GLAECONOMICS

Working Paper 85

A description of London's economy

Aaron Girardi and Joel Marsden

March 2017

MAYOR OF LONDON

copyright

Published by
Greater London Authority
City Hall
The Queens Walk
London SE1 2AA

www.london.gov.uk
Tel 020 7983 4922

Minicom 020 7983 4000

ISBN 978-1-84781-648-1

Cover photograph

For more information about this publication, please contact:

GLA Economics

Tel 020 7983 4922

Email glaeconomics@london.gov.uk

GLA Economics provides expert advice and analysis on London's economy and the economic issues facing the capital. Data and analysis from GLA Economics form a basis for the policy and investment decisions facing the Mayor of London and the GLA group. GLA Economics uses a wide range of information and data sourced from third party suppliers within its analysis and reports. GLA Economics cannot be held responsible for the accuracy or timeliness of this information and data. The GLA will not be liable for any losses suffered or liabilities incurred by a party as a result of that party relying in any way on the information contained in this report.

Contents

Executive summary

The London economy has specialisations in Professional, scientific and technical services; Finance and insurance; and Information and communication. Employment in these three industries is particularly concentrated in inner London, accounting for more than 33 per cent of jobs in Camden, Islington, Southwark and Westminster, almost 50 per cent of jobs in Tower Hamlets and over 70 per cent of jobs in the City of London in 2014. While concentrated centrally, there are also discrete pockets of economic activity in these specialised services in neighbouring areas, and other parts of the capital.

By drawing in workers, tourists, and other visitors, central London areas also support jobs in accommodation, food, arts, entertainment, and retail services in the surrounding areas of inner London. In 2014, the combined Retail, and Accommodation and food services sectors for example accounted for around one in three employee jobs in Kensington and Chelsea, around one in four jobs in Newham and one in five in Haringey, with some evidence of recent growth in the number of jobs around the shopping centre developments in Stratford.

Outside this central core of economic activity, jobs in much of outer London (and also in the inner London boroughs of Wandsworth and Lewisham) tend to be concentrated in sectors serving the local population. Across outer London as a whole, for example, almost one in four employee jobs (23 per cent) are in healthcare and education sectors. A large proportion of jobs in outer London are also found in business administration and support services (11 per cent) and retail services (11 per cent).

In certain parts of London's outer reaches to the West and East, jobs are also more likely to be in what may be considered relatively land-intensive or industrial sectors, such as transport and storage, wholesale, manufacturing and utilities. Waltham Forest in outer east London is for example, home to the Temple Mills Depot (maintenance for the Eurostar fleet) and Tower Transit's Lea Interchange (bus) garage. There is also a notable concentration of jobs in the transport and storage sector around Heathrow Airport and along the M4 corridor in Hillingdon and neighbouring settlements in Hounslow.

This area of outer west London stands out as distinct from other parts of outer London. Besides the role of the transport and storage sector around Heathrow, there are also a relatively high number of jobs in Information and communication, and Professional, scientific and technical activities.

1 Introduction

The purpose of this working paper is to describe the structure and make-up of London's economy in different parts of the capital. This accompanies and supports the recently published Economic Evidence Base for London[1], providing a localised counterpart to the more aggregate-level, analysis of the key aspects and changes in London's economy covered in that report. For the purpose of consistency, the same data that was available at the time of the Evidence Base is used throughout this paper.

As the Evidence Base highlights[2], more than half (around 52 per cent) of London's output in 2014 was generated within one kilometre of the Central Activities Zone (CAZ) and the northern part of the Isle of Dogs (NIOD). Looking beyond these central zones, this working paper looks at the jobs and activity going on in local geographic areas, highlighting instances of distinct concentrations of jobs, businesses and industry specialisation, and examples outlining how local economies in London have evolved over time.

This piece also builds on the economic needs analysis to support the London area based reviews of the Further Education sector[3]. The analysis presented here follows statistical definitions of sub-regional geography[4] and more local geographies, where the data allows.

The report is divided into four sections plus an appendix:

- **Section 1** summarises the major developments in London's economy over the past four decades. It also introduces the lower level geographies (statistical sub-regions) used throughout the paper.
- **Section 2** provides a descriptive account of the economic structure of London's sub regions in terms of jobs, economic output and identifies instances of local industry specialisation relative to the rest of the country. This includes a detailed look at London's western fringes around Heathrow airport and along the M4 corridor to the surrounding areas.
- **Section 3** describes London's business landscape by exploring the industrial structure of businesses and business dynamics across the capital. It also identifies some of the major sites of employment across London, outside of the CAZ.
- **Section 4** considers the nature of work across London in terms of employee pay, and by observing patterns of commuting and self-employment across London.
- Finally, an **appendix** contains supporting data to this paper.

1.1 London's economic development over time

London is a thriving global city with a strong, growing economy and increasing population. The economic success of the capital has been driven by an increasingly connected and integrated global economy. As markets have opened and trade[5] expanded, the size of the market that businesses can sell into has made it more economically viable to specialise in the types of

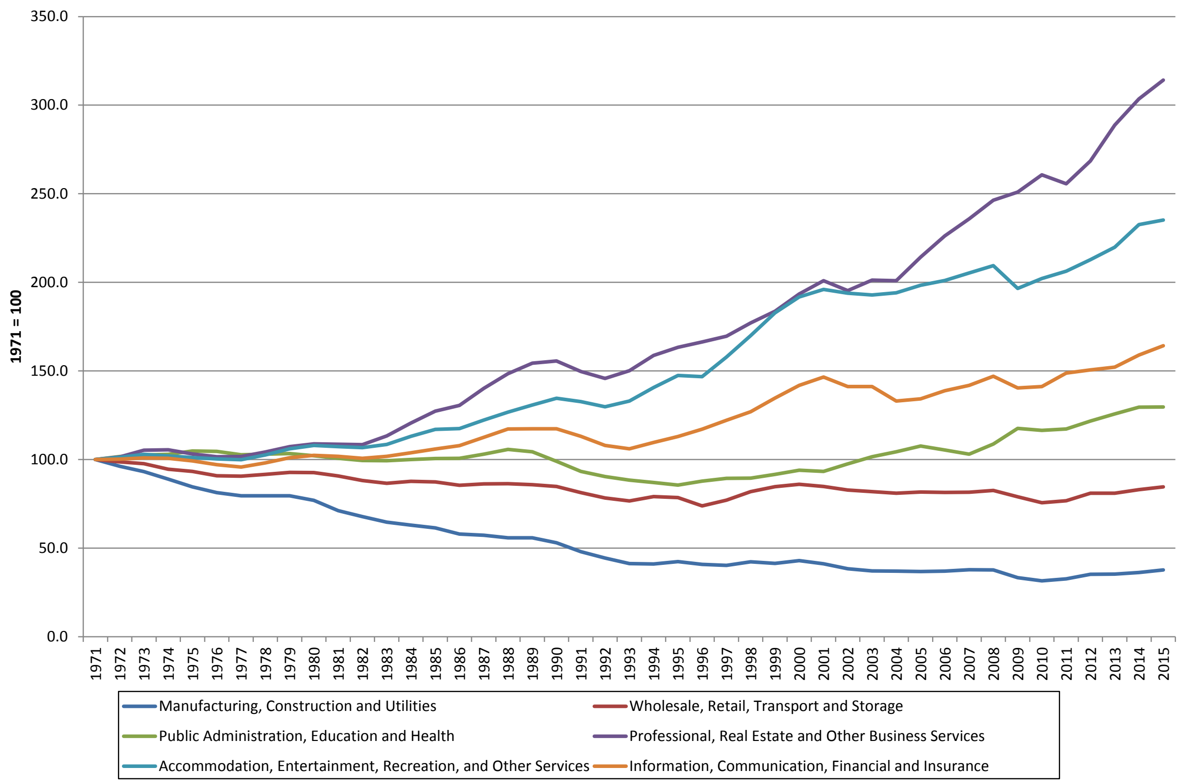
[1] GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.
[2] *Ibid*, page 1 of Chapter 2.
[3] GLA Economics, May 2016, Trends in demand for labour and skills in London as a whole, Working paper 75.
[4] As opposed to the unique skills sub-regions developed for the purposes of the area based reviews review. Compare *ibid.* Map 1, p. 6 with Map 1 below.
[5] For analysis of London's trade, see: GLA Economics, Economic Evidence Base for London 2016, November 2016, section 1.2.

products or services in which London has a comparative advantage, (ie, that London is relatively better at than its trading partners).

For London, this has meant increasingly specialising in certain areas such as Professional, real estate, and business service activities. This specialisation has in turn created a strong demand for skilled and productive labour, and generates demand for further economic activities in other parts of the UK[6], as well as for localised services.

London's current industrial structure reflects this process of increasing specialisation. The structure of London's economy has changed substantially in the last four decades, with a marked decline in Manufacturing, and a strong shift towards Professional and business service activities. This is demonstrated by Figure 1.1 which shows the changes in London's industrial structure from 1971 to 2015, measured in terms of workforce jobs (WFJ)[7].

Figure 1.1: Workforce jobs by selected broad industry sector, London, 1971-2015



Source: GLA London Jobs Series[8]

Overall, the total number of jobs in London has increased from 4.6 million in 1971 to 5.5 million in 2015. Job growth over the period has been particularly strong in Professional, real estate, scientific and technical activities, which has more than trebled, from an estimated 279,000 jobs in 1971 to 877,000 jobs in 2015. In contrast, jobs in Manufacturing in London experienced a rapid decline from 872,000 jobs in 1971 to 128,000 jobs in 2015.

[6] GLA Economics, Growing Together II: London and the UK economy, September 2014.
[7] The quarterly 'Workforce Jobs' series is the Office for National Statistics (ONS) preferred measure of job numbers in the UK and its regions. This series draws on a number of sources and measures the sum of employee jobs, self-employment jobs, government-supported trainees and HM Forces. The reader should bear in mind that these figures do not equate to full-time equivalents, and instead provides a count of jobs, irrespective of the number of working hours.
[8] London labour market projections on London Datastore

Looking in more detail at selected years in the series, Table 1.1 further illustrates this long-term trend in jobs growth in service sector activities. The number of jobs more than doubled between 1971 and 2015 in Arts, entertainment and recreation (up 121,000 to 201,000 jobs), Administrative and support services (up 327,000 to 550,000 jobs), Accommodation and food services (up 184,000 to 365,000 jobs) and Other services (up 95,000 to 150,000 jobs). Since 1996, there have also been high levels of jobs growth in Information and communication (up 180,000 to 426,000 jobs), Education (up 195,000 to 423,000 jobs) and, Healthcare and social work (up 191,000 to 545,000 jobs). Overall, more than 90 per cent of jobs in London were in service sectors[9] in 2015, up from 87 per cent of total jobs in 1996 and from 73 per cent in 1971.

Table 1.1: London's historic workforce jobs, thousands, 1971, 1996 and 2015

	1971		1996		2015	
Broad industrial sector	**WFJ**	**% of total**	**WFJ**	**% of total**	**WFJ**	**% of total**
A, B, D, E: Primary and utilities	77	1.7%	31	0.8%	34	0.6%
C: Manufacturing	872	19.1%	262	6.6%	128	2.3%
F: Construction	274	6.0%	206	5.2%	298	5.4%
G: Wholesale, and motor trades	293	6.4%	219	5.5%	206	3.7%
G: Retail	410	9.0%	345	8.7%	446	8.1%
H: Transport and storage	395	8.7%	247	6.2%	276	5.0%
I: Accommodation and food services	181	4.0%	204	5.2%	365	6.6%
J: Information and communication	229	5.0%	246	6.2%	426	7.7%
K: Finance and insurance	268	5.9%	336	8.5%	391	7.1%
L, M: Professional, real estate, scientific and technical activities	279	6.1%	464	11.7%	877	15.8%
N: Administrative and support services	223	4.9%	361	9.1%	550	9.9%
O: Public Administration and defence	339	7.4%	224	5.7%	220	4.0%
P: Education	268	5.9%	228	5.8%	423	7.6%
Q: Healthcare and social work	310	6.8%	354	8.9%	545	9.8%
R: Arts, entertainment and recreation	80	1.8%	132	3.3%	201	3.6%
S: Other services	55	1.2%	94	2.4%	150	2.7%
Total	**4,553**		**3,953**		**5,538**	

Source: GLA London Jobs Series.

Another way of looking at the relative importance of individual sectors to London's economy is through the 'index of specialisation' (IOS)[10].

[9] Service sectors are denoted by the 2007 Standard Industrial Classification (SIC) 1-digit sections G to U.

[10] This index combines information on the proportion of employee jobs[10] in a particular sector in London, and divides this by the proportion of jobs in this sector in the rest of the country, such that:

$$\frac{\left(\frac{\text{Sector employee jobs in London}}{\text{All employee jobs in London}}\right)}{\left(\frac{\text{Sector employee jobs in rest of GB}}{\text{All employee jobs in rest of GB}}\right)}$$

An index of specialisation of one means that the sector accounts for the same proportion of jobs in London as it does in the rest of Great Britain. An index of specialisation of greater than one means that a higher proportion of jobs in that sector are located in London compared with the rest of the country.

Chapter 1 of the Economic Evidence Base for London 2016[11] presents detailed information on this measure. This echoes the finding that London is particularly specialised in service sector industries, with most of these sectors recording IOS scores greater than one. In 2014, London's most significant specialisations were in Finance and insurance activities (with an IOS of 2.5); Information and communication (2.4); and Professional, scientific and technical activities (1.8). In contrast, sectors such as Manufacturing (0.3) and Primary and utilities (0.3), which tend to be more land intensive, have a low index of specialisation score (see Figure 1.2).

Figure 1.2 plots the broad industry sector level IOS against the proportion of London's aggregate output, measured in terms of Gross Value Added (GVA) in 2014. The size of the circle represents the number of employee jobs in that sector. Sectors within the top right quadrants of this diagram – Financial and insurance activities, Information and communication, Real estate, and Professional, scientific and technical activities – would be considered as highly specialised and contributing significant levels of output. Taken together these four sectors accounted for more than half (53 per cent) of London's total economic output in 2014. Further analysis in the Economic Evidence Base shows that this is up from around 42 per cent in 1997, when the GVA series began.

Figure 1.2: Index of specialisation compared to total output share, 2014

Source: GLA Economics calculations; drawn from Business Register and Employment Survey (BRES) - ONS, UK Regional Accounts – ONS.

[11] GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.

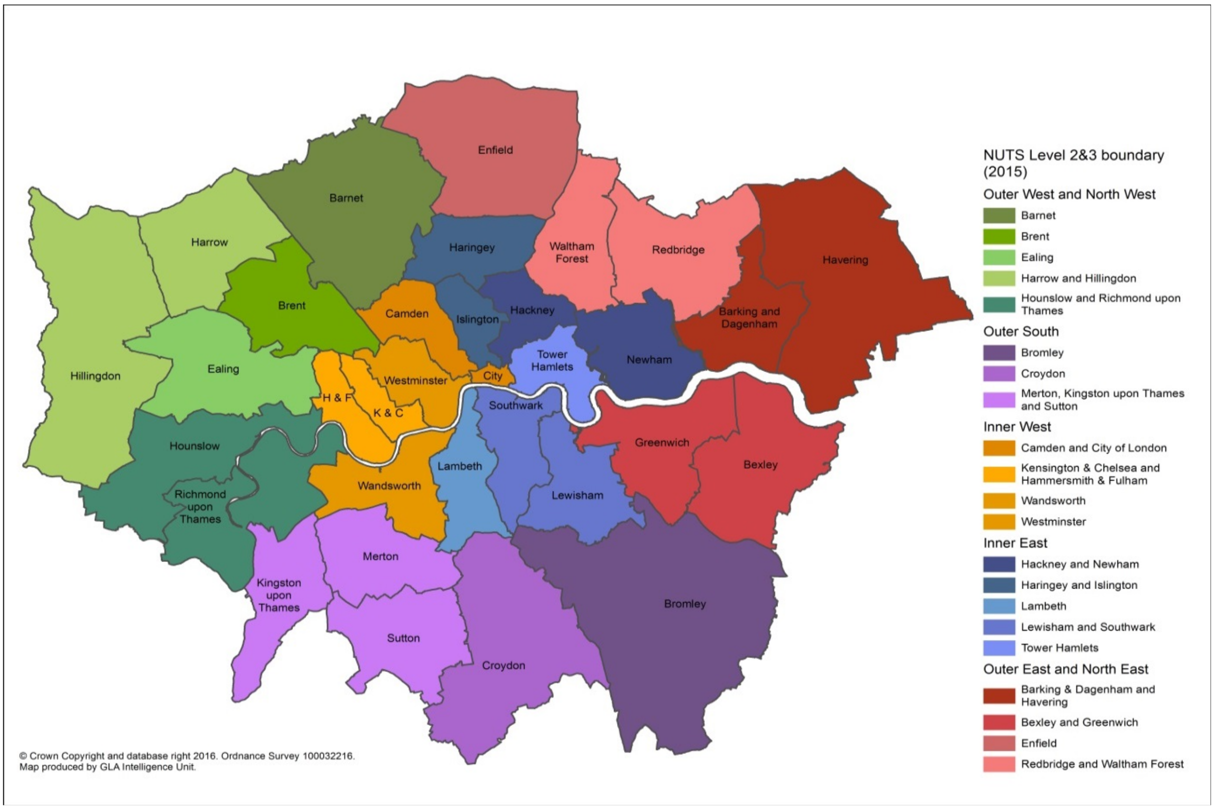
1.2 London's statistical sub-regions

In order to study the geographical spread of employment and economic activity across the capital, this study will follow the ONS Nomenclature of Territorial Units for Statistics (NUTS) 2010 arrangement for sub-regions. This convention sees Greater London corresponding to NUTS-1, NUTS-2 divides inner London into two sub divisions and outer London into three sub divisions, with NUTS-3 splitting these sub divisions further into individual boroughs or local authority groupings. Below this level, where appropriate, data at local levels will be drawn on in order to add further detail to these economic geographies. Table 1.2 and Map 1.1 presents the NUTS-2 statistical sub-regions and their constituent local authorities.

Table 1.2: Classification of London's statistical sub regions

Inner London		Outer London		
Inner London – West	**Inner London – East**	**Outer London – West and North West**	**Outer London – East and North East**	**Outer London – South**
Camden City of London Hammersmith and Fulham Kensington and Chelsea Wandsworth Westminster	Hackney Haringey Islington Lambeth Lewisham Newham Southwark Tower Hamlets	Barnet Brent Ealing Harrow Hillingdon Hounslow Richmond upon Thames	Barking and Dagenham Bexley Enfield Greenwich Havering Redbridge Waltham Forest	Bromley Croydon Kingston upon Thames Merton Sutton

Map 1.1: London's five NUTS-2 sub-regions for statistical purposes



Source: GLA Intelligence Unit

The next section provides a detailed account of the structure and make-up of London's economy from this geographic perspective.

2 The structure of London's local economies

This section provides a detailed, descriptive account of the structure and make-up of London's local economies, in terms of their jobs and output. It also draws out particular instances of industry specialisation, with a particular focus on areas outside of the CAZ.

The analysis that follows looks in detail at the make-up of local economies in relation to ONS Standard Industrial Classifications (SIC). For readers interested in non-standard industry sectors, GLA Economics have published detailed research at London level on cross-cutting, non-standard sectors including tourism[12], science and technology[13] and the creative industries[14].

2.1 Self-employment across London

Section 1.1 showed that there were more than 5.5 million jobs in London in 2015. This figure, taken from the ONS Workforce Jobs series, is the preferred metric for London-wide data and includes estimates of the self-employed. Since this data is not available at sub-regional levels, this working paper instead makes use of 2014 data from the ONS Business Register and Employment Survey (BRES). This presents information on the number of employee jobs registered with each employer, and does not therefore capture the number of self-employed workers or working proprietors. As with Workforce Jobs, BRES provides a count of jobs, irrespective of the number of working hours[15].

2.2 Jobs across London's sub-regions and local areas

The structure of the economy varies across London. This section provides an overview of employee jobs in London's five statistical sub-regions (see section 1.2). Where appropriate, the number of jobs and distribution of employment across and within the component local authorities is also highlighted.

Looking at London as a whole, while outer London is home to a majority of residents (60 per cent), the majority of jobs (62 per cent) are located in inner London. Table 2.1 shows that this aggregate pattern is largely unchanged since 1971[16]. However while Greater London as a whole has grown by almost 950,000 residents, and 400,000 employee jobs from 1971 to 2014, the population of Inner London - West has fallen slightly over this period (see Table 2.1).

[12] GLA Economics, March 2015, The value of cultural tourism to London, Current Issues Note 44.
[13] GLA Economics, March 2015, The science and technology category in London, Working Paper 64.
[14] GLA Economics, October 2015, The creative industries in London, Working Paper 70.
[15] BRES estimates of employee jobs by sector differ slightly from the Workforce Jobs series for employees, which is a composite series of a number of surveys
[16] Data for 1971 is taken from GLA Economics calculations of historic employee jobs in: GLA Economics labour market projections. For consistency with the detailed descriptions that follow, this paper uses jobs estimates from the 2014 BRES data.

Table 2.1: Population and employee jobs in London sub-regions, 1971 and 2014

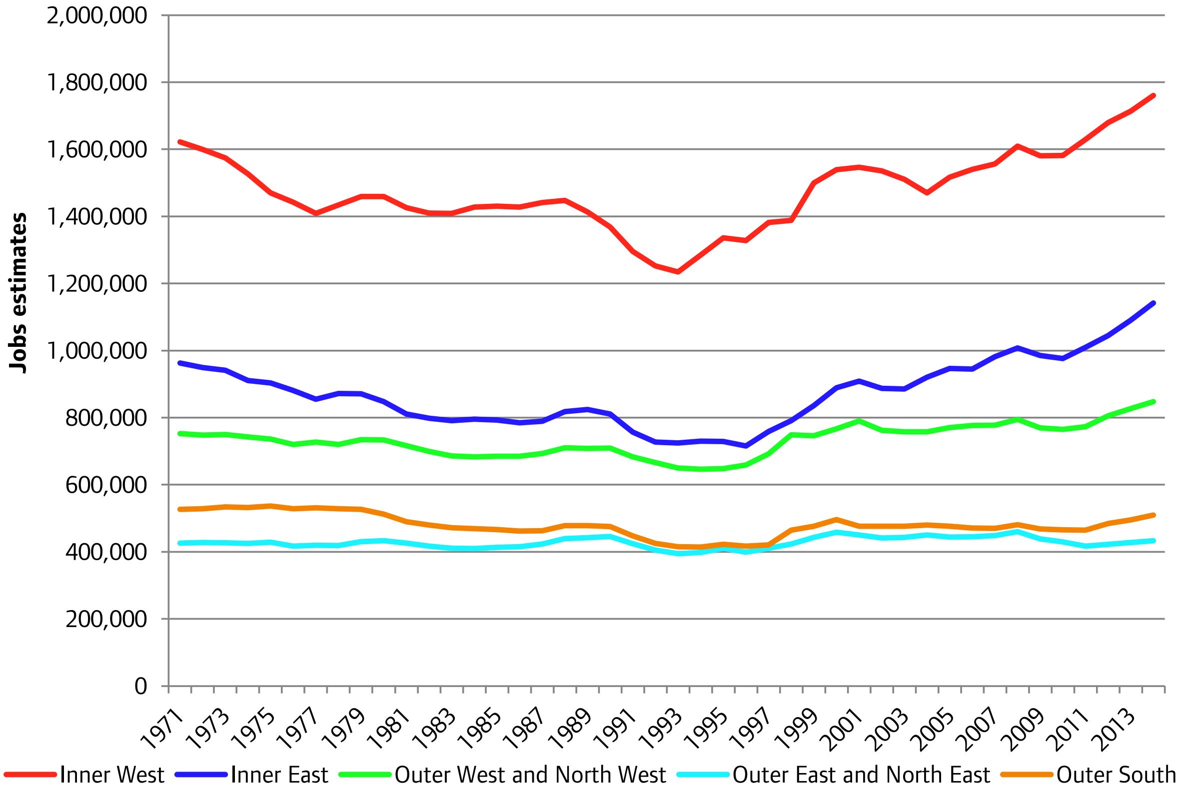
Sub-region	Mid-year population ('000s)		Share of total London population		Employee jobs ('000s)		Share of London total employee jobs	
	1971	2014	1971	2014	1971	2014	1971	2014
Inner London	3,060	3,395	40%	40%	2,584	2,926	60%	62%
Inner - West	1,132	1,123	15%	13%	1,622	1,776	38%	38%
Inner - East	1,928	2,273	25%	27%	963	1,151	22%	24%
Outer London	4,516	5,129	60%	60%	1,705	1,806	40%	38%
Outer - West and North West	1,730	2,036	23%	24%	753	855	18%	18%
Outer - East and North East	1,599	1,839	21%	22%	526	514	12%	11%
Outer - South	1,187	1,255	16%	15%	426	437	10%	9%
Greater London	7,576	8,525	100%	100%	4,289	4,733	100%	100%

Sources: Resident mid-year population – ONS; GLA London Jobs Series.

Note: The employee jobs figures for 2014 are taken directly from BRES to allow for further breakdowns later in this document. As such they are very slightly inconsistent with the London Jobs Series published by GLA Economics (for its employment projections).

Figure 2.2 looks in more detail at the trends in employee jobs over time. Following a slump in jobs numbers across London from the early 1980s to mid-1990s, jobs growth has been fastest in Inner London - East and Inner London - West. Jobs in Outer London - East and North East and Outer London - South have instead been fairly stagnant over the last four decades.

Figure 2.2: Employee jobs in London (NUTS-2) sub-regions over time, 1971-2014



Source: GLA London Jobs Series

In terms of the broad structure of London's economy, Table 2.2 highlights that 39 per cent of jobs in inner London are in four highly specialised, high value sectors. These are: Information and Communication; Finance and insurance; Real estate; Professional, scientific and technical activities. In contrast, such jobs account for less than 17 per cent of jobs in outer London as a whole. Instead, almost one in four jobs (23 per cent) in outer London are in the Education and Health and social work sectors, and a further 25 per cent of jobs are in Wholesale, and motor trades; Retail; and Transport and storage sectors. This compares with 18 per cent and 17 per cent of jobs in inner London respectively.

Table 2.2: Employee jobs by industry in inner and outer London, thousands, 2014

Industry sector (SIC 2007)	London		Inner London		Outer London	
	Employee jobs ('000s)	% of total	Employee jobs ('000s)	% of total	Employee jobs ('000s)	% of total
A, B, D, E: Primary and utilities	29	0.6%	14	0.5%	15	0.8%
C: Manufacturing	113	2.4%	35	1.2%	78	4.3%
F: Construction	145	3.1%	64	2.2%	81	4.5%
G: Wholesale, and motor trades	188	4.0%	79	2.7%	109	6.0%
G: Retail	407	8.6%	213	7.3%	193	10.7%
H: Transport and storage	227	4.8%	83	2.8%	144	8.0%
I: Accommodation and food services	358	7.6%	245	8.4%	113	6.3%
J: Information and communication	373	8.0%	275	9.4%	98	5.4%
K: Finance and insurance	352	7.4%	315	10.7%	37	2.0%
L: Real estate activities	108	2.3%	76	2.6%	32	1.7%
M: Professional, scientific and technical activities	614	13.0%	475	16.2%	139	7.7%
N: Administrative and support services	491	10.4%	297	10.1%	194	10.7%
O: Public Administration and defence	220	4.6%	146	5.0%	74	4.1%
P: Education	386	8.1%	196	6.7%	190	10.5%
Q: Healthcare and social work	484	10.2%	255	8.7%	229	12.7%
R: Arts, entertainment and recreation	125	2.6%	79	2.7%	46	2.5%
S: Other services	115	2.4%	78	2.7%	37	2.0%
All industry sectors	4,733		2,927		1,806	

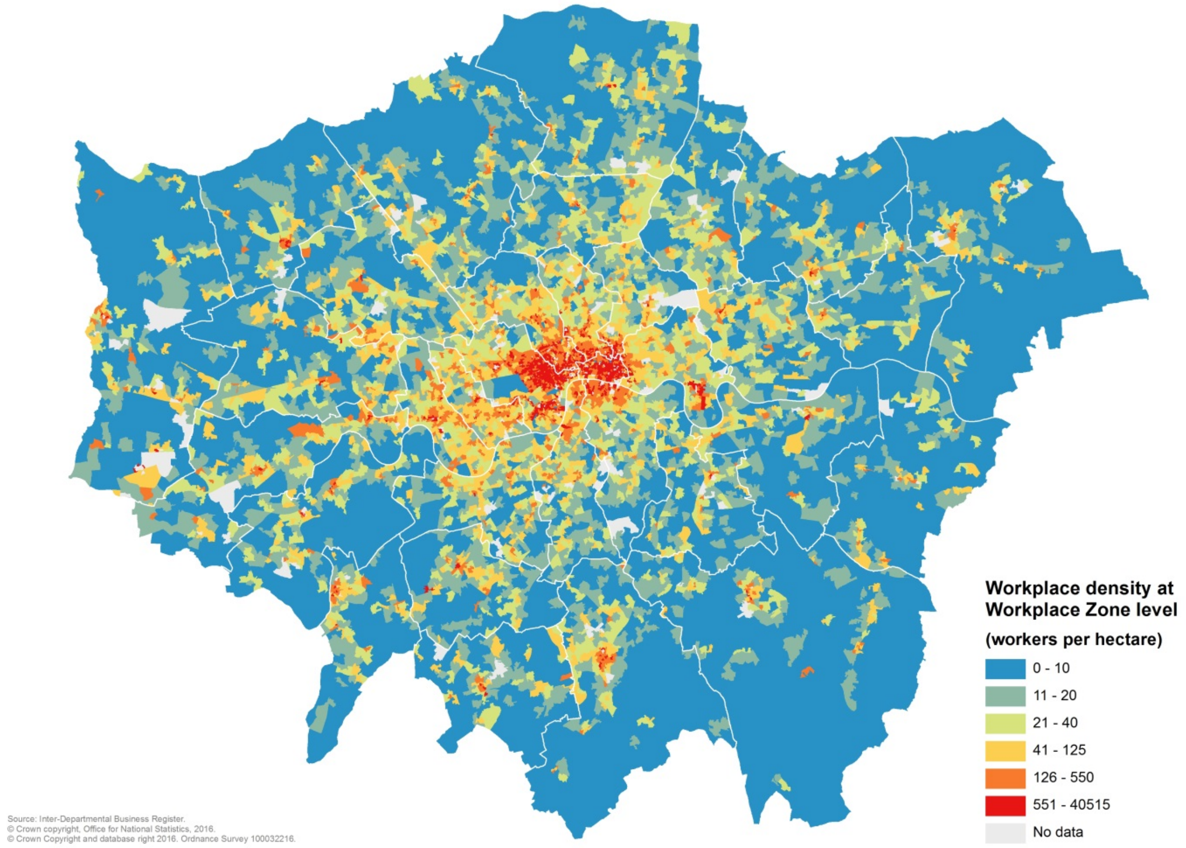
Source: BRES 2014 – ONS. Note: employee jobs numbers are rounded to the nearest 1,000.

2.2.1 Clustering of employment in London

Jobs in London are concentrated in the CAZ and the NIOD[17]. This is highlighted by the concentration of workers by workplace zone, the lowest geographical level used for economic analysis. This is shown with 2015 data from the Inter-Departmental Business Register (IDBR) in Map 2.1.

[17] See Chapter 2 of: GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.

Map 2.1: Jobs density in London by workplace zone, 2015

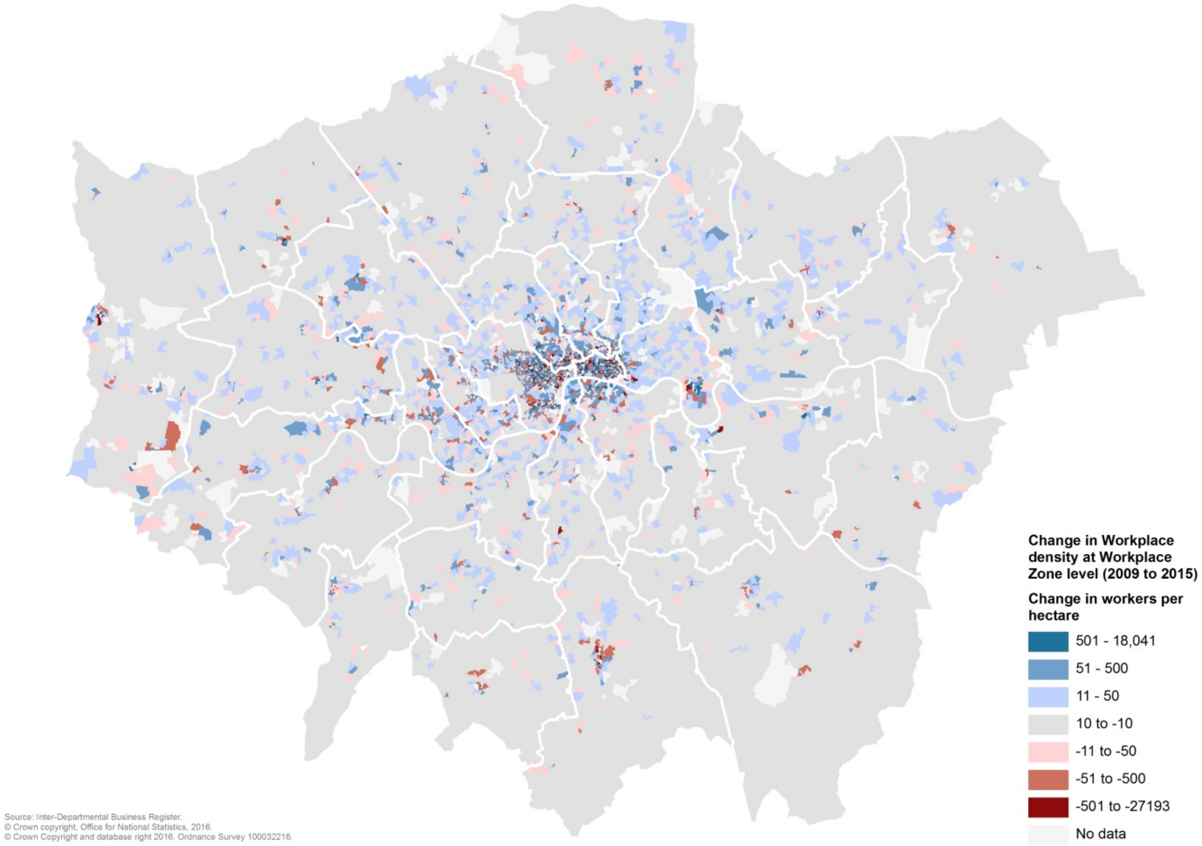


Source: ONS IDBR[18].

Change in the density of employee jobs from 2009 to 2015 is presented at the same level of geographic detail in Map 2.2. This highlights that while the CAZ has been a major engine of jobs growth since the recession, there are several patterns of more modest jobs growth in the surrounding areas, particularly through Hackney and Tower Hamlets. There was also significant employment growth in the NIOD, surrounding the terminals at Heathrow airport and around Stratford, related to the Queen Elizabeth Olympic Park and Westfield shopping centre developments. Areas of substantial falls in jobs (shaded in dark red) tend to be scattered and are predominantly confined to small pockets of the CAZ, possibly as a result of redevelopments or office refurbishments. The pattern of change in Croydon town centre was also one of declining jobs density, albeit interspersed with some zones of modest jobs growth.

[18] Data on workplaces and employees by Workplace Zones can be accessed at: ONS, August 2016, '[Number of workplaces and employees in Workplace Zones in London, 2009 to 2015]'. User Requested data No. 005995.

Map 2.2: Change in jobs density in London by workplace zone, 2009-2015



Source: ONS IDBR

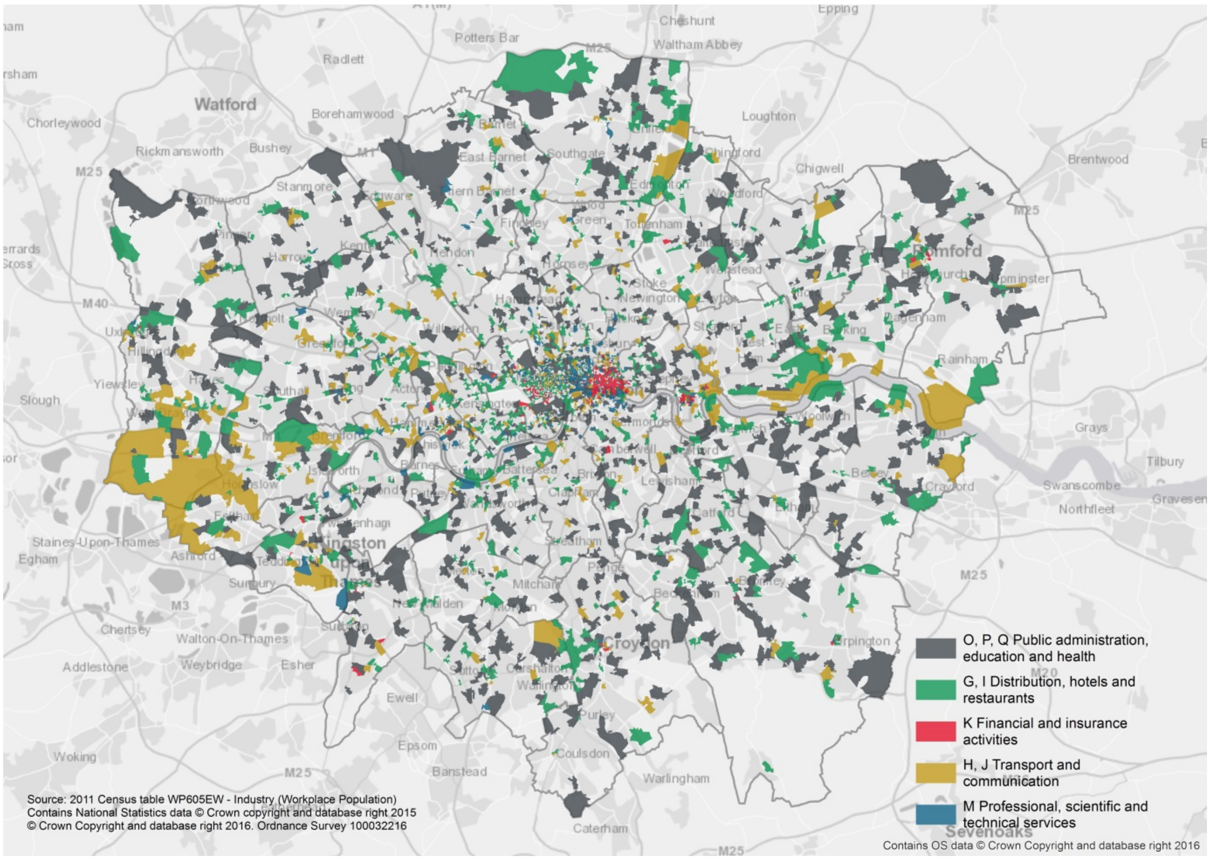
At the detailed level of workplace zones, it is also possible to observe the structure of employment by broad industry sectors. Map 2.3 highlights the importance of certain geographies for different sectors of London's economy using cluster analysis[19] on Census data.

This shows that Financial and insurance activities and Professional, scientific and technical activities are of significant importance in central London; while highlighting also small pockets in Richmond and Kingston in the South West. It also highlights the dominance of Transport and communication in many areas in outer London, this is particularly visible around Heathrow airport and but also so around City airport in inner London, as well as along the Lower Lea Valley and the river Thames. The clustering of employment in Public administration, Education and Health activities throughout inner and outer London, is in part in order to serve the population of these areas and is also highlighted[20].

[19] Cluster analysis groups together areas with similar characteristics. K-means clustering was applied to grouped Industrial class data available for London's 2011 Census Workplace Zones. Running the k-means algorithm identified five clusters of Workplace Zones that demonstrated a strong similarity in the Industrial type of its workers, these were SIC-2007 industrial sectors:
G, I: Distribution, hotels and restaurants; K: Financial and insurance activities; M: Professional, scientific and technical activities O, P, Q: Public administration, education and health; and H, J: Transport and communication. All other areas were not found to have a dominate industry type present so were grouped together.

[20] Section E of the Appendix to chapter 2 of the Economic Evidence Base, includes additional maps providing detail on the individual clusters for London and the Greater South East.

Map 2.3: Dominant employment clusters in London by workplace zones in 2011

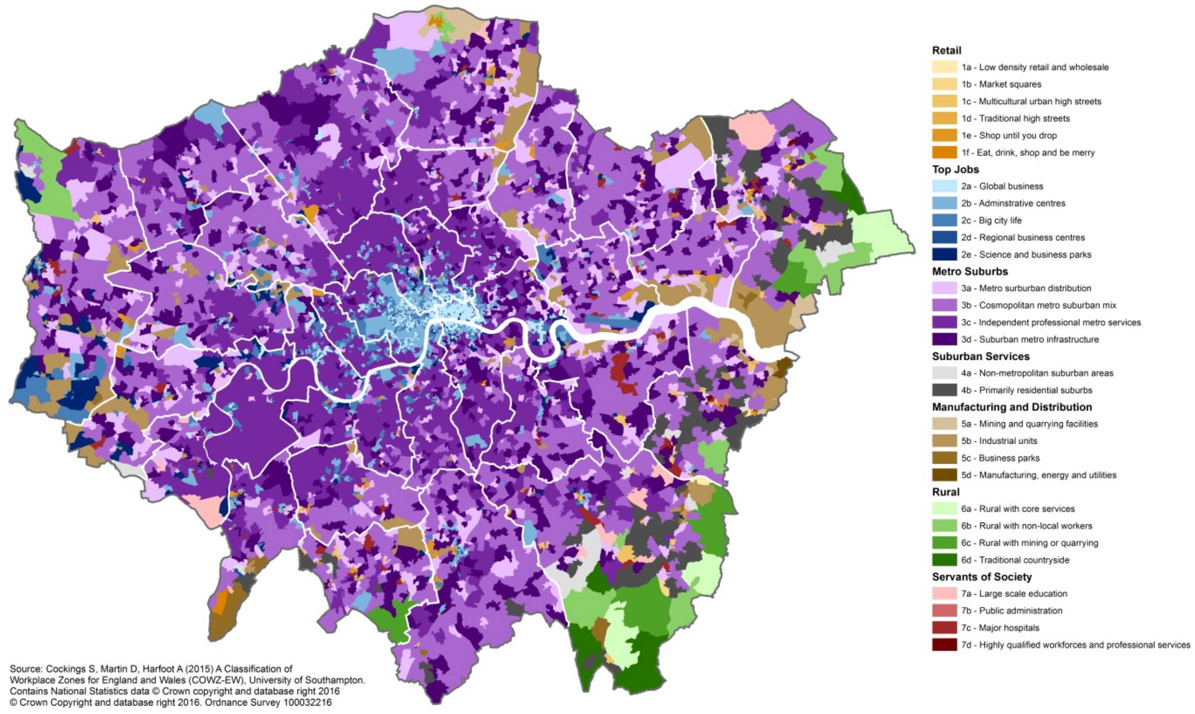


Source: Census and GLA Intelligence Unit Analysis

Another way of looking at the nature of London's economic geography and the clustering of certain types of jobs is provided by the Classification of Workplace Zones for England and Wales (COWZ-EW). This is based on analysis, at national level, to examine whether areas are similar or different depending on their workers' and workplaces' characteristics. As can be seen from Map 2.4 the centre of London, and the NIOD is dominated by "Top jobs", where this is defined as "high status employment in business, industry and public service – primarily the highest status city centres but also top science and business parks"[21]. This further highlights the global nature of output in a number of pockets of London outside of this central core. This is visible, for example, along the M4 and A40 corridors to the west of central London out towards Heathrow airport and Wembley respectively. In terms of manufacturing and distribution, Map 2.4 again highlights the role of London's airports and rivers.

[21] Cockings, S., Martin, D., & Harfoot, A., August 2015, '[A Classification of Workplace Zones for England and Wales (COWZ-EW): Annex A - Profiles of Supergroups]'.

Map 2.4: Workplace zones type in London by COWZ-EW classification



Source: Census data via DataShine COWZ-EW and GLA Intelligence Unit mapping

The detailed maps above rely on information from the 2011 Census. In order to capture the latest patterns, we next turn to look in detail at the economic structure of London's five NUTS-2 sub-regions, introduced in Section 1.2. Note also that in line with the Economic Evidence Base for London 2016, this paper uses ONS BRES data for 2014.

2.2.2 Inner London - West, and its local authorities

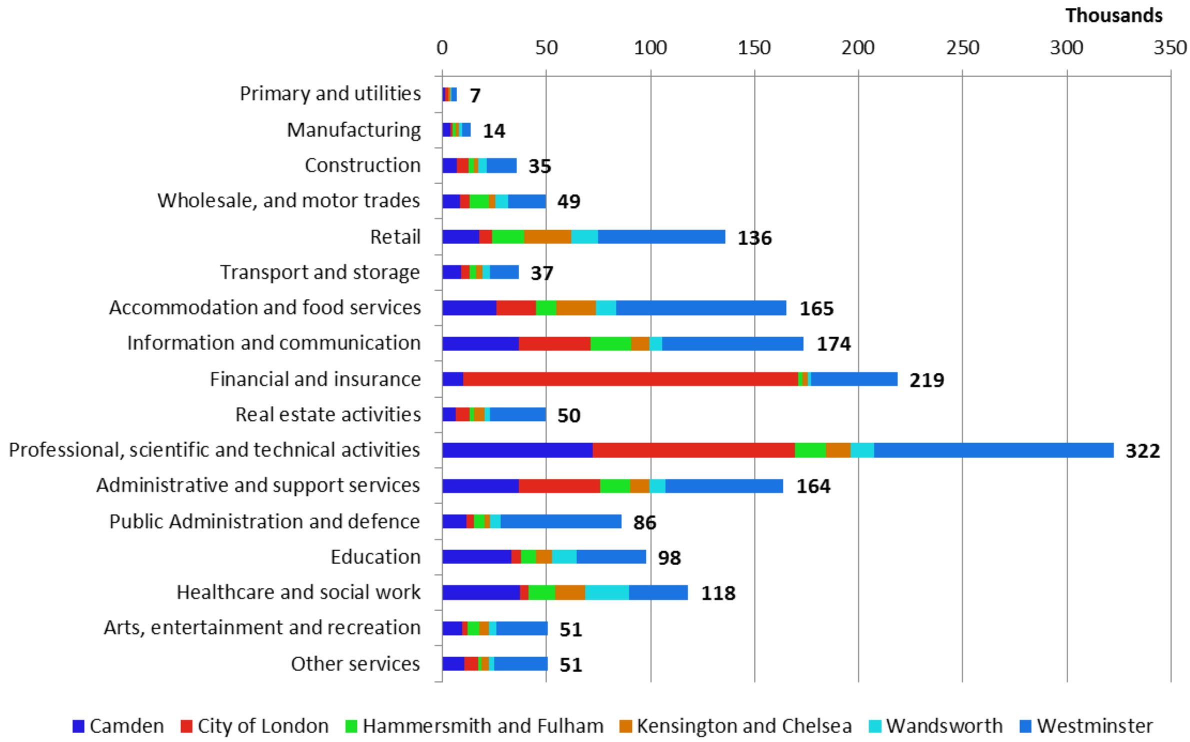
There were an estimated 1.8 million employee jobs across Inner London - West in 2014, with Camden, the City of London and Westminster together responsible for almost 80 per cent of the jobs in the area. Figure 2.3 provides an overview of the economic structure of this sub-region, showing also the local authorities contribution to the total numbers of jobs by industry.

This reveals that the largest employing industry in Inner London - West is Professional, scientific and technical activities (322,000 jobs), with the three central local authorities of Camden, the City of London, and Westminster responsible for nearly 90 per cent. Jobs in Finance and insurance accounted for around 219,000 jobs in Inner London - West, of which 160,000 of these jobs were in the City of London, and 42,000 were in Westminster.

The three next largest sectors in Inner London - West in terms of jobs are: Information and communication (174,000 jobs), Accommodation and food services (165,000 jobs), Administrative and support services (164,000 jobs). The former is also concentrated in the central local authorities of Westminster, Camden and the City (accounting for 80 per cent of the industry's jobs in the sub-region). Information and communication is also the largest employer in Hammersmith and Fulham (20,000 jobs), accounting for 15 per cent of jobs in the borough.

In Kensington and Chelsea, the main employers are in Retail (23,000 jobs) and Accommodation and Food services (19,000 jobs), likely reflecting the area's role in attracting visitors to London. While in Wandsworth, the industry structure reflects its more suburban role with the main employers being in Healthcare and social work (21,000 jobs), Retail (13,000 jobs) and Education (12,000 jobs).

Figure 2.3: Jobs by broad industry in Inner London - West, 2014



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand.

2.2.3 Inner London - East, and its local authorities

There were an estimated 1.2 million employee jobs across Inner London - East in 2014, with Islington, Southwark and Tower Hamlets together responsible for almost 60 per cent of the jobs in the area. Figure 2.4 provides an overview of the economic structure of this sub-region, showing also the local authorities contribution to the total numbers of jobs by industry.

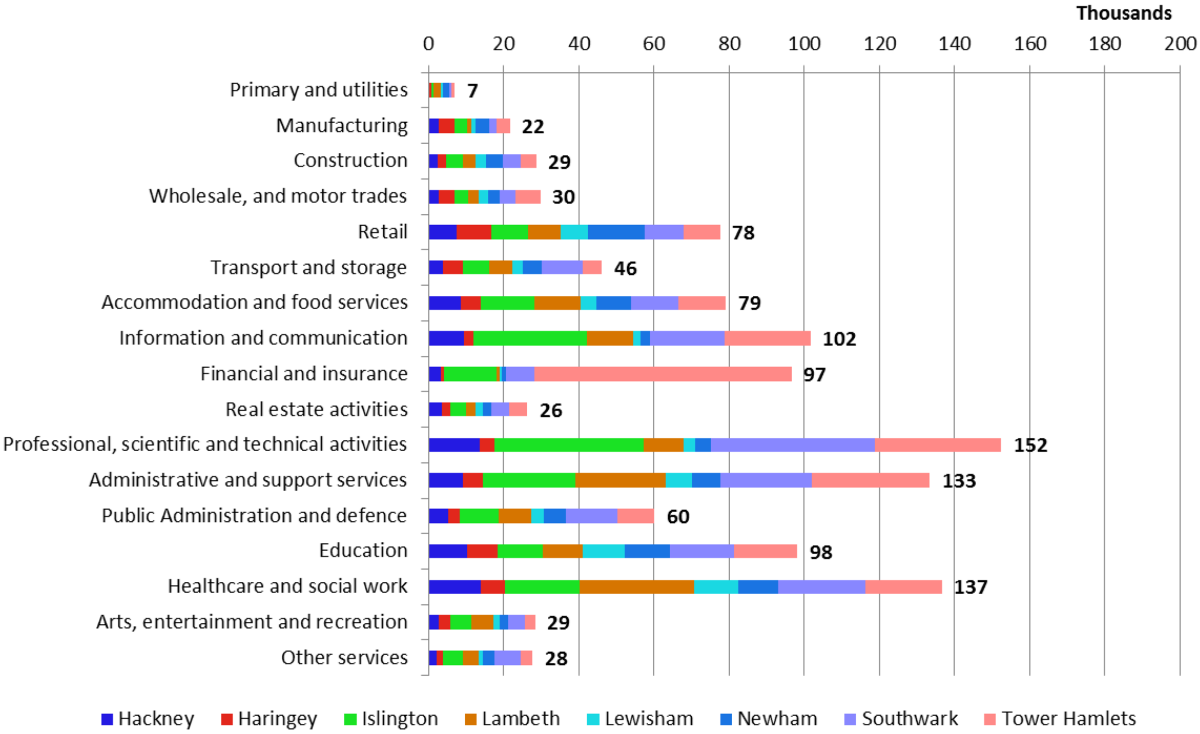
As with Inner London - West, the largest employing industry in Inner London - East is Professional, scientific and technical activities (152,000 jobs). Islington (40,000 jobs) and Southwark (44,000 jobs) are each responsible for over a quarter of the sub-region's jobs in this sector, with Tower Hamlets responsible for a further 33,000 jobs (22 per cent). Reflecting its proximity to the City, the Professional services sector is also the second largest employer in Hackney (14,000 jobs).

Across the sub-region as a whole, the Healthcare and social work sector is the second largest employer (137,000 jobs), with 31,000 of these jobs found in Lambeth. Besides Lambeth, the Healthcare and social work sector is also the largest employer in Hackney (14,000 jobs) and Lewisham (12,000 jobs).

The three next largest sectors in Inner London - East in terms of jobs are: Administrative and support services (133,000 jobs), Information and communication (102,000 jobs), and Finance and insurance (97,000 jobs). Almost 71 per cent of jobs in Finance and insurance in the sub-region are based in Tower Hamlets (69,000 jobs), while a further 14,000 jobs in the sector are in Islington. Tower Hamlets is also home to the largest number of jobs in Administrative and support services (31,000 jobs) in the sub-region, while Islington has the largest number of jobs in the sub-region in the Information and communication sector (30,000 jobs).

Retail is instead the largest employer in Newham (15,000 jobs) and Haringey (9,000 jobs). In these two boroughs, as well as in Lewisham, the three main sectors of employment are in Retail, Health, and Education – in line with a more suburban industrial structure, similar to that of Wandsworth in Inner London - West.

Figure 2.4: Jobs by broad industry in Inner London - East, 2014



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand.

2.2.4 Outer London - West and North West, and its local authorities

There were around 855,000 employee jobs in Outer London - West and North West in 2014, with Hillingdon (202,000 jobs) home for almost a quarter (24 per cent) of jobs in the sub-region. Figure 2.5 provides an overview the economic structure of this sub-region, showing also the local authorities contribution to the total numbers of jobs by industry.

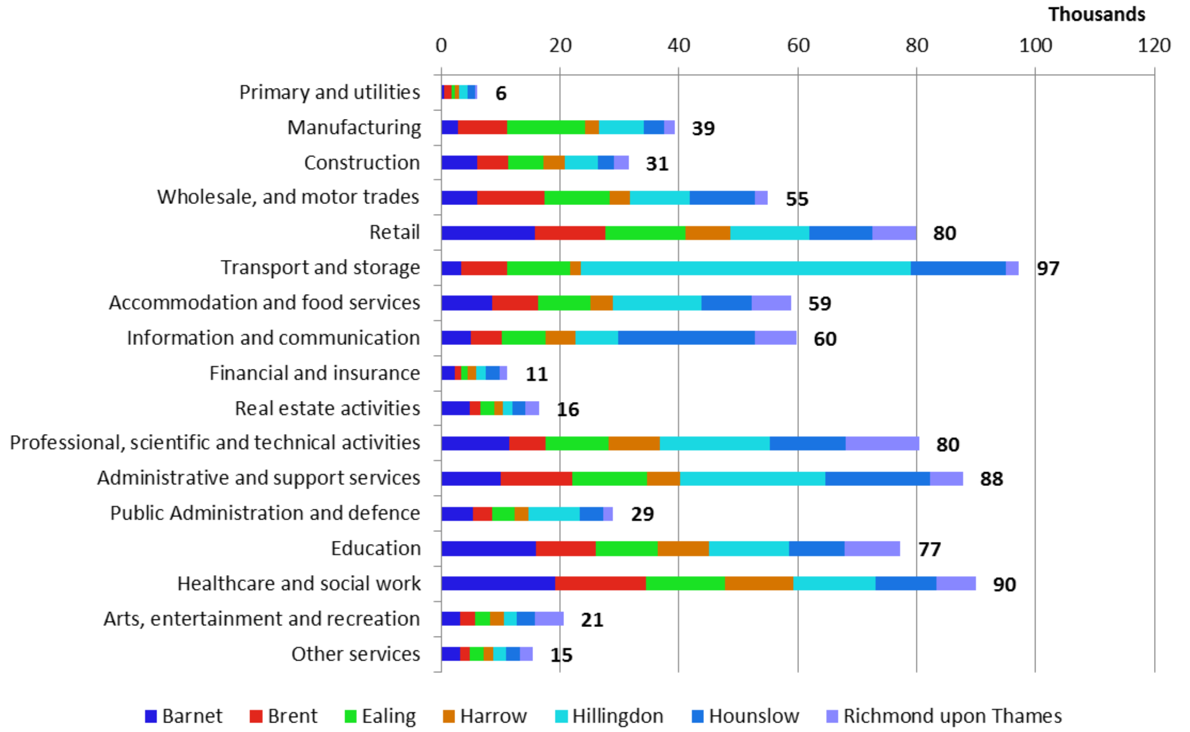
The largest sector in Outer London - West and North West is Transport and storage (97,000 jobs), with over half (57 per cent) of these working in Hillingdon (55,500 jobs). This is equivalent to more than 27 per cent of jobs in the borough. Heathrow Airport and the M4/M25 motorways pass through the borough. There is a spill over into neighbouring Hounslow, where there are 16,000 jobs in the sector (12 per cent of the borough total). The largest sector in Hounslow is instead in Information and Communication (23,000 jobs), accounting for 39 per cent of the sector's jobs in the sub-region.

Across the sub-region as a whole, the Health and social work sector is the second largest employer in the sub-region (90,000 jobs), with 19,000 of these based in Barnet. Besides Barnet, the health sector is also the largest employer in Brent (15,000 jobs) and Harrow (12,000 jobs).

The three next largest sectors in Outer London - West and North West in terms of jobs are: Administrative and support services (88,000 jobs); Professional, scientific and technical activities (80,000 jobs); and Retail (80,000 jobs). Almost half (48 per cent) of jobs in Administrative and support services in the sub-region are in Hillingdon (24,000 jobs) and Hounslow (18,000 jobs). The two boroughs are also home to 39 per cent of the sub-region's jobs in the Professional services sector (18,000 and 13,000 jobs respectively). This sector was also the largest employer in Richmond upon Thames (12,000 jobs or 16 per cent of the borough total). This suggests that the sub-region may play an important role in supporting London's overall specialisation in these sectors, as highlighted in Section 1.1.

Elsewhere in the sub-region, Retail was the largest employer in Ealing (13,000 jobs), although there were slightly more retail jobs in Barnet (16,000 jobs). Ealing also stands out as the local authority with the largest Manufacturing sector across London in terms of jobs, with around 13,000 jobs in the sector in 2014.

Figure 2.5: Jobs by broad industry in Outer London - West and North West, 2014



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand.

2.2.5 Outer London - East and North East, and its local authorities

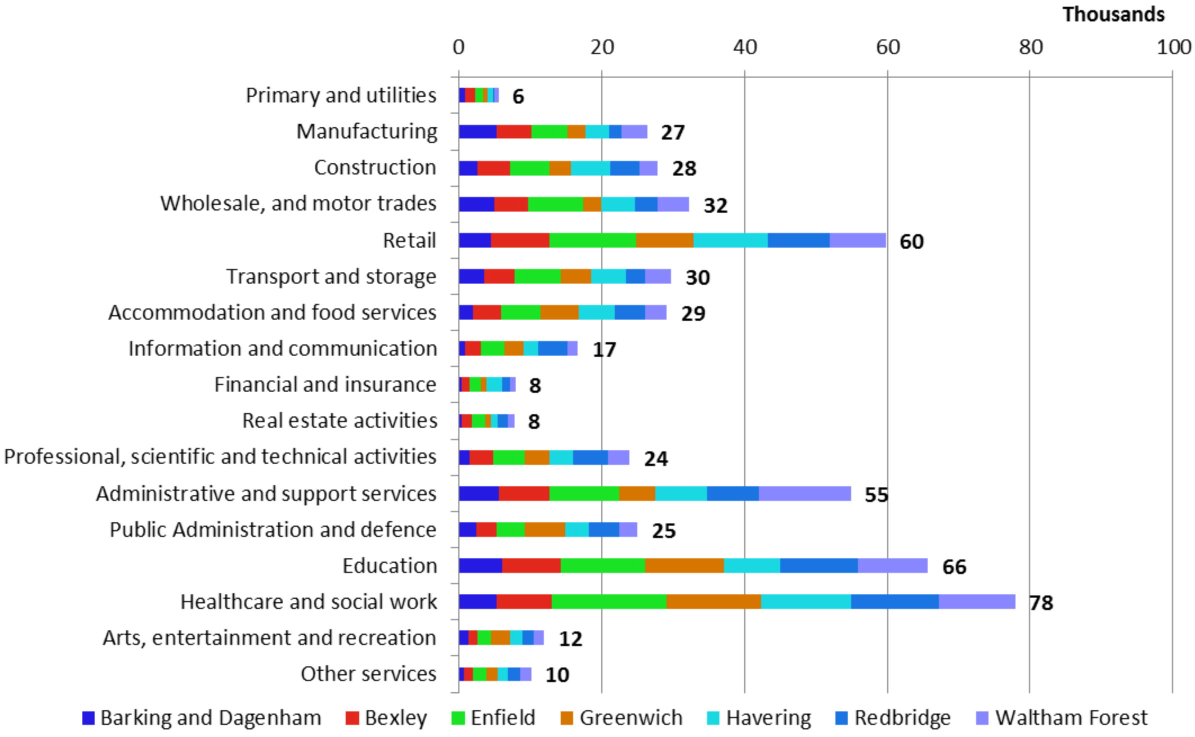
There were around 514,000 employee jobs in Outer London - East and North East in 2014, with Enfield (99,000 jobs) responsible for the highest proportion (around 19 per cent) of jobs in the sub-region. Figure 2.6 provides an overview the economic structure of this sub-region, showing also the local authorities contribution to the total numbers of jobs by industry.

The pattern of employment in Outer London - East and North East indicates an economy focused predominantly on servicing local demand. The sub-region's top three sectors in terms of jobs are: Health and social work (78,000 jobs); Education (66,000 jobs); and Retail (60,000 jobs). Together these three sectors account for 40 per cent of employee jobs in the sub-region.

Across the sub-region as a whole, Enfield is home not only to the highest number of jobs, but also to the highest number of jobs in each of the sub-region's three main sectors for employment, with 16,000 jobs in Health, and around 12,000 jobs in both Education and Retail.

In Waltham Forest, 40 per cent of jobs are also in the Retail, Education or Health sectors. The largest employing sector in Waltham Forest however is instead Administrative and support services, which accounts for 13,000 jobs, equivalent to a further 18 per cent of jobs in the borough. The Administrative and support services sector is also the second largest employer in Barking and Dagenham (6,000 jobs).

Figure 2.6: Jobs by broad industry in Outer London - East and North East, 2014



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand.

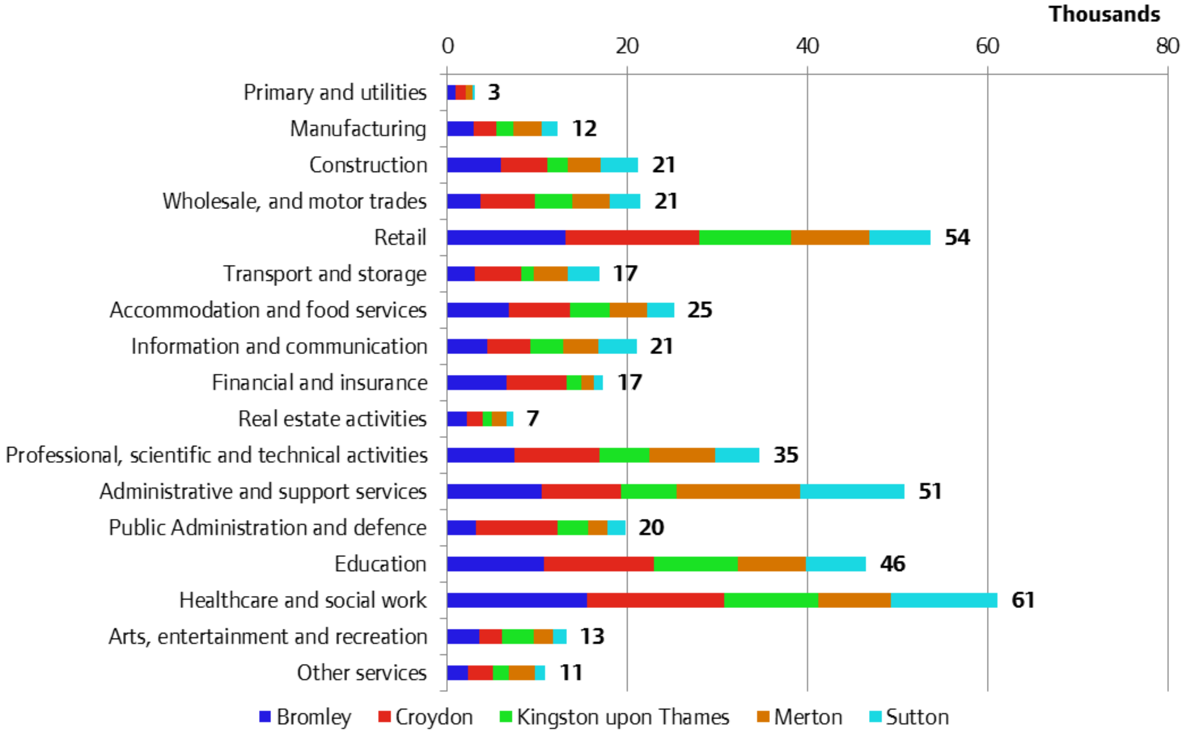
2.2.6 Outer London - South, and its local authorities

There were around 437,000 employee jobs in Outer London - South in 2014, with Bromley (103,000 jobs) and Croydon (115,000 jobs) responsible for 50 per cent of the jobs in the sub-region. Figure 2.7 provides an overview of the economic structure of this sub-region, showing also the contribution by local authority to the total numbers of jobs by industry.

The industrial structure in Outer London - South is also largely determined by the need to service local demand. The four largest sectors in terms of jobs in Outer London - South are the same as those in the Outer London - East and North East: Health and social work (61,000 jobs); Retail (54,000 jobs); Administrative and support services (51,000 jobs) and Education (46,000 jobs). Together, these four sectors account for almost half (49 per cent) of jobs in the sub-region.

Across the sub-region as a whole, Croydon has the largest number of jobs overall, with 115,000 jobs in the borough in 2014. In Croydon, alongside the four above mentioned sectors there is a notable role for Professional, scientific and technical activities (9,000 jobs) and Public administration (9,000 jobs). In terms of Public administration, as well as local authority offices, Croydon is also home to branches of the Home Office and HMRC[22]. It is also notable that in Merton, a worker is more likely to be in the Administrative and support services sectors, than in Health (the major employing sector in the other four boroughs in the sub-region). In 2014, there were 14,000 jobs in the Administrative sector in Merton, equivalent to 17 per cent of total jobs in the borough.

Figure 2.7: Jobs by broad industry in Outer London - South, 2014



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand.

2.3 Areas of industry specialisation within London

The Economic Evidence Base for London 2016 presents detailed information on particular specialisms for London, through the 'index of specialisation' (IOS) introduced in Section 1.1. In this section, we build on this analysis to further inspect the BRES data available for industry sectors and their component sub-sectors for London's five (NUTS-2) sub-regions, and their local authorities.

In order to identify particular clusters or sites related to these specialised sectors, we make use of detail maps and local intelligence from boroughs and business groups to provide examples of the types of employers or employment sites operating in these areas. Further, since the broad sector level of analysis can hide specialisations that lie within sectors, where possible we draw on detailed BRES data to highlight particular specialisms in component sub-sectors[23].

[22] As of 31 March 2016, ONS data on Civil Service employment indicates that HM Government workplaces with Croydon postcodes had a headcount of over 5,000 employees. Source: ONS Annual Civil Service Employment Survey, 2016.
[23] Where relevant, sectors which have component sub-sectors at local authority level with an index of specialisation score above 1.8, and employment over 1,000 are included.

2.3.1 Industry specialisation in London's sub-regions

Table 2.3 shows the broad industry sectors in London's five sub-regions which have an index of specialisation number greater than 1.4. This shows similar analysis to earlier charts, that inner London is particularly specialised in service sector industries. In inner London's sub-regions, the most significant specialisations are in Finance and insurance; Information and communication; and Professional, scientific and technical activities[24].

It is also notable that, while not quite as concentrated in inner London areas, there are around 59,900 jobs in Information and communication in Outer London - West and North West, equivalent to 7 per cent of total jobs. The 97,200 jobs in Outer London - West and North West in Transport and storage make it the sub-region's most specialised sector. In other parts of outer London, the economy is more broadly in line with the industry structure in the rest of the country, without any particular specialisms at this level of analysis.

Table 2.3: Sub-regional indices of specialisation by broad industry sector, 2014

Sub-region	Specialised broad industry sector (IOS > 1.4)	Employee jobs, 2014	% of sub-region jobs	Index of specialisation
Inner - West	J: Information and communication	173,700	9.8%	**2.64**
	K: Finance and insurance	218,700	12.3%	**3.96**
	L: Real estate	49,900	2.8%	**1.82**
	M: Professional, scientific and technical activities	322,400	18.2%	**2.46**
	S: Other services	50,600	2.8%	**1.50**
Inner - East	J: Information and communication	101,500	8.8%	**2.26**
	K: Finance and insurance	96,800	8.4%	**2.39**
	L: Real estate	26,200	2.3%	**1.43**
	M: Professional, scientific and technical activities	152,200	13.2%	**1.71**
Outer - West and North West	H: Transport and storage	97,200	11.4%	**2.67**
	J: Information and communication	59,900	7.0%	**1.75**
Outer – East and North East	No broad industry sectors had an index of specialisation greater than 1.4 in these sub-regions.			
Outer - South				

Source: BRES 2014 – ONS.

We next look at the local geography of jobs in each of these specialised sectors, with a focus on those which account for more than five per cent of jobs in a London sub-region[25].

Transport and storage

In terms of Transport and storage – the majority of jobs in Outer London - West and North West in this sector relate to passenger air transport (35,100 jobs) and support activities for transport, including cargo handling (26,400 jobs) from this. The vast majority of air transport jobs (32,800 jobs) are based in Hillingdon, home to Heathrow airport and nearby airline head offices, such as those of the International Airlines Group (IAG) in Harmondsworth, the parent company to British Airways, Aer Lingus, Iberia and Vueling. The neighbouring borough of Hounslow is also

[24] For more detailed information on particular specialisms in such areas at London level, see the Appendix to Chapter 1 of: GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.

[25] It should be noted that while maps of employment in certain sectors are provided in this section not all sectors discussed are mapped due to confidentiality reasons around the use of some employment data at low-level geographies.

home to around 7,600 jobs in these sub-sectors with, for example, Air France-KLM's head office based in Hatton Cross. Overall, Outer London - West and North West alone accounts for around 50 per cent of all jobs in air transport across Great Britain as a whole, and more than 90 per cent of jobs in London.

The Appendix to Chapter 1 of the Economic Evidence Base for London 2016[26] also highlights specialisations at London level in urban passenger transport, with 11,600 jobs in interurban passenger rail transport and 55,200 jobs in urban and suburban passenger land transport, such as underground and bus services[27]. At local level, all bar four of London's 33 local authorities show at least some degree of specialisation in this latter sub-sector, while at the NUTS-2 level there were 19,200 jobs in Inner London - East and 9,900 jobs in Outer London - East and North East.

Information and communications

For the Information and communication sector, analysis by ONS[28] highlighted that this broad sector, consists of two sub-sections which exhibit different characteristics: publishing and communications (SIC sub-sectors 58-61), and information technology (sub-sectors 62 and 63).

Map 2.5 shows that employee jobs in publishing and communications (sub-sector 58) are concentrated in central parts of inner London and out to the south west, with low levels of jobs outside of these core areas. Particular specialisms in Inner London - West include the publishing of books, periodicals, and other publishing activities (25,900 jobs), with a further 7,400 jobs in neighbouring Southwark. Central London is home to offices for a number of major publishers, including, for example, Penguin Random House in Westminster, and Bloomsbury Publishing in Camden. Outside of these core areas, there are also notably over 2,200 jobs in Sutton in this sub-sector.

The telecommunications sub-sector (61) is also concentrated in central London, with Islington 8,300) and the City (7,400) together responsible for over a third (34 per cent) of jobs in the sub-sector in 2014. Areas of west London are also home to employers in the film and TV production and music publishing sub-sector (59), as well as those in radio and TV programming and broadcasting activities (sub-sector 60). Particular specialisms in these sub-sectors are present in Hammersmith and Fulham (11,600 jobs) and Hounslow (12,600 jobs). Examples of major employer sites in these boroughs include the BBC offices in White City, Hammersmith and Fulham, and the Sky offices and studios next to the A4 in Isleworth, Hounslow[29]. There is also a notable clustering of firms in television and cinema in Chiswick Park on the Ealing/Hounslow boundary.

---

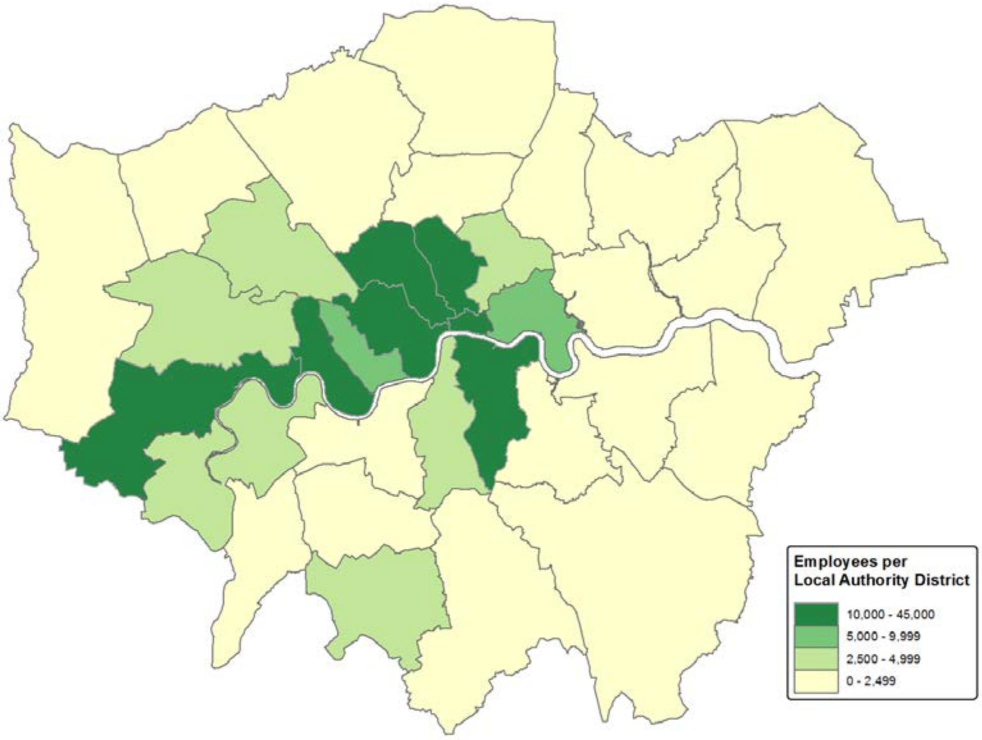
[26] GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.

[27] For example, Transport for London (TfL) reported that, they employed 27,815 people on a permanent basis as of 31 March 2016. See: https://tfl.gov.uk/corporate/publications-and-reports/equality-and-inclusion-publications, accessed on 21/12/16.

[28] ONS, Earning, learning and business churning: revealing London's industrial economy in 2015,11 October 2016.

[29] Other identified employers in related areas in Hounslow include: Paramount Pictures, Vue Cinemas, QVC UK, Cineworld, Disney and the Discovery Channel, all with offices in Chiswick.

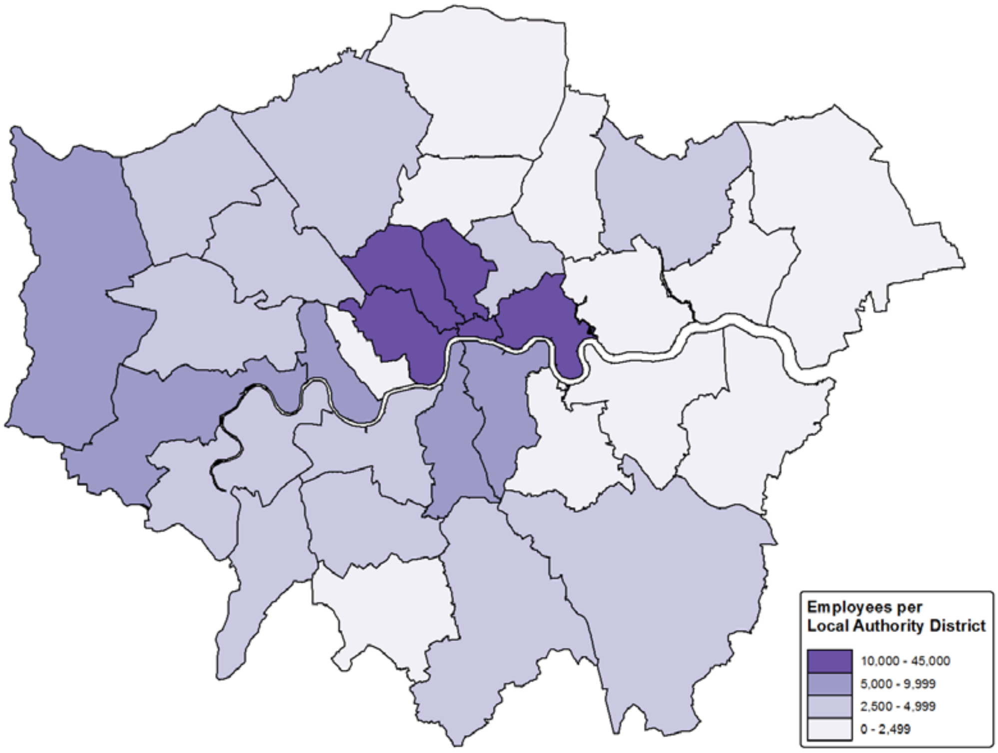
Map 2.5: Number of employee jobs in Publishing and communications (58 - 61) in London's local authorities, 2015



Source: ONS Compendium: 'Earning, learning and business churning', 2016

Map 2.6 shows that jobs in Information technology are largely in the five central local authorities of Westminster (26,600 jobs), Tower Hamlets (16,600 jobs), Islington (12,600 jobs), the City (22,100 jobs) and Camden (16,800 jobs). Together these account for more than half (51 per cent) of jobs in London in Information technology (IT) sub-sectors. Outside of this inner core, the computer programming, consultancy and related activities sub-sector is also highly specialised in Harrow (3,100 jobs, IOS=2.0), Hounslow (7,600 jobs, IOS = 2.5), Lambeth (7,000 jobs, IOS = 2.2) and Richmond (3,900 jobs, IOS = 2.4). Examples of technology companies in these areas include: IBM, Sega Europe, Cisco Systems and SAP offices at Bedfont Lakes Business Park in Hounslow.

Map 2.6: Number of employee jobs in Information technology (62 - 63) in London's local authorities, 2015



Source: [ONS Compendium: 'Earning, learning and business churning', 2016]

Finance and insurance
As highlighted in Section 2.2.1, the Financial services and insurance industry is highly specialised in the City of London (IOS = 12.9) and Tower Hamlets (IOS = 7.8). Together these two local authorities accounted for 65 per cent of employment in the sector in 2014.

This aggregate analysis however hides instances of local specialisation, which arise in activities auxiliary to financial services (SIC07 sub-sector 66). In the Outer London - South boroughs of Bromley and Croydon such auxiliary activities provide 5,100 jobs and 5,000 jobs respectively. This is equivalent to just under one in 20 jobs in Bromley (IOS = 3.3) and around one in 23 jobs in Croydon (IOS = 2.9).

Examples of finance and insurance firms with offices in these boroughs include a cluster of insurance service company offices in Croydon town centre, including Allianz Global Assistance, RA Insurance Brokers, and AIG Europe, and Direct Line and Churchill Insurance, which have their head offices in Churchill Court, Bromley.

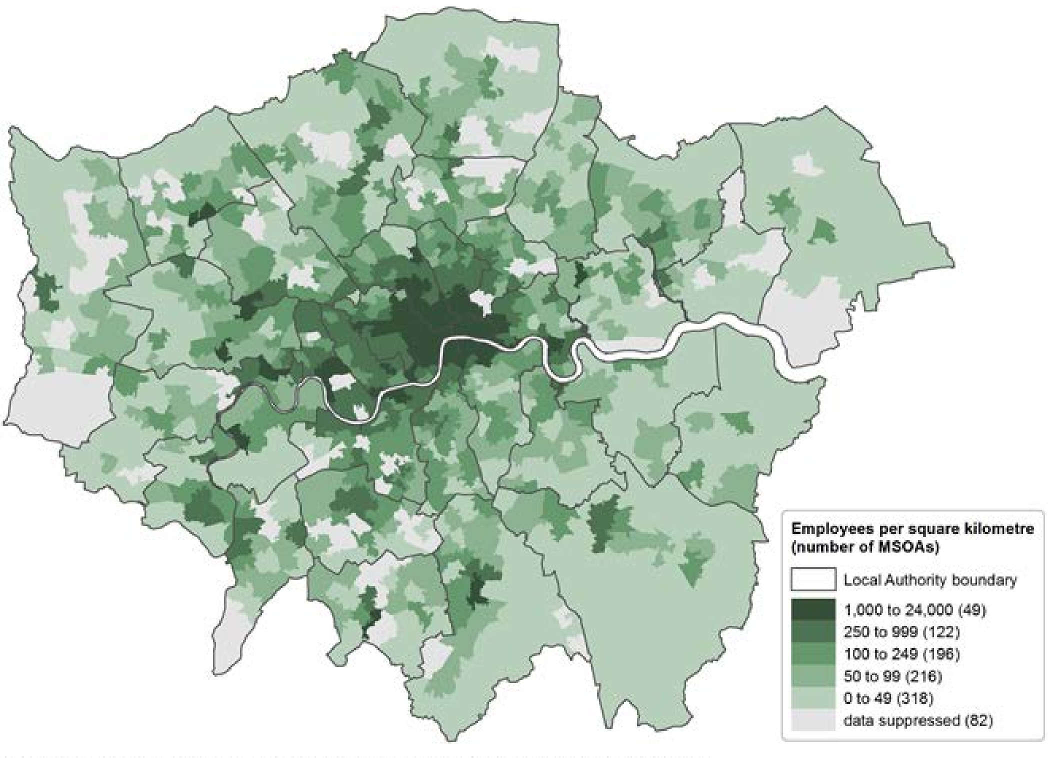
Professional, scientific and technical activities
The Professional services sector is the largest broad sector of employment in London. Employment in this sector is particularly concentrated in central areas with inner London accounting for 77 per cent of jobs in this sector, and the capital's six largest local authorities in terms of jobs all being within inner London (Camden, City, Islington, Southwark, Tower Hamlets and Westminster) and accounting for around 65 per cent of jobs in this sector in London. Within the legal and accounting activities, and advertising and market research sub-sectors (69 and

73), more than two in three of the jobs in London are located in these six central local authorities.

Outside of central London, the Outer London - West and North West boroughs of Richmond upon Thames (12,300 jobs, IOS = 2.0) and Harrow (8,600 jobs, IOS = 1.5) also show a high level of specialisation in Professional, scientific and technical activities. Within the sector, Richmond upon Thames is particularly specialised in scientific research and development (1,700 jobs, IOS = 5.3). Examples of related employment sites in the area include the scientific parks and research centres associated with Kew Gardens, the National Physical Laboratory and LGC Group[30].

Looking at the sector in further detail, Map 2.7 shows that jobs in Professional services (excluding activities of head offices and management consultancy) are located in various other pockets across London. Examples of professional service employers outside of central London include: GlaxoSmithKline (GSK) in Brentford, Hounslow; Fujitsu Laboratories of Europe in Hayes Park, Hillingdon; Mott MacDonald and AECOM offices in Croydon; Ipsos Mori office in Harrow; and PwC offices in Uxbridge.

Map 2.7: Employee concentration in Professional, scientific and technical activities (excluding Head office and management consultancy), 2015



Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
Source: Inter-Departmental Business Register, Office for National Statistics
Contains National Statistics data © Crown copyright and database right 2016
Contains Ordnance Survey data © Crown copyright and database right 2016. Ordnance Survey 100032216

Source: IDBR, Economic Evidence Base for London 2016, chapter 2.

Map 2.8 shows that Head office and management consultancy activities are more centrally concentrated, though exceptions that stand out here include Richmond town centre, Wimbledon, and Hammersmith. These areas are home to a number of notable company head offices. Wimbledon for example is home to the UK head offices of Coty UK (beauty products)

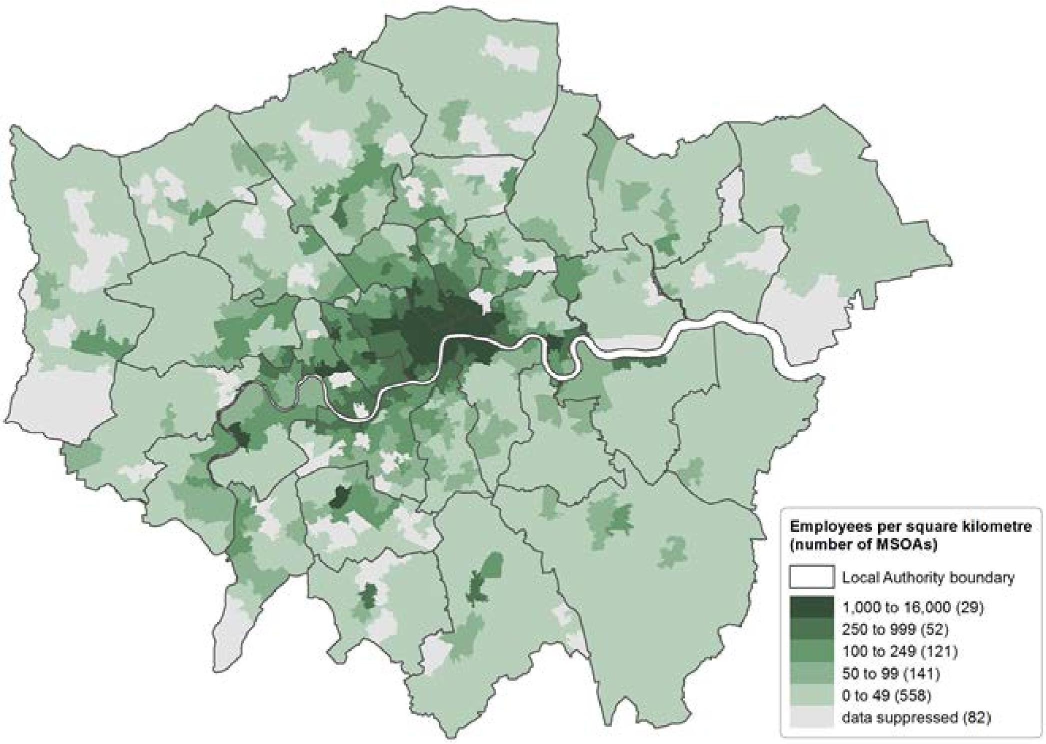
[30] London Borough of Richmond upon Thames, Local economic assessment, November 2010

and Lidl supermarket, and Richmond is home to eBay, Securitas Group and Paypal Europe. There are also a number of UK and European head offices for multinationals based in Hammersmith, including Virgin Group, Sony Mobile, Walt Disney and L'Oréal.

In terms of job numbers across the borough, specialisation in Head office activity (70.1) is also present in the Outer London - West and North West boroughs of Hillingdon (8,300 jobs, IOS = 4.6) and Hounslow (3,500 jobs, IOS = 2.8). Hillingdon is home to a number of head offices. Stockley Park, Uxbridge Business Park and Hayes Park in Hillingdon are, for example, home respectively to head offices for digital technology firms such as Canon, Toshiba and Sharp; the head offices of the food and drinks company Mondelez International and biopharmaceutical firms Amgen and Bristol-Myers Squibb; and the corporate offices of the food company Heinz, and the biscuit and confectionary company Pladis. While in Hounslow, Lindt and Sprüngli UK and Nomad Foods Europe also have their head offices by Bedfont lakes, alongside the technology company head offices highlighted previously.

Examples of other multinational companies with their head offices or global centres based in outer London include: McDonalds in East Finchley, Barnet; Diageo and Bestway Group in Park Royal, Brent; Danone in Chiswick, Hounslow; and Unilever's centre in Kingston town centre.

Map 2.8: Employee concentration in Head offices and management consultancy, 2015



Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
Source: Inter-Departmental Business Register, Office for National Statistics
Contains National Statistics data © Crown copyright and database right 2016
Contains Ordnance Survey data © Crown copyright and database right 2016. Ordnance Survey 100032216

Source: IDBR, Economic Evidence Base for London 2016, chapter 2.

Across London, individual local authorities may also show a high level of specialisation in other sectors, not captured at the sub-regional level in Table 2.3. The local geography of these sectors is described in the next section.

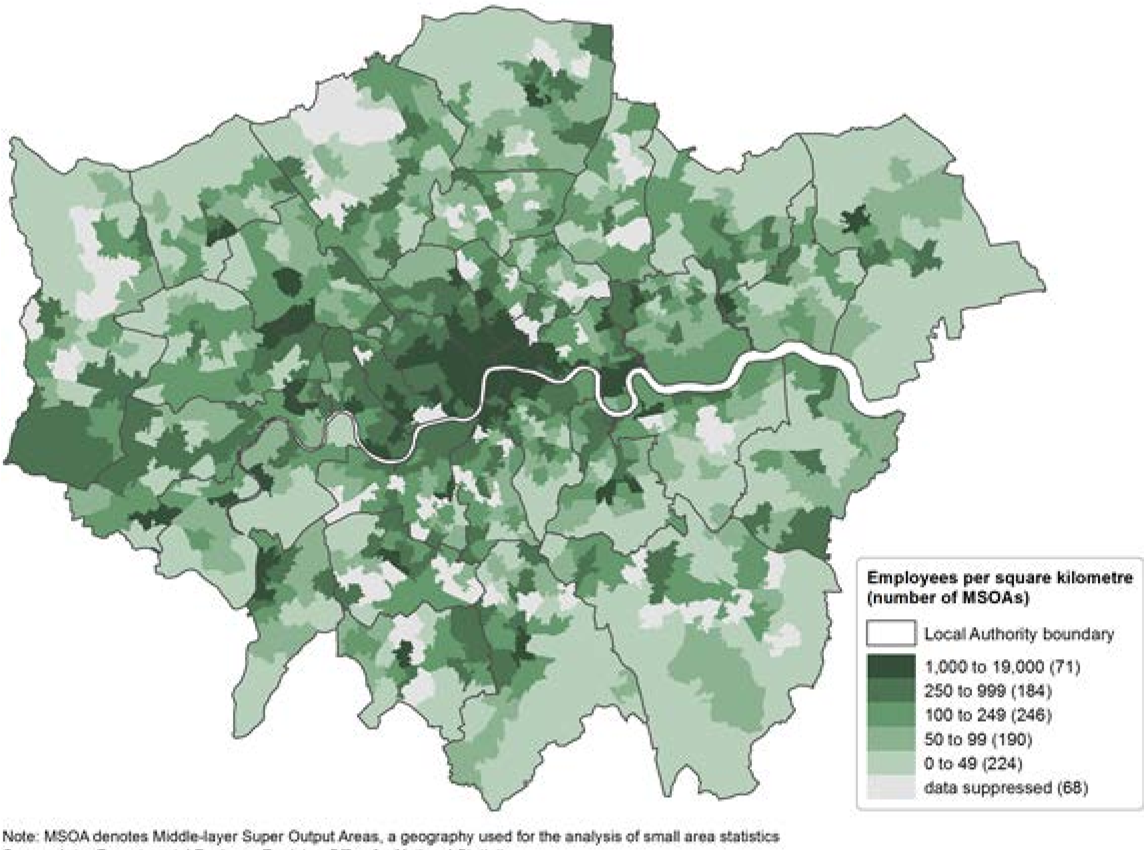
2.3.2 Other industry specialisations within London's local authorities

Looking at the industry structure at the level of local authorities identifies a number of further specialisms within London, relative to those in the rest of Great Britain through the IOS. Here, sectors which have an index of specialisation greater than 1.8, and employment more than 1,000 at local authority level are highlighted[31].

Administrative and support services

Map 2.9 below shows the geographic distribution of employees in Administrative and support services (SIC category N) across London. From this, we can also see that outside of central London, a wide spread of areas, in west London around the Thames and Heathrow, but also to the South and North/North-East show concentrations of employment in this sector.

Map 2.9: Employee concentration in Administrative and support services (N) in London in 2015



Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
Source: Inter-Departmental Business Register, Office for National Statistics
Contains National Statistics data © Crown copyright and database right 2016
Contains Ordnance Survey data © Crown copyright and database right 2016. Ordnance Survey 100032216

Source: IDBR, Economic Evidence Base for London 2016, chapter 2.

Given their relatively lower level of jobs overall, the Administrative and support services sector makes up a significant part of the workforce in several boroughs. In Lambeth, there are 24,100 jobs in the sector, giving it an IOS of 1.9, ie, with a share of employment in the sector almost twice that of the rest of Great Britain. Within this sector Lambeth is particularly specialised in security and investigation activities (3,400 jobs, IOS = 4.2), Services to buildings and landscapes

[31] Detailed index of specialisation calculations, broken down further to industry division, group and class (up to 4 digit SIC 2007) are provided in the Appendix to Chapter 2. Here sectors which have component sub-sectors at local authority level with an index of specialisation score above 1.8 and employment over 1,000 are included.

(11,100 jobs, IOS = 3.3), and office administrative, office support and other business support activities (6,200 jobs, IOS = 2.7). Around one in ten workers in Lambeth (10.1 per cent) is employed in one of these three sub-sectors.

Further out, Administrative and support services are also specialised in Merton (13,700 jobs, IOS = 2.0), Sutton (11,600 jobs, IOS = 2.0) and Waltham Forest (12,800 jobs, IOS = 2.1). In Merton, almost three in four jobs in this sector relates to work for temporary employment agencies or general cleaning of buildings, while in Sutton such work accounts for three in five Administrative and support service jobs, with more jobs also in security services. In Waltham Forest, more than four in five jobs in the sector are instead in cleaning or private security activities.

Retail

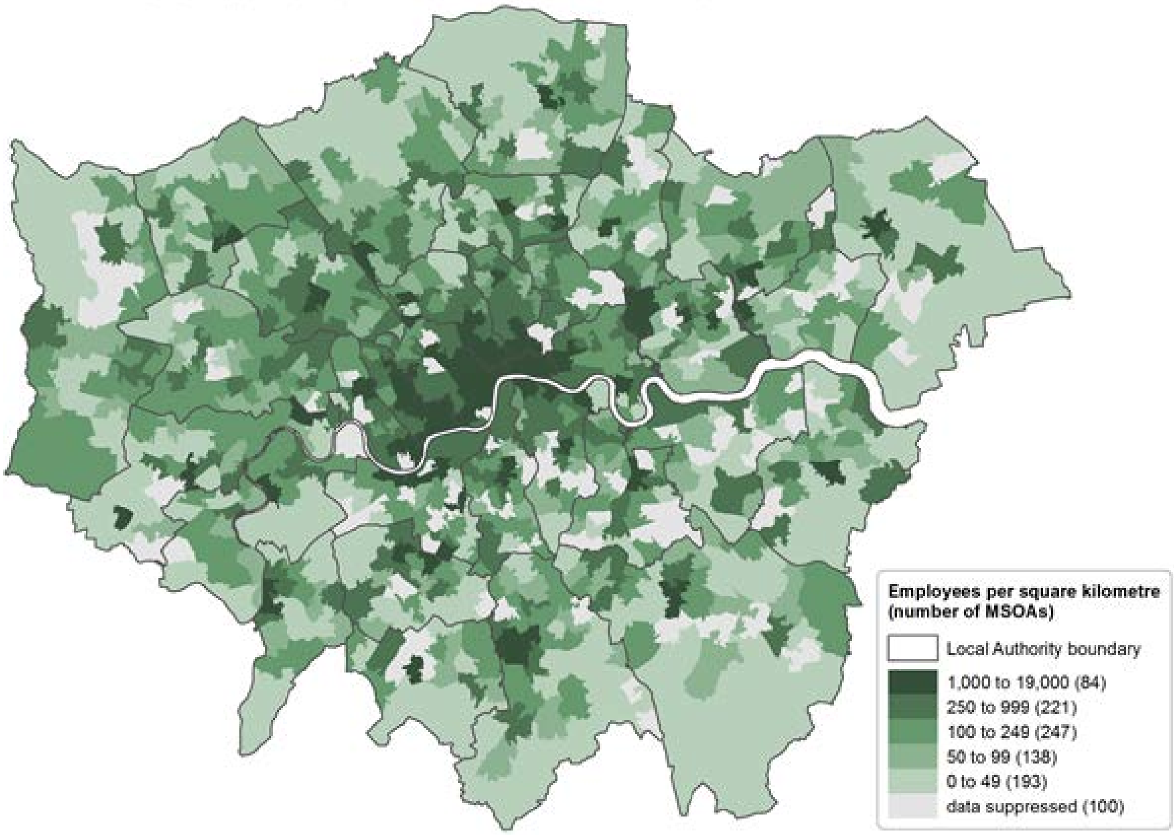
As in the rest of the country, the Retail sector is a major employer, and is responsible for roughly one in every 12 jobs in the capital. In Kensington and Chelsea the role of Retail is particularly pronounced, with the sector accounting for almost one in every five employee jobs in the local authority (22,700 jobs, IOS = 1.9). Examples of major employers in the sector within the borough include the department stores: Harrods, Peter Jones and Harvey Nichols in Knightsbridge[32]. Besides the concentration of Retail jobs in central London, shown in Map 2.10, there are also significant sites for Retail employment across other parts of London, related to the various town centres, or out-of-town retail parks.

Examples of large shopping centres and retail parks in outer London include: Brent Cross Shopping Centre in Barnet; Ealing Broadway Shopping Centre; Westfield Stratford City in Newham; the London Designer Outlet and Wembley Retail Park in Brent; the Bentall Centre in Kingston; Centrale and Whitgift Centre in Croydon; the Exchange Ilford in the borough of Redbridge; the Glades in Bromley; the Mall in Walthamstow (Waltham Forest) and Wood Green (Haringey); and Tottenham Hale retail park in Haringey. Notably, two of the country's largest shopping centres – Bluewater and Lakeside – are located just beyond London's administrative boundaries to the east in Stone (Kent) and Thurrock (Essex) respectively.

---

[32] These three stores listed were among the top ten employment sites in the borough in 2010. Source: TBR, Local Economic Evidence; Employment and Land Use, 2010.

Map 2.10: Employee concentration in Retail (47) in London in 2015



Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
Source: Inter-Departmental Business Register, Office for National Statistics
Contains National Statistics data © Crown copyright and database right 2016
Contains Ordnance Survey data © Crown copyright and database right 2016. Ordnance Survey 100032216
Source: IDBR

Accommodation and food services

As a city that attracts a large number of visitors, including tourists and those on business[33], the capital is home to large number of hotels and other accommodation services, particularly in central areas and by major transport hubs. The large number of workers in the CAZ also supports activity in restaurants and other food services. Map 2.11 reflects this employment concentration in the Inner West for the Accommodation and food service sector, and also highlights a concentration of employee jobs in the sector in other areas, such as the town centres of Greenwich, Kingston and Richmond and the area surrounding Heathrow Airport.

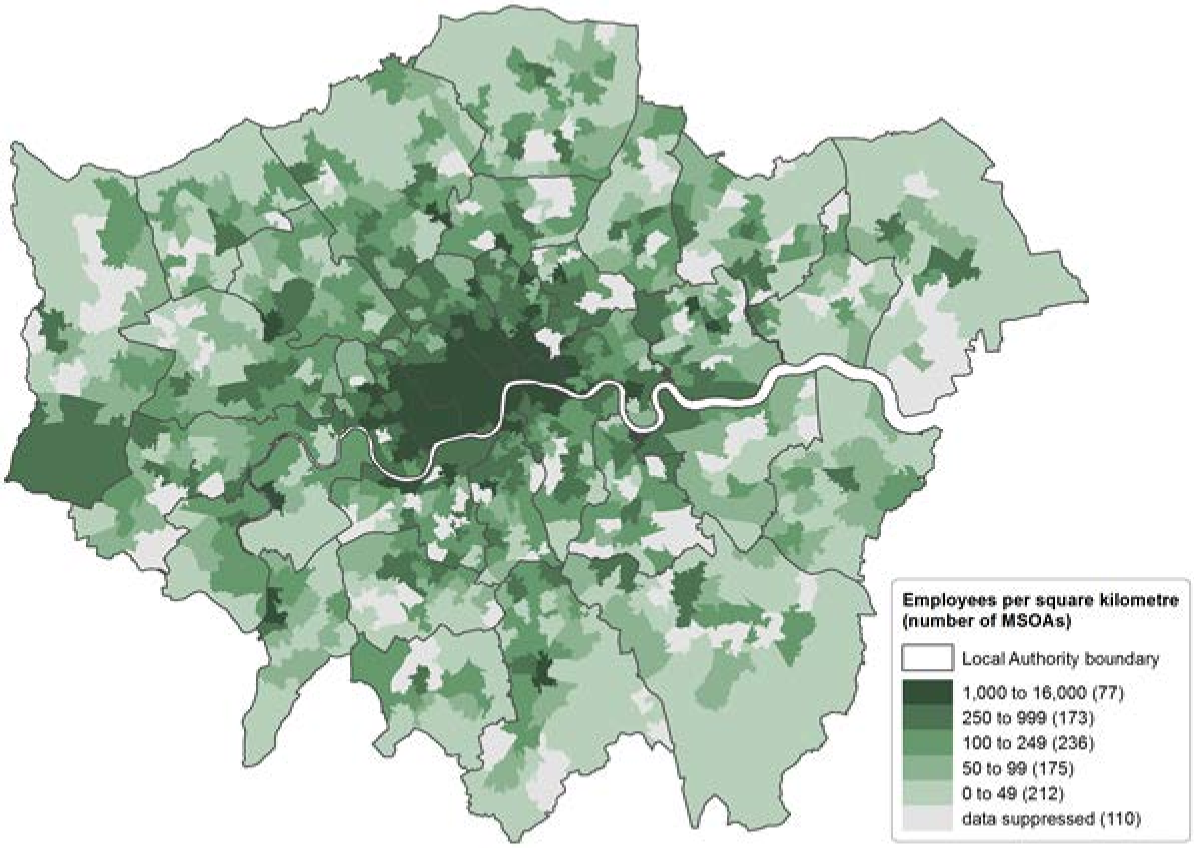
As with retail, jobs in the sector are relatively specialised in Kensington and Chelsea, with 6,000 jobs in accommodation (IOS = 3.4) and 12,900 jobs in food and beverage services (IOS = 1.9), equivalent to around one in every six jobs. Examples of significant hotels in the borough include the Mandarin Oriental, Carlton Tower and Royal Garden Hotels[34].

---

[33] In 2015, there were an estimated total of 18.6 million international visitors to London as well as an estimated 12.9 million overnight visits made by UK residents. In addition, in 2015, there were a total of 280 million tourism domestic day visits in the capital. Sources: ONS International Passenger Survey and Visit Britain, cited in: GLA Economics, 'Economic Evidence Base for London 2016: London's attractiveness as a location for business and people', chapter 5.

[34] These three hotels were listed among the top 20 employment sites in the borough in 2010. Source: TBR, Local Economic Evidence; Employment and Land Use, 2010.

Map 2.11: Employee concentration in Accommodation & food service activities (I) in London in 2015



Note: MSOA denotes Middle-layer Super Output Areas, a geography used for the analysis of small area statistics
Source: Inter-Departmental Business Register, Office for National Statistics

Source: IDBR

Arts, entertainment and recreation

Creative, arts and entertainment activities (SIC sub-sector 90) is another area which the Economic Evidence Base for London 2016 identifies as a relatively important sector in terms of jobs compared to the rest of Great Britain[35]. Looking in further detail from a geographic perspective, there is a strong concentration of jobs in this sub-sector in Lambeth (3,300 jobs, IOS =7.4), Westminster (11,200 jobs, IOS = 6.0) and in Camden (4,100 jobs, IOS = 4.1).

Taken as a whole, the Arts, entertainment and recreation sector is a relatively strong employer in certain parts of south west London, including Hammersmith and Fulham (5,500 jobs, IOS = 1.8), and the boroughs of Richmond, (4,900 jobs, IOS = 2.7) and Kingston (3,500 jobs, IOS = 2.1). In terms of employment sites, Hammersmith is home to a number of entertainment venues such as the Apollo and the Lyric; Richmond is home to Hampton Court and Twickenham stadium; while Kingston upon Thames is the site of Chessington World of Adventures entertainment resort. The sector was also highly specialised in Haringey (3,100 jobs, IOS = 1.9), which is notably home to the entertainment venue Alexandra Palace and Tottenham Hotspur Football Club.

[35] GLA Economics, November 2016, 'Economic Evidence Base for London 2016': Appendix to chapter 1.

Public sector activities
Jobs in Public administration are largely concentrated in Westminster (58,200 jobs, IOS = 1.9). In addition to the offices for the local authority, Westminster is also the seat of Parliament and the primary location for HM Government offices around Whitehall[36]. As a result, this sector accounts for 9 per cent of jobs in the local authority.

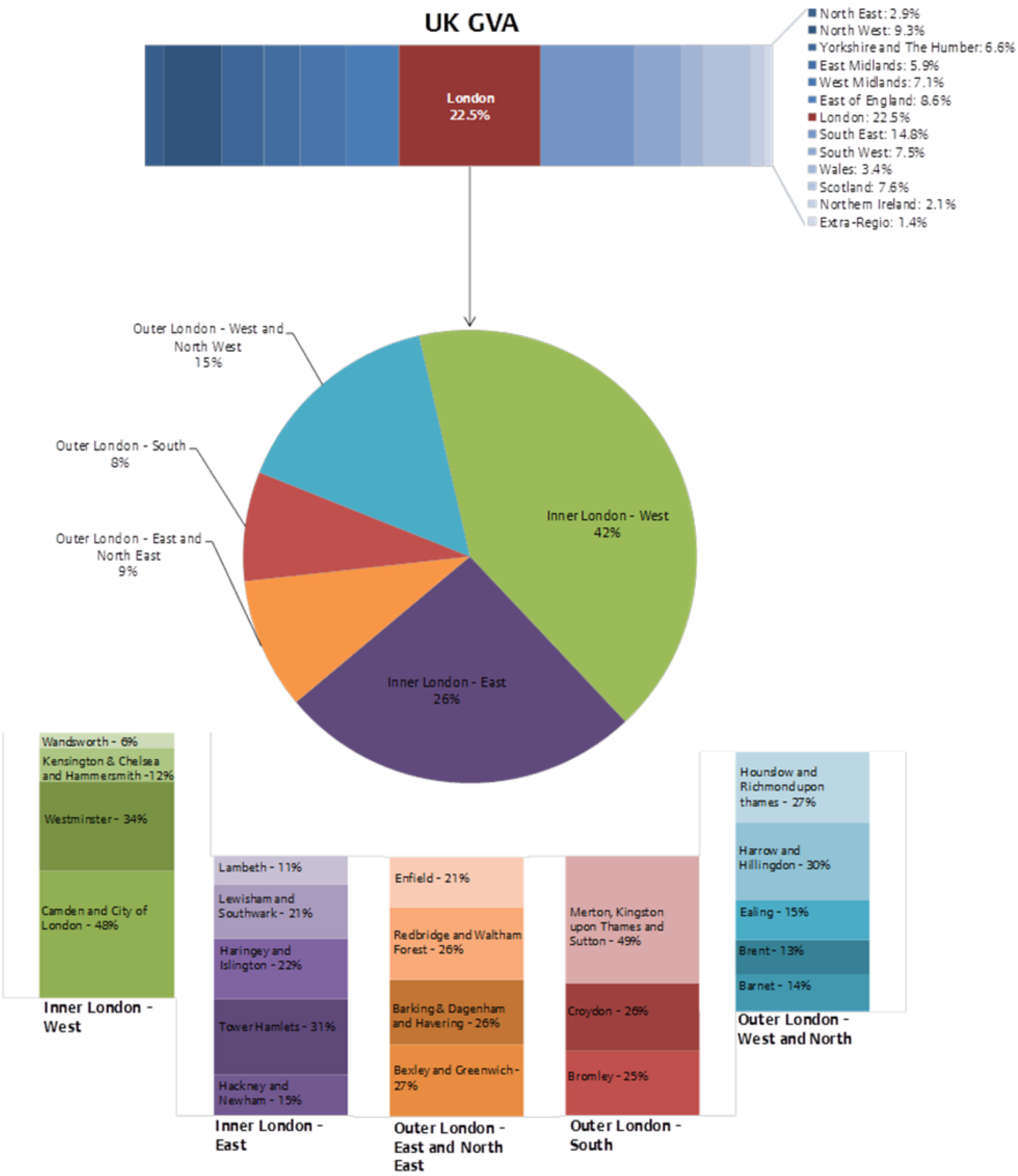
Universities and hospitals also tend to be major employers in the local areas in which they are based. Jobs in Tertiary education (SIC sub sector 85.42) are particularly prominent in Camden (19,400 jobs, IOS = 4.0), with a large number of faculties and universities located in the Bloomsbury area[37]. In terms of Hospital activities (86.10), local authorities with two major hospitals typically have relatively high job numbers in this area, most notably Lambeth (17,300 jobs, IOS = 2.4), which is home to King's College Hospital by Denmark Hill and St. Thomas Hospital.

2.4 Output across London's sub-regions[38]

The concentration of economic activity in inner London areas seen in terms of jobs is also evidenced by data on London's GVA output by sub-region and local authority or local authority grouping as shown in Figure 2.8. This shows that inner London was responsible for more than two thirds (68 per cent) of London's economic output in 2014, with 42 per cent of London's total GVA produced in Inner London - West alone[39]. The economic output of Inner London - West was thereby greater than all other English regions except the South East (and of course London itself). The appendix to this chapter provides maps examining the importance of local authorities to London's total output (see Map A1).

[36] As of 31 March 2016, the ONS Civil Service Employment Survey provides a headcount of over 35,000 civil service staff in workplaces with Westminster postcodes, primarily in SW1.
[37] This area is home for example to: London School of Economics, University College London, Birkbeck, and SOAS.
[38] As was the case throughout this document the data referred to here is the data used in: GLA Economics, November 2016, 'Economic Evidence Base for London 2016', which in turn drew on the data and analysis in: GLA Economics, July 2016, 'Regional gross value added estimates for London by different geographies, 1997-2014; Current Issues Note 47'.
[39] This Figure is reproduced from GLA Economics, July 2016, 'Regional gross value added estimates for London by different geographies, 1997-2014; Current Issues Note 47', page 6. The GVA estimates are presented based on the Income approach, which measures value added by reference to payments made to workers and investors involved in each industry.

Figure 2.8: UK and London economic output, broken down by NUTS geographies, 2014



Sources: Regional accounts –ONS; Economic Evidence Base for London 2016, chapter 1.

Until May 2016 there were no estimates of output at the local authority level for London, with the lowest geography being at the NUTS3 level which covered some individual London boroughs or combination of London local authorities. However, in May 2016 the ONS published estimates of GVA by LA in England for the period 1997 to 2014[40]. Also published was an estimate of LA output by broad industrial classification sectors. It should be noted that at the local authority level these output estimates are not national statistics, however the data does allow for an examination of the changing nature of output in London at this level.

[40] This data was then revised in July 2016 to take account of ONS revisions to their estimates of output at the NUTS3 level.

Thus at the borough level, Westminster and the City of London are the largest individual boroughs, comprising around £50 billion of GVA each (Westminster comprises 14 per cent of London's total economic output).

2.4.1 GVA by sector in inner London boroughs

Within inner London, Finance and insurance, and Business service activities account for the majority of output in the City of London (83 per cent) and Tower Hamlets (66 per cent). They also account for more than one third of total output in the inner London Boroughs of Camden, Islington, Southwark and Westminster – essentially reflecting the importance of these sectors to the CAZ and the NIOD (see Tables 2.4 and 2.5).

Table 2.4: GVA by sector as a share of local authority output in Inner London - West, 2014[41]

Local authority	Manufacturing, utilities and construction (B-F)	Distribution, transport, accommodation and food (G-I)	Information and communication (J)	Finance and insurance (K)	Real estate (L)	Business services (M-N)	Public admin. education and health (O-Q)
Camden	7%	9%	15%	13%	10%	24%	16%
City of London	2%	5%	7%	67%	1%	17%	1%
Hammersmith and Fulham	5%	16%	19%	4%	22%	15%	12%
Kensington and Chelsea	7%	21%	11%	6%	24%	13%	13%
Wandsworth	12%	15%	7%	3%	25%	12%	20%
Westminster	5%	15%	14%	17%	12%	19%	12%
Inner - West	**5%**	**11%**	**12%**	**30%**	**10%**	**18%**	**10%**

Source: Office for National Statistics, GLA Economics calculations. Note: figures may not sum to 100% as the table does not display information for Other services (R-U) and Agriculture (A).

Table 2.5: GVA by sector as a share of local authority output in Inner London - East, 2014

Local authority	Manufacturing, utilities and construction (B-F)	Distribution, transport, accommodation and food (G-I)	Information and communication (J)	Finance & insurance (K)	Real estate (L)	Business services (M-N)	Public admin. education and health (O-Q)
Hackney	8%	14%	12%	9%	13%	21%	17%
Haringey	18%	19%	4%	3%	24%	10%	15%
Islington	6%	10%	20%	18%	9%	23%	11%
Lambeth	10%	14%	12%	2%	14%	20%	22%
Lewisham	12%	14%	4%	3%	23%	11%	27%
Newham	19%	21%	4%	3%	17%	10%	19%
Southwark	6%	13%	12%	10%	9%	29%	16%
Tower Hamlets	4%	6%	9%	52%	5%	14%	8%
Inner - East	**8%**	**12%**	**11%**	**21%**	**11%**	**18%**	**14%**

Source: Office for National Statistics, GLA Economics calculations

[41] Note that Tables 2.4 to 2.8 do not report on Agriculture and Other services and household activities which makes up the remainder of each local authorities output.

2.4.2 GVA by sector in outer London boroughs

Across outer London, Distribution, transport and accommodation and food industries constitute an important part of economic activity. Hillingdon is the borough with the largest proportion of its total economic output within this sector in 2014 (40 per cent). This is likely due in large part to clustering of industries in and around Heathrow airport.

Production industries (which includes Manufacturing), and Construction also form a much greater proportion of boroughs' output in outer London, and considerably higher than the average for London's economy as a whole.

Typically, activity in public services in outer London tends to be higher than within the most central areas. It is however an important feature of all local authorities given the nature of the services provided.

Table 2.6: GVA by sector as a share of local authority output in Outer London - West and North West, 2014

Local authority	Manufacturing, utilities and construction (B-F)	Distribution, transport, accommodation and food (G-I)	Information and communication (J)	Finance and insurance (K)	Real estate (L)	Business services (M-N)	Public admin. education and health (O-Q)
Barnet	12%	19%	6%	3%	25%	12%	18%
Brent	21%	26%	7%	1%	17%	10%	15%
Ealing	20%	25%	8%	1%	17%	12%	12%
Harrow	13%	17%	9%	3%	19%	16%	18%
Hillingdon	13%	40%	6%	1%	9%	16%	11%
Hounslow	8%	22%	26%	3%	15%	13%	10%
Richmond upon Thames	11%	21%	9%	3%	19%	18%	12%
Outer - West and North West	**14%**	**26%**	**10%**	**2%**	**16%**	**14%**	**13%**

Source: Office for National Statistics, GLA Economics calculations

Table 2.7: GVA by sector as a share of local authority output in Outer London - East and North East, 2014

Local authority	Manufacturing, utilities and construction (B-F)	Distribution, transport, accommodation and food (G-I)	Information and communication (J)	Finance and insurance (K)	Real estate (L)	Business services (M-N)	Public admin. education and health (O-Q)
Barking and Dagenham	30%	21%	2%	2%	14%	11%	15%
Bexley	27%	21%	5%	2%	16%	12%	14%
Enfield	19%	23%	5%	3%	17%	11%	18%
Greenwich	16%	20%	6%	2%	17%	10%	23%
Havering	21%	24%	5%	4%	12%	11%	17%
Redbridge	13%	18%	8%	2%	19%	14%	20%
Waltham Forest	15%	19%	4%	2%	19%	16%	20%
Outer – East and North East	**20%**	**21%**	**5%**	**2%**	**16%**	**12%**	**18%**

Source: Office for National Statistics, GLA Economics calculations

Table 2.8: GVA by sector as a share of local authority output in Outer London - South, 2014

Local authority	Manufacturing, utilities and construction (B-F)	Distribution, transport, accommodation and food (G-I)	Information and communication (J)	Finance and insurance (K)	Real estate (L)	Business services (M-N)	Public admin. education and health (O-Q)
Bromley	14%	16%	6%	10%	21%	12%	15%
Croydon	11%	20%	7%	9%	16%	13%	19%
Kingston upon Thames	8%	20%	7%	4%	18%	16%	20%
Merton	12%	19%	8%	3%	18%	22%	13%
Sutton	14%	18%	8%	2%	20%	15%	18%
Outer - South	**12%**	**19%**	**7%**	**6%**	**18%**	**15%**	**17%**

Source: Office for National Statistics, GLA Economics calculations

The appendix to this chapter provides maps examining the importance of these broad sectors to the total output of London's individual local authorities to provide context to the industrial structure of London's local authorities (see Maps A2-A10). These show the general declining importance of the Production sector over time to total output in London's local authorities but also that the Real estate sector has gradually become generally more important to total output in London's local authorities from 1997 to 2014.

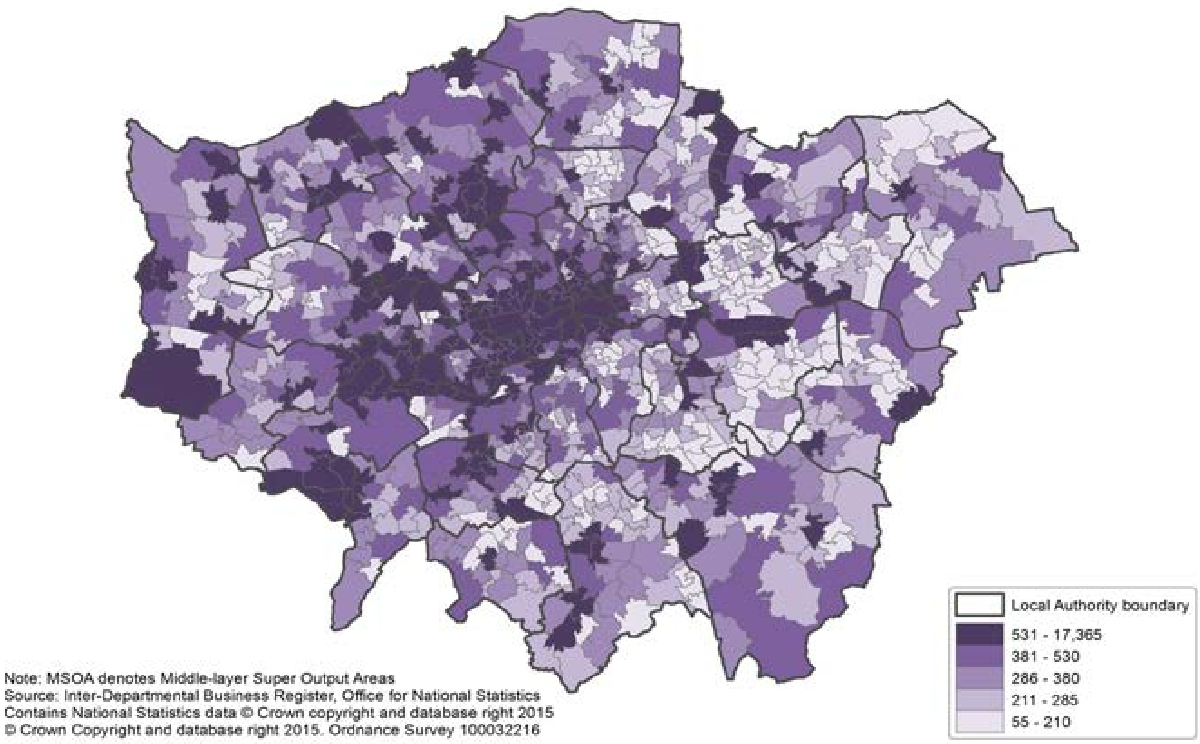
3 Business location in London

This section presents the reader with a brief description of London's business landscape, from a geographic perspective. This analysis seeks to identify any notable geographic patterns on business size and location, and business demographics (eg, start-up and survival rates) that may reflect or enhance the understanding of London's industrial make up described in Section 2. This complements the discussions of London's firms and business make-up provided in chapters 2 and 5 of the Economic Evidence Base for London 2016[42].

3.1 Geographic distribution and profile of London businesses

Just as London is the location for a lot of employment, so London is home to a large number of businesses and their workplaces. This is particularly the case in the CAZ, but as can be seen from Map 3.1, other areas of London also have significant concentrations of workplaces. This is particularly notable in the west of London, as well as various town centres and several Strategic Industrial Locations (SIL) such as Park Royal, the Thames Gateway SILs in Newham (Royals), Charlton, and Barking and Dagenham (River Road). Conversely, it can be seen that some areas of east London have relatively few workplaces concentrated within them.

Map 3.1: Workplaces in London by Middle-layer Super Output Area (MSOA), 2014



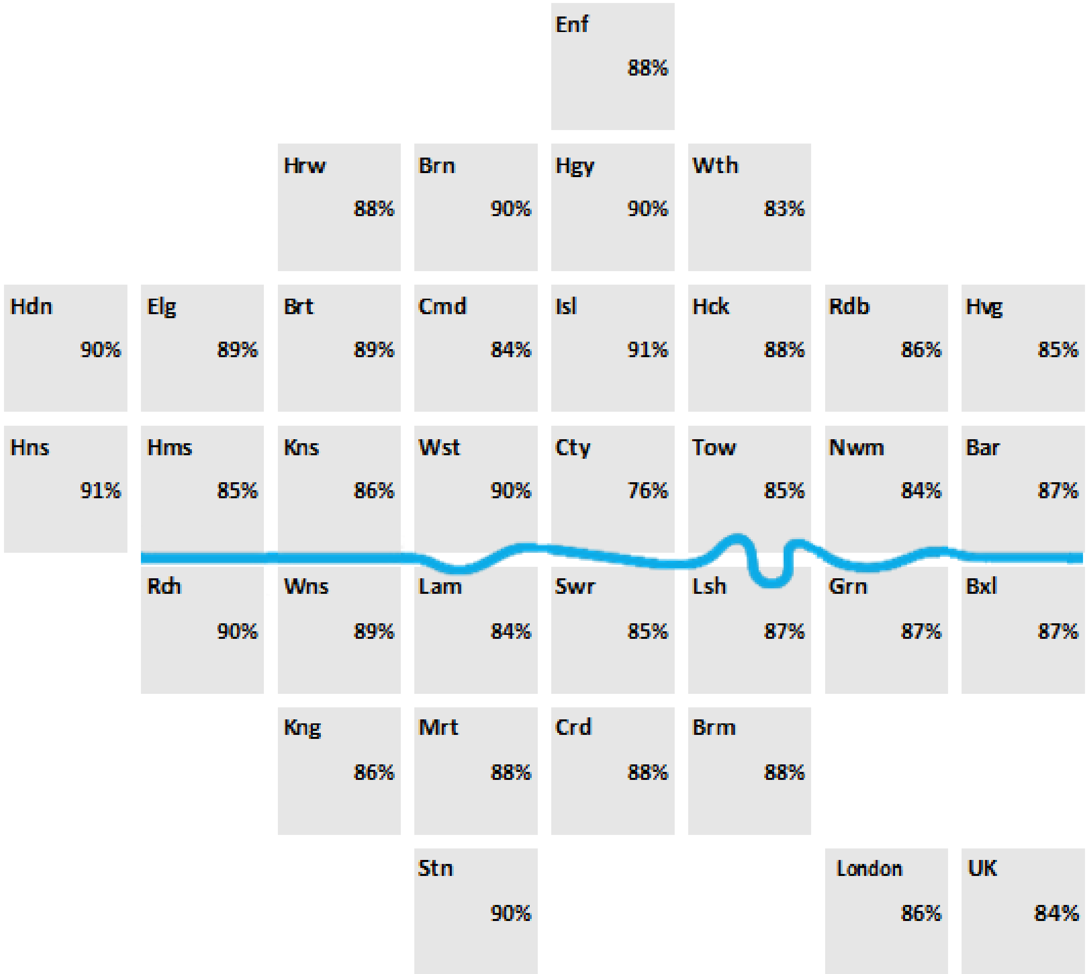
Source: ONS and GLA Intelligence Unit

Across London, the vast majority (86 per cent) of workplaces are part of very small firms; "micro-enterprises" employing less than 10 employees. In the boroughs of Barnet, Haringey, Hounslow, Islington and Richmond more than 90 per cent of workplaces were micro-enterprises in 2015. In contrast, there are relatively few firms of this size trading in the City of London

[42] GLA Economics, November 2016, 'Economic Evidence Base for London 2016'.

where micro businesses accounted for a more modest 76 per cent of total workplaces (see Map 3.2).

Map 3.2: Proportion of local units belonging to micro businesses (less than 10 employees) across London's local authorities, 2015



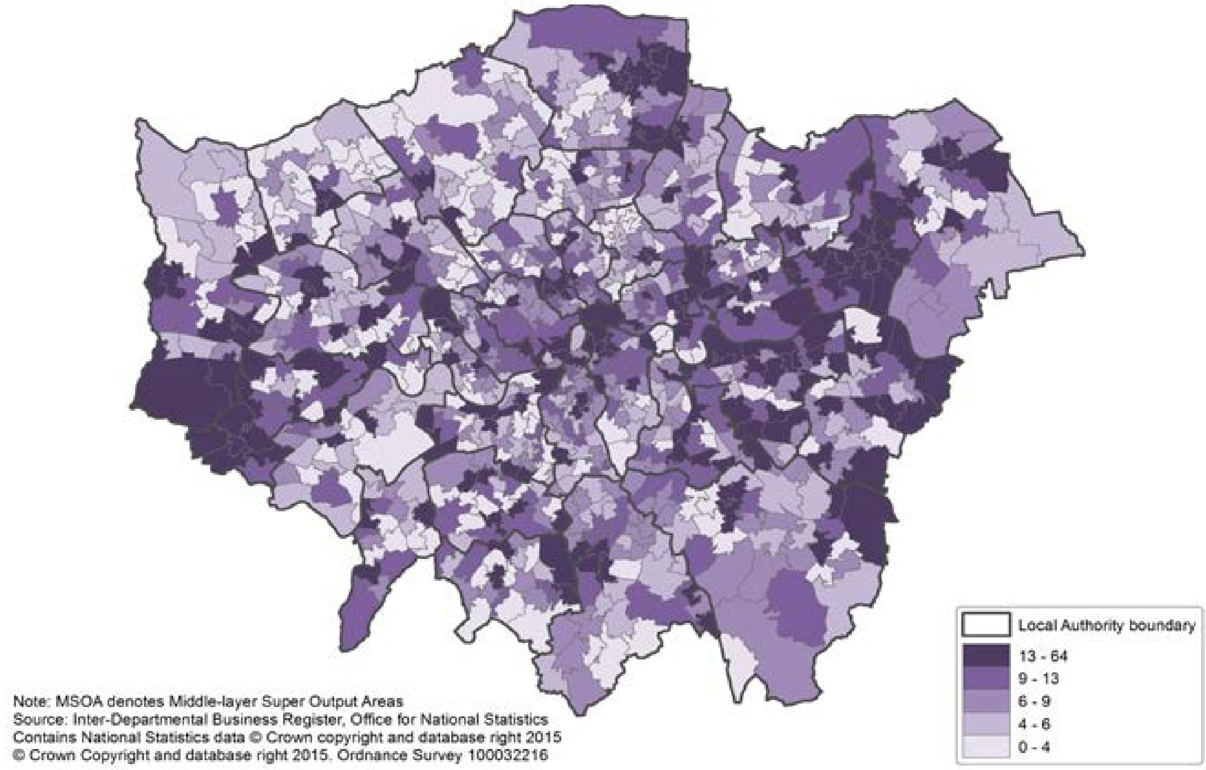
Source: ONS business, size, activity and location, derived from the IDBR

Across London as a whole, small and medium-sized businesses (SMEs) with less than 249 employees, make up more than 99 per cent of all businesses. However, based on Government estimates of the London business population[43], SMEs accounted for 51 per cent of employment[44] and just less than 50 per cent of the turnover of London's firms in 2015.

Therefore while workplaces belonging to firms that employ 250 or more people are less prevalent, they account for almost half of all employment and over half of firms' turnover in London. Map 3.3 shows that these workplaces lie in a visible belt that runs from west London through central London to small areas of the south and north of London.

[43] These estimates include data based on registered companies' from the IDBR, and estimates of the number of unregistered businesses. Source: Department for Business, Innovation and Skills, 'Business Population Estimates (BPE) for the UK and Regions', 2015.
[44] Employment refers to the number of employees plus the number of self-employed people (or 'working proprietors') who run the business. Individuals with two jobs in different businesses, and self-employed people running two businesses will be counted against each business. Both full-time and part-time employees are counted, and both are counted as an employee.

Map 3.3: Workplaces that employ 250 or more people by MSOA in London, as a percentage of the MSOA's total workplaces, 2014

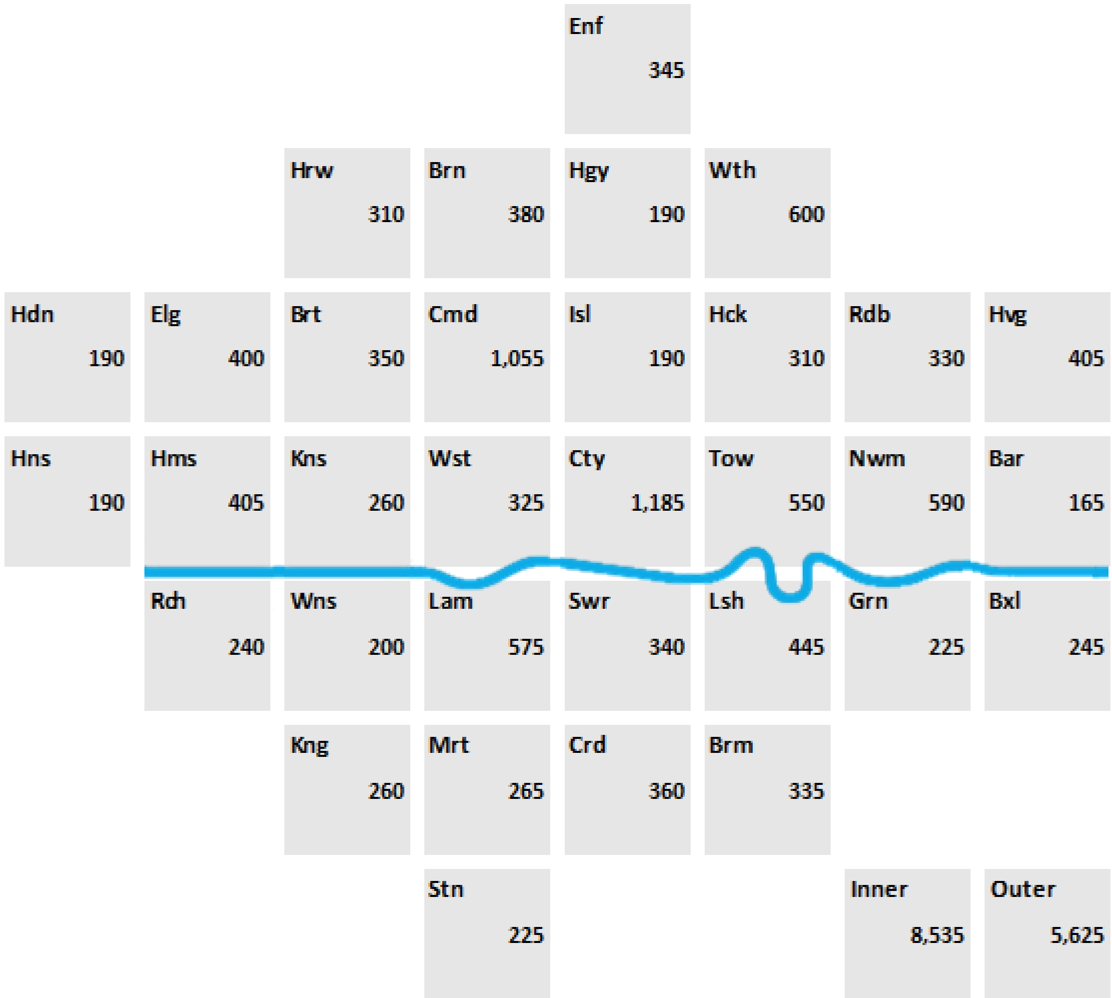


Source: ONS and GLA Intelligence Unit

While the total number of workplaces is not much greater in inner London (267,400 local units) than in outer London (237,700 local units), inner London has over 50 per cent more local units belonging to medium- or large-sized enterprises (with 50 or more employees). This is partly driven by a concentration of mid- and large-sized firms in Camden and the City of London, which are each home to more than 1,000 workplaces belonging to medium and large-sized firms (see Map 3.4).

Outside of the CAZ, Map 3.4 also shows that Waltham Forest stands out as having a relatively higher presence of larger firms than other outer London boroughs. This may relate to the large number of contracting service jobs in administration, private security and cleaning activities identified in Section 2.3.

Map 3.4: Number of local units in London belonging to medium- and large sized enterprises (with 50 or more employees), 2015



Source: ONS business, size, activity and location, derived from the IDBR

3.2 Changes in London's business landscape

In 2015, there were 76.3 active enterprises for every 1,000 residents in inner London. This compares to around 48.8 active enterprises per 1,000 residents in outer London, and a UK average of around 41.0 active enterprises per 1,000 residents[45]. Table 3.1 highlights that the concentration of registered businesses in inner London is largely driven by the large number of firms in Inner London - West, particularly Westminster and the City.

Table 3.1 also shows that in 2015, Outer London - West and North West has almost as many businesses and a higher rate of active businesses per resident population (70.8) than Inner London - East (53.1). Only Outer London - East and North East has a lower rate of active businesses per 1,000 of the population (37.0) than the UK as a whole (41.0), although this gap has been closing since 2009. A full breakdown of this data by local authority is provided in the Appendix to Chapter 3.

[45] An active enterprise is defined as businesses that had either turnover or employment at any time during the reference period. Sources: ONS Business Demography 2015, 23 November 2016, and ONS mid-year population estimates.

Table 3.1: Number of active enterprises by London sub-region, 2009 and 2015

Sub-region	Active enterprises		% change, 2009-2015	Active enterprises per 1,000 residents		% change, 2009-2015
	2009	2015		2009	2015	
Inner London	211,365	287,585	36%	60.9	76.3	25%
Inner West	126,535	160,040	26%	100.5	117.1	29%
Inner East	84,830	127,545	50%	38.3	53.1	23%
Outer London	190,950	253,725	33%	42.7	48.8	14%
Outer West	89,945	117,390	31%	58.6	70.8	24%
Outer East	52,700	75,350	43%	29.2	37.0	19%
Outer South	48,305	60,985	26%	42.9	50.4	22%
Greater London	402,315	541,310	35%	50.7	62.4	23%
UK	2,341,900	2,672,025	14%	37.6	41.0	9%

Sources: ONS Business Demography 2015 and ONS mid-year population estimates.

From the ONS business demography data series, we can also observe patterns in new registrations for VAT and PAYE (births) and cessation of trading (deaths) of businesses in recent times.[46] Local authorities in London also have a high number of business births and deaths compared to other areas. Due to the competitive nature of business in the capital, net start-up rates in London are much higher than those in any other UK region. Across London the picture from the latest data is however more nuanced. Table 3.2 shows that in 2015, the net start-up rates were highest in the sub-regions of Inner London - East (10.0 per cent) and Outer London - East and North East (9.9 per cent). Across all of London's local authorities in 2015, the net-start up rate was higher than the UK average of 4.9 per cent, with the highest start-up rates in Barking and Dagenham (14.9 per cent) and Islington (14.4 per cent). A full breakdown by local authority is available in the Appendix to Chapter 3.

Table 3.2: Business enterprise births, deaths and net start-up rate by London sub-region, 2015

Sub-region	Enterprise births	Enterprise deaths	Net start-up rate
Inner London	55,295	30,785	8.5%
Inner West	27,985	16,270	7.3%
Inner East	27,310	14,515	10.0%
Outer London	45,625	26,045	7.7%
Outer West	20,240	12,170	6.9%
Outer East	15,410	7,945	9.9%
Outer South	9,975	5,930	6.6%
Greater London	100,920	56,830	8.1%
UK	383,075	252,040	4.9%

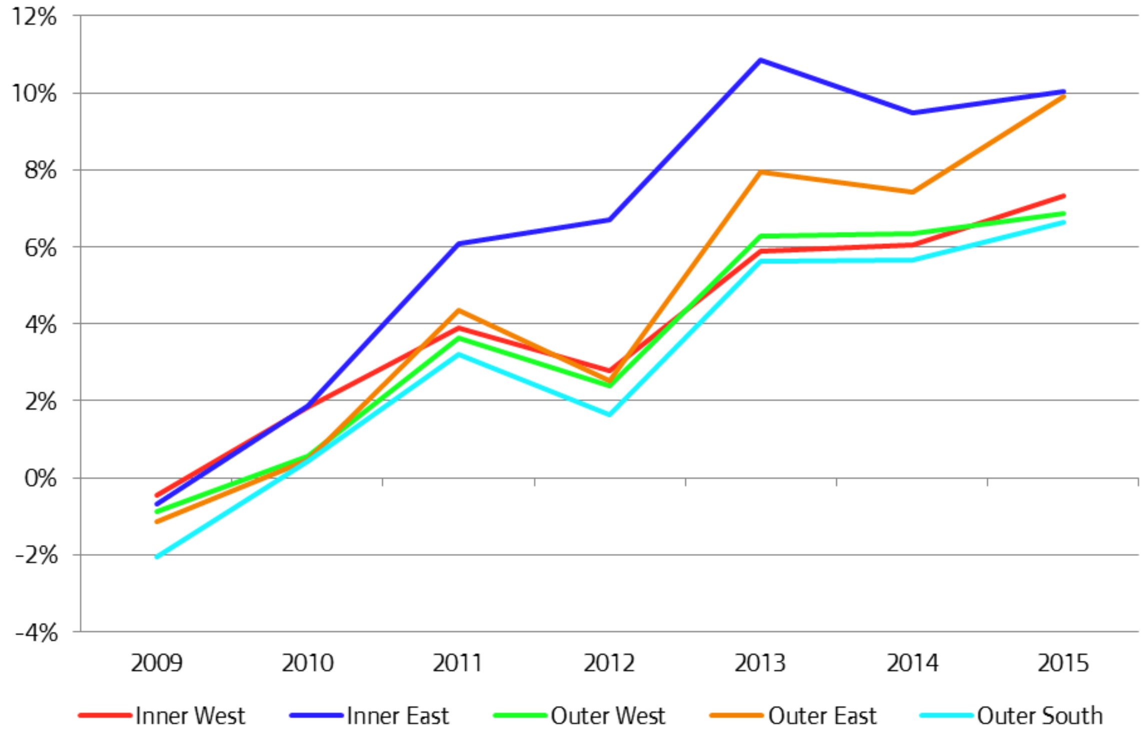
Source: ONS business demography 2015. Note: net start-up rate is calculated by taking the difference between births and deaths and dividing by the total population of active businesses.

Similar trends have occurred over time in recent years; Inner London - East and Outer London - East and North East have seen higher levels of net business start-ups than other parts of the

[46] 'Births' here are identified as a business that was not present on the register in either of the previous two years. Similarly, a 'death' is defined as a business that was on the active file, but was no longer present in either of the following two years. Source: ONS Business Demography 2015, 23 November 2016.

capital. This is shown in Figure 3.1. Whilst net start-up rates went negative in all parts of London in the period of the 2009 recession, they have since picked up. As a result, despite a significant level of business failures or 'deaths' in all sub-regions, the number of businesses in London continues to rise.

Figure 3.1: Annual business net start-up rate, London sub-regions, 2009 - 2015



Source: Business Demography, ONS; GLA Economics calculations.

Data analysed by Trends Business Research (TBR) provides further insights into how the business make up of London has changed over time. Table 3.3 shows how the stock of businesses in the capital has changed over time. This analysis shows that, across London, more businesses are started, in general, than are closed. The CAZ and NIOD areas are particularly competitive with net start-up rates in excess of those in other areas of London, however all areas (including both inner and outer London) can be seen to be competitive. Further analysis can be found in GLA Economics Working Paper 73.

Table 3.3: Net business births as a percentage of stock in London

	1998-2001	2001-2004	2004-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Inner London	4.8%	4.5%	5.6%	7.4%	-1.3%	1.9%	7.8%	-0.2%	3.0%
CAZ	5.5%	3.3%	5.3%	9.2%	1.3%	5.5%	5.3%	-1.7%	-0.5%
NIOD	10.1%	7.3%	8.2%	12.4%	4.1%	9.6%	7.8%	1.1%	2.1%
Outer London	4.3%	2.4%	6.3%	7.0%	-1.5%	0.7%	8.5%	-0.5%	3.6%
London	4.6%	3.5%	5.9%	7.2%	-1.4%	1.3%	8.1%	-0.4%	3.3%

Source: TBR

4 Working patterns and earnings across London

The presence and development of enterprise and industry across London's local areas, provides jobs and earnings for their workers. In theory, relatively higher earnings on offer should increase the number of people willing and able to work in a particular area, and enable firms to attract talent from further afield. This is because, as wages rise, other workers will be attracted to enter the industry or switch into the occupation, while those without work (including those in education) will also respond to the incentive of higher rewards. Earnings can thus be seen to reflect the demand for labour and specialist skills[47] that are effectively 'derived' from the value of the goods and services which are produced by London businesses, and described in Section 2.4.

This section uses data from the ONS Annual Survey of Hours and Earnings (ASHE) on a workplace basis to provide an overview of how pay levels differ across London[48], and data from the 2011 Census to better understand travel to work patterns. It finishes with a more detailed look at the area to the outer west of London, and its surrounding areas which exhibit distinct commuting patterns from the rest of the capital.

4.1 Workers' earnings

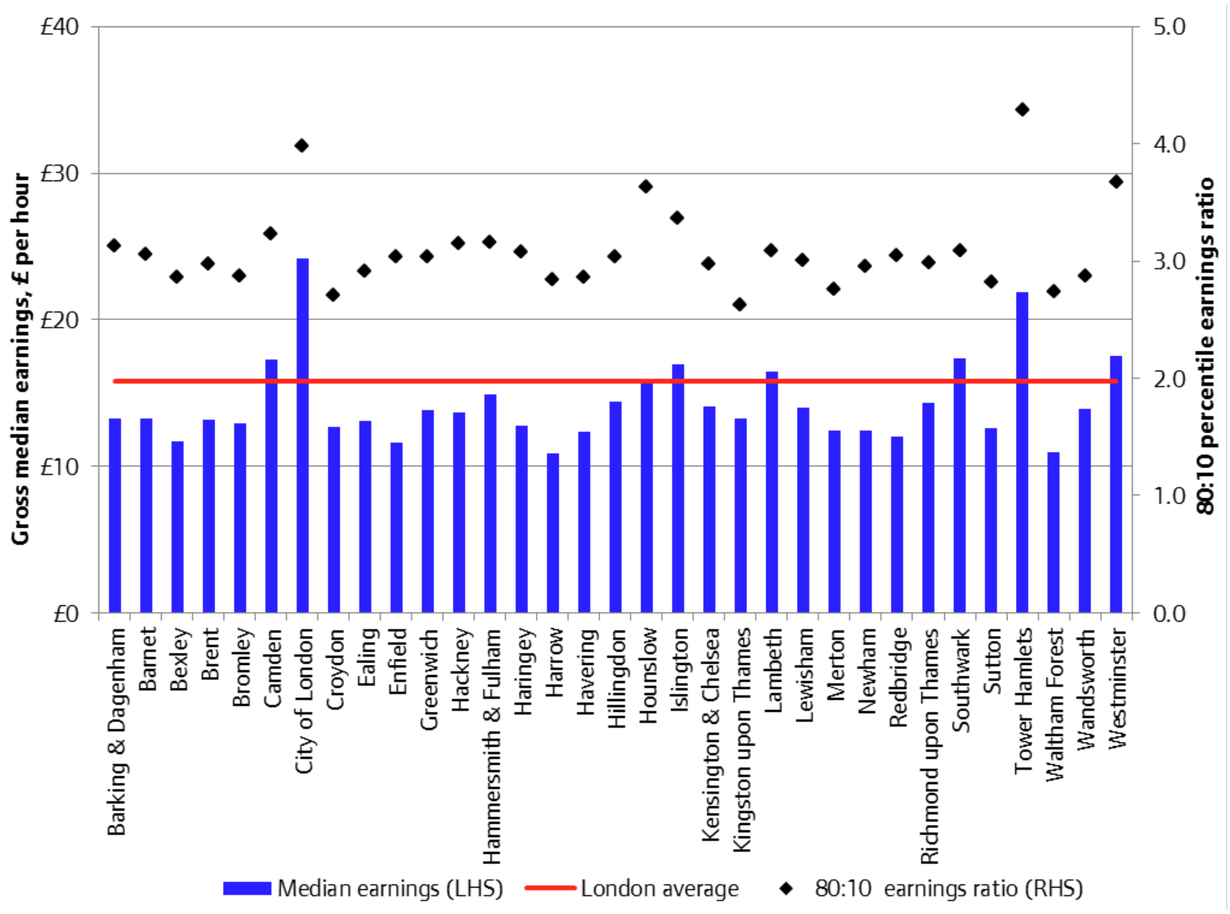
Across London as a whole, median, gross hourly pay for workers in the capital was £15.80 in April 2015. This is just over a third higher than the UK median of £11.80 per hour. Average hourly earnings in inner London (£17.50) – home to large concentrations of highly specialised, high-value industries – are significantly higher than those in outer London (£13.15).

At local authority level, the differences in average earnings are even greater. Figure 4.1 shows that while median gross hourly earnings were £24.20 per hour in the City of London, the average wage in neighbouring Hackney was £13.65. Average gross hourly earnings were slightly below the national level (£11.80) in the outer London boroughs of Bexley (£11.70), Enfield (£11.60), Harrow (£10.90) and Waltham Forest (£11.00). The effects of specialised industry to the further West of London are apparent with relatively higher median earnings estimated in Hounslow (£15.90), Hillingdon (£14.40) and Richmond upon Thames (£14.35)[49].

These average earnings levels within different localities can also mask significant variation between different types of worker. As such Figure 4.1 also includes a measure of inequality of workplace earnings by local authority by comparing earnings at the 80th percentile to those at the 10th percentile of earners. The presence of significant dispersion of earnings in the City of London, and Tower Hamlets may indicate that the area is home to sectors demanding highly skilled, specialised labour (for which earnings tend to be higher) as well as less well-remunerated industries. On this measure, earnings differentials among workers are also relatively high in Westminster, Islington, and Hounslow.

[47] Earnings, in the view of the UK Migration Advisory Committee (MAC), serve as 'arguably the best single indicator of the value of skills in an open labour market'. In other words, we would expect the wage on offer to reflect the demand for scarce, specialist skills. Source: MAC, 'Review of Tier 2 migration', January 2016
[48] It should be noted that the data used here is the same data reported in the Economic Evidence Base for London 2016 in order to allow comparisons between the two documents.
[49] Due to the small sample size of the ONS ASHE survey, there is a higher margin for error in smaller areas with less workers. Estimates of average local authority earnings data are rounded to the nearest £0.05.

Figure 4.1: Workers' hourly earnings and earnings inequality by local authority, 2015

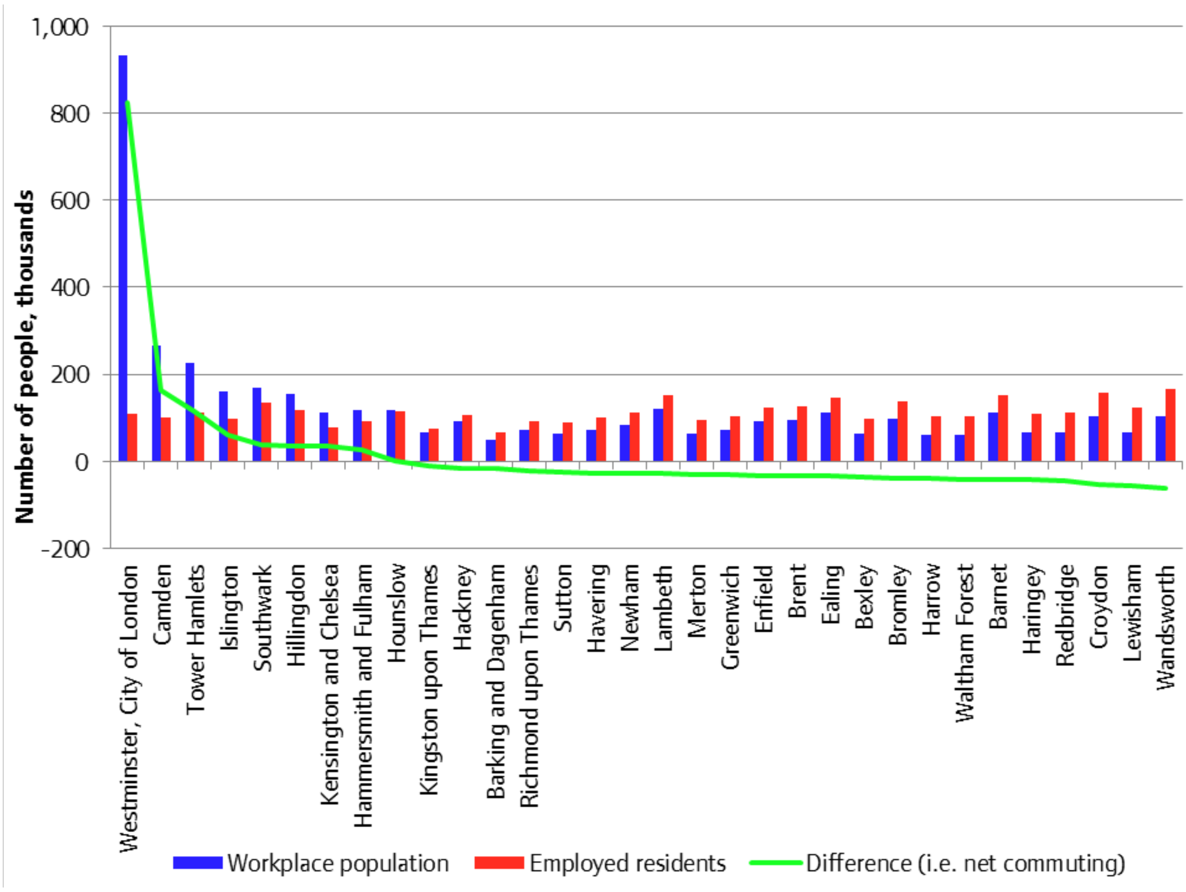


Source: ASHE – ONS, gross hourly earnings, workplace basis, 2015. Note: this includes earnings of full-time and part-time workers, and includes overtime.

4.2 Commuting patterns

Data from the Census 2011 suggested that 795,100 people aged 16 years and over work – but do not live – in London. This is partly offset by an estimated 273,700 people who live in London but work in other parts of the UK. This means that London sees an overall net inflow of around 521,400 commuters in a working day. At local level, Westminster and the City of London (824,500 people) and Camden (164,100 people) see the largest net inflow of commuters, including those from elsewhere in London. In contrast, Wandsworth sees the biggest net outflow of commuters of around 60,700 people. This can be seen in Figure 4.2 which shows the workplace population and the number of usual residents in employment by borough.

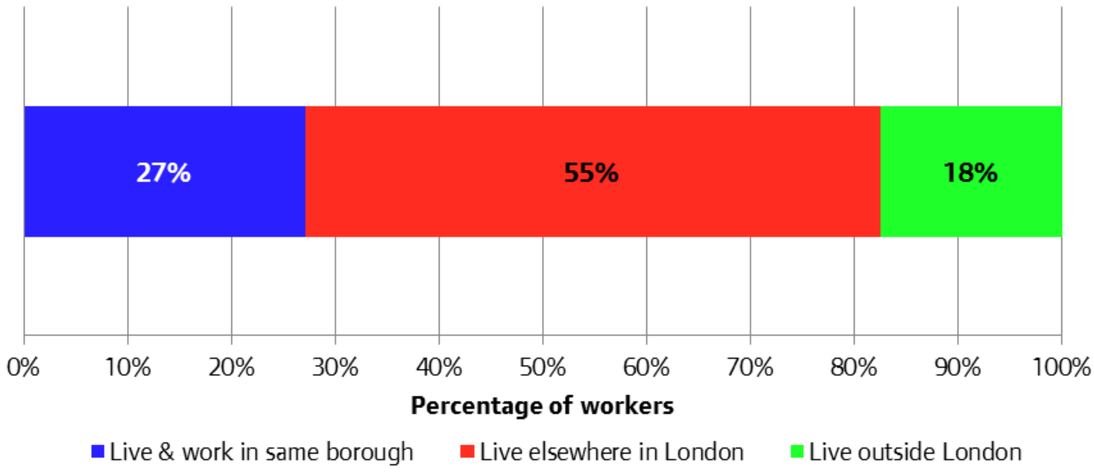
Figure 4.2: Workplace population compared with the employed usual resident population in 2011, 16 years and over



Source: Census 2011 – ONS.

Looking closer at this data, Figure 4.3 shows that on average just 27 per cent of London workers, live in the same borough as their place of work. In contrast, more than half (55 per cent) of London workers either travel in to work from a borough different than their usual residence, while a further 18 per cent commute in from outside London's boundary.

Figure 4.3: Place of usual residence of London workers in 2011

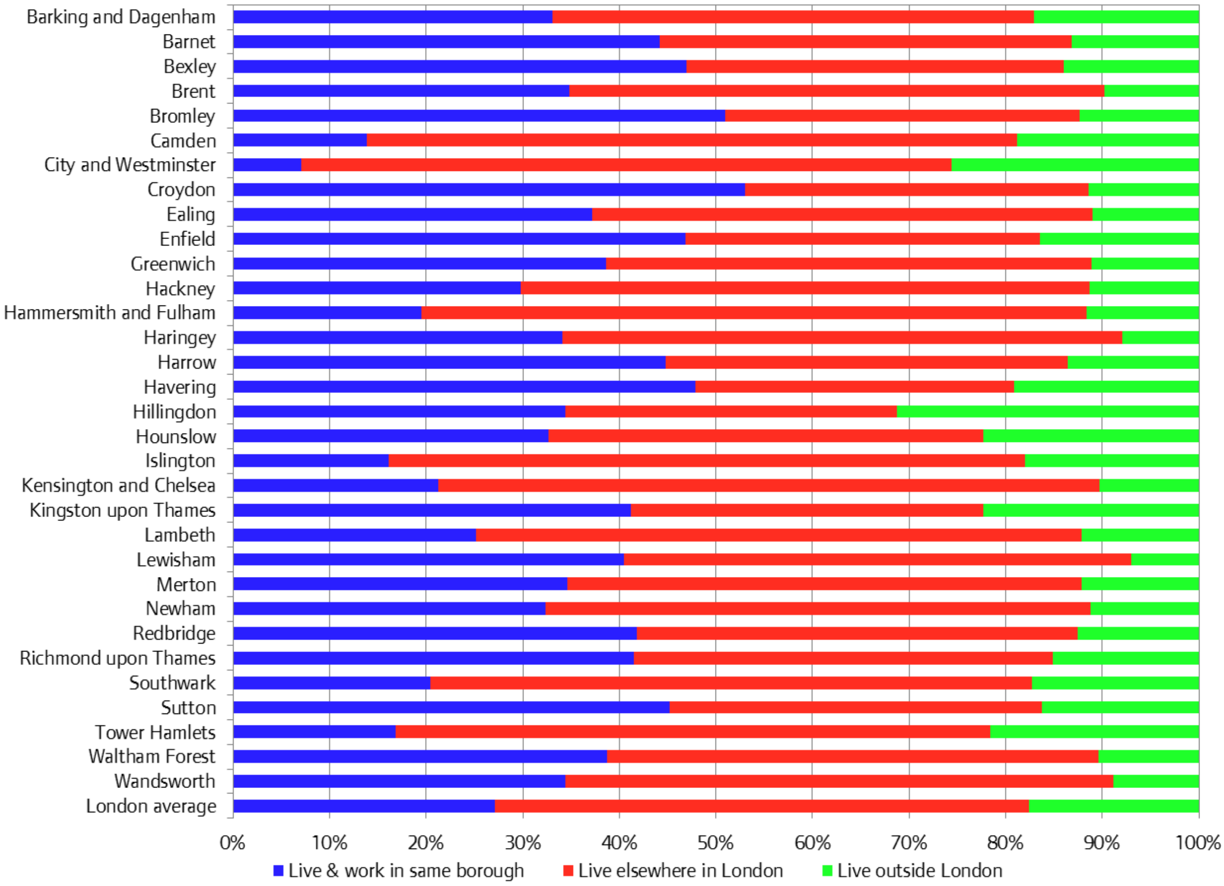


Source: Census 2011 – ONS.

Figure 4.4 shows that this pattern varies across London's local authorities. This shows that less than one in five of workers based in central areas including Camden, the City and Westminster, Hammersmith and Fulham, Islington and Tower Hamlets lived in the same local authority as their place of work at the time of the 2011 Census. As well as drawing in large numbers of workers resident in other parts of London, the City and Westminster, and Tower Hamlets also draw in more than one in five workers from outside London's boundary. In contrast, in Bromley and Croydon more than half of the workers also lived in the same local authority.

It is also notable that in Hillingdon, where around one in three workers lived in the same borough, that this local authority also drew in 31 per cent of its workforce from outside Greater London. Travel to work patterns in Outer London - West and North West and its surrounding areas are considered in further detail in the next section.

Figure 4.4: Place of usual residence of London workers by local authority, 2011



Source: Census 2011 – ONS.

More recent commuting data for 2015 is available from the ONS Annual Population Survey, albeit in less detail. By also looking at the occupational structure of commuters, we can get a sense of the types of workers that are commuting longer distances. Here, we focus on the commuting patterns of non-London residents into inner London to overcome likely border effects. As such, Table 4.1 shows the proportion of those working in inner London by occupation alongside the occupational structure of inner London workers, restricted to those who commute in from outside the capital. This highlights that while more than three in four (76.5 per cent) commuters into inner London are either Managers, Professionals or Associate professionals, these occupations make up only 62.6 per cent of inner London's workforce.

Conversely, those working in inner London in what tend to be more low skilled (and lower earning) positions are less likely to travel from outside the capital to get to their place of work. Workers in elementary occupations, for example, make up around 7.4 per cent of inner London's workforce, but only 2.5 per cent of non-resident commuters are employed in such roles.

Table 4.1: Commuting from outside London to inner London, by occupation, 2015

Occupation	Proportion of total commuters from outside London to inner London	Proportion of inner London workforce
Managers, directors and senior officials	20.4%	14.4%
Professional occupations	30.7%	27.1%
Associate professional and technical occupations	25.4%	21.1%
Administrative and secretarial occupations	9.9%	10.1%
Skilled trades occupations	6.0%	6.0%
Caring, leisure and other service occupations	1.2%	5.2%
Sales and customer service occupations	1.9%	5.5%
Process, plant and machine operatives	2.2%	3.1%
Elementary occupations	2.5%	7.4%

Source: ONS Annual Population Survey, 2015

4.3 Case study: West London and beyond

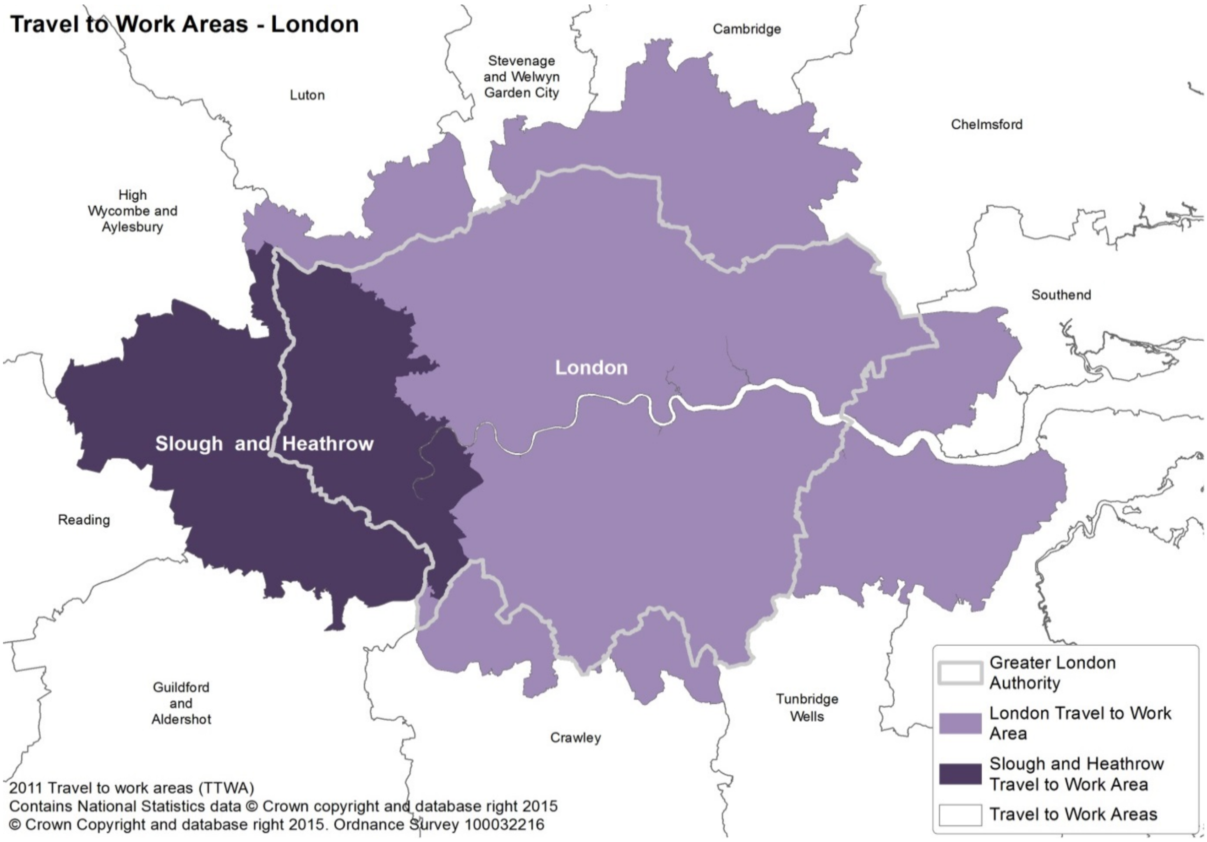
A closer reading of the data presented in Sections 2.2 and 2.3 reveals a greater concentration of jobs and areas of industry specialisation in Outer London - West and North West. This industrial specialisation more closely echoes the specialised nature of its inner London neighbour, in contrast to the less specialised sub-regions seen in the rest of outer London, which exhibit an industrial structure more in line with the national average.

Economic activity in the area is clustered around the major transport hubs which link London to the rest of the country and the wider world, including Heathrow and several motorways. As a result, like inner London, the area and its surrounding agglomerations (Staines, Slough, Maidenhead, etc) provide significant employment opportunities, drawing in workers from further afield, sometimes going against the general commuting flows towards the CAZ and NIOD.

Based on ONS analysis of commuting patterns in the 2011 Census, the 'Slough and Heathrow' area was determined to be its own 'travel to work area or TTWA – distinct from the wider London travel to work area (see Map 4.1). This means that "at least 75 per cent of the area's resident workforce work in the area and at least 75 per cent of the people who work in the area also live in the area"[50].

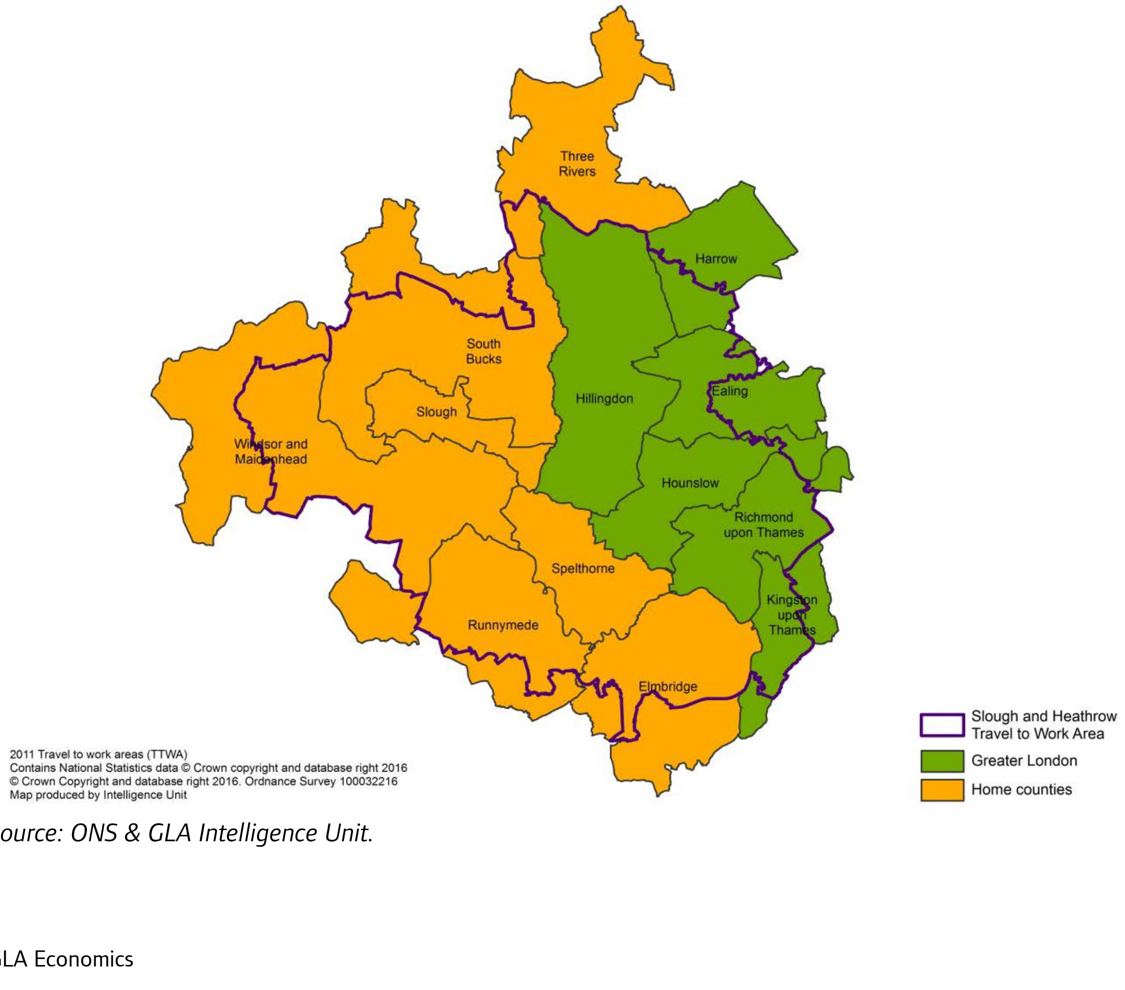
[50] Source: ONS, 'Travel to work area analysis in Great Britain: 2016', 1 September 2016.

Map 4.1: London and Slough and Heathrow's TTWA, 2011



Source: ONS & GLA Intelligence Unit

Map 4.2: Local authorities covered by the Slough and Heathrow TTWA, 2011



Source: ONS & GLA Intelligence Unit.

In order to draw comparisons with other parts of London, this section describes the industrial structure and nature of economic activity in the TTWA to the west of London, which falls within the neighbouring home counties of Surrey, Buckinghamshire and Hertfordshire, excluding the areas which overlap with Greater London's boundary – highlighted in green in Map 4.2.

Outside London, there were an estimated 336,000 employee jobs in the Slough and Heathrow TTWA[51] in 2014, with Slough UA and Windsor and Maidenhead UA together responsible for around 46 per cent of the jobs in the area. Figure 4.5 provides an overview of the economic structure of this (non-London) part of the TTWA, showing also the local authorities contribution to the total numbers of jobs by industry.

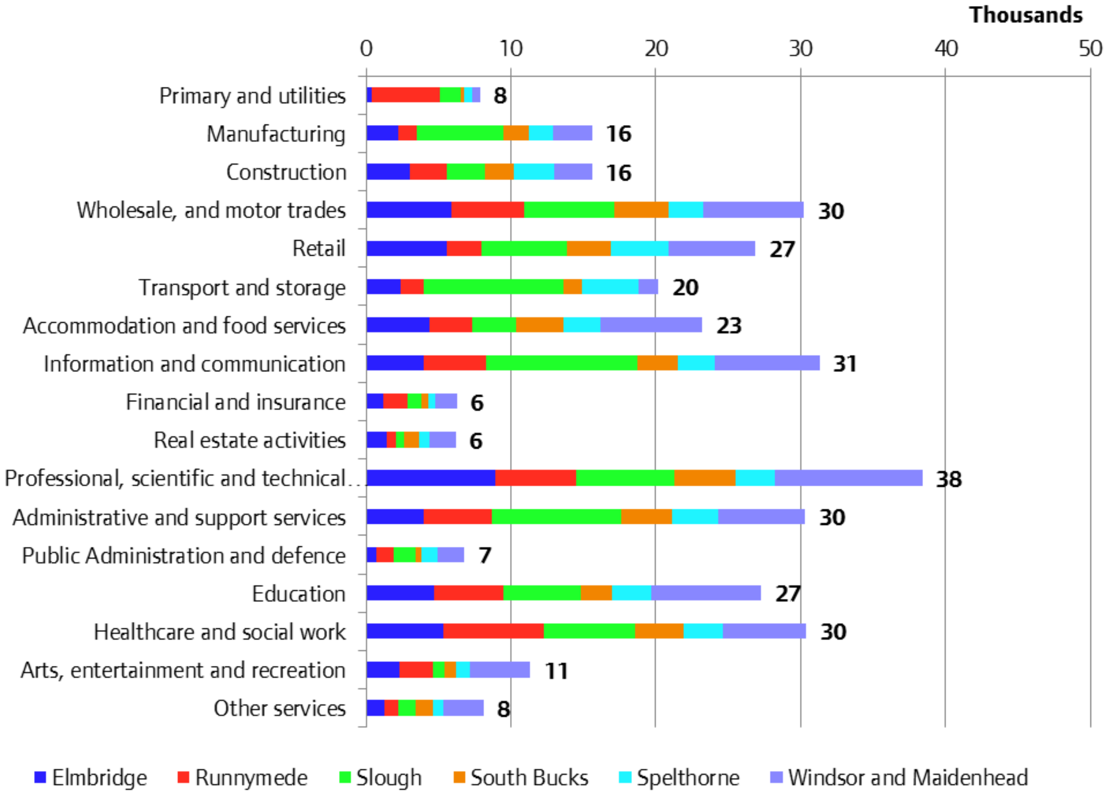
This reveals that the largest employing industry in the area is Professional, scientific and technical activities (38,400 jobs), with Elmbridge and Windsor and Maidenhead responsible for around 50 per cent of these. The second biggest employing sector in the area is Information and Communication (31,400 jobs), with Slough accounting for around one in three (10,400 jobs) in the sector in this part of the TTWA. Together these two sectors account for more than one in five jobs in the area.

While the job numbers here are dwarfed by those associated with Outer London - West and North West and inner London areas (see Section 2.2), the large concentration of jobs in the sectors of Professional services and Information and communication suggests that the area may act as a further, albeit smaller, pull for employment and business activities in the region.

The three next biggest employing sectors in the area are: Healthcare and social work (30,400 jobs), Wholesale and motor trades (30,200 jobs), and Administrative and support services (30,200 jobs) – likely driven by the proximity and connectivity to major transport infrastructure as well as large, local populations and access to millions of potential customers in London.

[51] These include the local authorities of: Elmbridge, Runnymede, Slough UA, South Bucks, Spelthorne and Windsor and Maidenhead UA. Although a small part of Three Rivers in Hertfordshire also falls within the TTWA, this is excluded from the analysis that follows since there is only limited employment in this small area, with the exception of a Thames Water facility and offices for Skanska (construction) and Renault-Nissan (automotive) at Maple Cross.

Figure 4.5: Jobs by industry in the Heathrow and Slough TTWA local authorities outside London



Source: BRES 2014 – ONS. Note: figures are rounded to the nearest thousand. Note: excludes Three Rivers LA, only a small part of which is include in the Census 2011 Heathrow and Slough TTWA.

As Hillingdon, Hounslow and Richmond in Outer London - West and North West attract a number of major employers (see Section 2.3), the neighbouring local authorities outside of London are also home to a number of head offices and major sites of employment.

A number of examples of the types of employers or employment sites operating in these areas can be found. Around the Slough trading estate, for example, a number of multinational companies have their corporate UK offices or other facilities located in the area including: Akzo Nobel (chemicals), Blackberry and Telefonica (telecoms), Mars UK (confectionary), etc.

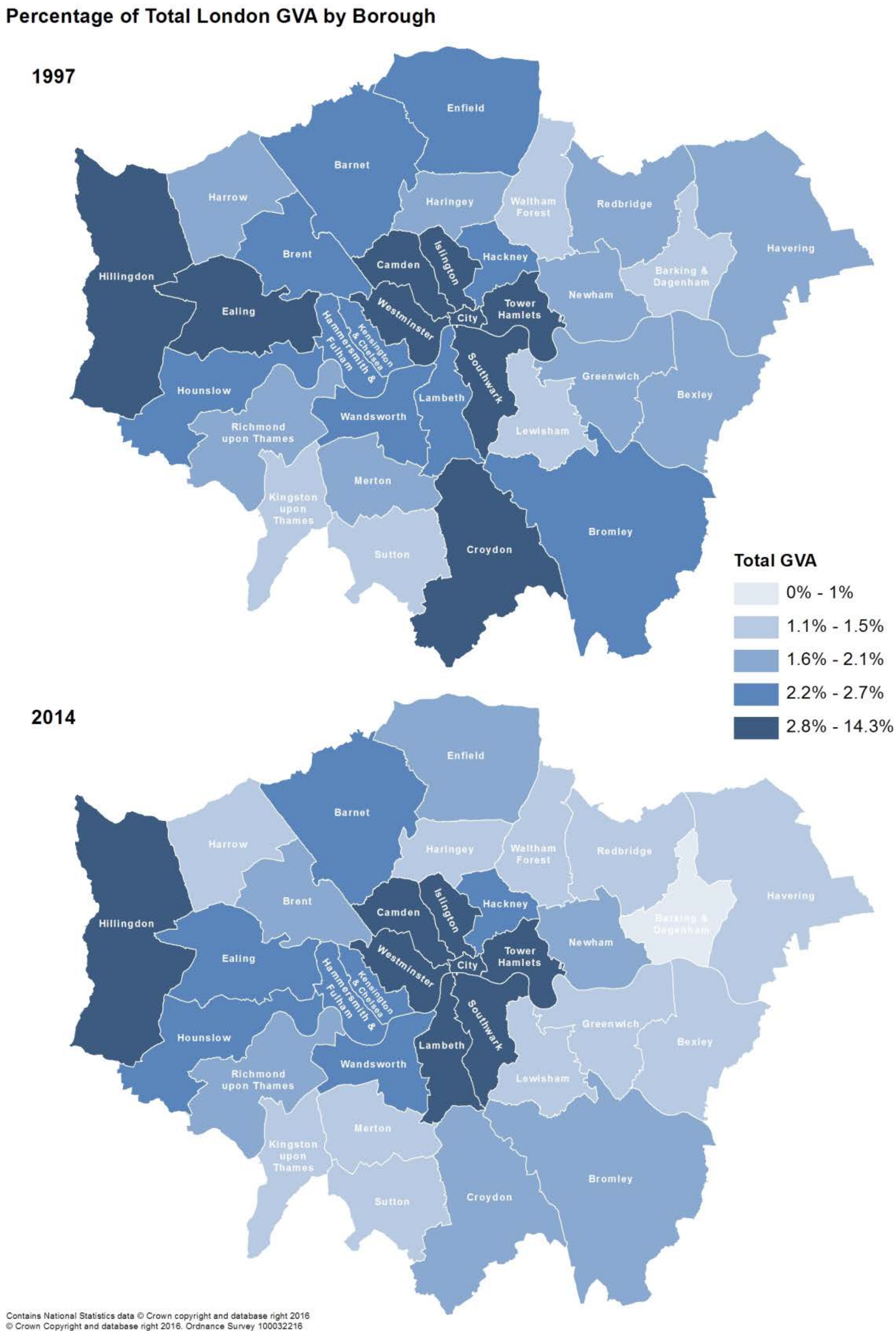
Further to the South, Staines in Spelthorne is home to offices for Bupa (healthcare), Wood Group Kenny (engineering) and Siemens (construction), while Sony Europe, Toshiba and Samsung (electronics), Procter and Gamble (consumer goods), Compass Group (contract food services), Thorpe Park (entertainment) and Thales Group (Defence) all have sites/offices located in the surrounding areas near to the M3/M25 within Elmbridge and Runnymede local authorities. Other major sites of employment in the area include Pinewood Studios in South Bucks, Hutchinson 3G (telecoms) in Maidenhead and Centrica (Gas) headquarters by Windsor.

5 Appendix

Appendix to Chapter 2 – The structure of London's local economies

Map A1 shows the evolution of the importance of individual local authorities in London to London's total GVA. As can be observed, although all local authorities increased their GVA over this period, between 1997 and 2014 Inner London local authorities generally increased their share of London's economy while Outer London local authorities generally reduced their share of London's total GVA.

Map A1: Contribution of London's local authorities to total output in London in 1997 and 2014



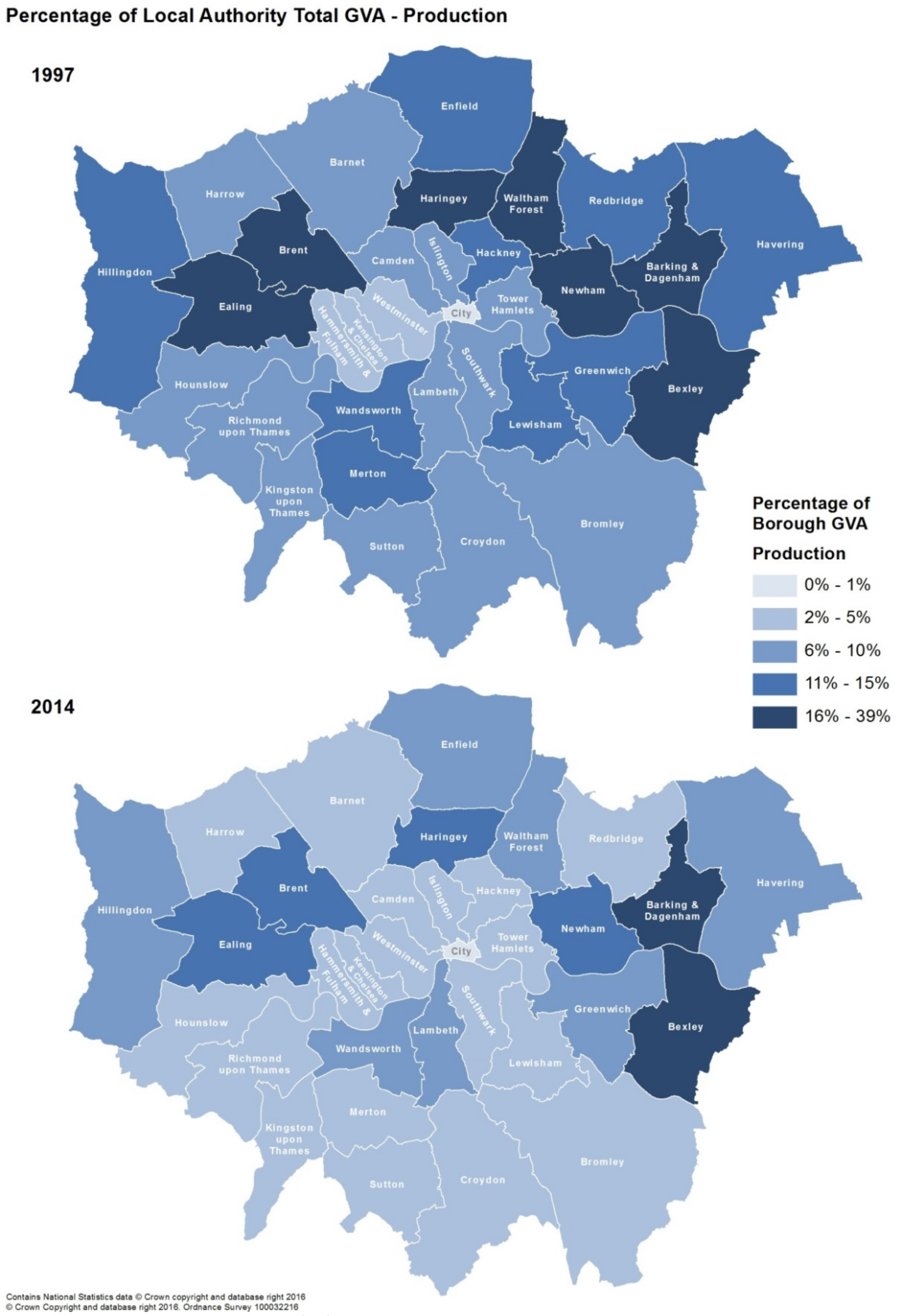
Source: ONS and GLA Economics calculations

Maps A2 to A10 show the varying importance of the broad sectors of economy to total output in London's local authorities. Note that the scale used varies between maps.

Map A2 shows the general decline in importance of Production to the total output of individual local authorities in London between 1997 and 2014, except for in part in Barking and Dagenham and Bexley.

It should however be noted that the nominal value of output in Production may well have increased over this period in the given local authorities, this result could therefore just reflect that total output in these local authorities may have increased at a faster rate leading to a relative decline in the importance of this sector in certain local authorities.

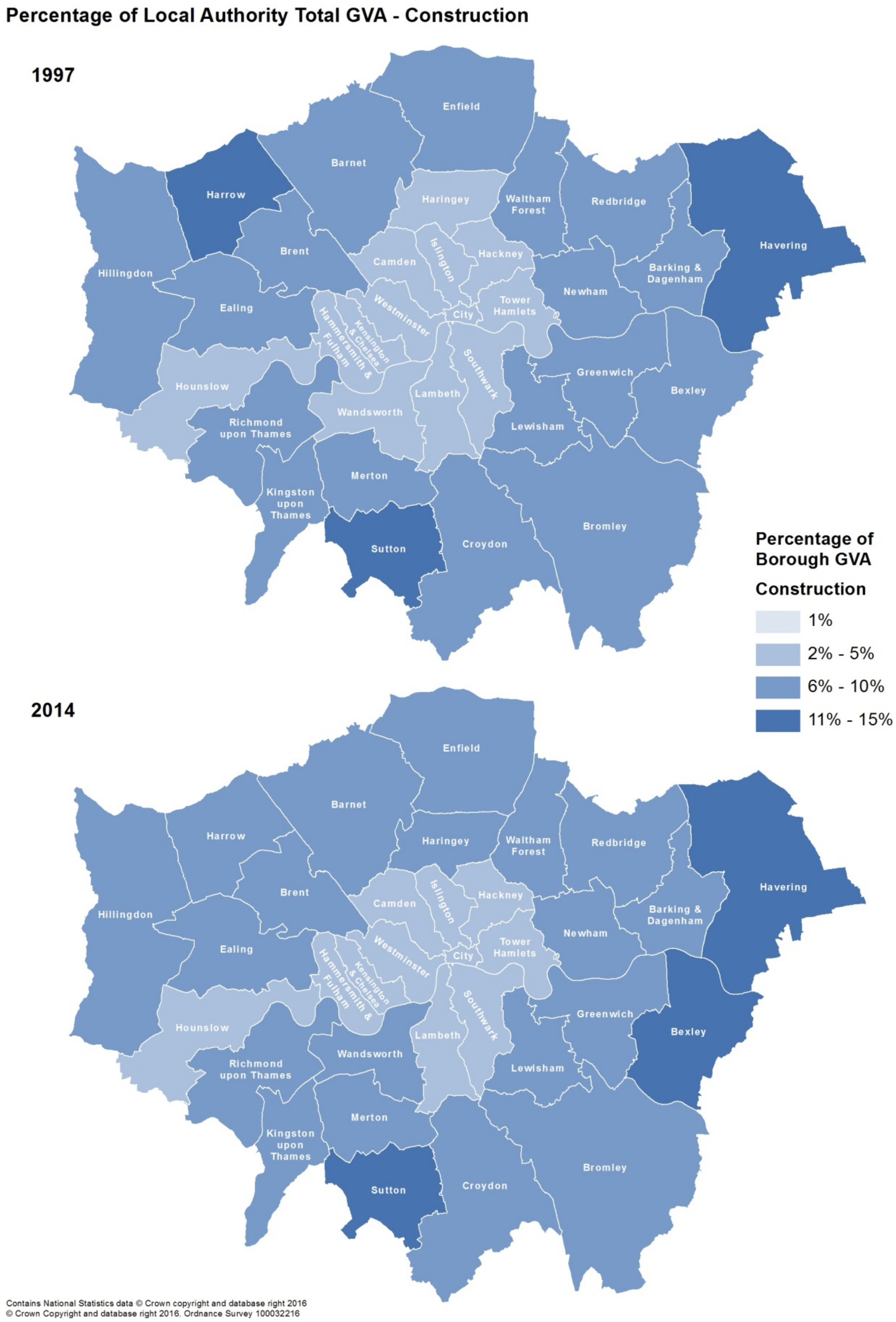
Map A2: Output in Production by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A3 shows that in general Construction has become less important to the total output of Harrow and more important in Bexley between 1997 and 2014.

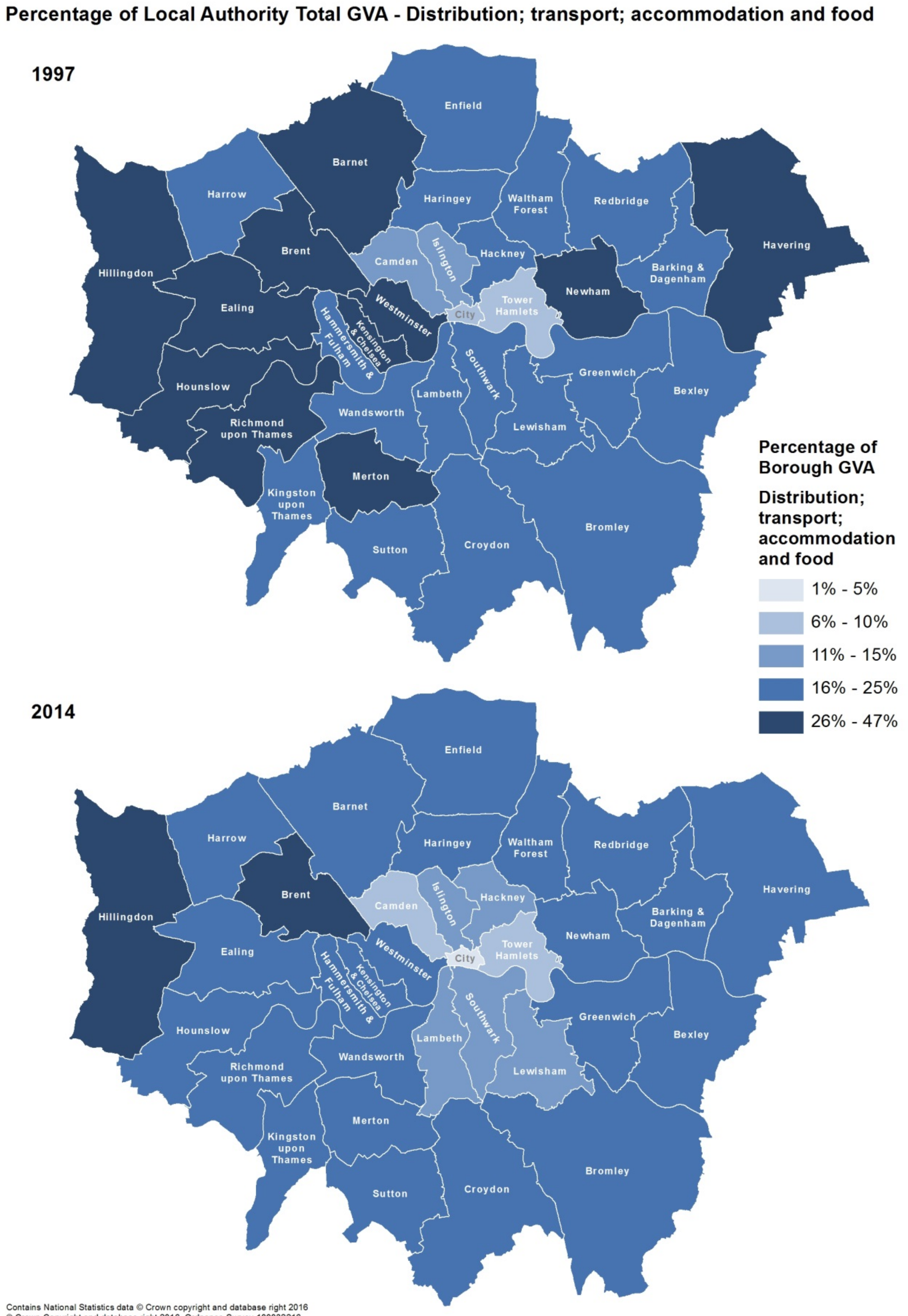
Map A3: Output in Construction by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A4 shows Distribution, transport, accommodation and food has generally become less important to London's local authorities total output over the recent past with a couple of exceptions.

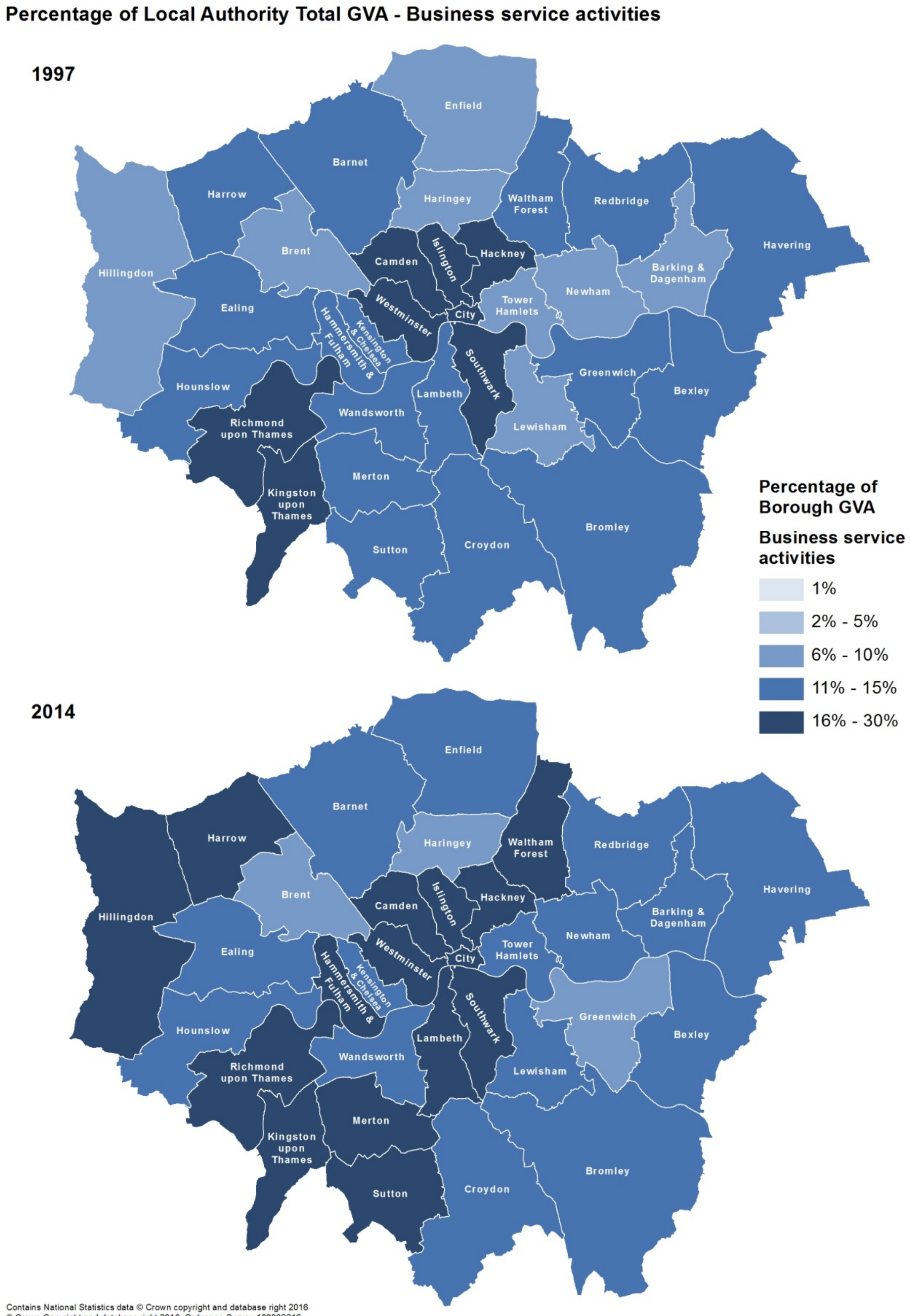
Map A4: Output in Distribution, transport, accommodation and food by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A5 shows that Business services have generally maintained their importance or become more important to the total output of London's individual local authorities between 1997 and 2014.

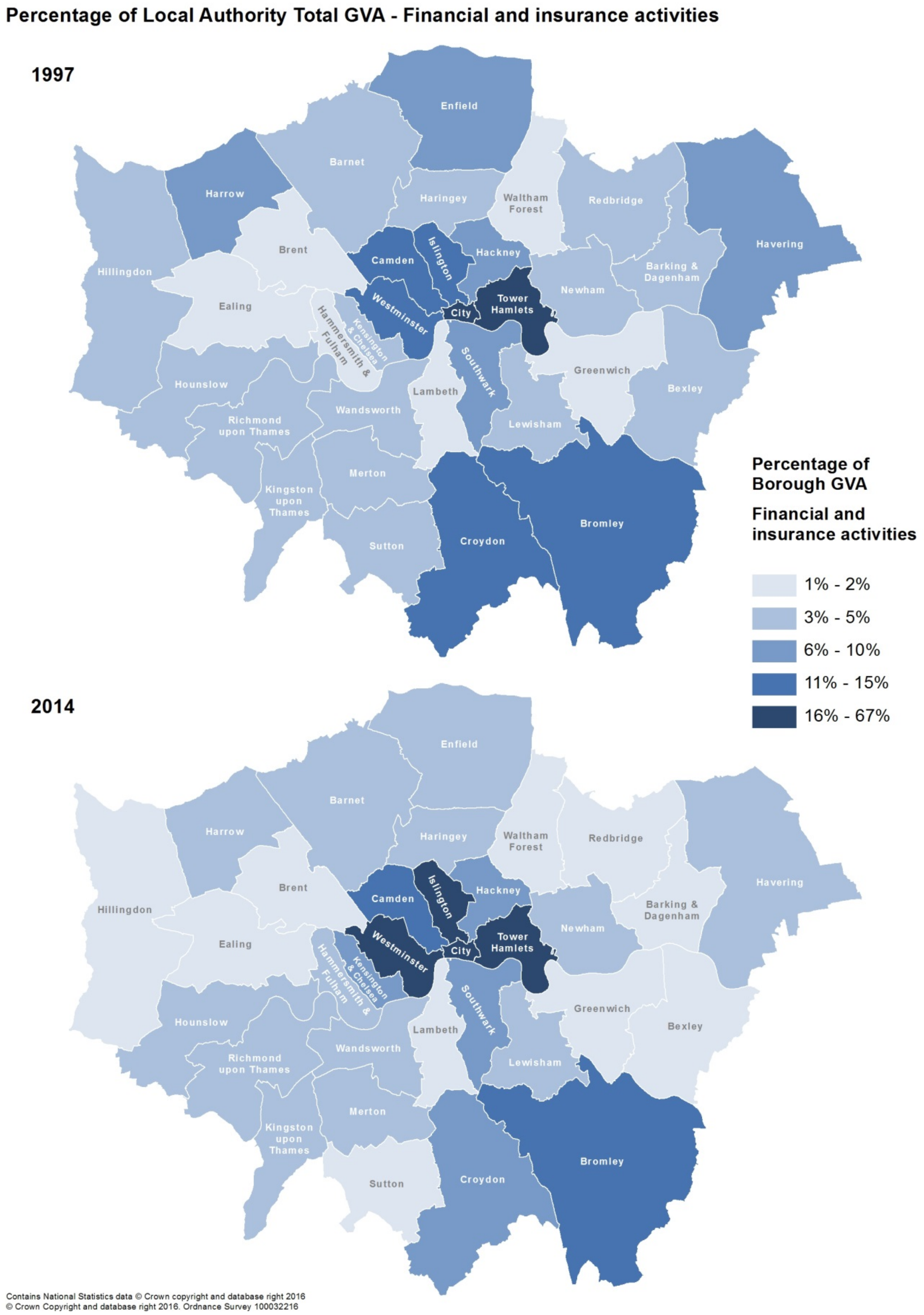
Map A5: Output in Business services by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A6 shows that Financial services has become more important to the total output of Islington and Westminster over the period between 1997 and 2014.

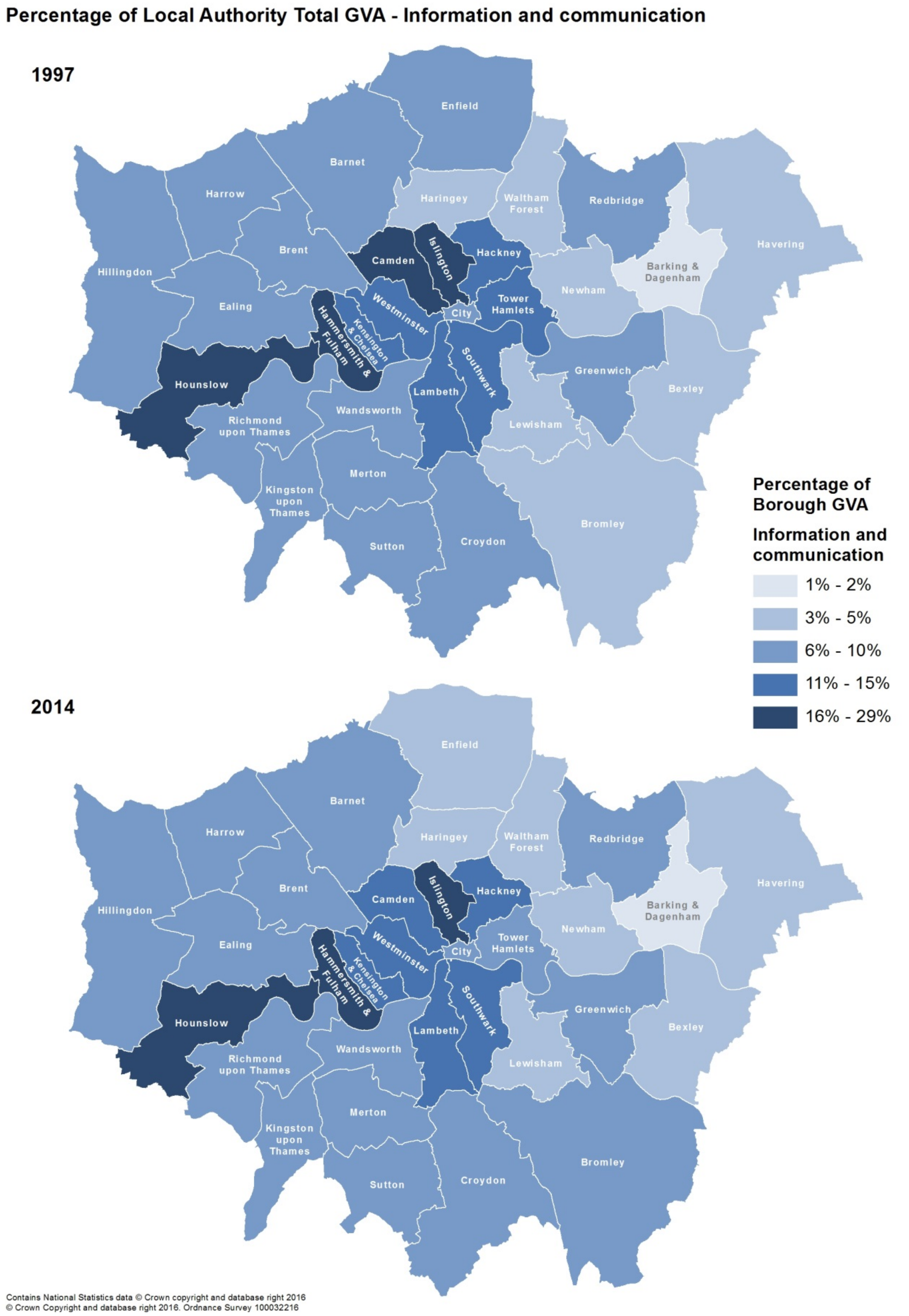
Map A6: Output in Finance and insurance activities by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A7 shows the continuing importance of Information and communications to output in Hammersmith and Fulham, Hounslow, and Islington.

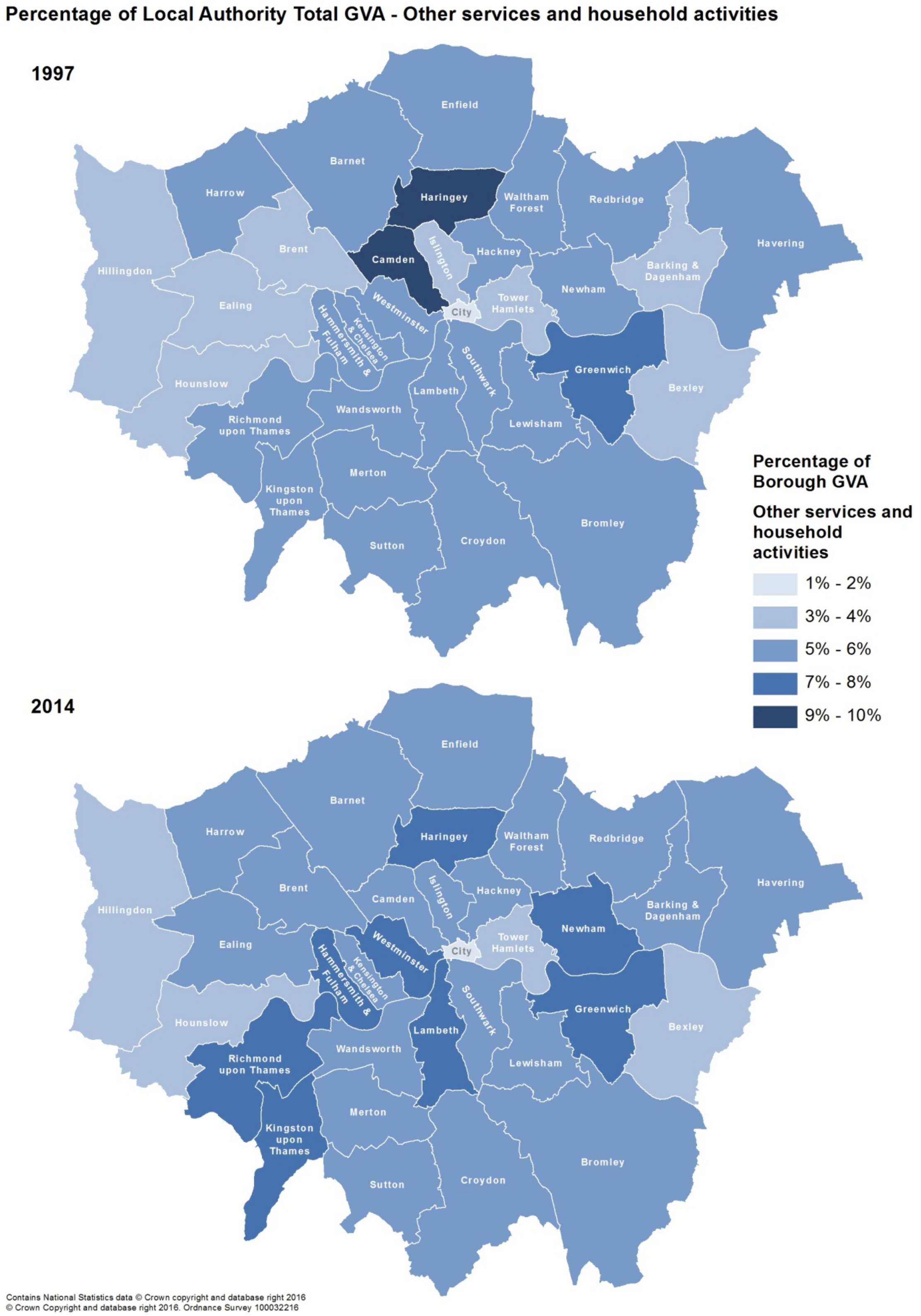
Map A7: Output in Information and communication by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A8 shows that the importance of Other services and household activities to total output in London's local authorities over time has been variable depending on the given LA.

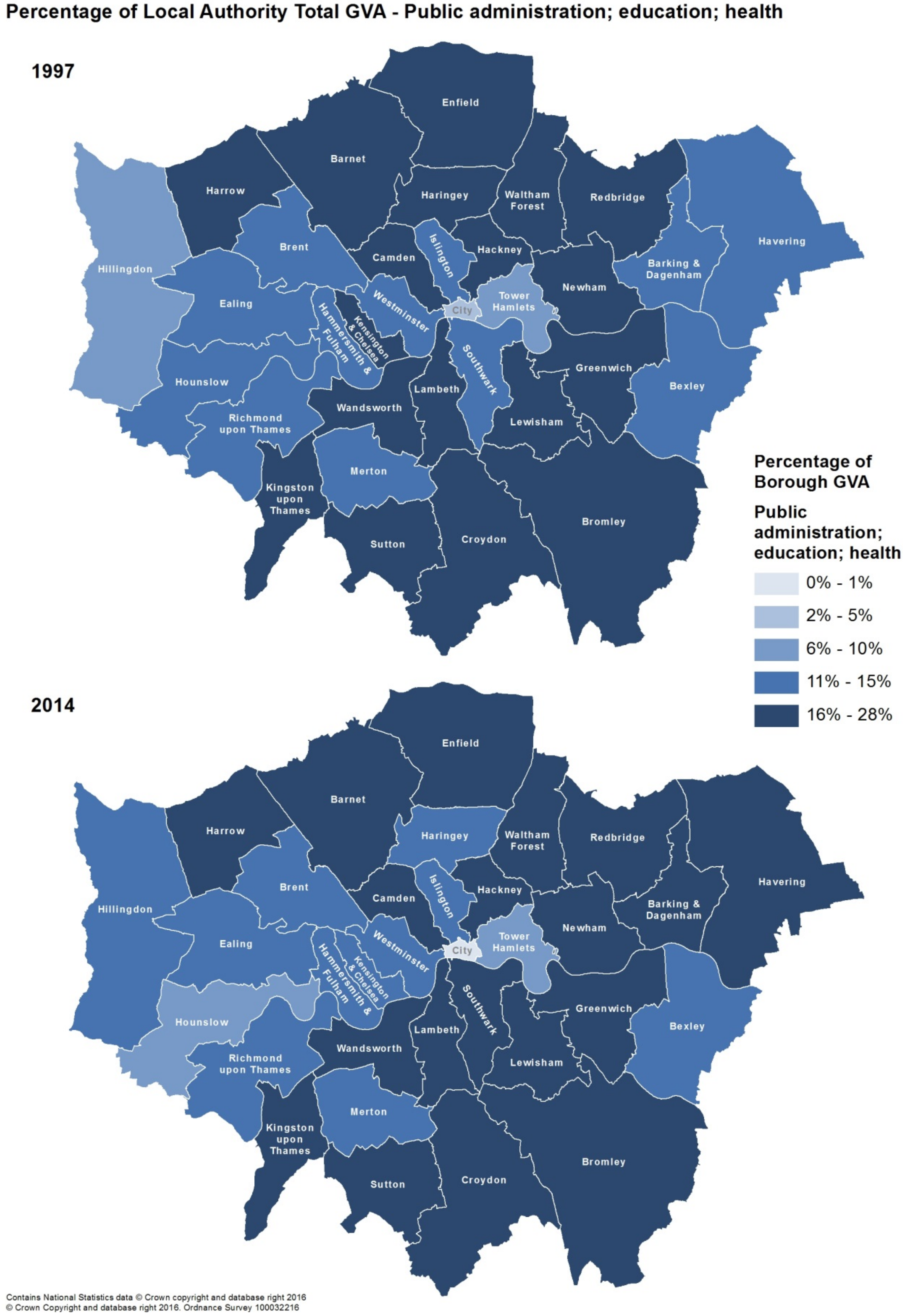
Map A8: Output in Other services and household activities by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Map A9 shows the relative continued importance of Public administration, education and health to total output in most of London's local authorities over the recent past.

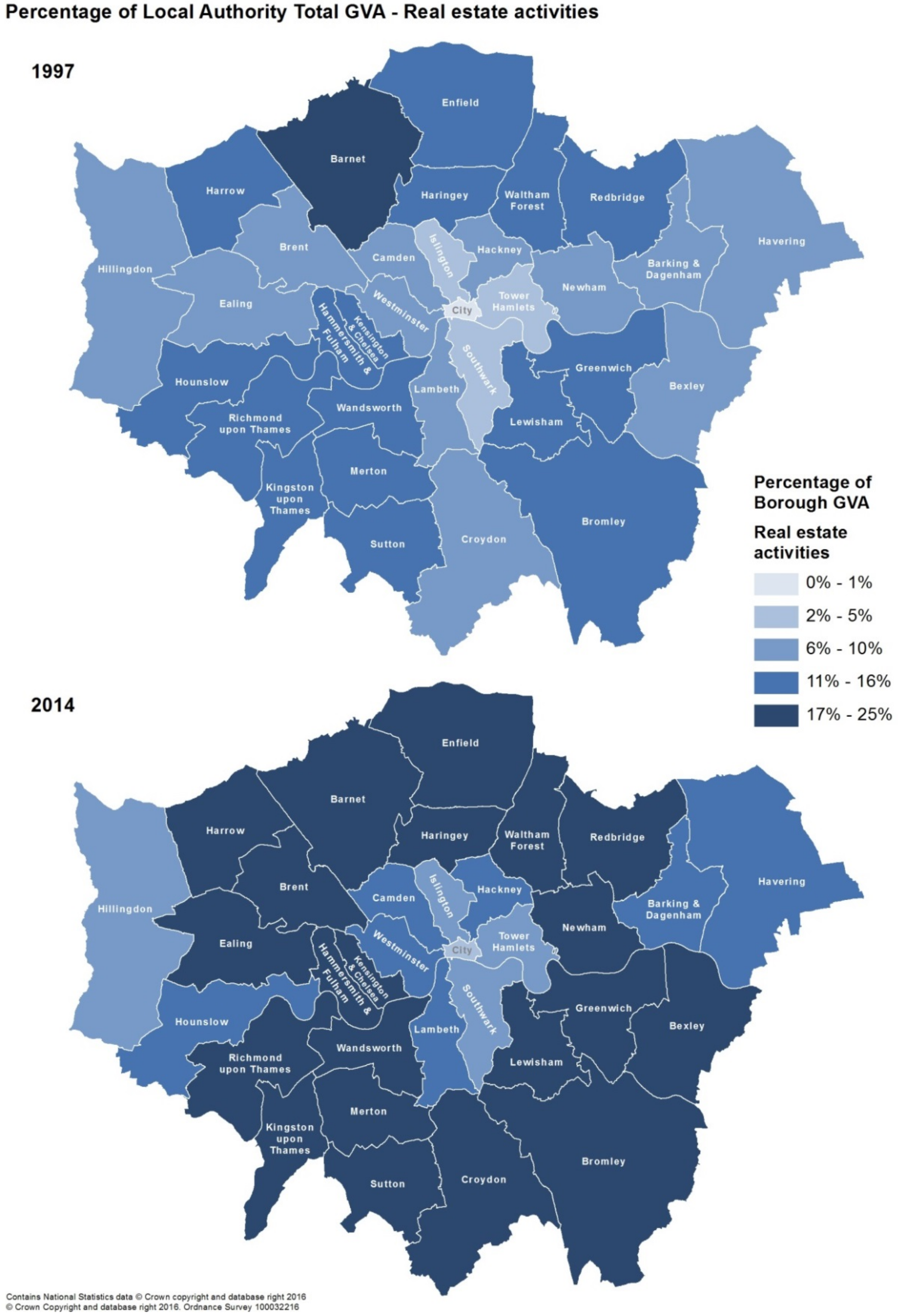
Map A9: Output in Public administration, education and health by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Finally Map A10 shows the growing importance of Real estate activities to the total output of a number of London's local authorities.

Map A10: Output in Real estate activities by local authority as percentage of local authority GVA in 1997 and 2014



Source: ONS & GLA Economics calculations

Appendix to Chapter 3 – Business location in London

Table A3.1: Number of active enterprises by London local authority, 2009 and 2015

Local authority	Active enterprises		% change, 2009-2015	Active enterprises per 1,000 residents		% change, 2009-2015
	2009	2015		2009	2015	
Inner London	211,365	287,585	36%	60.9	76.3	25%
Camden	25,175	31,385	25%	118.2	130.2	10%
City of London	14,895	26,130	75%	1,993.4	2,982.9	50%
Hackney	11,230	18,510	65%	47.5	68.8	45%
Hammersmith and Fulham	11,850	14,095	19%	65.8	78.6	19%
Haringey	9,315	12,675	36%	37.3	46.5	25%
Islington	14,010	22,110	58%	71.2	97.1	36%
Kensington and Chelsea	12,335	14,350	16%	76.2	91.0	19%
Lambeth	11,360	17,280	52%	38.6	53.3	38%
Lewisham	7,635	10,405	36%	28.2	35.0	24%
Newham	6,160	11,055	79%	21.5	33.2	54%
Southwark	13,240	17,120	29%	47.1	55.4	18%
Tower Hamlets	11,880	18,390	55%	49.4	62.3	26%
Wandsworth	15,270	18,695	22%	51.0	59.4	17%
Westminster	47,010	55,385	18%	216.7	228.6	6%
Outer London	190,950	253,725	33%	42.7	48.8	14%
Barking and Dagenham	3,895	6,560	68%	21.9	32.5	48%
Barnet	19,920	26,190	31%	57.6	69.0	20%
Bexley	6,900	9,075	32%	30.2	37.5	24%
Brent	12,475	15,745	26%	41.8	48.6	16%
Bromley	12,880	15,695	22%	42.0	48.3	15%
Croydon	12,090	15,540	29%	34.3	41.0	20%
Ealing	14,150	18,700	32%	42.9	54.5	27%
Enfield	10,490	13,925	33%	34.7	42.4	22%
Greenwich	6,695	10,060	50%	27.5	36.6	33%
Harrow	11,050	15,155	37%	47.3	61.3	30%
Havering	8,100	10,115	25%	34.6	40.6	17%
Hillingdon	10,090	13,505	34%	38.0	45.4	19%
Hounslow	10,090	13,910	38%	41.5	51.8	25%
Kingston upon Thames	7,620	8,970	18%	48.4	51.7	7%
Merton	8,800	12,070	37%	44.4	59.0	33%
Redbridge	9,435	14,595	55%	34.9	49.2	41%
Richmond upon Thames	12,170	14,185	17%	66.0	72.8	10%
Sutton	6,915	8,710	26%	36.7	43.5	18%
Waltham Forest	7,185	11,020	53%	29.0	40.6	40%
Greater London	402,315	541,310	35%	50.7	62.4	23%
UK	2,341,900	2,672,025	14%	37.6	41.0	9%

Sources: ONS Business Demography 2015 and ONS mid-year population estimates.

Table A3.2: Business enterprise births, deaths and net start-up rate by LA, 2015

Local authority	Enterprise births	Enterprise deaths	Net start-up rate
Inner London	55,295	30,785	8.5%
Camden	5,445	3,110	7.4%
City of London	4,965	2,270	10.3%
Hackney	4,105	1,870	12.1%
Hammersmith and Fulham	2,560	1,595	6.8%
Haringey	2,350	1,300	8.3%
Islington	5,470	2,295	14.4%
Kensington and Chelsea	2,355	1,390	6.7%
Lambeth	3,425	2,480	5.5%
Lewisham	2,045	1,140	8.7%
Newham	2,860	1,285	14.2%
Southwark	3,135	1,790	7.9%
Tower Hamlets	3,920	2,355	8.5%
Wandsworth	3,600	1,995	8.6%
Westminster	9,060	5,910	5.7%
Outer London	45,625	26,045	7.7%
Barking and Dagenham	1,665	685	14.9%
Barnet	4,460	3,090	5.2%
Bexley	1,605	825	8.6%
Brent	2,895	1,660	7.8%
Bromley	2,340	1,445	5.7%
Croydon	2,695	1,585	7.1%
Ealing	3,420	1,865	8.3%
Enfield	2,520	1,515	7.2%
Greenwich	2,260	1,075	11.8%
Harrow	2,605	1,530	7.1%
Havering	1,720	930	7.8%
Hillingdon	2,310	1,335	7.2%
Hounslow	2,525	1,440	7.8%
Kingston upon Thames	1,370	825	6.1%
Merton	2,225	1,170	8.7%
Redbridge	3,150	1,740	9.7%
Richmond upon Thames	2,025	1,250	5.5%
Sutton	1,345	905	5.1%
Waltham Forest	2,490	1,175	11.9%
Greater London	100,920	56,830	8.1%
UK	383,075	252,040	4.9%

Source: ONS Business demography 2015. Note: net start-up rate is calculated by taking the difference between births and deaths and dividing by the total population of active businesses.

GLAECONOMICS

Greater London Authority
City Hall
The Queens Walk
London SE1 2AA

Tel 020 7983 4922
Fax 020 7983 4674
Minicom 020 7983 4000
Email glaeconomics@london.gov.uk

http://www.london.gov.uk/gla-economics-publications

MAYOR OF LONDON