London. Average pay for Accommodation was therefore 57% of the average for all industries in London. In Food and Beverage Service Activities, average pay was just under half (49%) of the overall average in London. It must be noted that data for 2015 are provisional and are subject to revision.

Figure 8: Average (median) nominal earnings in Accommodation and Food Service Activities, and all industries, London, 2009 to 2015



Source: Office for National Statistics – Annual Survey of Hours and Earnings (2009-2014 revised, 2015 provisional) and Living Wage Foundation

Notes:

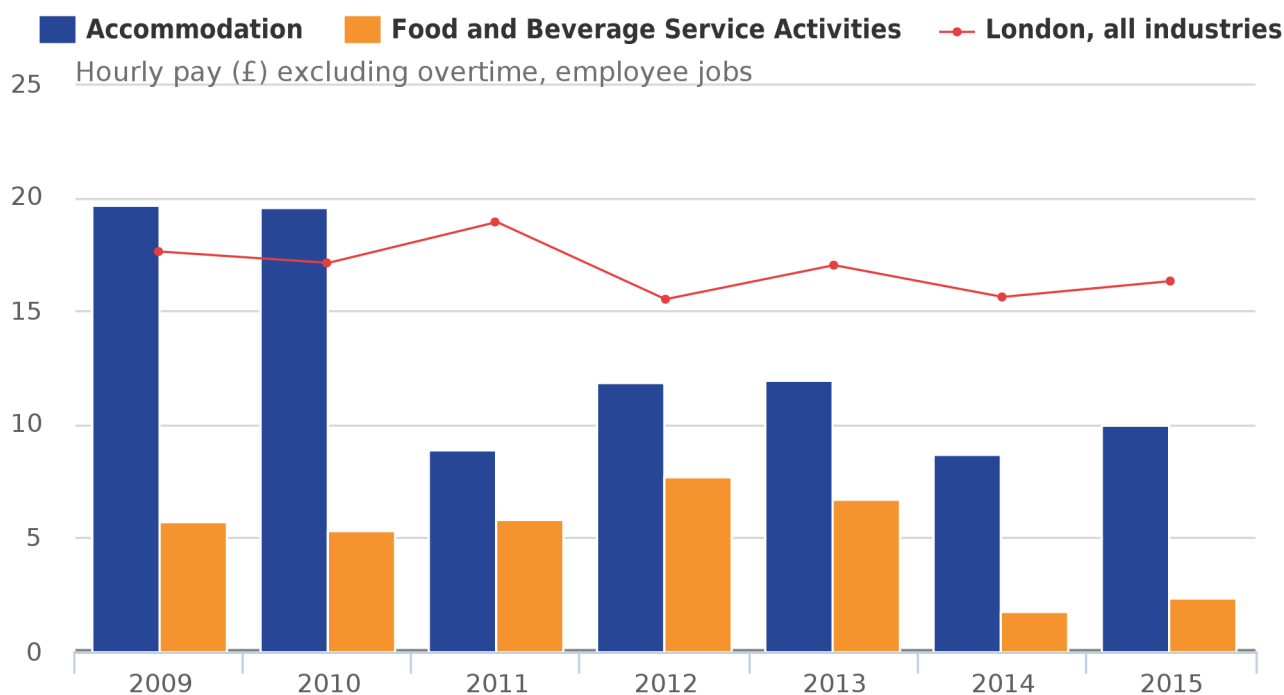
1. Figures shown are nominal earnings, and thus do not take into account changes in prices over time.
2. [Further information on the London Living Wage](#)

The average (median) wage in Food and Beverage Service Activities is consistently less than the [London Living Wage](#) across the period 2009 to 2015; the gap between the 2 grew from 68 pence in 2009 to £1.41 in 2015. To be clear, the London Living Wage is an hourly rate of pay calculated by the Greater London Authority which “gives the wage rate needed to give a worker in London enough to provide their family with the essentials of life, including a cushion against unforeseen events”¹. For Accommodation, average (median) earnings have hovered around the London Living Wage for the period and as of 2015, was 14 pence less than it. In 2015, more than two-thirds (67.5%) of employee jobs in Accommodation and Food Service Activities were earning below the London Living Wage², which was £9.15 at the time ASHE was collected. This sector had the highest percentage of employees earning below the London Living Wage of all sectors in London in both 2014 and 2015. Once again, it must be stressed that data for 2015 are provisional, and are subject to revision.

Figure 9 breaks the aforementioned earnings data down by sex, looking at the gender pay gap³. There is no single measure that adequately deals with the complex issue of the differences between men’s and women’s pay, issues including differences in occupations, working patterns and age distributions. We have calculated the gender pay gap using the same methodology as explained in [Annual Survey of Hours and Earnings: 2015 Provisional Results](#), using median hourly earnings (excluding overtime) and it should be noted that the figures do not show differences in rates of pay for comparable jobs.

There is a gender pay gap in the industry section in London, which is larger in Accommodation than for Food and Beverage Service Activities; however, for both, the gap appears to be gradually shrinking. From 2011 onwards, the gender pay gap has been smaller in both divisions in London than the average of all London industries.

Figure 9: Gender pay gap in Accommodation and Food Service Activities in London, 2009 to 2015



Source: Office for National Statistics – Annual Survey of Hours and Earnings (2009 to 2014 revised, 2015 provisional)

Notes:

1. The gender pay gap refers to the percentage difference between male and female hourly earnings, using the calculation: $100 - (\text{female hourly pay} / \text{male hourly pay}) \times 100$. This is a basic comparison and does not show differences in rates of pay for comparable jobs.

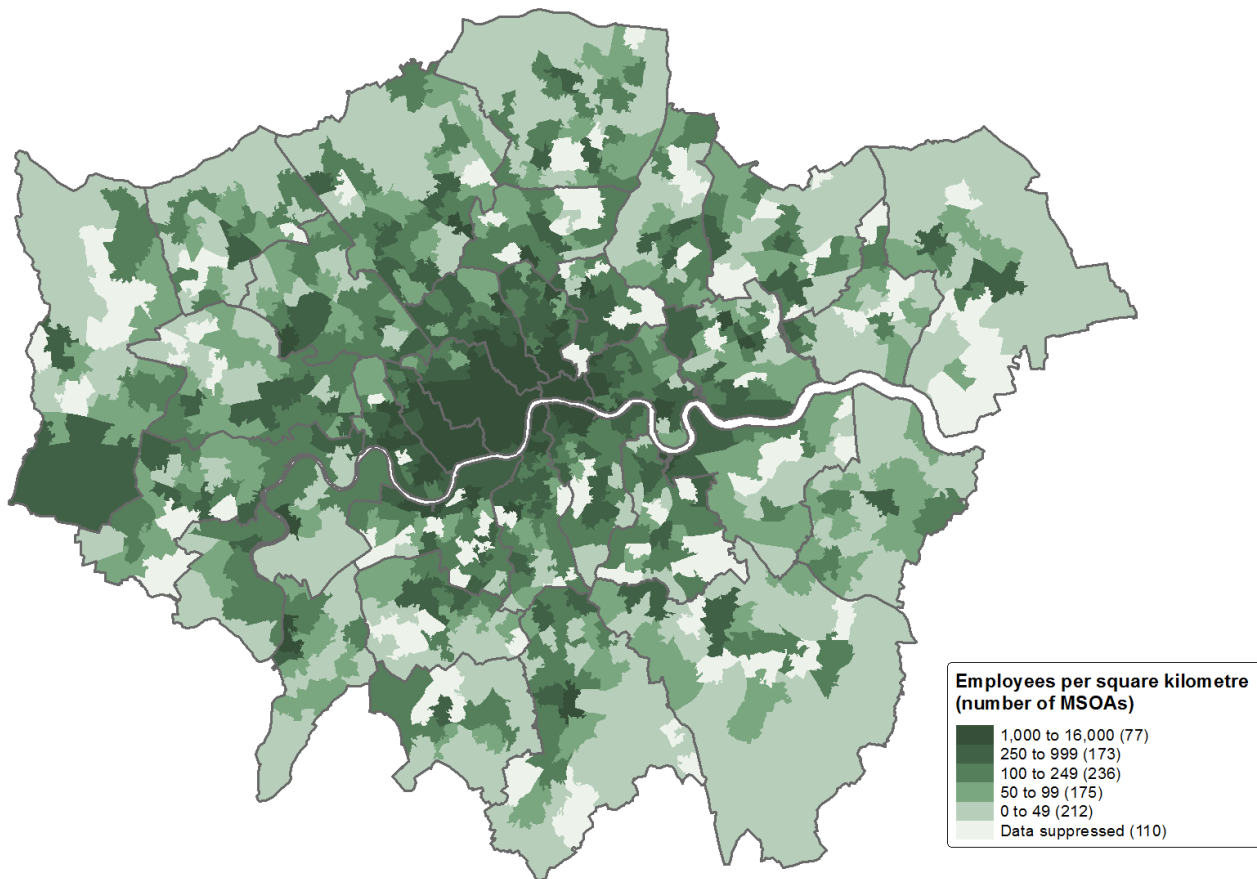
Notes for Earning a living

1. Quote from [London living wage](#).
2. Estimates of proportions of employees earning below minimum wage rates are calculated using the [methodology recommended calculating estimates of low pay](#).
3. The gender pay gap refers to the percentage difference between male and female hourly earnings. The calculation is: $100 - (\text{female hourly pay} / \text{male hourly pay}) \times 100$.

5 . Locating employees in Accommodation and Food Services

Finally, we look at the distribution of employees across London with data from the [Inter-Departmental Business Register](#), as shown in Figure 10. Employment in this industry tends to cluster in the centre of London, although there are pockets of jobs all over the capital, including a large cluster of jobs around the Heathrow area on the western edge of the map.

Figure 10: Number of employees (per square kilometre) in Accommodation and Food Service Activities in London MSOAs, 2015



Information and Communication in London in 2015 – a tale of two sub-sections

An analysis of the workforce and business activity in the Information and Communication industry sector in London. This article presents the scale of jobs in Information and Communication in London. It then breaks data down into two sub-sections and analyses where those employees are located, the balance of males and females in the workforce, qualification levels, and countries of birth, before closing by investigating earnings in the sub-sections. This helps build a picture of economic activity in this sector in London as of 2015.



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1 . Main points

The Information and Communication industry in London generated £37,639m of Gross Value Added (GVA) in 2014, which was 10.3% of London's GVA, and 2.3% of UK GVA.

The Information and Communication sector in London has performed well in terms of jobs growth between 1996 and 2015, increasing from 247,000 to 427,000 (a 72.9% increase).

The industrial division computer programming, consultancy and related activities accounted for 60.6% of jobs growth in Information and Communication in London, and 6.8% of the increase in jobs in the whole of London, between 1996 and 2015.

Less than a fifth (18.4%) of jobs in Information Technology (computer programming, consultancy and information service activities) in London were held by women in 2015.

Job-holders in Information Technology (computer programming, consultancy and information service activities) are highly qualified, with 73.9% holding at least a degree qualification.

2 . Introduction

The Information and Communication industry section in London is of great importance to the UK economy. Gross Value Added (GVA) data indicate that, as of 2014, the section generated £37,639m of GVA, which was 10.3% of London's GVA, and 2.3% of UK GVA.

The industrial sectors analysed in this article are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), and within Information and Communication we will be breaking the section Information and Communication into two sub-sectors:

1. Publishing and Communications, which is the combination of industry divisions 58, 59, 60 and 61.
2. Information Technology, which is the combination of industry divisions 62 and 63.

While Information Technology concerns computer programming and IT consultancy, Publishing and Communications concerns publishing, programming, broadcasting, and telecommunications. In order to analyse London's economy, we group industrial sections A, B, D and E to create the group "Primary and Utilities", and split section G into two parts: "Wholesale and motor trades", which is the combination of industrial divisions 45 and 46, and "Retail", which is division 47. We typically exclude sections T and U from the analysis as they are too small in London to analyse effectively.

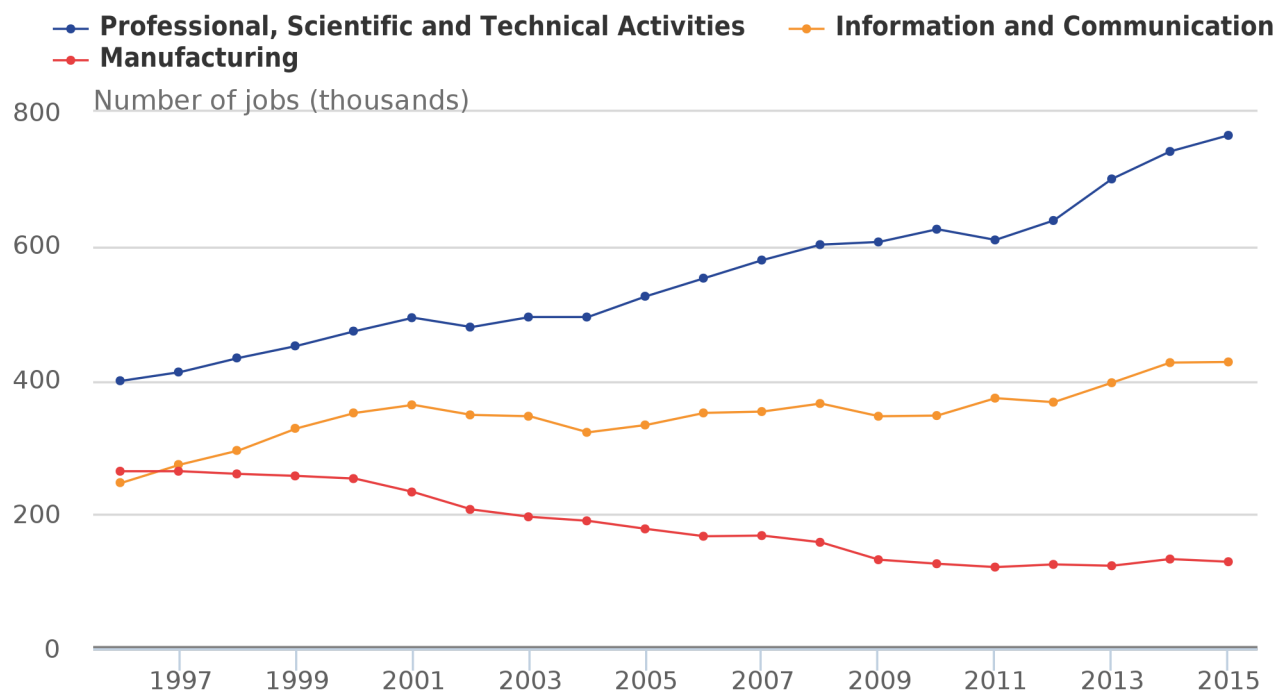
There has been strong economic growth in the section as a whole, and the two sub-sections have prospered individually, although there is interesting variation between the two, which this article aims to uncover. Essentially, the story here is a tale of two sub-sections, or at least of two distinctive halves that comprise an industry section.

This analysis is part of a series of articles entitled [Earning, Learning and Business Churning: revealing London's industrial economy](#), which analyse patterns of activity in industries in London. Data used in this analysis has been used to create the [Economic Evidence Base](#) by the Greater London Authority, which forms the economic basis of the Mayor of London's [London Plan](#). This article gives detail about a particular industrial sector, whereas the Economic Evidence Base provides a more comprehensive understanding of London's economy.

3 . Jobs in Information and Communication

[Workforce Jobs](#) data in Figure 1 show that the Information and Communication industry section in London has performed well in terms of jobs growth over the past twenty years. The number of jobs has increased from 247,000 to 427,000 in London – an increase of 72.9% – between 1996 and 2015. The Information and Communication sector experienced the fifth-highest percentage change in jobs over this period compared to the other 16 industrial sectors¹.

Figure 1: Change in number of jobs in selected industry sections in London, 1996 to 2015



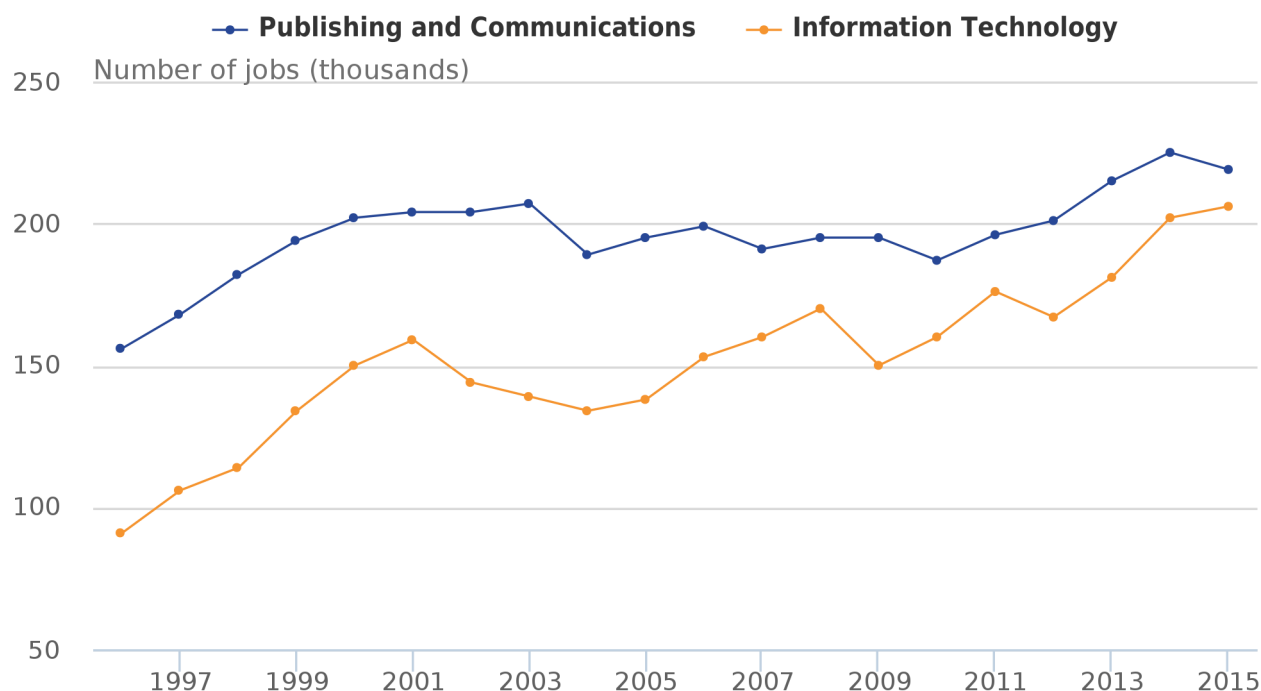
Source: Workforce Jobs estimates, Office for National Statistics

Notes:

1. The sectors of highest growth (Professional, Scientific and Technical Activities) and lowest growth (Manufacturing) in London are also shown to give context.

Figure 2 breaks the Information and Communication industry section down into two sub-sections. High growth levels in Information Technology meant that this sub-section accounted for 48.5% of the jobs in Information and Communication in London in 2015, up from 36.8% in 1996. Information Technology in London has more than doubled in terms of jobs, from 91,000 to 206,000 between 1996 and 2015.

Figure 2: Jobs growth by sub-sections of Information and Communication in London, 1996 to 2015



Source: Workforce Jobs estimates, Office for National Statistics

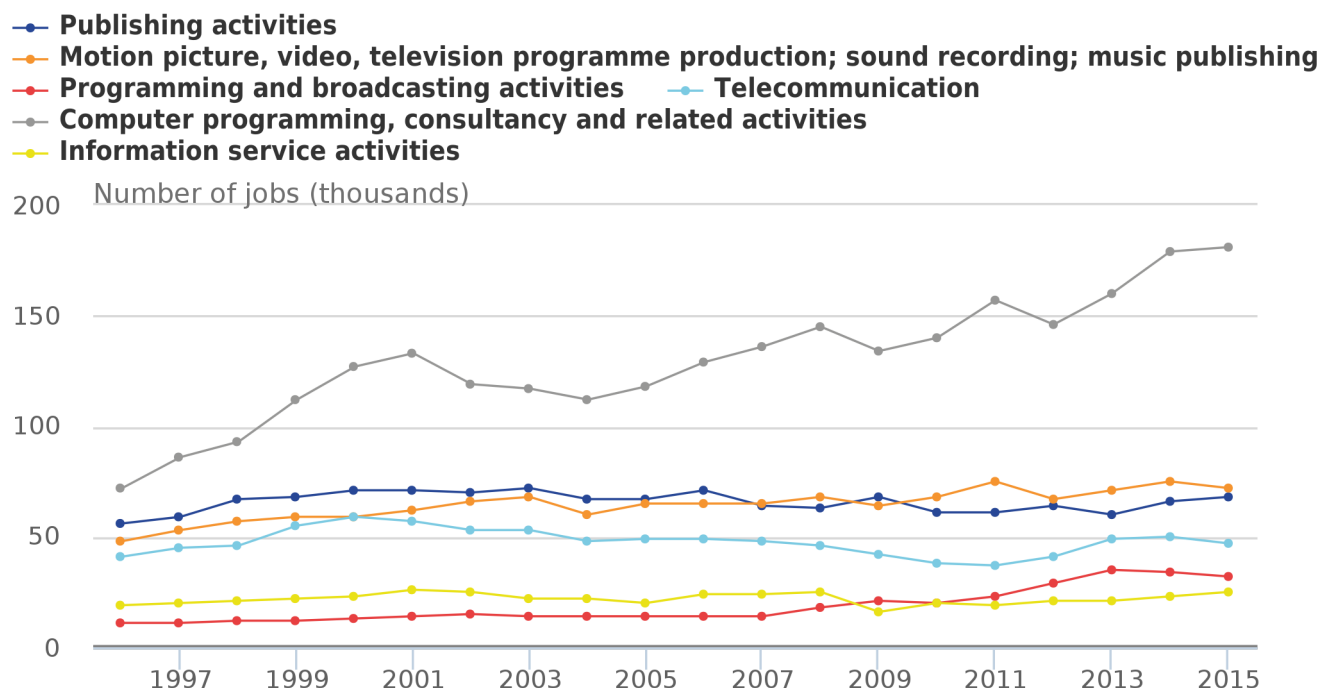
Notes:

The categories presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#). Publishing and Communications is the combination of industrial divisions 58, 59, 60 and 61, and Information Technology is the combination of industrial divisions 62 and 63.

The sub-section Publishing and Communications has also grown, but not at the same pace as Information Technology. Jobs in this sub-section in London increased from 156,000 in 1996 to 219,000 in 2015, an increase of 40.4%.

With the Workforce Jobs data we can go even further, breaking down each sub-section into its constituent divisions, as in Figure 3. By doing so we reveal that the growth of one individual division: computer programming, consultancy and related activities, outshines that of the other divisions of Information and Communication.

Figure 3: Change in number of jobs in divisions of Information and Communication in London, 1996 to 2015



Source: Workforce Jobs estimates

The division computer programming, consultancy and related activities, therefore, has accounted for much of the section's growth in jobs in London over the past two decades. In fact, the division accounted for 95.8% of job growth in the Information Technology sub-section, 60.6% of jobs growth in Information and Communication, and 6.8% of the increase in jobs in the whole of London between 1996 and 2015.

Notes for Jobs in Information and Communication

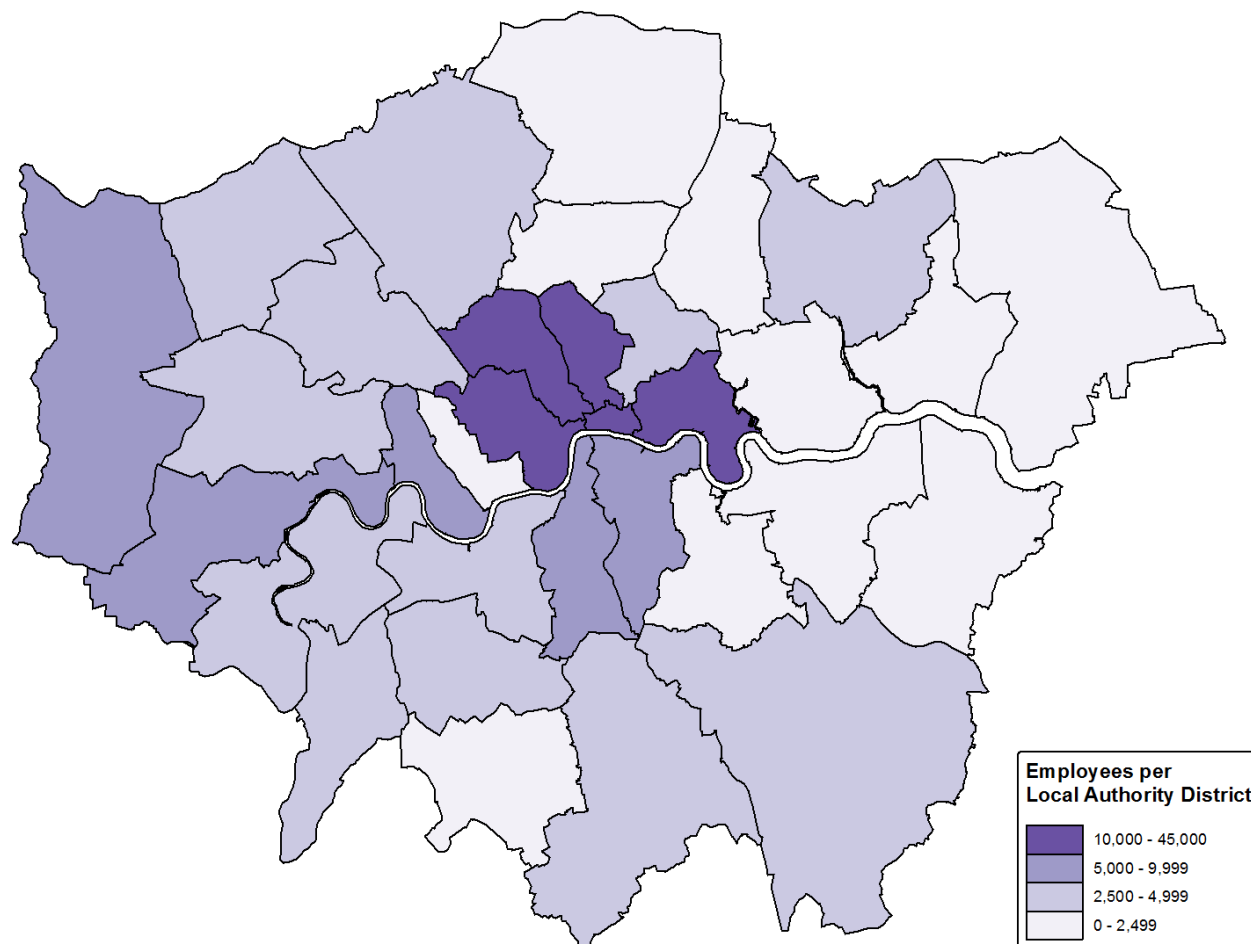
1. As explained in the introduction, industrial sections A, B, D and E are combined into one industrial grouping, section G is split into two sectors, and sections T and U are excluded, meaning we typically analyse 17 industrial sectors of London's economy.

4 . Locating employment in Information and Communication

We have so far established that the two sub-sections within Information and Communication – Information Technology, and Publishing and Communications – exhibit some quite different characteristics in their rates of job growth.

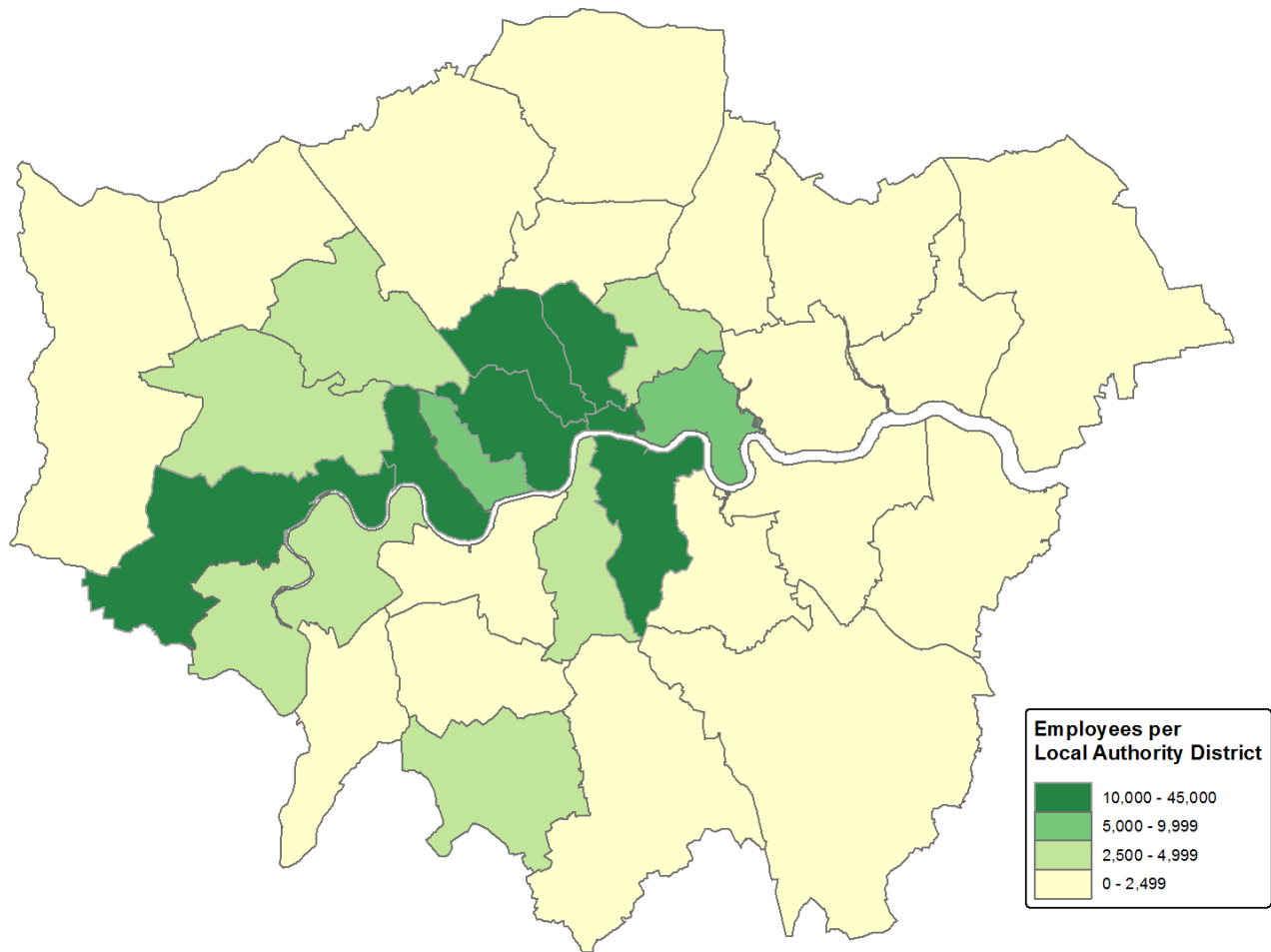
Figure 4, based on data from the [Business Register and Employment Survey](#), shows that the number of employees in Information Technology workplaces in 2015 were concentrated in inner London, especially in The City, Tower Hamlets, Camden, Islington and Westminster. Some other Local Authorities, particularly western and southern London, do also have concentrations of Information Technology employees, while the north and east of London has the lowest concentrations.

Figure 4: Number of employees in Information Technology in London Local Authorities, 2015



There are some similarities for Publishing and Communications, with a concentration of jobs in central London in 2015, as depicted in Figure 5. That said, there are clear differences too, with Publishing and Communications employees concentrated in fewer authorities; there are 18 authorities with fewer than 2,500 employees in the sub-section. Overall, employment in Information Technology is more dispersed across the capital.

Figure 5: Number of employees in Publishing and Communications in London Local Authorities, 2015

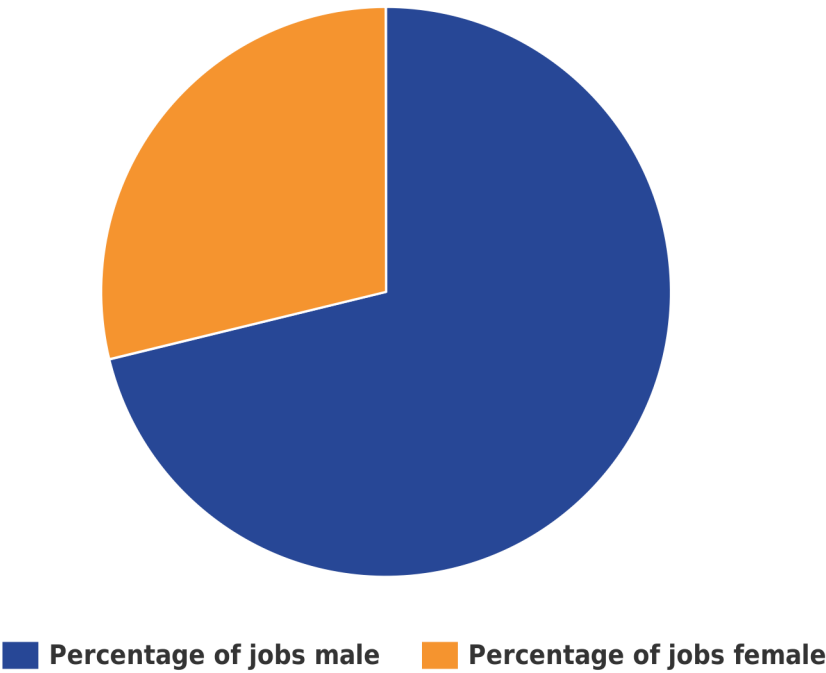


5 . A tale of two workforces

The [Annual Population Survey](#) provides us with data to look at workforce characteristics. The section as a whole in London featured low female employment, with women holding 28.8% of the 427,000 jobs in 2015, as shown in Figure 6.

Figure 6: Jobs in Information and Communication by sex of job-holder, London, 2015

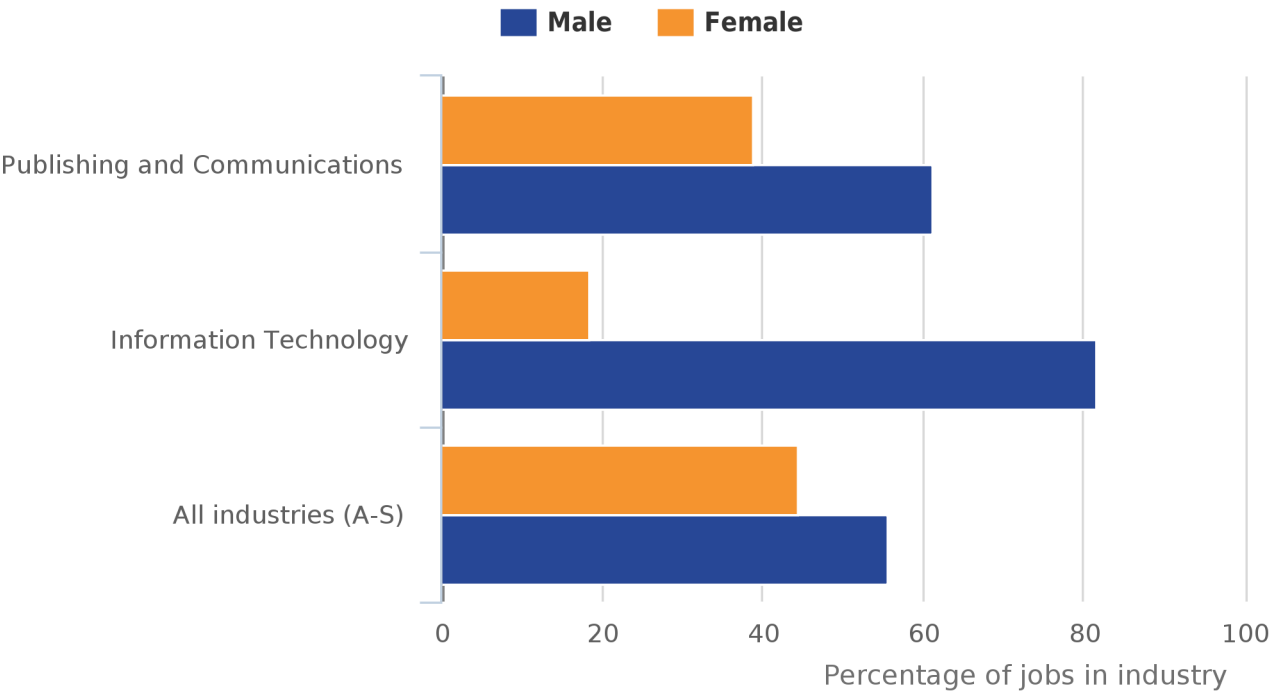
Total jobs: 427,000



Source: Workforce Jobs and Annual Population Survey

Breaking this down to the sub-sections Information Technology and Publishing and Communications reveals that the gender imbalance in employment is much starker in the former than the latter. As shown in Figure 7, in Information Technology, less than a fifth (18.4%) of jobs in London were held by women in 2015. Publishing and Communications was less unbalanced, with women making up 38.9% of the workforce. This is, however, still less than the figure for all industries in London (44.5%).

Figure 7: Employment in sub-sections of Information and Communication, by sex of job-holder in London, 2015



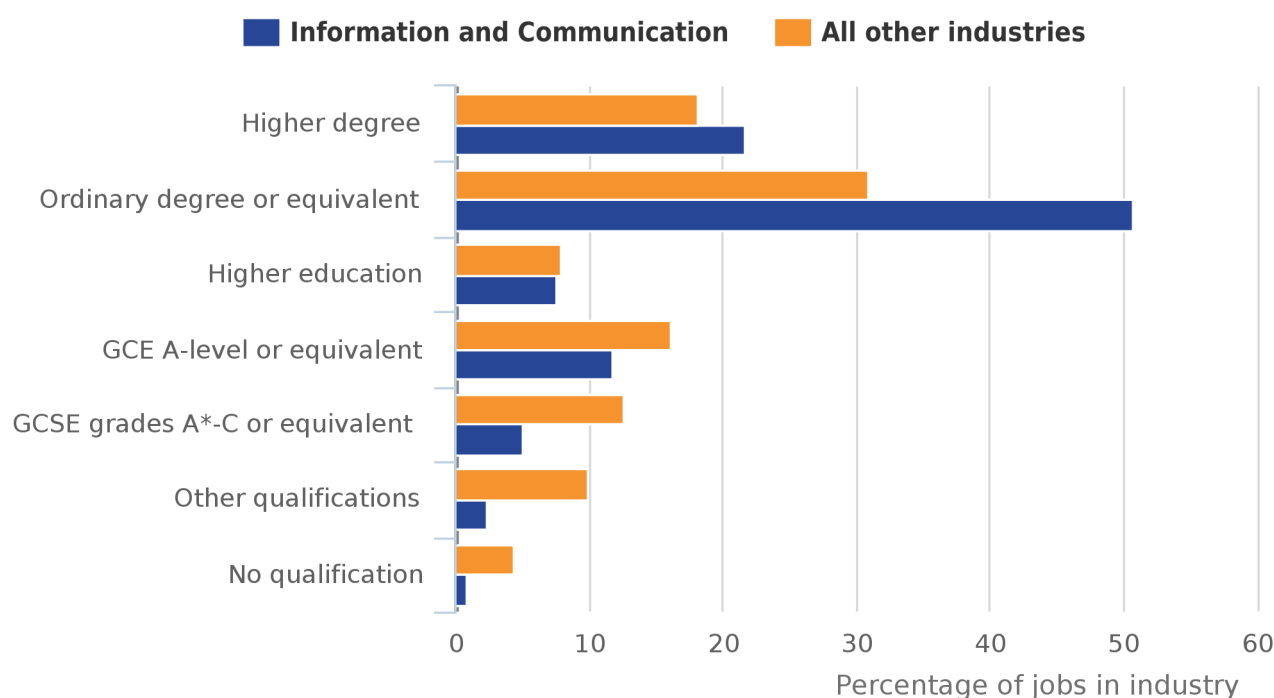
Source: Annual Population Survey

Notes:

1. The categories presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#). Publishing and Communications is the combination of industrial divisions 58, 59, 60 and 61, and Information Technology is the combination of industrial divisions 62 and 63.

Another notable feature of the Information and Communication workforce is its high level of educational qualifications, with 72.4% of jobs in London in 2015 held by people possessing at least a degree, compared to 50.8% for all other industries in London. This is shown in Figure 8.

Figure 8: Information and Communication jobs by highest qualification of job-holder, London, 2015



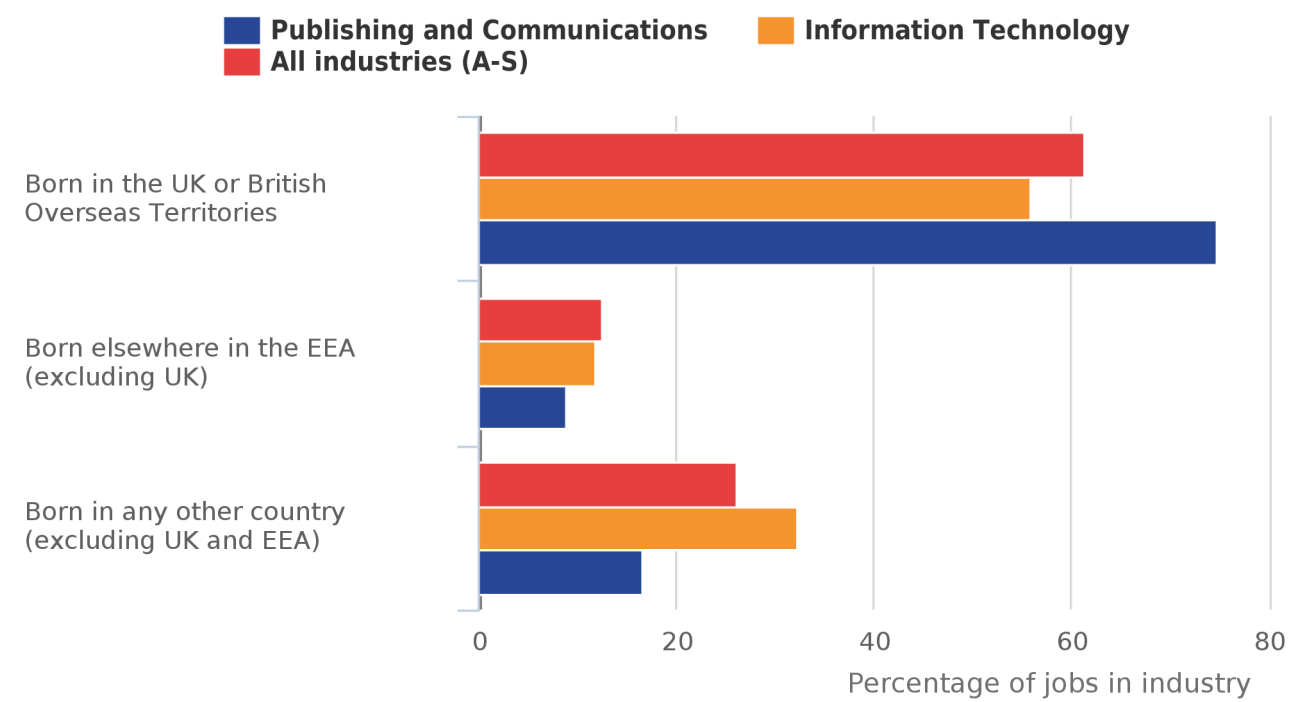
Source: Annual Population Survey

Notes:

1. The highest educational qualifications follow the standard ONS categories, except the top category "Degree or equivalent" has been split to show "Higher degree" and "Ordinary degree or equivalent" separately. Further information on these categories is available in the [Labour Force Survey \(LFS\) User Guide](#).

The data do not indicate marked differences in education between the two sub-sections, with both exhibiting high levels of education in London in 2015: 70.8% of job-holders in Publishing and Communications, and 73.9% of job-holders in Information Technology, held at least a degree. A small difference does exist at the upper end of the education scale, with just under one-quarter of those in Information Technology (24.6%) holding a higher degree, compared to just under one-fifth of those in Publishing and Communications (18.8%), in London in 2015.

Figure 9: Employment in Information and Communication in London by country of birth of job-holder, 2015



Source: Annual Population Survey

Notes:

1. The categories presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#). Publishing and Communications is the combination of industrial divisions 58, 59, 60 and 61, and Information Technology is the combination of industrial divisions 62 and 63.
2. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.
3. The European Economic Area (EEA) includes: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, the Republic of Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. The EEA specifically excludes: Andorra, Monaco, San Marino and Vatican City. Although Iceland, Liechtenstein and Norway are not members of the European Union (EU), their citizens have the same rights as EU citizens to enter, live in and work in the UK.

Finally, there are differences in terms of country of birth. In Information Technology, 44.0% of job-holders in London were born outside the UK or British Overseas Territories¹. The corresponding figure for Publishing and Communications is 25.3%, compared to 38.7% in all industries.

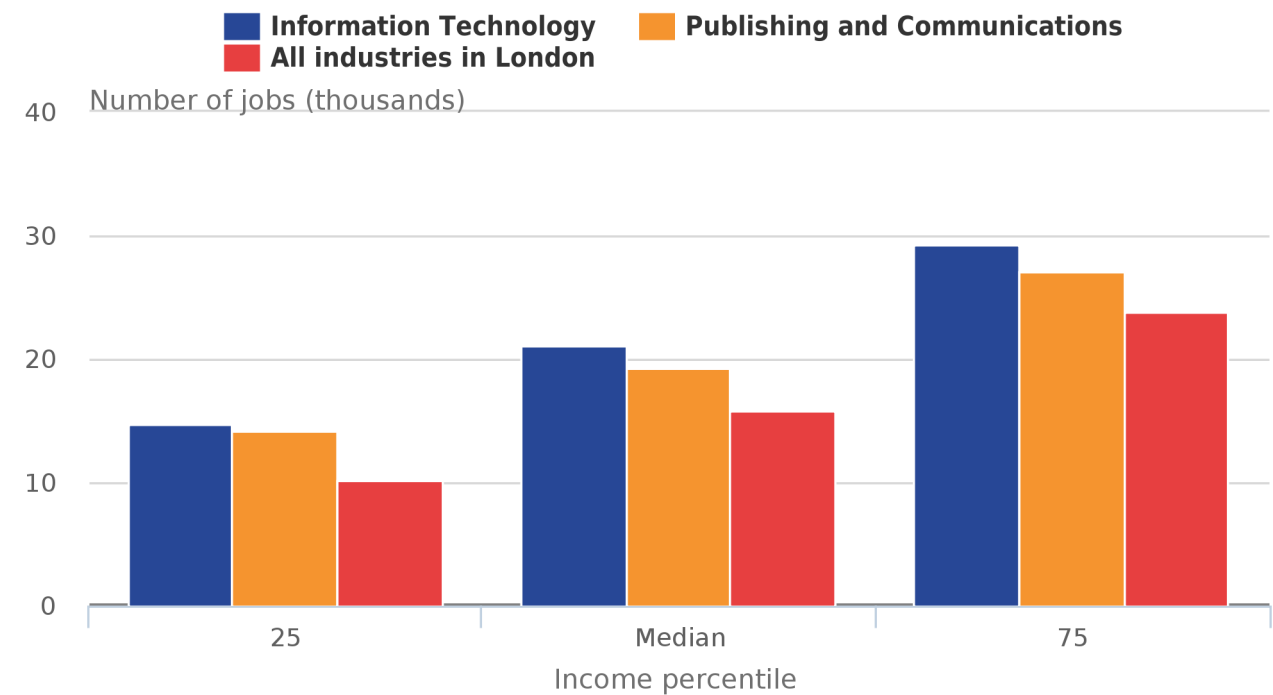
Notes for A tale of two workforces

1. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.

6 . Earnings in the sub-sections

Results from the 2015 provisional [Annual Survey of Hours and Earnings \(ASHE\)](#) indicate that in London, Information Technology earnings were higher than those in Publishing and Communications, and this applied to the lowest 25% of earners, the average (median) and the upper 25% of earners. This can be seen in Figure 10. Note that data for 2015 are provisional and are subject to revision.

Figure 10: Information and Communication earnings in London, 2015



Source: Annual Survey of Hours and Earnings (2015, provisional)

Notes:

1. The categories presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#). Publishing and Communications is the combination of industrial divisions 58, 59, 60 and 61, and Information Technology is the combination of industrial divisions 62 and 63.
2. To aid in interpretation of the chart, the 50th percentile is the point below which 50% of workers in the income distribution lie, and represents average (median) earnings. The 75th percentile represents the top 25% of earners, and the 25th percentile represents the lowest 25% of earners.

Average (median) hourly earnings (excluding overtime) in London in 2015 for Information Technology were £21.05, whilst the figure for Publishing and Communications was £19.22, and £15.74 for the London average. In other words, London employees in Information Technology were paid £5.31 (33.7%) more per hour than the London average, and those in Publishing and Communications were paid £3.48 (22.1%) more. Only 4.0% of employees in Information and Communication in 2015 were earning below the London Living Wage¹, which was £9.15 at the time ASHE was collected.

Earnings data can be broken down by sex, too, which enables examination of the gender pay gap². There is no single measure that adequately deals with the complex issue of the differences between men's and women's pay, issues including differences in occupations, working patterns and age distributions. We have calculated the gender pay gap using the same methodology as explained in [Annual Survey of Hours and Earnings: 2015 Provisional Results](#), using median hourly earnings (excluding overtime), and it should be noted that the figures do not show differences in rates of pay for comparable jobs.

Once again, there is a clear difference between the two sub-sections. In 2015 there was a larger gender pay gap in London in Information Technology (23.8%) than in Publishing and Communications (12.9%).

Notes for Earnings in the sub-sections

1. Estimates of proportions of employees earning below minimum wage rates are calculated using the [methodology recommended calculating estimates of low pay](#).
2. The gender pay gap refers to the percentage difference between male and female hourly earnings. The calculation is: $100 - (\text{female hourly pay} / \text{male hourly pay}) \times 100$.

Compendium

London Retail in detail – its workforce, pay and business activity in 2015

An analysis of the workforce and business activity in the Retail industry sector in London. This article starts by reviewing rates and distributions of pay in Retail, with reference to the National Minimum Wage and London Living Wage, then investigates Retail's workforce looking at breakdowns by age group, ethnicity, occupations and qualifications. The article then investigates where business activity is located across the capital, and reviews what those businesses think of operating in London, and finally gives comment about the uncertainty of the future of Retail.



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To be announced

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1 . Main points

In 2015, 53% of Retail employees were earning below the London Living Wage, which was £9.15 at the time of the survey. This made Retail the second-lowest paid industrial sector, after Accommodation and Food Service Activities.

Real average (median) hourly earnings (excluding overtime) of employees in Retail in London fell from £9.44 to £9.18 between 2008 and 2015, in 2015 prices, but in that time the distribution of earnings did not change. This was calculated using national Consumer Prices Index (CPI) figures, as data are not available at the London level.

Retail has a young workforce, with more than half (54%) of Retail jobs in London being held by workers aged 34 or younger, and only 11% aged 55 or over, according to the 2015 Annual Population Survey.

With 49% of jobs held by people of White ethnicity, 27% of Asian background, and 14% of Black ethnicity, the Retail industry in London in 2015 is more ethnically diverse than London's resident population.

Most London retailers felt very positively about locating in London, according to the 2014 London Business Survey, with approximately two-thirds of workplaces stating that they chose London as a place to do business for: access to skilled staff, the international or diverse environment, proximity to customers and other businesses, and the transport, digital and communications infrastructure.

2 . Introduction

London's retail areas are famous around the world. Locations such as Oxford Street, Carnaby Street, Brick Lane and Covent Garden, markets such as Spitalfields and Petticoat Lane, and famous names such as Harrods and Selfridges are well known.

Retail is important for London. It provides employment, trade and revenues, it links producers with consumers, it makes London more attractive to tourism, and it supports other industrial sectors by demanding and consuming their outputs. In August 2016, the average amount spent each week in the Retail industry across Great Britain was £7.1 billion, according to the [Retail Sales Inquiry](#), and of course a good proportion of this will have been happening in London.

The numbers of jobs in Retail have been growing in London, and retailers who are spread all across the capital state that they are happy to have chosen London as a location for their business. The people holding the jobs are quite diverse, and generally younger than most other sectors, but wages in the sector remain persistently low.

This article starts by reviewing wages received by employees in Retail, and how they have changed over time, with reference to the National Minimum Wage and London Living Wage, followed by an analysis of the numbers of jobs in London and how those jobs break down by age, ethnicity, occupation and educational qualifications. It then goes on to investigate where retailers are located across the capital, and why they chose to locate in London, before closing with a comment about the future of retail in London.

The industrial sectors analysed in this article are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), but because of the structure of London's economy we group industrial sections A, B, D and E to create the group "Primary and Utilities", and split section G into two parts: "Wholesale and motor trades", which is the combination of industrial divisions 45 and 46, and "Retail", which is division 47. We typically exclude sections T and U from the analysis as they are too small in London to analyse effectively. When this article refers to the term "Retail" it means industrial SIC division 47, and it is large enough in London to be compared to the other industry sections.

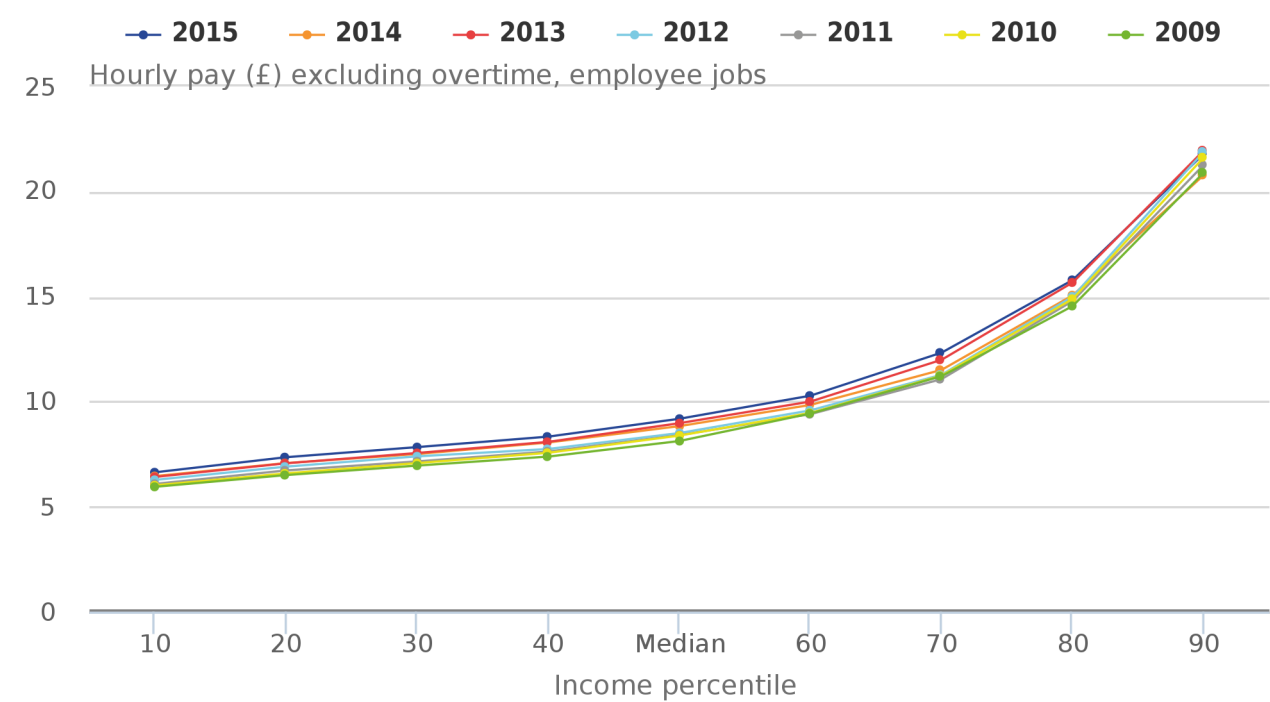
This analysis is part of a series of articles entitled [Earning, Learning and Business Churning: revealing London's industrial economy](#), which analyse patterns of activity in industries in London. Data used in this analysis has been used to create the [Economic Evidence Base](#) by the Greater London Authority, which forms the economic basis of the Mayor of London's [London Plan](#). This article gives detail about a particular industrial sector, whereas the Economic Evidence Base provides a more comprehensive understanding of London's economy.

3 . Falling real wages and the National Minimum Wage

Between 2008 and 2015, average (median) hourly earnings (excluding overtime) did not substantially change in the Retail industry in London, according to results from the [Annual Survey of Hours and Earnings \(ASHE\)](#). Although nominal median hourly earnings rose from £8.12 in 2008 to £9.18 in 2015, for employees in London's Retail sector, in fact if we take inflation into account then, in real terms using 2015 prices, median hourly earnings actually fell from £9.44 to £9.18. National Consumer Prices Index figures have been used to adjust for inflation, as data are not available at the London level, although the impact of inflation may differ in the London region compared to national figures. For an employee working the same hours in Retail in London and experiencing standard rates of inflation, this meant their take-home pay effectively fell between 2008 and 2015.

If we look at the distribution of earnings in Retail over time, we see no discernible change. As illustrated in Figure 1, in nominal terms, the distribution of wages in the Retail sector has remained essentially the same in London since 2009. The lowest earners in Retail have been consistently receiving hourly rates around the National Minimum Wage, and highest earners consistently receiving approximately £21 per hour (excluding overtime). The distribution at UK level has behaved similarly, suggesting it is an industrial standard across the country as a whole.

Figure 1: Hourly pay (excluding overtime), for employee jobs in Retail in London, current prices, 2009 to 2015



Source: Annual Survey of Hours and Earnings (2009 to 2014 revised, 2015 provisional)

Notes:

1. To aid in interpretation of the above, the 50th percentile is the point below which 50% of workers in the income distribution lie, and represents average (median) earnings. The 90th percentile represents the top 10% earners, and the 10th percentile represents the lowest 10%.

What is perhaps more telling is the difference between part-time and full-time employees, where in fact there is a differential of almost £4 in 2015, with median full-time hourly pay being £11.73, and part-time being £7.74, in Retail in London. Male and female employees in Retail in London earn very similar rates of pay, but because proportionately more women work part-time than full-time (64% of women work part-time, compared to 45% of men according to ASHE) then the differential means that women in Retail in London overall earn less than men.

The lower end of the pay scale seems to be bound by the National Minimum Wage (NMW). The lowest 10% of earners in Retail in London, known as the tenth percentile, have been receiving hourly pay (excluding overtime) of approximately the same value as the NMW rate in nominal terms each year 2009 to 2015. For example, in 2015 the hourly pay of 10% of employees in Retail in London was £6.63 or lower, and the National Minimum Wage (for people aged 21 or over) was £6.70. If we allow for the proportions of employees on the lower NMW rates (those aged 20 or below, and apprentices), and some employees being ineligible to receive the NMW (for example, employees receiving free accommodation), then we can assume that many employees in Retail in London are receiving the NMW rate.

This value is far below the [London Living Wage](#), which was £9.15 at the time ASHE was collected in 2015. The London Living Wage (LLW) is an hourly rate of pay calculated by the Greater London Authority which “gives the wage rate needed to give a worker in London enough to provide their family with the essentials of life, including a cushion against unforeseen events”¹. About half (53%) of employees in Retail were earning less than the LLW in 2015².

In comparison with other industrial sectors in London, Retail has the second-lowest median hourly pay (of the 17 industrial groups analysed²), behind only Accommodation and Food Service Activities which had a median of £7.90. Indeed only Accommodation and Food Service Activities had a higher percentage of employees (67.5%) paid below the LLW than Retail in 2015. Median pay in Retail was only 58% of median pay of all employees in London (which was £15.74) in 2015.

Notes for Falling real wages and the National Minimum Wage

1. Quote from [London living wage](#).
2. Estimates of proportions of employees earning below minimum wage rates are calculated using the [methodology recommended calculating estimates of low pay](#).
3. As explained in the introduction, industrial sections A, B, D and E are combined into one industrial grouping, section G is split into two sectors, and sections T and U are excluded, meaning we typically analyse 17 industrial sectors of London's economy.

4 . Who is earning these wages?

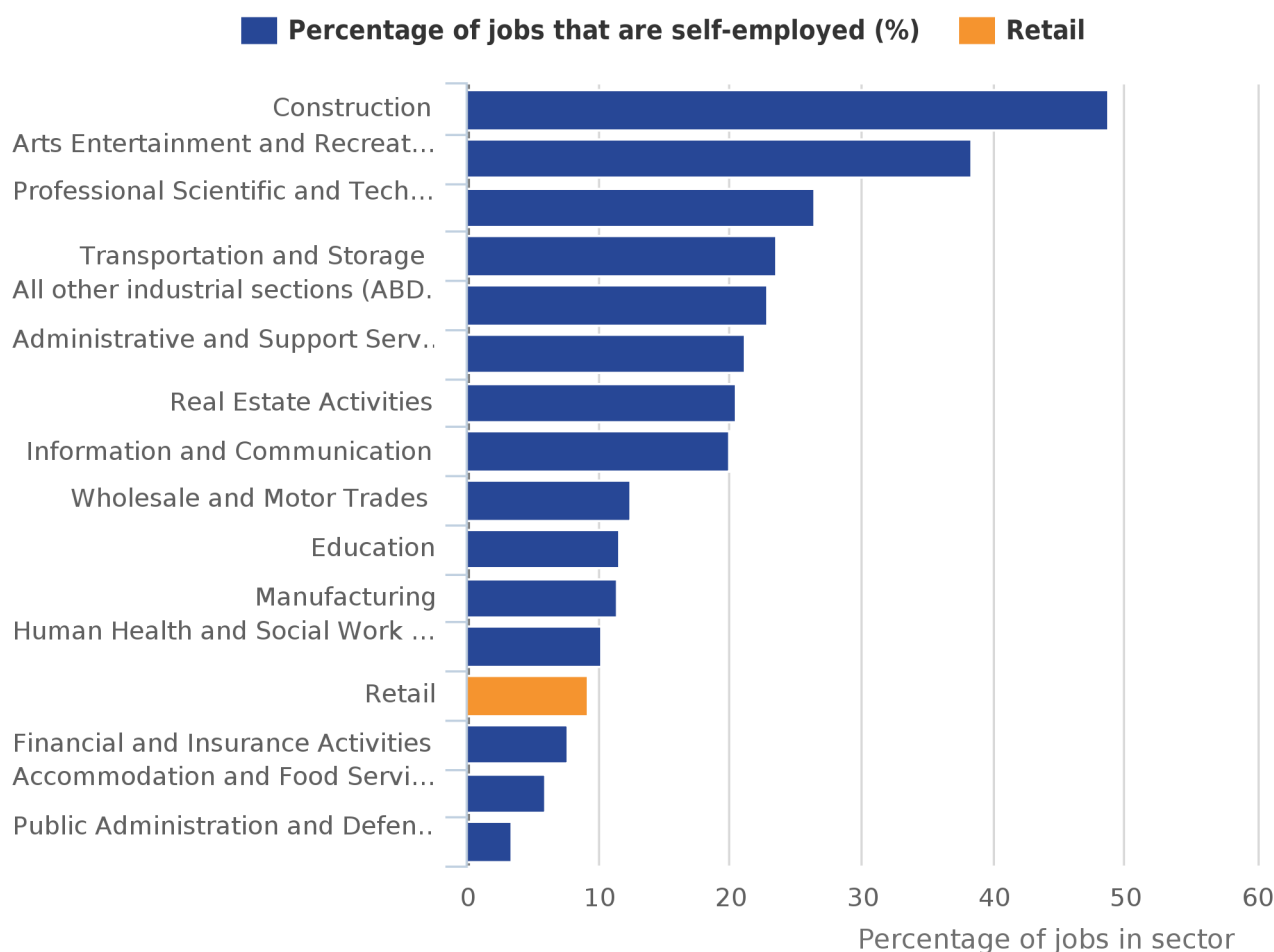
There were 448,000 jobs in Retail in London according to 2015 [Workforce Jobs](#) estimates. The Retail sector experienced reasonable but slightly uneven growth since 1996, starting at 347,000 jobs, showing growth of 29% over 20 years. This is nowhere near the fastest growth of 92% seen in Professional, Scientific and Technical Activities, but far above the decline in Manufacturing where numbers of jobs reduced by 51%, and Retail ranks approximately in the middle of growth rates of all industrial sectors in London.

This modest rate of growth stands to reason, when we consider that in the [2014 London Business Survey](#) 76% of Retail workplaces in London responded that their number of employees had remained the same over the previous 12 months, and that 78% were not planning to grow over the next 12 months. However, 44% of Retail workplaces said that they had recruited staff over the last 12 months, well above the 29% average across all industries, showing that there had at least been turnover in staff.

Retail in London has a very low proportion of self-employment, with only 9% of jobs being self-employed, according to the [Annual Population Survey](#) in 2015. This was half the self-employment rate of all industries in

London. As we can see in Figure 2, this compares with heavily self-employed industries like Construction, where 49% of jobs are self-employed, or Arts, Entertainment and Recreation at 38%, although Retail is still higher than Accommodation and Food Service Activities with 6% self-employment, and Financial and Insurance activities at 8%.

Figure 2: Percentage of self-employed jobs in each industrial sector, London, 2015



Source: Annual Population Survey

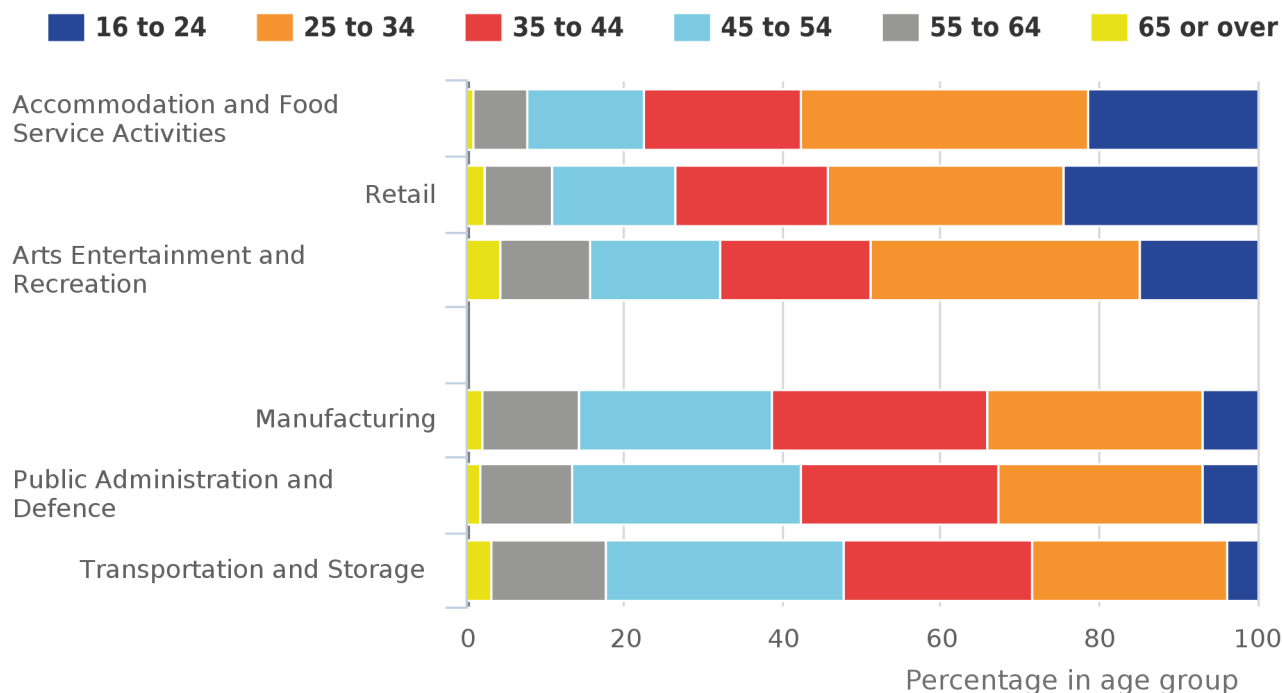
Notes:

1. The industrial sectors presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), except sections A, B, D, E, S, T and U have been combined into "All other industrial sections (A,B,D,E,S,T,U)".

5 . Breaking down the workforce

Retail has a relatively young workforce, with more than half (54%) of Retail jobs in London being held by workers aged 34 or younger, and only 11% aged 55 or over, according to the Annual Population Survey in 2015. As illustrated in Figure 3, it is the sector in London with the second-youngest age structure (of the 17 industrial groups analysed¹), only after Accommodation and Food Service Activities with 58% aged 16 to 34. Retail has a far younger structure than the sector with the lowest proportion of jobs held by people aged 16 to 34, only 29%, which was Transportation and Storage.

Figure 3: Percentage of jobs in each age group in selected industrial sectors, London, 2015



Source: Annual Population Survey

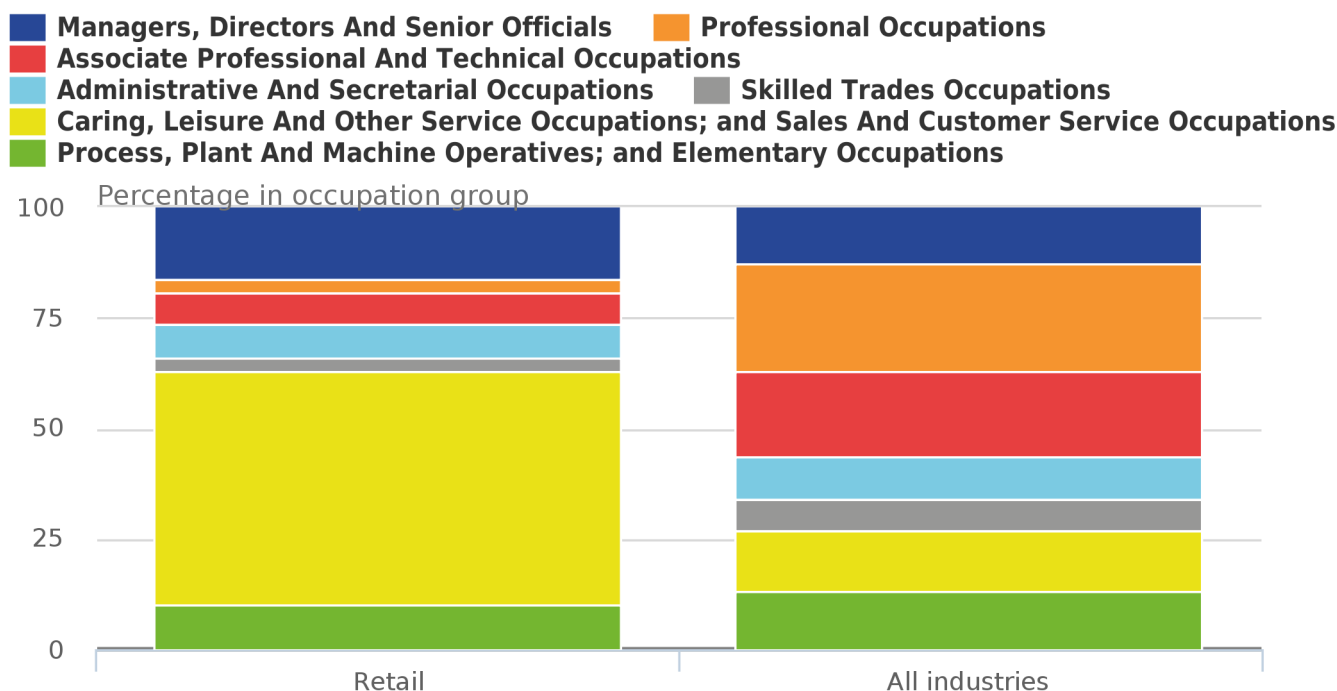
Notes:

1. The industrial sectors presented are the three with the greatest proportion, and three with the lowest proportion, of jobs held by people aged 16 to 34. All other sectors have been excluded.
2. Industrial sections A, B, D, E, T and U have been excluded from this analysis.

Retail is comparable to the average in London regarding numbers of people born overseas, where 59% of Retail jobs were held by people born in the UK and British Overseas Territories², compared to London as a whole at 61%. However, there is an unusual ethnic structure to the job-holders. Whereas London as a whole has 69% of jobs held by people of White ethnicities, 15% of all Asian backgrounds and 10% of Black ethnicities, the Retail sector had far higher proportions of non-white workers, with 49% White, 27% Asian and 14% Black. London has an ethnically diverse population, which according to the 2011 Census was 60% White, 18% Asian and 13% Black, so in fact the ethnic diversity of jobs in Retail is even more pronounced than that of London's population.

While jobs in London were fairly evenly split across all occupations, as might be expected occupations in Retail were concentrated in the combined occupations: Caring, Leisure and Other Service Occupations, and Sales and Customer Service Occupations. These occupations were grouped for the purposes of wider analysis in London. We find that 53% of jobs in Retail in London fit into this category, compared to 14% in London overall, and also a slightly higher proportion of Managers, Directors And Senior Officials with 16% in Retail and 13% overall. Although we had to group these two occupational categories, we also know that 64% of all Sales and Customer Service Occupations jobs in London were held in Retail, so we can reasonably expect that Retail jobs generally fall into the specific category Sales and Customer Service Occupations.

Figure 4: Breakdown of occupations of jobs in London, 2015



Source: Annual Population Survey

Notes:

1. These occupations are based upon the [Standard Occupational Classification \(SOC\) 2010](#), but the lower categories have been grouped. The occupations "Caring, Leisure And Other Service Occupations" and "Sales And Customer Service Occupations" have been amalgamated, and the occupations "Process, Plant And Machine Operatives" and "Elementary Occupations" have been amalgamated.

As the Retail industry has generally lower skill requirements than other sectors, one might expect Retail jobs to be held by people with lower educational qualifications. To some extent this is true, as 31% of Retail job-holders have a degree-level qualification compared to 51% in London as a whole, and 7.5% of Retail job-holders have no educational qualifications compared to 4.1% in London as a whole. However, there is still a reasonable spread of qualification levels in Retail. Considering the age structure of the Retail workforce, it is logical to assume that some of those with higher qualifications may be working in Retail to support themselves while achieving their qualifications (and shortly thereafter), or may be taking short-term jobs in Retail while they organise the first steps of their chosen career. However, there are numerous other factors that could lead to this spread of qualifications, and it would require wide-reaching analysis to investigate the topic.

Notes for Breaking down the workforce

1. As explained in the introduction, industrial sections A, B, D and E are combined into one industrial grouping, section G is split into two sectors, and sections T and U are excluded, meaning we typically analyse 17 industrial sectors of London's economy.
2. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.

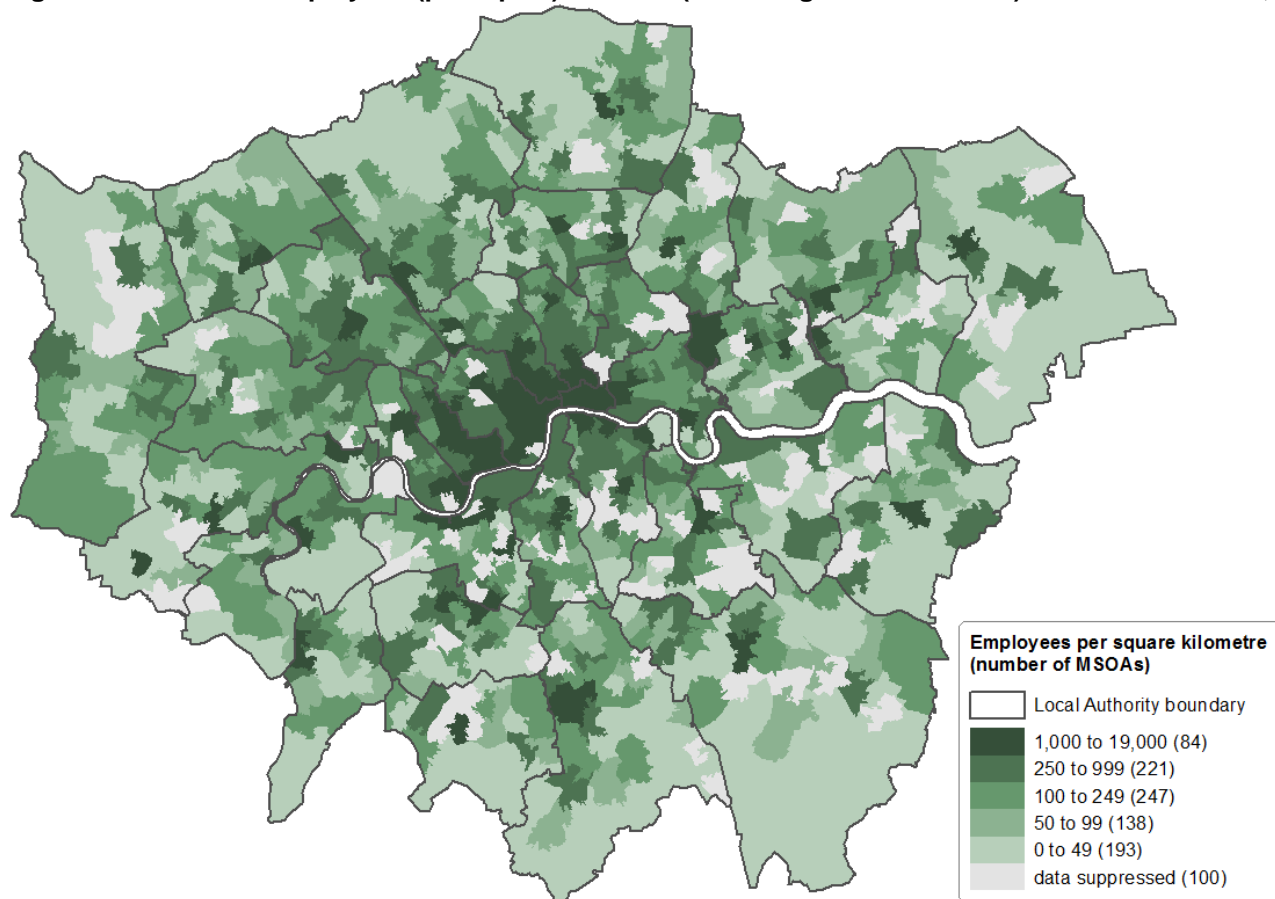
6 . Where are these retailers, and why London?

It may be no surprise that employees in Retail in London are spread throughout the capital, as we can see in Figure 5 using data from the [Inter-Departmental Business Register](#). London contained 43,865 Retail workplaces¹

in 2015, of which 68% belonged to small enterprises (businesses with between 0 and 9 employees in the UK), 12% to medium-sized enterprises (10 to 249 employees), and 20% belonged to large enterprises (250 or more employees). Even though the large enterprises only represented 20% of the Retail workplaces, they employed 65% of the employees in Retail in London.

There is, like many industrial sectors, a concentration of Retail activity in central London, around Westminster and The City, which includes world renowned shopping centres Oxford Street, Bond Street and Tottenham Court Road. However, we can also see concentrations throughout Greater London, generally around town centres, such as Uxbridge to the west, Croydon and Bromley to the south and south-east, Ilford and Romford to the north-east, Enfield to the north, and Harrow and Wembley to the north-west. We can also see high concentrations in the areas where Westfield London and Westfield Stratford City shopping centres are located, in Hammersmith and Fulham and Newham respectively.

Figure 5: Number of employees (per sq km) in Retail (excluding motor services) in London MSOAs, 2015



According to the 2014 London Business Survey, most of these retailers felt very positively about locating in London, with approximately two-thirds of workplaces stating that they chose London as a place to do business for a number of factors: access to skilled staff, the international or diverse environment, proximity to customers and to other businesses, the transport infrastructure (both within London and into or out of London), and the digital and communications infrastructure. However, they felt London was poor or very poor as a business location in terms of its costs, both costs of housing and of living costs, which likely affects their potential to find skilled staff. The same feeling regarding costs was held by about 60% of all workplaces in London, regardless of industry or size.

Unlike other industrial sectors, almost half (46%) of Retail workplaces in London stated that their proximity to residential areas was a positive or very positive factor affecting their business, whereas only 21% of all businesses felt similarly, and only 3% of retailers felt it had a negative impact. When we consider that 95% of retailers stated that they provided goods to their customers, and that 84% supply to the public, it stands to reason that close geographic proximity between customers and retailers makes good business sense and gives customers good access to their Retail needs. Intriguingly, 37% of London's retailers supply to other businesses, and 22% to the public sector, showing that their customer base is much wider than simply the general public. London is a good location for this with its concentration of both business and governmental bodies in the capital.

Notes for Where are these retailers, and why London?

1. Workplaces are referred to as “local units” in the Inter-Departmental Business Register.

7 . The uncertain future of retail

Recent developments in technology and land usage have created uncertainty for the future of traditional retail. We have seen the closure of long-lived Retail institutions including Woolworths and British Home Stores in recent history, and the rise of the internet as a viable and powerful retail tool.

According to results from the [Retail Sales Inquiry](#), average weekly spending online in August 2016 was £965.8 million across Great Britain, which was an increase of 18.5% compared to August 2015. The amount spent online accounted for 14.3% of all retail sales (excluding automotive fuel) in August 2016, compared with 12.5% in August 2015. In fact the proportion of spending online has been increasing steadily, from 4.9% of retail sales in 2008 to 12.5% in 2015.

New innovations¹ such as the use of virtual reality, delivery drones and the “Internet of Things” are changing the way retailers deliver to their customers, and the behaviour of marketing campaigns. Customer behaviours are also changing, with the increased usage of mobile phone technologies, the integration of the internet into home television viewing, and the rise of social media. Customers are breaking away from traditional high street shopping² and are now exposed to far more purchasing opportunities, and able to do so away from a traditional physical shop-front.

London’s population, which was 8.7 million people at [mid-year 2015](#), has been growing and is projected to continue growing, providing a potentially larger base of resident customers for London’s retailers. London also remains a popular destination for tourism³, which supports not only the Retail industry but also sectors including Accommodation, Food and Beverage Services, and Transportation and Storage.

It is extremely difficult to predict how all of these changes will affect the Retail industry in the longer term. In the recent past Retail has been continuing to grow in London, and we will have to wait to see how the Retail industry adapts to the current developments and changes.

Notes for The uncertain future of retail

1. [Retail Trends 2016](#), [Retail Trends and Predictions 2016](#), and [Fashion Forward: Top 10 Retail Trends for 2016](#).
2. [Retail in London: Looking Forward](#).
3. “[Mayor of London says the city remains open for international travellers](#)”, July 2016.

Business activity, pay and declining jobs in Manufacturing in London, 2015

An analysis of the workforce and business activity in the Manufacturing industry sector in London. This article presents the change in numbers of jobs in Manufacturing over time, and investigates the structure of the workforce by age, country of birth, qualification levels, and occupations. It then analyses earnings in the sector, maps business activity across the capital, and reviews what those businesses think of choosing to operate in London.



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1 . Main points

The number of jobs in Manufacturing fell by 51%, from 264,000 to 129,000 jobs in London between 1996 and 2015. It was almost the only industry to lose jobs over the period, whereas jobs in London as a whole grew by 40%.

23.7% of employee jobs in Manufacturing in London were earning below the London Living Wage in 2015, up from 19.3% in 2014, and real average (median) hourly earnings (excluding overtime) in Manufacturing in London have fallen over time, from £16.71 in 2008 to £13.94 in 2015, in 2015 prices. Real earnings have been calculated using national Consumer Prices Index figures, as data are not available at the London level.

90% of Manufacturing workplaces stated that access to local amenities, cultural activities, parks, sporting and recreational facilities was of slight or no importance to their business, although 91% were satisfied or very satisfied with the amenities they had, according to the 2014 London Business Survey.

2 . Introduction

Manufacturing covers the production of a wide variety of goods and materials, including food, clothing, fuels and chemicals, machinery, electronic equipment, and vehicles. It also covers the repair and maintenance of these goods. [Gross Value Added \(GVA\)](#) data indicate that, as of 2014, Manufacturing in London generated £9,561 million of GVA. This was 2.6% of London's overall GVA, 5.6% of Manufacturing GVA across the UK and 0.6% of UK GVA overall. Provisional results from [UK Manufacturers' Sales by Product \(PRODCOM\)](#) show that UK manufacturers' total product sales were £364.6 billion in 2015.

However, we are focusing on Manufacturing in London. This article starts by identifying the declining number of jobs in Manufacturing, then comments upon the age structure, countries of birth, qualification levels and occupations of workers in the sector. We then review pay of employees in Manufacturing, with reference to the London Living Wage, and conclude by investigating where employees are located across the capital and how those businesses feel about being located in London.

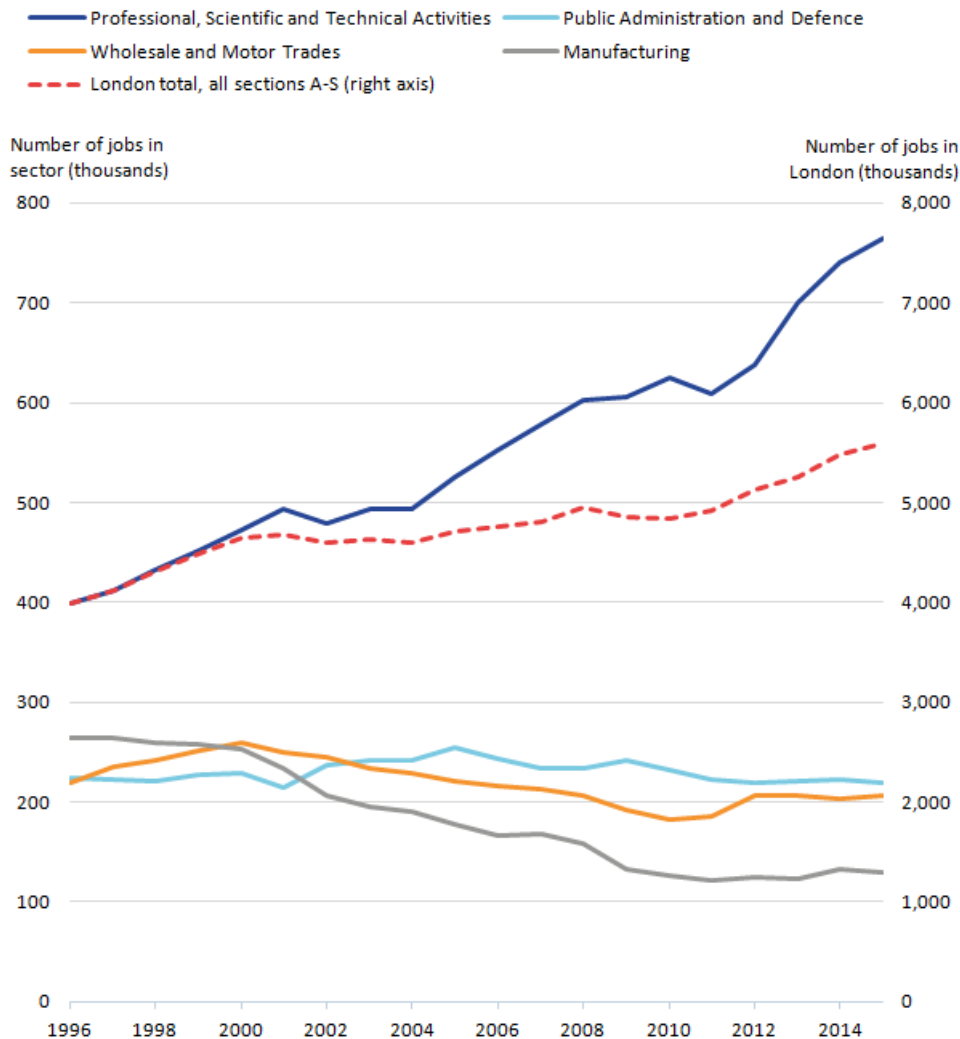
The industrial sectors analysed in this article are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), but because of the structure of London's economy we group industrial sections A, B, D and E to create the group "Primary and Utilities", and split section G into 2 parts: "Wholesale and Motor Trades", which is the combination of industrial divisions 45 and 46, and "Retail", which is division 47. We typically exclude sections T and U from the analysis as they are too small in London to analyse effectively. When this article refers to the term "Retail" it means industrial SIC division 47, and it is large enough in London to be compared to the other industry sections.

This analysis is part of a series of articles entitled [Earning, Learning and Business Churning: revealing London's industrial economy](#), which analyse patterns of activity in industries in London. Data used in this analysis has been used to create the [Economic Evidence Base](#) by the Greater London Authority, which forms the economic basis of the Mayor of London's [London Plan](#). This article gives detail about a particular industrial sector, whereas the Economic Evidence Base provides a more comprehensive understanding of London's economy.

3 . Declining jobs in Manufacturing in London

Manufacturing is almost the only industry in London in which numbers of jobs have fallen. Between 1996 and 2015, the number of jobs in Manufacturing in London fell by 51%, from 264,000 to 129,000 jobs, according to [Workforce Jobs](#) estimates. Over the same period, only 2 other industry sectors fell: Public Administration and Defence fell by 4,000 jobs (down 2%), and Wholesale and Motor Trades fell by 13,000 jobs (down 6%), but neither fell by anywhere near as much as Manufacturing.

Figure 1: Numbers of jobs in selected industrial sectors in London, 1996 to 2015

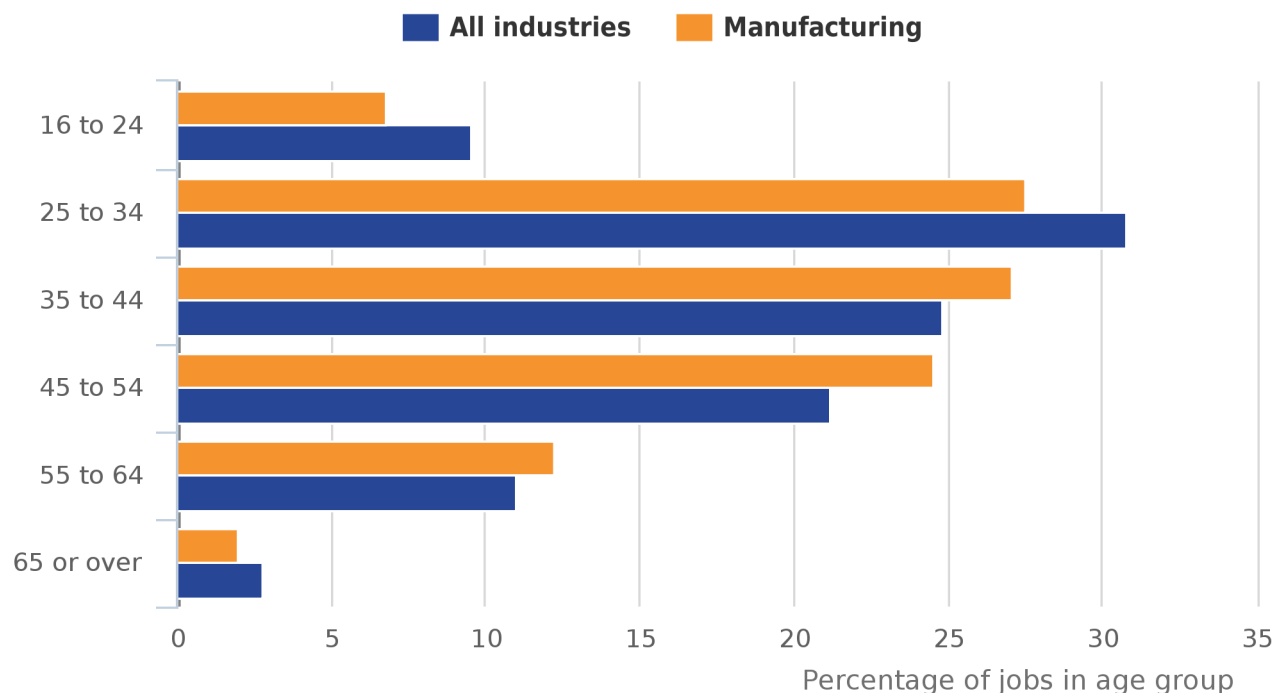


Overall, the number of jobs in London grew by 40% between 1996 and 2015, and in particular jobs in Professional, Scientific and Technical Activities grew by 92%, meaning Manufacturing is in stark decline compared with London's general employment trends. However, Manufacturing in London is reflecting a nationwide trend, where Workforce Jobs in Manufacturing across the UK fell from 4.3 million in December 1996 to 2.7 million in December 2015, a fall of 38%, with the pattern of this fall being fairly gradual over time.

According to the [Inter-Departmental Business Register \(IDBR\)](#), the number of workplaces¹ in Manufacturing in London has also fallen, from 18,255 in 2001 to a low of 11,925 in 2011. The numbers have since risen to 13,225 in 2015, although part of this rise may be a result of changes to the source data in 2012 and 2015².

The age structure of jobs in Manufacturing, according to the [Annual Population Survey](#), was similar to that of jobs in London as a whole in 2015. We can see in Figure 2 that approximately one-quarter of jobs were held by people aged 25 to 34, another quarter of jobs by people aged 35 to 44, another quarter aged 45 to 54, and the remaining quarter split between the younger and older ages.

Figure 2: Percentage of jobs in each age group in London, 2015



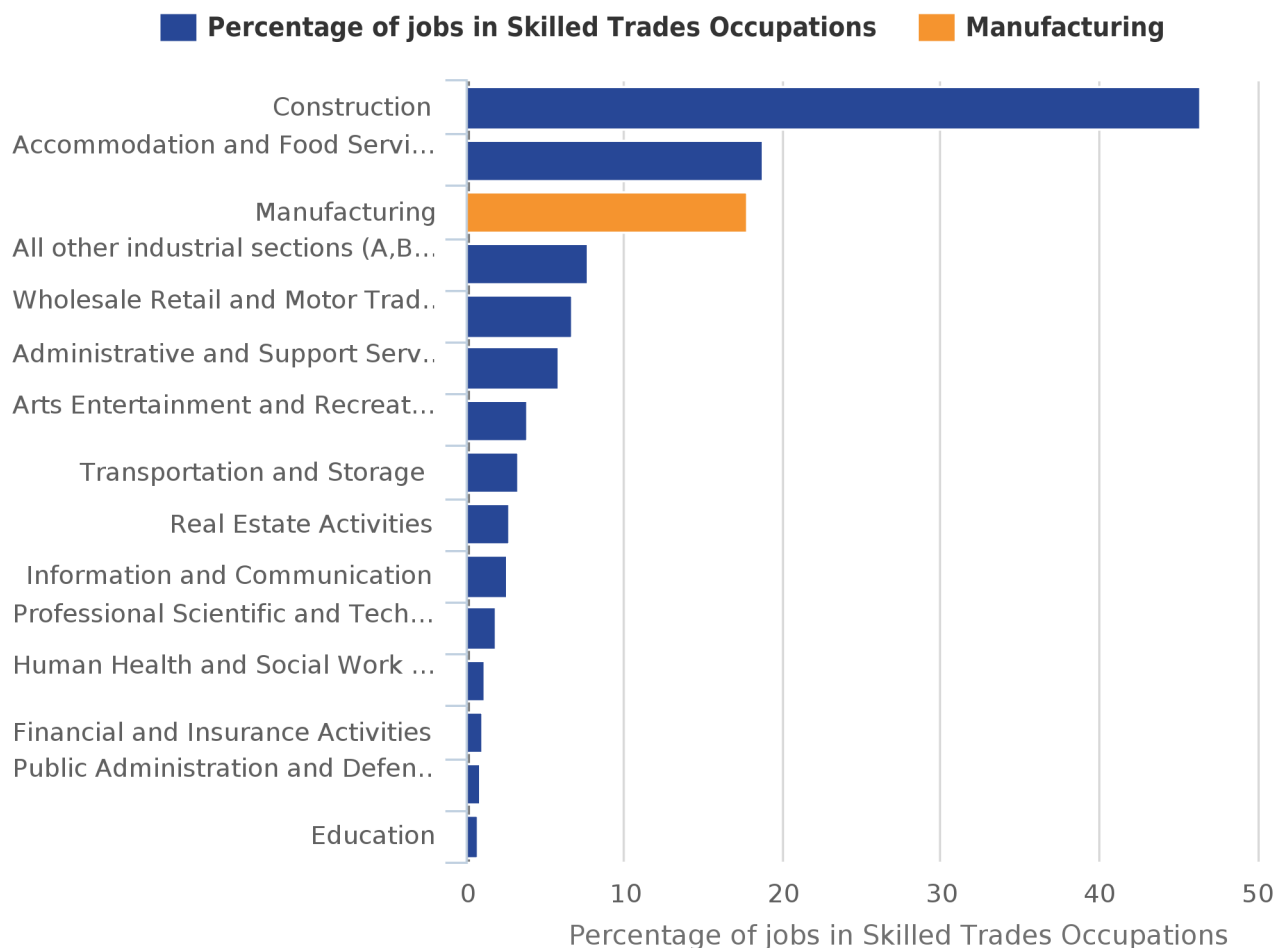
Source: Office for National Statistics – Annual Population Survey

In fact, Manufacturing is similar to London's structure regarding country of birth as well, with almost the same numbers of jobs held by workers born in the UK or British Overseas Territories ³ (63.5% in London Manufacturing, 61.3% in all London industries), similar numbers born elsewhere in the European Economic Area ⁴ (13.3% and 12.5% respectively), and similar proportions born elsewhere in the world (23.3% and 26.2% respectively).

Similar is also true of highest educational qualifications held by job-holders in Manufacturing in London. Despite only 41% of manufacturing job-holders in London having degrees, compared with 51% in London overall, otherwise the distribution of educational qualifications in Manufacturing is similar to that of all industries overall.

However, every industry has its own staffing requirements. The Annual Population Survey tells us that, in London in 2015, Manufacturing employed workers in a wide variety of occupations, but notably a far higher propensity in Skilled Trades Occupations than most other sectors. We can see in Figure 3 that 18% of jobs in Manufacturing were in Skilled Trades Occupations in 2015, well above the London average of 7%. Construction was by far and away the industry in London with the greatest proportion (46%) of Skilled Trades workers, followed by Accommodation and Food Service Activities with almost 19%, then Manufacturing ranks third with 18%.

Figure 3: Percentage of jobs in Skilled Trades Occupations in industrial sectors in London, 2015



Source: Office for National Statistics – Annual Population Survey

Notes:

1. The industrial sectors presented are based upon the [UK Standard Industrial Classification \(SIC\) 2007](#), except sections A, B, D, E, S, T and U have been combined into "All other industrial sections (A,B,D,E,S,T,U)".

This higher proportion of Skilled Trades Occupations, as well as a higher proportion than average in Process, Plant and Machine Operatives, and Elementary Occupations, is at the expense of lower proportions in Professional Occupations; Caring, Leisure and Other Service Occupations; and Sales and Customer Service Occupations.

Notes for Declining jobs in Manufacturing in London

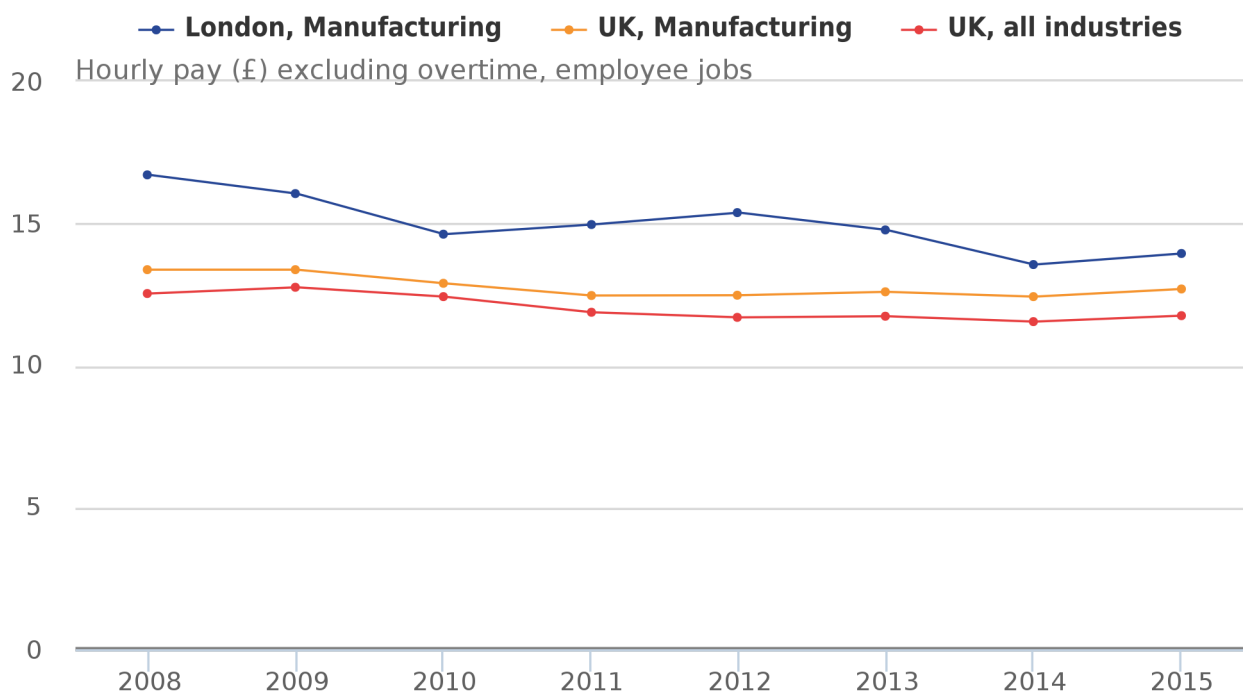
1. Workplaces are referred to as "local units" in the Inter-Departmental Business Register.
2. Between 2011 and 2012, HM Revenue and Customs made improvements to their computer systems leading to previously excluded businesses being added to the IDBR. Nearly half of the increase in numbers (31,000 of 68,000 enterprises) between 2011 and 2012 at the UK level was attributable to this change. Further, in 2015, the IDBR extended the coverage of businesses to include a population of solely PAYE-based businesses that were previously excluded because of a risk of duplication. At UK level, 105,000 enterprises were added in 2015.
3. The British Overseas Territories include: Anguilla, Bermuda, the British Indian Ocean Territory, the British Virgin Islands, the Cayman Islands, the Falkland Islands, South Georgia, Gibraltar, Montserrat, the Pitcairn Islands, Saint Helena, the South Sandwich Islands and the Turks and Caicos Islands.

4. The European Economic Area (EEA) includes: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, the Republic of Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. The EEA specifically excludes: Andorra, Monaco, San Marino and Vatican City. Although Iceland, Liechtenstein and Norway are not members of the European Union (EU), their citizens have the same rights as EU citizens to enter, live in and work in the UK.

4 . Earnings in Manufacturing

In real terms, average (median) hourly earnings (excluding overtime) in Manufacturing in London have been falling over time, from £16.71 in 2008 to £13.94 in 2015, all in 2015 prices. This fall was also reflected in Manufacturing in the UK as a whole, falling from £13.37 to £12.69 over the same period, although as wage rates were higher in London they fell by a greater amount, as we can see in Figure 3. National Consumer Prices Index figures have been used to adjust for inflation, as data are not available at the London level, although the impact of inflation may differ in the London region compared with national figures. We should also note that earnings data for 2015 are provisional and are subject to revision.

Figure 4: Real median hourly earnings (£, excluding overtime), UK and London, 2008 to 2015



Source: Office for National Statistics – Annual Survey of Hours and Earnings (2009-2014 revised, 2015 provisional), Consumer Prices Index

Notes:

1. Earnings have been adjusted for inflation using national-level Consumer Price Index figures, as no regional-level figures are available. This adjustment accounts for changes in prices over time, assuming London workers experience similar levels of inflation to the national level.

Average (median) hourly earnings (excluding overtime) of males according to the [Annual Survey of Hours and Earnings \(ASHE\)](#) in 2015 was £14.86 in Manufacturing in London, whereas for females it was £11.40. As there are relatively few Manufacturing jobs in London, the results from ASHE are unreliable for any breakdowns by sex or employment status. However, the Annual Population Survey tells us that, in 2015, 72% of jobs in Manufacturing were held by men, and 28% held by women, and also that 86% of jobs were full-time (14% part-time). We can deduce that the difference between male and female earnings in Manufacturing follows similar patterns to most industrial sectors in London.

Between 2014 and 2015, the proportion of employee jobs¹ in Manufacturing earning below the [London Living Wage](#) rose from 19.3% to 23.7%, or 4.4 percentage points. The London Living Wage at the time of the survey was £8.80 in 2014 and £9.15 in 2015.

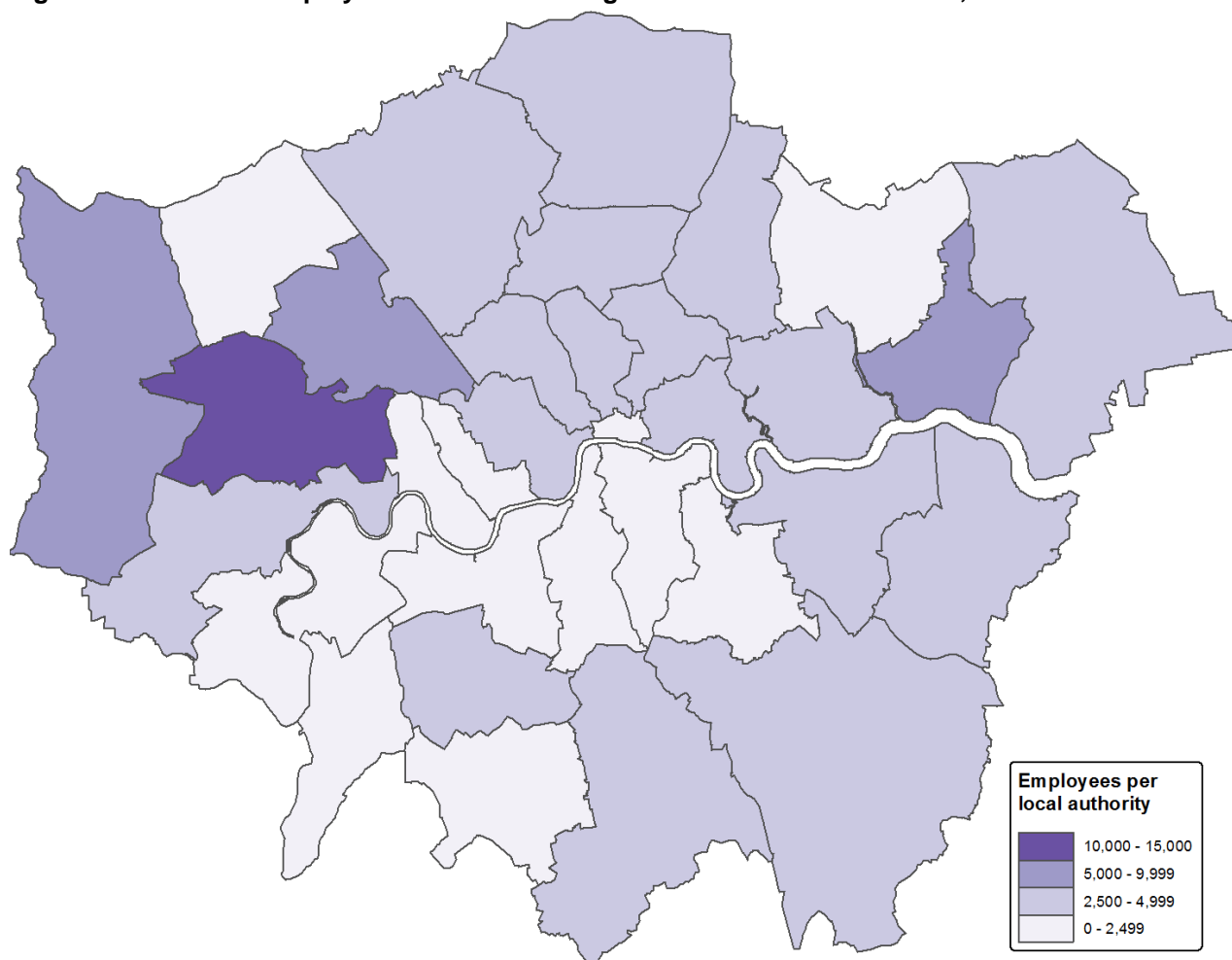
Notes for Earnings in Manufacturing

1. Estimates of proportions of employees earning below minimum wage rates are calculated using the [methodology recommended calculating estimates of low pay](#).

5 . Where manufacturers are, and how they rate London

According to the [Business Register and Employment Survey](#) in 2014, the distribution of Manufacturing employees across London local authorities is illustrated in Figure 4, where we see greater concentrations in outer London than inner London, more so in the north than the south. We can also see the western boroughs of Brent, Ealing and Hillingdon have the highest concentrations of employees in Manufacturing in London, most likely because the firms are located near the major transport links of 5 motorways, the M1, M3, M4, M25 and M40, connecting them to the rest of the UK, and near Heathrow airport, connecting them internationally.

Figure 5: Number of employees in Manufacturing in London local authorities, 2015



The [2014 London Business Survey](#) revealed that 96% of Manufacturing workplaces in London said they were UK-owned, so only 4% were foreign-owned. However, Manufacturing workplaces were slightly unenthusiastic about having chosen to locate their business in London. When asked to rate London as a location to carry out their business on factors including having access to skilled staff, proximity to other businesses, and the transport

infrastructure, manufacturers were similar to most other industries in the proportion rating it as either adequate, good or excellent. However, manufacturers were more likely to rate it adequate while most other sectors rated London good or excellent.

Further than this, a greater proportion of manufacturers rated London as poor or very poor for finding suitable and affordable workspace than almost all other industries, and about 90% of manufacturers stated that access to local amenities such as restaurants, access to cultural activities, and access to parks, sporting and recreational facilities was of slight or no importance to their business. We should note that despite being of little importance to them, 91% of Manufacturing workplaces were satisfied or very satisfied with the amenities, cultural and recreational facilities available to them.

Finally, the Annual Population Survey shows that, in 2015, 43% of Manufacturing jobs were working in scientific or technical industries according to the Science and Technology categorisation presented in [Identifying Science and Technology Businesses in Official Statistics](#). Within Manufacturing, these jobs will have been manufacturing electrical, electronic and optical equipment; chemicals including pharmaceuticals and petroleum products; specialist machinery and specialist fabricated products; motor and transport vehicles; and repair of all these materials.