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The changing spatial nature of business and employment in London

Trends Business Research Ltd

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The changing spatial nature of business and employment in London

For GLA Economics

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1. Executive Summary

In September 2015, GLA Economics commissioned TBR to undertake quantitative research and produce a report on the changing spatial nature of business in London. The output of this research is to contribute to an economic evidence base, which can inform future strategy development within the GLA Group.

The brief sought to address three questions:

- Has London witnessed changes in the types of activity that have taken place across different parts of the capital over time?
- Have businesses that have been in existence for a period of time grown in London, moved to different parts of London, or migrated outside of London to the Greater South East (GSE) or outside?
- Has London attracted business activity from other areas of the UK, have these been expansions or has London replaced other locations within the UK as the basis for economic activity in certain sectors?

This document presents the key findings from the research. The full analysis is contained within a suite of 12 Microsoft Excel workbooks. Each workbook deals with a single topic that follows the structure of the report. These provide a wealth of information that may be used to support a refresh of the Mayor's principal strategies.

1.1 Structure of the report

The first part of the report provides a context for the work and introduces the way the material is presented along with the rationale behind the analysis.

The questions set out in the brief cannot be answered simply and the responses need to take account of numerous factors and corresponding analysis. Section 3 links the questions to the analysis with the aim of aiding readability and providing relevance for the work undertaken.

The research utilised TBR's in-house database of UK businesses. Details of the data, definitions of the key metrics being investigated and the manner in which the data are presented are set out in section 4.

Sections 5 to 12 present the results of the research and analysis that were undertaken. These are grouped around three core themes: firm start-ups and closures, firm migration and geographical clustering.

Section 5 provides some headline information about London against which to consider the subsequent analysis. Section 6 considers the issue of firm creation and destruction with a focus on churn as well as independent start-ups and subsidiaries. This is followed in section 7 by a review of firm migration into and out of London. Section 8 looks at the movement and growth of established firms, defined as those over five years old. A similar review of firms by age band comes next, in section 9. In section 10, we investigate firm specialisation and how places appear to attract firms of a similar nature. This is developed further in section 11 which assesses the co-location of firms, either from the same or complementary sectors. Finally, in section 12 we present information, including maps, on specific concentrations of firms and employment across London.

The appendix contains additional material that readers may wish to reference. We emphasise that the body of work is significantly greater than is presented in this report, with the accompanying workbooks containing further data and analysis. Limitations of time and resource meant that, in some cases, sample analysis was undertaken only, eg on a single or small number of locations or sectors. The accompanying data allows the analysis to be extended to cover all relevant areas.

1.2 Methods

The analysis focuses on investigating a number of key metrics. These are:

- Firm start-ups or births, which can be classified as either independent or as subsidiaries, ie they have a corporate parent or owner.
- Firm closures or deaths.
- Churn, a composite measure defined as the sum of start-ups and closures and which provides an indication of economic dynamism.
- Firm migration, the relocation of existing firms from one administrative location (usually local authority) to another.
- Clustering, the phenomenon of firms co-locating to take advantage of concentrations of businesses or local facilities.

In order to undertake this work we needed access to a longitudinal database of UK businesses. This would allow us to track the location and performance of businesses over time. This meant that most official datasets were discounted in that they are either survey-based or have restricted access, eg, IDBR/BSD and which the project timescales precluded using. TBR's own database of UK businesses, called TCR, was particularly well suited as it tracks back to 1998 and has good coverage of the UK population of businesses. TCR also has the advantage of including small firms that fall below the VAT threshold or who do not operate PAYE schemes. The underlying data to TCR are supplied by Dun & Bradstreet on a six monthly cycle.

We note that as there can be delays in reporting new start-ups, the analysis is restricted to the period up to 2012-13, rather than 2013-14.

The migration analysis was undertaken on the basis of postcode changes. Thus firms which reported a change in postcode were deemed to have migrated away from their previous location.

The spatial analysis considered London and three sub-geographies:

- Inner London
- Outer London
- A composite area comprising the Central Activities Zone (CAZ) and the Northern Isle of Dogs (NIOD)

The analysis covers the period 1998 to 2013. Data have been presented using two timelines. For charts showing an index, we have used a timeline starting in 1998 and running to 2012-13. For the first three periods (1998-2001, 2001-2004 and 2004-2007) the data cover three years, thereafter (2007-2008 to 2012-2013) the data are annual. For charts showing absolute data, we have presented annual data from 2007-2008 to 2012-2013.

1.3 Headline findings

While the work is intended to provide an evidence base to support the development of strategies and policies, we have been able to draw out a number of key findings. These are presented below.

1.3.1 Start-ups, closures and churn

The analysis of start-ups, closures and firm migration indicate that until 2008-09, London saw a significant net gain in new firms. Since then, gains and losses have been relatively evenly matched subject to year on year volatility, though, on the whole, gains still exceed losses. Thus, new firm births plus firms migrating into London exceeded the number of firms which closed or moved out up to 2008-09, when the two converged at a rate of around 70,000 firms per annum or 10-12% of the total firm stock. Since then gains have generally been greater than losses.

In terms of employment associated with these businesses, a similar pattern is seen. Gains and losses have plateaued at around 300,000 each per annum. These changes in employment each comprise some 5% of total employment for London, representing a churn rate of 10%.

While employment has grown in London, the number of firms has increased more rapidly, resulting in the average size of each business falling from around 13 employees in 1998 to about eight in 2013. This holds for all the sub-geographies and largest business sectors.

When looking at start-ups on their own, London has generated between 60,000 and 80,000 new businesses every year since 2007-08. These represent between 10% and 12% of the total business stock.

Likewise, firm closures have been running at between 40,000 and 60,000 each year, representing between 8% and 10% of the business stock. Thus except for two years, London has been a net generator of new firms and contributed to the overall stock of firms in the UK.

When start-ups and closures are considered together as churn, we see rates increasing steadily from 1998, to peak in 2012-13 at over 20%. Rates are reasonably consistent across London and its sub-geographies. There is a degree of difference between sectors, though these seem to be a function of business cycles, in that patterns are similar but not completely synchronised.

The absolute number of independent start-ups does not appear to have changed significantly between 2007-08 and 2012-13. Inner and outer London generate an almost identical number of new independent start-ups, but firms in inner London were on average larger, so contributed more employment.

The ratio of independent start-ups to new subsidiaries and branches has changed over time. Independent start-ups peaked in 2010/11 when they made up over 90% of all start-ups. Since then subsidiaries have increased as a proportion of all start-ups.

Information & Communication, Health & Social Work and Professional & Scientific, derived the largest proportional increase in stock from new subsidiaries and branches over the period 2008-2013.

The number of new subsidiaries and branches (firms with a corporate owner) fell dramatically (by around 80%) between 2007-08 and 2010-11 and had nearly recovered by 2012-13. New subsidiaries and branches now represent an increasing proportion of all start-ups. This is even more pronounced when reviewing associated employment. New subsidiaries and branches are, on average, significantly larger than independent start-ups.

1.3.2 Firm migration

Overall, London has been a net contributor of firms and employment to the rest of the UK economy through outward migration.

Firm migration into London has increased from a low base in 1998. The trend has been one of consistent increase, but there has been significant turbulence with troughs in 2009-10 and 2011-12 and a significant peak in 2010-11.

Inward migration has become more important over time as the firms involved make up an increasing share of the firm base and overall employment. In terms of location, inward migration has had the greatest impact on the combined CAZ & NIOD. Primary & Utilities, Information & Communication and Manufacturing derive the greatest impact from firms migrating into London.

The Greater South East provides the largest number of inward migrating firms. However, the associated employment tends to come equally from the Greater South East and the rest of the UK, suggesting that firms moving in from the Greater South East are smaller than those migrating in from the rest of the UK.

The trend in out migration has been one of consistent increase, but as with in migration, there has been significant volatility over the years. Out migration of both firms and jobs exceeds that for in migration,

leading to net out migration. Outward migration has become more important over time as the firms involved make up an increasing share of the firm base and overall employment.

The Information & Communication, Health & Social Work and Professional Scientific & Technical Activities sectors are those most affected by out migration over the period 2008-2013.

The Greater South East is the preferred destination for out migrating businesses in terms of firm numbers. Employment associated with outward migration tends to relocate fairly equally to the Greater South East and the rest of the UK. The implication is that firms moving to the Greater South East are smaller than those moving to other destinations in the UK.

1.3.3 Established firms

The number of established firms[1] in London and each of the sub-geographies has increased over time from 1998-2013, albeit modestly. The proportion of all London firms which are recognised as established has increased from 49% in 2008 to 51% in 2014.

The increase in the employment associated with established firms has been significantly greater. The proportion of all London employment which is in established firms has risen from 55% in 2008 to 70% in 2013. However, established firms represent a smaller proportion of all those that migrate, be this into or out of London. Thus established firms tend to be more static than young firms.

1.3.4 Firms by age band

The number of firms in all age bands has risen, with those aged less than three years showing the greatest level of volatility on a year by year basis.

Associated employment has remained reasonably steady, except for the cohort which are 20 or more years old, where employment has risen steadily. By 2013 there were over 1.75m employees in firms aged 20 or more years in London, equivalent to over 33% of the total.

Closure rates by age band appear to fall into two distinct cohorts: those aged up to 9 years old and those 10 years or more. In practically all years, closure rates for younger firms are greater than those for more established businesses.

Firm migration rates by age band have diverged over time, with those in the 3 to 5 and 6 to 9 years categories being most likely to move. Conversely, those aged 20 years or older are least likely to relocate.

1.3.5 Firm specialisation

The Information & Communication, Financial & Insurance Activities and Professional, Scientific & Technical Activities sectors all show concentrations in London. However, the extent of the specialisation appears to have diminished a little between 2004 and 2013.

1.3.6 Co-locating sectors

The top three sets of co-locating sectors in both 2013 and 2004, based on a series of three tests[2] were:

- Retail Trade, except of Motor Vehicles & Motorcycles with Food & Beverage Service Activities.
- Food & Beverage Service Activities with Other Personal Service Activities.
- Retail Trade, except of Motor Vehicles & Motorcycles with Other Personal Service Activities.

[1] Established firms are those that have been trading for at least fiver years.

[2] Location quotients, Krugman Index and Maurel & Sedillot Index, which are all used to estimate relative concentrations of firms and employment.

Analysis of the Office for National Statistics' (ONS') UK Input-Output Analytical (Supply and Use) Tables [3] identified a range of complementary sectors, ie there was a supply chain relationship between the sectors. The top three in 2013 were:

- Advertising & Market Research with Services of Head Offices & Management Consultancies.
- Architectural & Engineering Activities; Technical Testing & Analysis with Public Administration & Defence Services; Compulsory Social Security Services.
- Activities Auxiliary to Financial Services & Insurance Activities with Computer Programming, Consultancy & Related Services.

1.3.7 Business hubs

The data were reviewed to identify possible concentrations of businesses at single postcodes. The top three for 2013, based on firm counts, were all retail based:

- W12 7GF: Westfield
- W1G 0PW: Cavendish Square
- SW1Y 4LR: Regent Street

The top three non-retail business locations were:

- SW9 6DE: Kennington Business Park
- CR0 0XZ: Airport House (mix of uses)
- N7 9DP: The Busworks

The majority of hubs are based in inner London. Further analysis and data are provided in the appendix. Inclusion of the data within the appendix, rather than in the main body of the text, is intended to ease readability rather than infer limited importance. As noted earlier, sample analysis, eg by sector, has been undertaken as an example as time and resources precluded a more comprehensive approach.

1.3.8 Conclusion

In conclusion, we can see that the economy of London has changed significantly since 1998. A number of these changes have been presented above. However, the questions posed in the brief are not conducive to simplistic responses and can only be addressed by reviewing and assimilating the data in detail and within the context of why the questions are being se. The answers will be determined by context as well as the immediate content.

[3] UK Input-Output Analytical Tables-Detailed, 2010, Office for National Statistics. 2014. www.ons.gov.uk/ons/rel/input-output/input-output-analytical-tables/2010/index.html (last accessed on 17/11/2015)

2. Introduction

In September 2015, GLA Economics commissioned TBR to undertake quantitative research and produce a report on the changing spatial nature of business in London. The output of this research is to contribute to an economic evidence base, which can inform future strategy development within the GLA Group.

GLA Economics last produced an Economic Evidence Base in 2010. Five years on, it is now being updated to reflect the changes in London's, the UK's and the global economy over the past five years. This revision will supply an understanding of London's place in the global economy, and provide an outlook on the strengths, weaknesses, opportunities and threats which London's economy may face in the future.

The brief sought to address three questions:

- Has London witnessed changes in the types of activity that have taken place across different parts of the capital over time?
- Have businesses that have been in existence for a period of time grown in London, moved to different parts of London, or migrated outside of London to the Greater South East or elsewhere in the UK?
- Has London attracted business activity from other areas of the UK, have these been expansions or has London replaced other locations within the UK as the basis for economic activity in certain sectors?

This document presents the key results of the research and responds to the questions posed in the brief.

The core of the document is structured around seven sets of analysis that, individually and collectively, aim to address the extent to which economic activity has changed across key locations within the capital, the nature and extent of any firm migration intra-London as well as movement of firms into the capital.

The first part of the report provides a context for the work and introduces the way the material is presented along with the rationale behind the analysis.

The questions set out in the brief cannot be answered simply and the responses need to take account of numerous factors and corresponding analysis. Section 3 links the questions to the analysis with the aim of aiding readability and providing context for the work undertaken.

The research utilised TBR's in-house database of UK businesses. Details of the data, definitions of the key metrics being investigated and the manner in which the data are presented are set out in section 4.

Section 5 to section 11 present the results of the research and analysis that were undertaken. These are grouped around three core themes: firm start-ups and closure, firm migration and geographical clustering.

3. Findings

As indicated in the Introduction, the questions posed in the brief require data and analysis from several sources to be assimilated. In this section we direct readers to the appropriate sections that relate to each of the questions.

Question	
Has London witnessed changes in the types of activity that have taken place across different parts of the capital over time? • Have businesses in particular sectors agglomerated with firms in the same sector? • Have businesses in a particular sector agglomerated with firms providing complementary activities (e.g. agglomeration of different types of business services)? • Have start-ups (by sector) congregated in certain areas (and are they 'new' start-ups or moves from other parts of London/GSE/the UK)? • Have certain businesses (and/or sectors) seen moves out of London, or parts of London, over time (and to where)? Similarly have certain businesses (and/or sectors) seen moves into London, or parts of London, over time (and from where)?	
Analysis and reporting	
Analysis of firms which co-locate with other firms in the same sector	Section 11
Identification of 'hot-spots' for specific sectors in London	Section 12
Analysis of dependent start-ups (subsidiaries and branches) within London	Section 6.4
Analysis of firm outward migration by sector	Section 7.3
Question	
Have businesses that have been in existence for a period of time grown in London, moved to different parts of London, or migrated outside of London to the Greater South East or outside? • Therefore can conclusions be drawn as to the competitiveness and attractiveness of areas within London, and for London as a whole, for specific business sectors?	
Analysis and reporting	
Analysis of the movement and growth of established firms	Section 8
Analysis of the movement and growth of firms by age band	Section 9
Analysis of firms which migrate into and within London	Section 7
Analysis of churn indicating the dynamism of London and the sub-geographies	Section 6.2
Analysis of independent start-ups by sector	Section 6.3
Analysis of dependent start-ups (subsidiaries and branches) by sector	Section 6.4

Question	
Has London attracted business activity from other areas of the UK, have these been expansions or has London replaced other locations within the UK as the basis for economic activity in certain sectors? • Have particular sub-regions or boroughs in particular seen inward movement of pre-existing firms to these areas?	
Analysis and reporting	
Analysis of dependent start-ups (subsidiaries and branches) by sector	Section 6.4

4. Method and Data Sources

4.1 Trends Central Resource

Trends Central Resource (TCR) is one of the most extensive bodies of information on UK enterprise. It was developed by TBR following original research undertaken 25 years ago to demonstrate the role small firms have in job creation. It contains data on nearly 3 million live firms and organisations in the UK, together with historical information on a further 5 million organisations going back to the 1970s.

The database contains details on business size and performance, movements, ownership structures, type of entity, start-up year and a host of other descriptors. The database is longitudinal, so that these variables may be examined over time. TCR represents the whole UK business population and it includes firms below the VAT threshold, branch sites, and the self-employed.

A business birth, death or migration happens over a time period. For the sake of analysis and reporting this change of state must not be double-counted in two years. Therefore these statistics are represented as one period. For example, a business which is not alive in 2012 and is alive in 2013 is recorded as a birth in the 2012-2013 period.

In charting data that spans industries, the top five sectors are often shown to demonstrate areas of interest. These top ranking sectors are ranked based on the statistic of interest, for example business births. As a sector may have many more births compared to another because of its absolute size, the birth rate (or the % of births of total sector stock) is calculated and used to rank sectors.

Rounding has been applied to TCR data within this report. Specifically, firms numbers are rounded to the nearest 5 and employment to the nearest 10 when counts are being used; for measures such as averages, unrounded data is presented.

4.2 Data time series

The analysis covers the period 1998 to 2013 and uses data drawn from TCR. The 2013 data are the most recently available data across all of our indicators and variables analysed. Although some 2014 data is available, this does not allow for consistency to analyse each variable to the same depth and granuality.

The exception is when looking at aggregated numbers across the whole time series, which are distinct from the rest of the analysis and do not pose issues of inconsistency; for example, the sum of businesses from the whole 15 years migrating to individual local authorities. The 2014 data are used here to maximise the 'sample size' of firms used in the aggregated numbers.

4.3 Migration

Migration between two years is based on a firm's registered location in each of those years. For example, if a firm is located in the Greater South East in 2007 and in London in 2008, then it will be classified as an inward migrating firm in London's 2008 business stock.

It is important to note that this analysis only looks at movements within the UK. Firms moving internationally are not classed as migrations, but as births or deaths. For example, a firm migrating overseas from London will be recorded as a death as it no longer appears in the data. When a firm migrates into London from overseas it will be recorded as a birth when it enters the dataset for the first time.

4.4 Sectors

Each firm in TCR is given a five digit Standard Industrial Classification (SIC) code using the UK SIC classification of 2007. These SIC codes were used in the definition of a number of industry sectors.

In total we analysed 21 sectors, defined by Broad Sector and Two Digit SIC Division, which itself is a subset of the Broad Sector. The SIC codes comprising each of these sectors can be found in the appendix (Section 13.1). Throughout this report, abbreviated terms may be used to refer to these sectors.

4.5 Geography

There are four sub-London geographies used in our analysis, which themselves are defined by groupings of smaller territories. These are:

- The Central Activities Zone (CAZ)
- The Northern Isle of Dogs (NIOD)
- Inner London
- Outer London

The CAZ and NIOD are both formed of Lower Super Output Areas, a statistical area used and defined by the ONS. Inner and outer London are both defined by a set of London Boroughs. Table 1 contains a list of Boroughs and their classification.

Table 1: Inner and outer London Local Authorities

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

4.6 Time series data

We have presented the charts using two timelines.

For charts showing an index, we have used a timeline starting in 1998 and running to 2012-2013. For the first three periods (1998-2001, 2001-2004 and 2004-2007) the data cover three years; thereafter (2007-2008 to 2012-2013) the data are annual.

This approach allows a longer timeline to be covered while giving greater emphasis to the most recent seven-year period. The two time periods are separated by a dotted vertical line, with year gaps to the left of the line and single years to the right.

For charts showing absolute data, we have presented annual data from 2007-2008 to 2012-2013.

Examples are provided in Figure 1 and Figure 2 below.

Figure 1: Sample chart showing indexed data

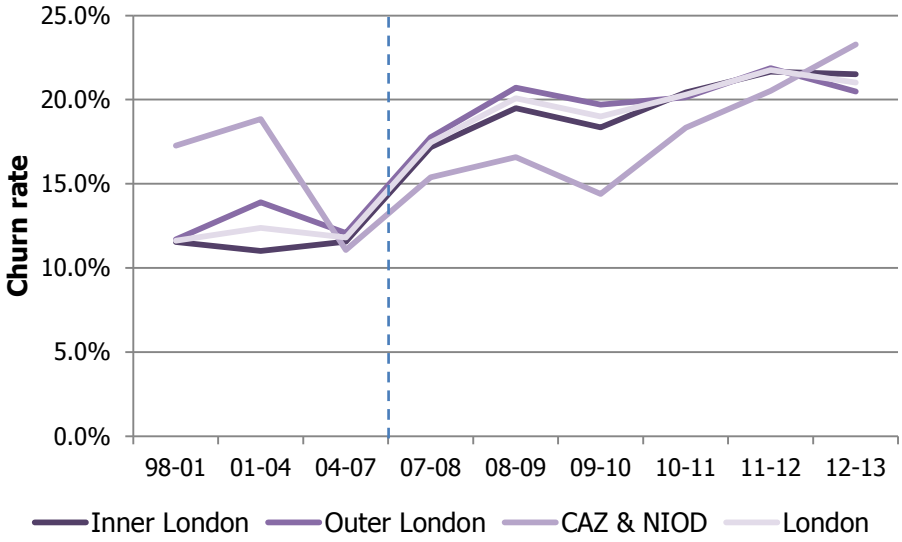
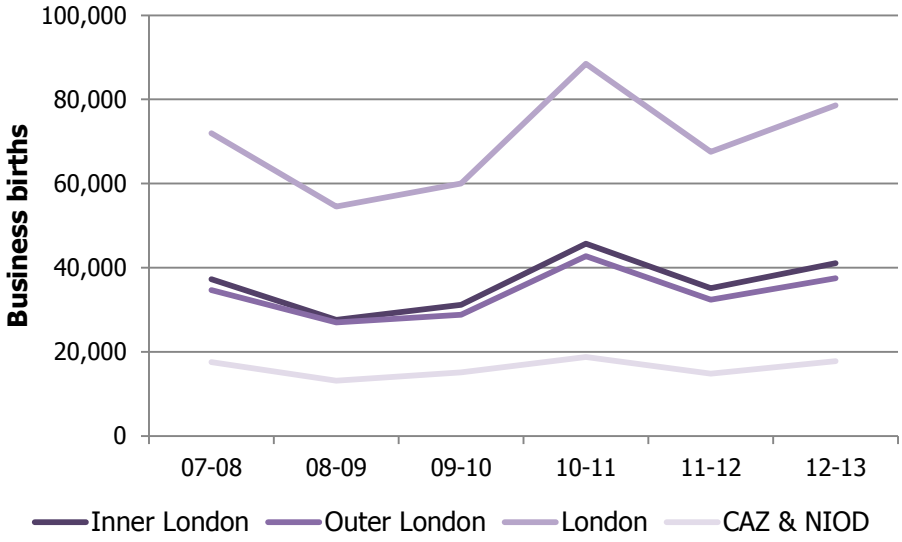


Figure 2: Sample chart presenting absolute data



4.7 Components of change Analysis

TBR has developed the components of change analysis to understand the key elements of change within an economy over a specified period of time. It does this by investigating the key components of change:

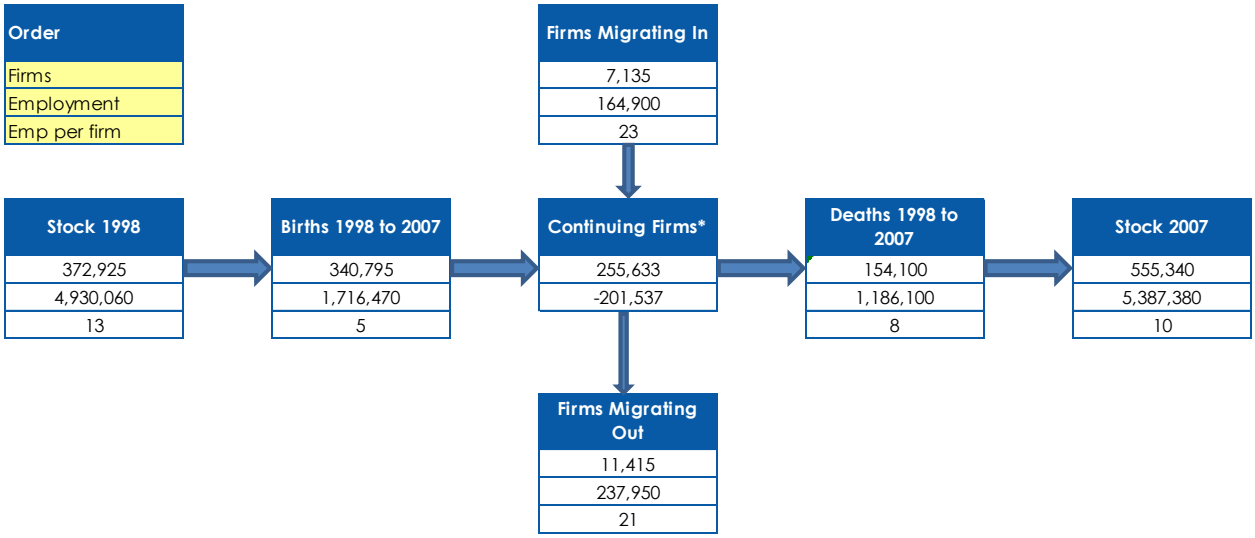
- Business start-ups and closures
- Firm migration into and out of the local economy
- The performance of continuing businesses – those that we there at the beginning and end of the period under review. This cohort is referred to as continuing firms throughout the report.

The analysis is able to investigate key measures, including:

- Number of firms
- Employment
- Firm size (employees per firm)

The output of the analysis is usually presented in a diagram, as in Figure 3.

Figure 3: Sample components of change diagram



5. London Level Overview

In this section we provide information about London as a whole in order to provide context for the later analysis, which considers sub-geographies and sectors within the capital.

As this piece of work is concerned with the dynamics of the London economy, the focus is on two principal components of change:

- Firm starts and closures, also referred to as births and deaths
- Firm migration, featuring firms moving into London and those moving out.

These components represent the mechanisms in which firms are added and lost to the overall business population. Thus births and in migrators increase the stock of firms, whereas deaths and out migrators reduce the stock.

Figure 4 and Figure 5 below show how the components have changed during the time peiod 1998-2007 and then from 2007 to 2013.

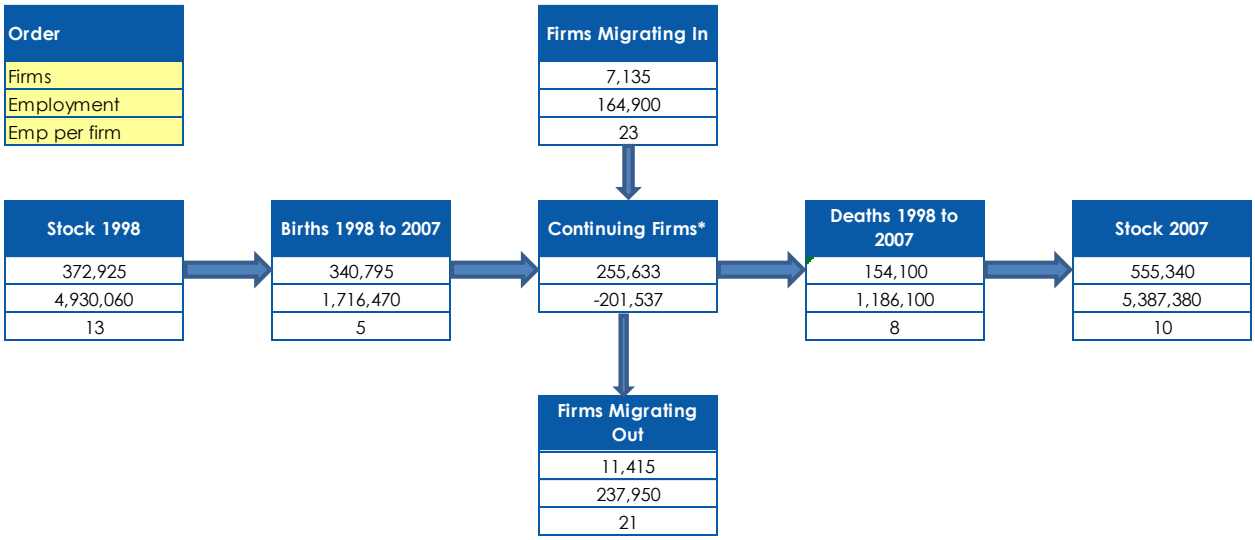
In both time periods the following is observed:

- More firms and employment have migrated out of London than have migrated in.
- More firms have been born than have died with a net creation of employment.
- Average employees per firm has decreased.

The overall effect of the components of change are:

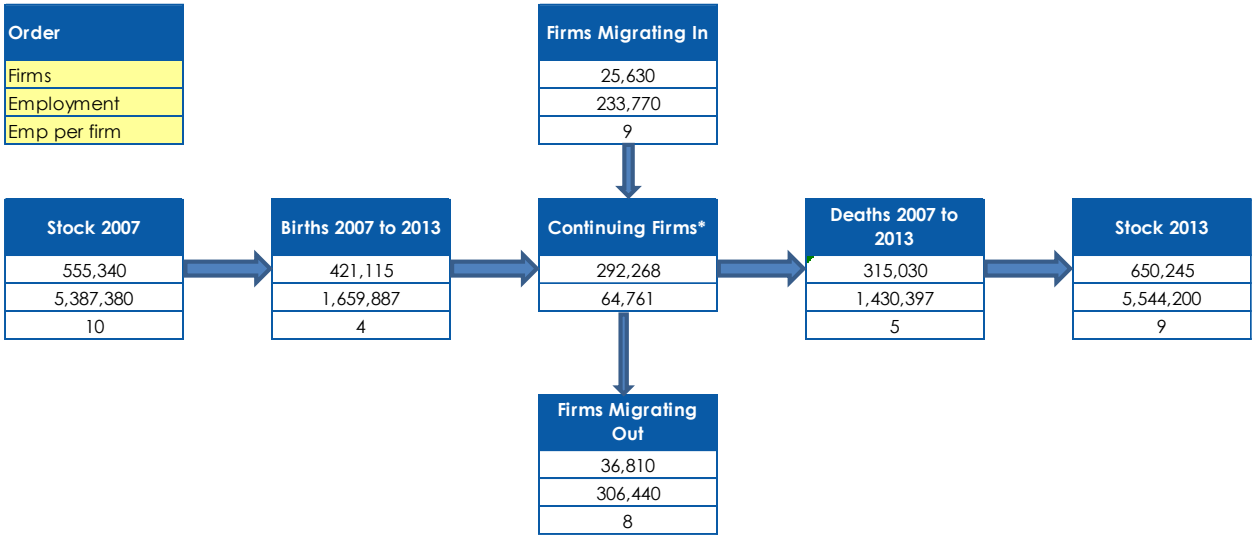
- Firm stock in London has increased from 372,925 in 1998 to 555,340 in 2007, and then to 650,245 in 2013.
- Employment in London has increased from 4,930,060 in 1998, to 5,387,380 in 2007, and then to 5,544,200 in 2013.
- The average number of employees per firm in London has decreased from 13 in 1998 to 10 in 2007 and then to 9 in 2013.

Figure 4: Components of change in London, 1998-2007



Source: TBR Observatory 2015 (TBR ref: W1). *'Continuing Firms' employment indicates the change in employment of these firms between 1998 and 2007.

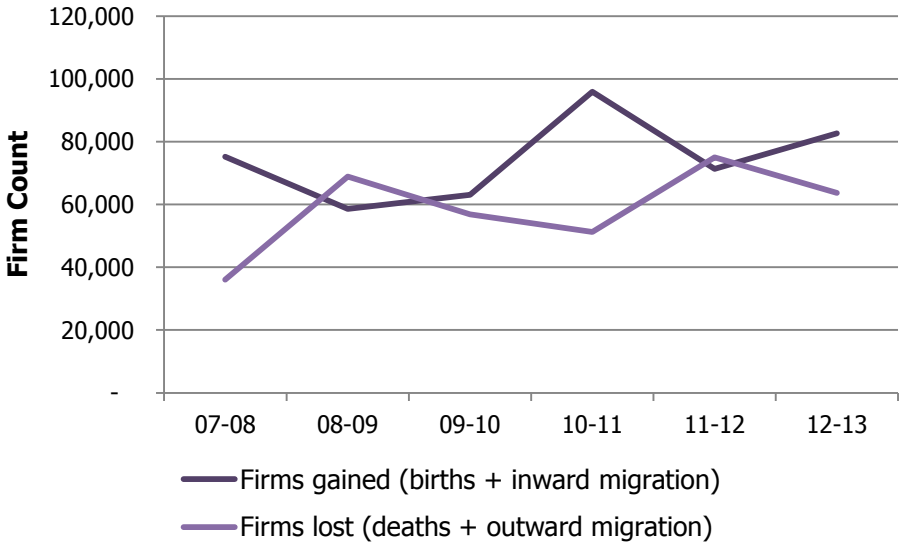
Figure 5: Components of change in London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W1). *'Continuing Firms' employment indicates the change in employment of these firms between 2007 and 2013.

From Figure 6 we can see that over time, the business population of London has increased in most years, with gains exceeding losses. Clearly, there were exceptions in 2008-09 and 2012-13.

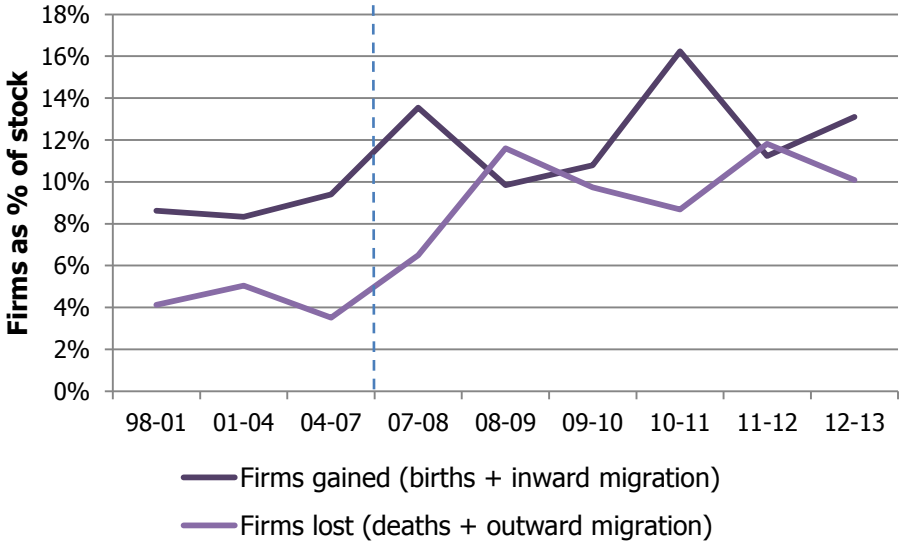
Figure 6: London firm births, closures and migrations (firm count), 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

Figure 7 shows the impact of the combination of firm starts and in migration compared to closures and out migration, along with the gradually increasing trend. Somewhere between 20% to 24% of the business population fall into either of these categories, suggesting that the stock is changing with less than 80% remaining in place over the course of a year.

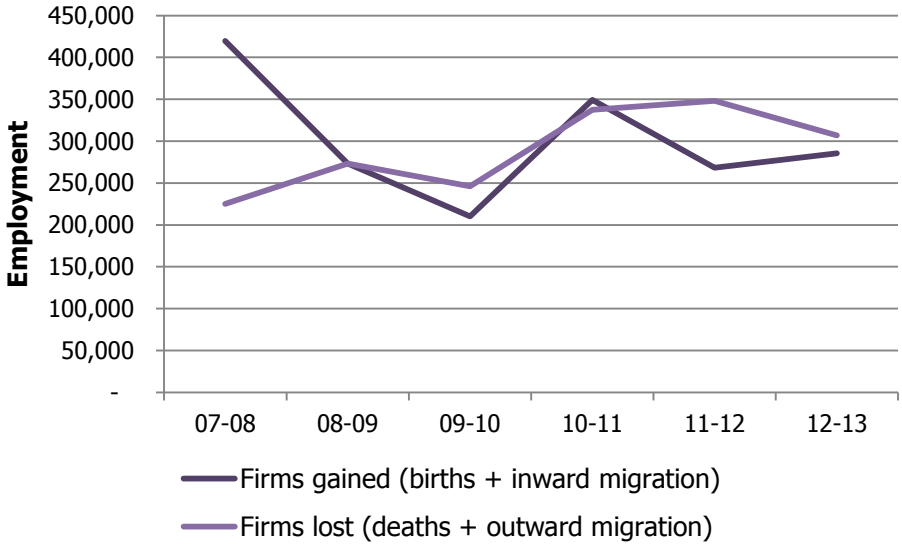
Figure 7: London firm births, closures and migrations (firms as percentage of stock), 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

Figure 8 below, which shows the employment associated with additions (firm births and in migration) and losses (firm closures and out migration) to the business population, presents a somewhat similar picture. There were clear net increases in employment resulting from new firms and in migrators until 2008-09, after which the effects have tended to cancel themselves out. A fall in the absolute level of additions since 2007-08 is noticeable, but is accompanied by a growth in subtractions and hence a net reduction in employment. This chart does not consider changes in employment for continuing firms in London. The fact that there has been a net loss in employment resulting from births, closures and migration whilst total employment in London has increased suggests that employment growth has been driven by continuing firms.

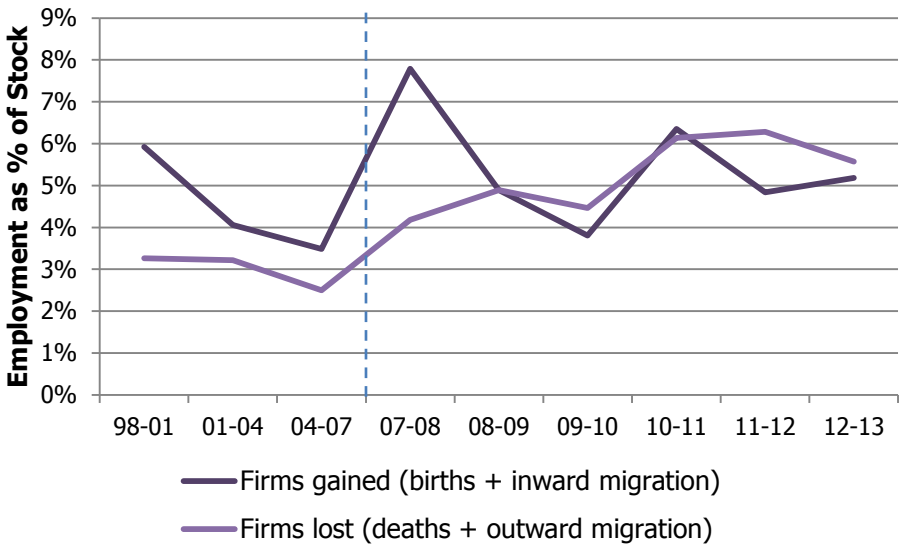
Figure 8: Employment resulting from London firm births, closures and migrations 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

The impact of start-ups and migration has proportionally less impact on employment than firm numbers, though their role is still significant.

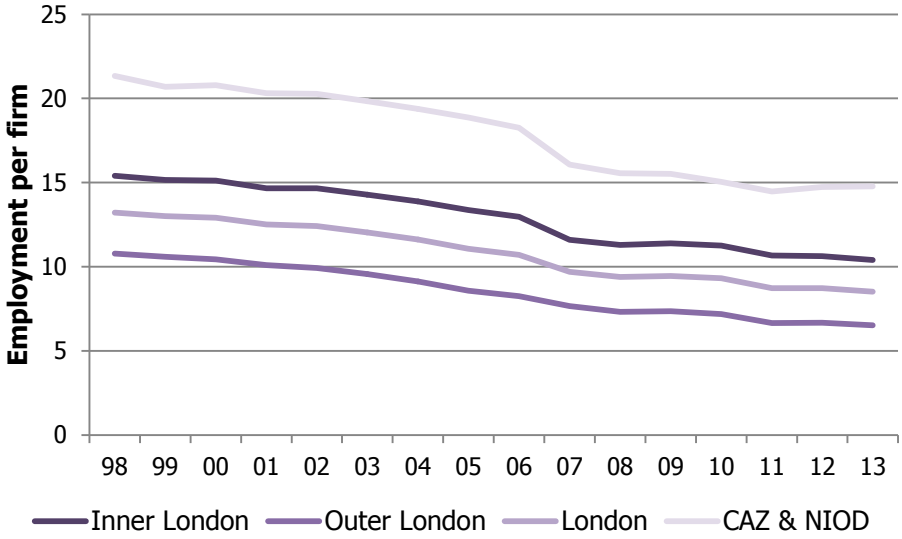
Figure 9: London firm births, closures and migrations (employment as percentage of stock), 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

The observable differences in the trends of business stock and employment arise due to differences in the average firm size of businesses in London. As can be seen in Figure 10 average employment per firm has decreased across London since 1998.

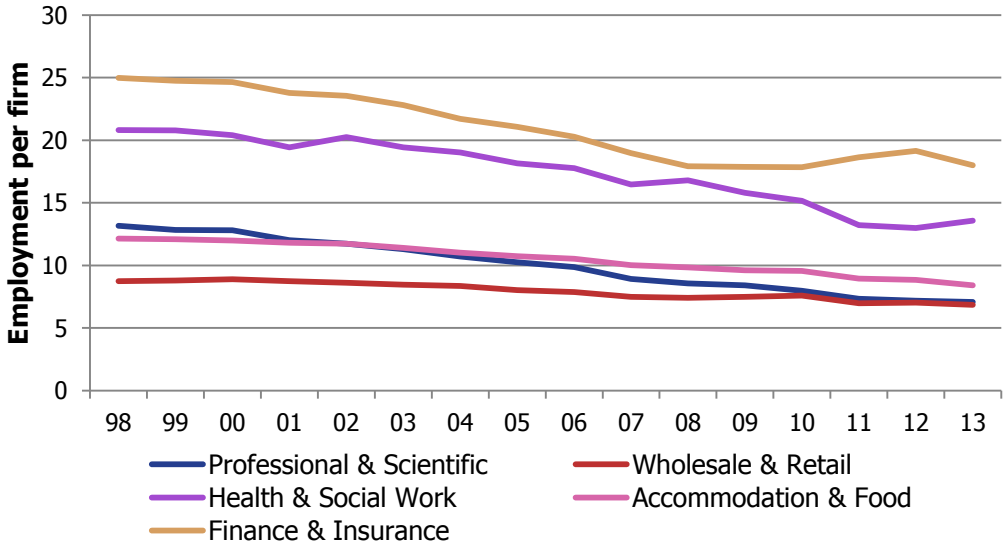
Figure 10: Average employment size per firm, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S6)

This trend is seen not only across London, but in each the five biggest employing sectors, although there has been more fluctuation in Financial & Insurance Activities and Health & Social Work since 2010 (Figure 11).

Figure 11: Average employment size per firm in five biggest employing sectors in London, 1998-2014



Source: TBR Observatory 2015 (TBR ref: W1/S6)

6. Start-ups

In this section of the report we investigate the nature of business start-ups, closures and the composite measure of churn. The work covers the period from 1998 to 2013, with an emphasis on the years since 2007-08. Following a preliminary overview of total start-ups, closures and start-ups net of closures, our analysis covers three main topics:

- Churn – the rate at which the business population turns over as a consequence of firm start-ups and closures.
- Independent firm start-ups – these are businesses which have been set up as new entities by independent owners, ie they do not have a parent organisation.
- Dependent firm start-ups – these are businesses which are set up as subsidiaries or branches of existing businesses.

We seek to describe the data and analysis, drawing out the key messages. We do note however, that as the data has been made available further analysis may be carried out.

6.1 Business Start-ups and Closures

In this section we provide an overview of business start-ups, closures and net start-ups. The aim is to provide context for the more detailed analysis on churn and start-ups that follows.

6.1.1 Introduction

Business start-ups represent the principal way in which new firms are added to a local economy. They are the embodiment of entrepreneurial activity and represent the way business people respond to new opportunities. However, the data masks two different types of new businesses: those started as independent entities and most readily identified as 'start-ups'; and those set up by existing organisations, which are more commonly described as subsidiaries or branches.

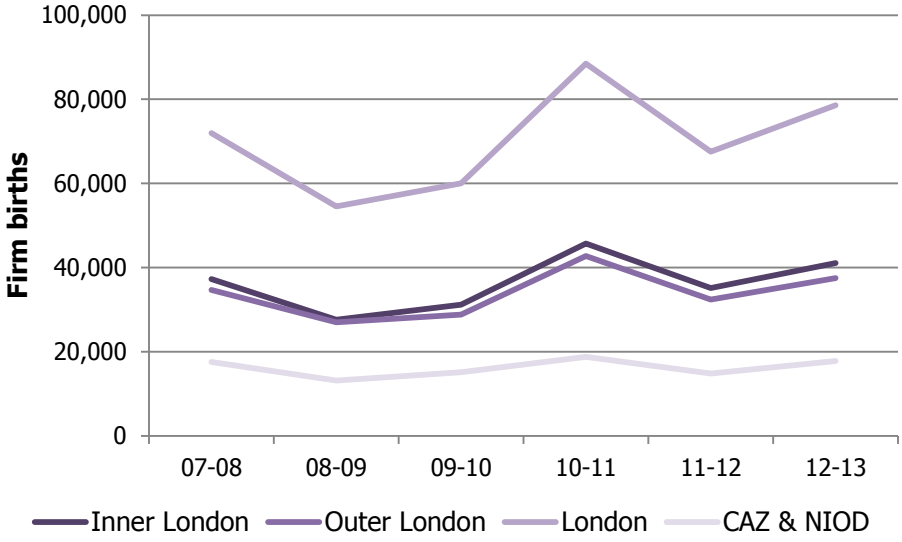
In the same way that start-ups represent the way economic resources are allocated to taking advantage of new opportunities, business closures are the mechanism for saying that current activities should cease and assets be focussed elsewhere. The cycle of start-up, closure and start-up that is the "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one", or creative destruction as described by Joseph Schumpeter[4].

6.1.2 Gross start-ups

Figure 12 shows gross start-ups[5] across London rising very gradually since 2007-08, with a trough in 2008-10 and shallow peak in 2010-11. The pattern is almost identical across London, with the combined CAZ & NIOD demonstrating a flattened version. The 2010-11 peak is a reflection of previous trends which saw increases in self-employment and new start-ups immediately after economic recessions.

[4] Capitalism, Socialism and Democracy, Schumpeter, 1942
[5] We use the term 'gross' start-ups in this section to refer to start-ups on their own and then 'net' start-ups once the impact of firm closures are taken into account.

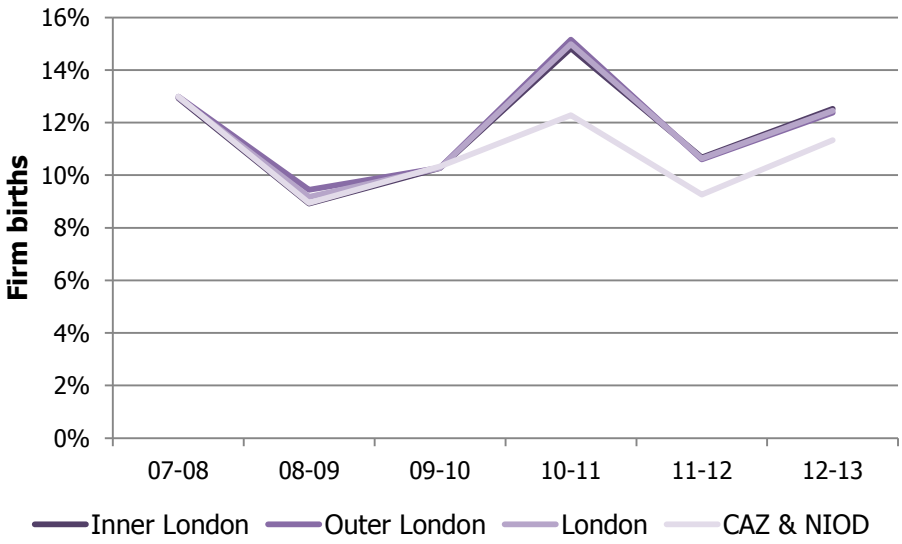
Figure 12: Births of businesses, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

Figure 13 provides a similar, if slightly more exaggerated trend, when start-ups are considered against the overall population of businesses. As can be seen, a low of around 9% (new starts represented 9% of all firms) was experienced in 2008-09 and a high of 15% in 2010-11. Again, the combined CAZ & NIOD returned a more muted response, in comparison to all the other geographies, after 2009-10.

Figure 13: Births of businesses as percentage of firm stock, 1998-2013

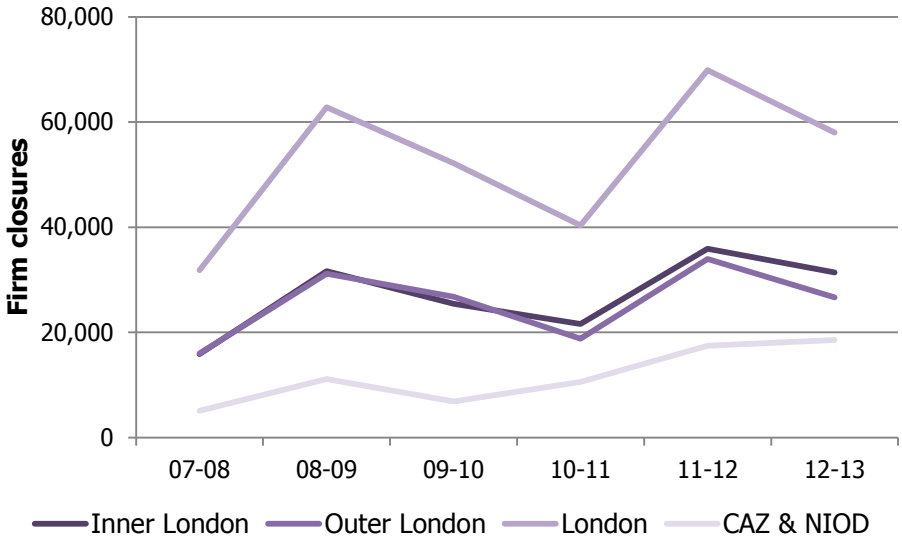


Source: TBR Observatory 2015 (TBR ref: W1/S1)

6.1.3 Business closures

Business closures show an inverse pattern to that of start-ups, with peaks in 2008-09 and 2011-12 and a trough in 2010-11 (Figure 14).

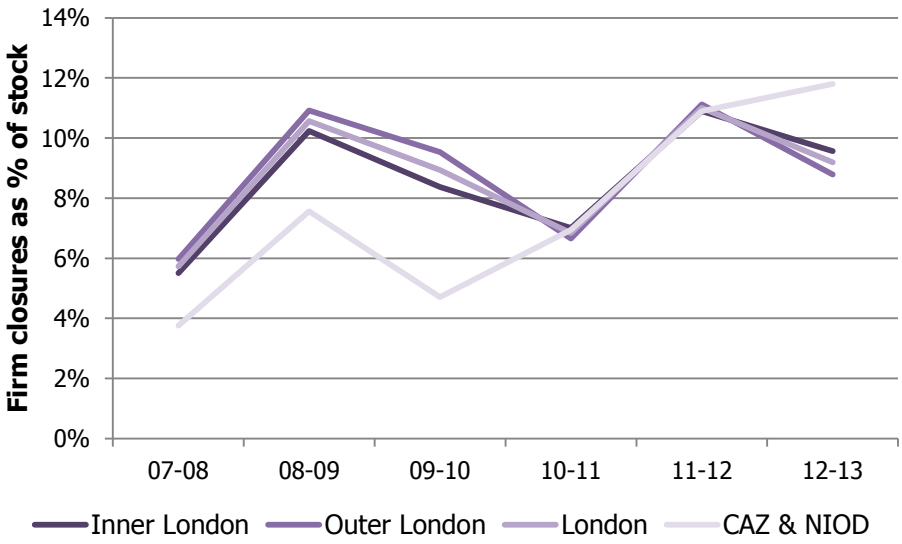
Figure 14: Business closures, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

Figure 15 shows a similar trend for all areas except the combined CAZ & NIOD. There is little in the data to explain this divergence other than the relatively small size of the CAZ & NIOD in comparison to inner and outer London, which will accentuate any significant changes. The trend does show that the CAZ & NIOD had a lower rate of business closures during and immediately after the economic downturn which could suggest firms and sectors in the CAZ & NIOD were more resilient. The reverse is now true, with the CAZ & NIOD having a higher firm closure rate in 2012-13 than the other geographies in London. In both cases it is important to note that firms migrating out of the UK to other countries are recorded as a closure in this analysis.

Figure 15: Business closures as percentage of stock, 2007-2013

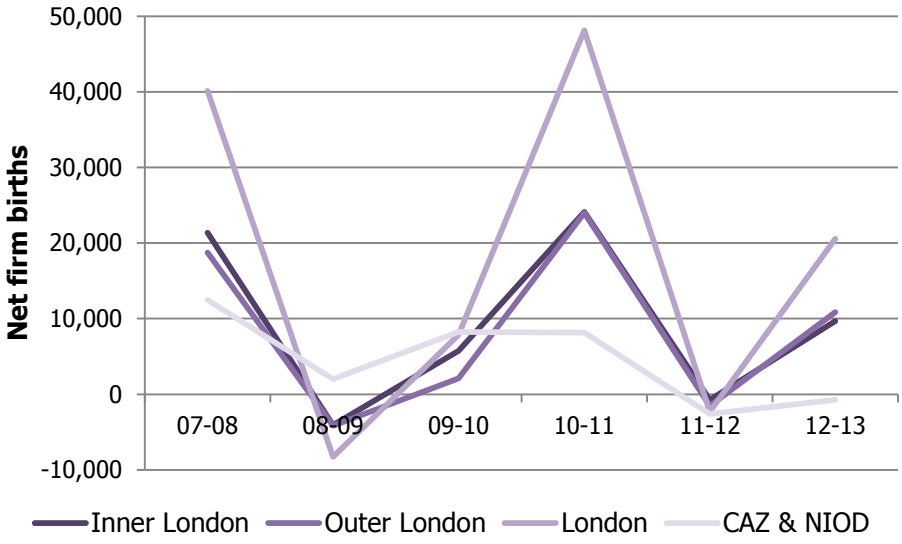


Source: TBR Observatory 2015 (TBR ref: W1/S1)

6.1.4 Net start-ups

When the data for starts and closures are combined to show net start-ups a much more volatile situation is revealed, with significant peaks in 2007-08 and 2010-11 and troughs in 2008-09 and 2011-12. Overall most geographies are net generators of businesses in each year, except in 2008-09 and 2011-12, when more firms closed than were set up. Thus London can be seen as a net provider of new businesses.

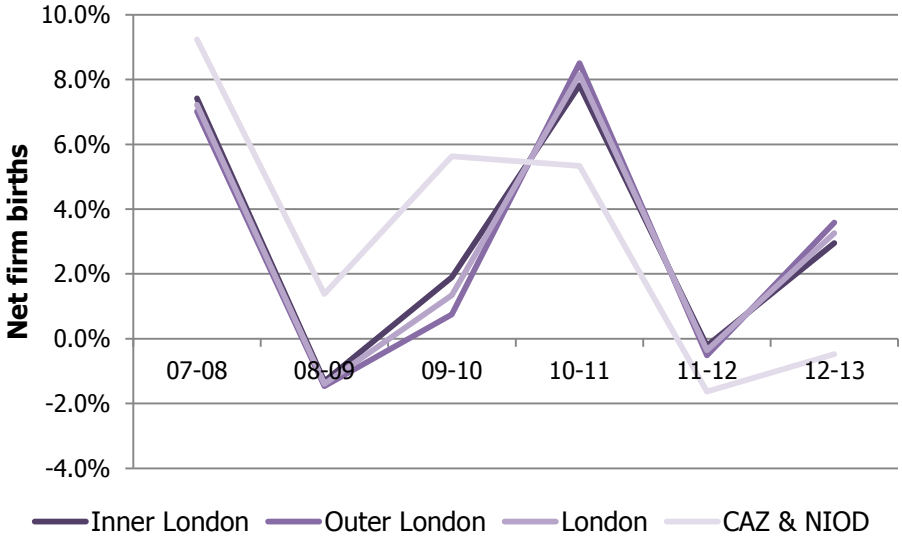
Figure 16: Net business births (births minus deaths in each time period), 2007-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

In Figure 17 we see the impact of net new firms relative to the overall business population. From this we can appreciate how London's economy has benefited from business start-ups.

Figure 17: Net business births (births minus deaths in each time period) as percentage of stock, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W1/S1)

6.2 Churn

6.2.1 Introduction

As indicated above, analysis of churn seeks to understand the rate at which the firm population changes over time. We have defined it as the sum of business births and deaths in a given year and expressed it as a percentage of the total business stock in that year. The analysis is carried out on an annual basis for the specified geographies.

Churn can be seen as a proxy measure for the dynamism of a local economy; firms that no longer serve a market close and new firms are set up in response to emerging demand. Thus economic resources are being reallocated quickly and efficiently.

In terms of the data, a firm birth occurs when a business appears in the data for the first time, having not been present in the previous year. Likewise, a firm death occurs when a firm disappears from the data.

We first present analysis of churn across the whole of London by geography and then by sector. This is followed by sections reviewing churn within key sub-geographies of the capital.

6.2.2 Headlines

The key findings from the analysis of firm start-ups, closures and the composite measure of churn are:

- Rates have increased steadily from 1998 to 2013.
- Health & Social Work, Construction and Professional, Scientific & Technical Activities appear regularly as the sectors with the fastest levels of churn.
- Health & Social Work reported the fastest level of churn in 2012-13 across two of the three sub-geographies, namely inner London, and the combined CAZ& NIOD.

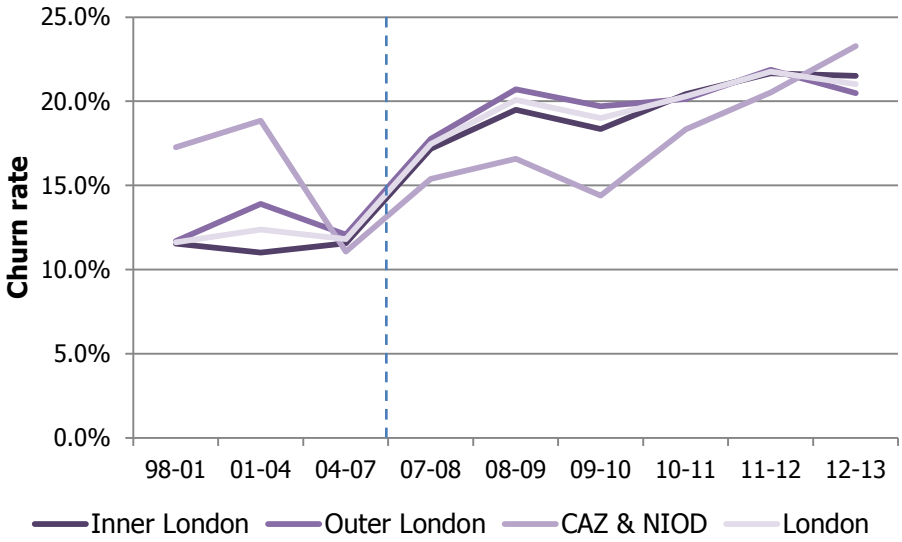
6.2.3 Churn in London

In this section we review churn across London as a whole. We first look at headline rates for churn, start-ups and closures across London and its sub-geographies, before investigating the performance of sectors.

Churn rates across London rose gradually from a level of around 12% per annum in 1998-2001 to over 20% in 2012-13. The increase reflects a mix of marginal rises in start-up and closure rates as well as significant volatility year on year.

Trends within the sub-geographies analysed tend to follow similar patterns, as shown in Figure 18.

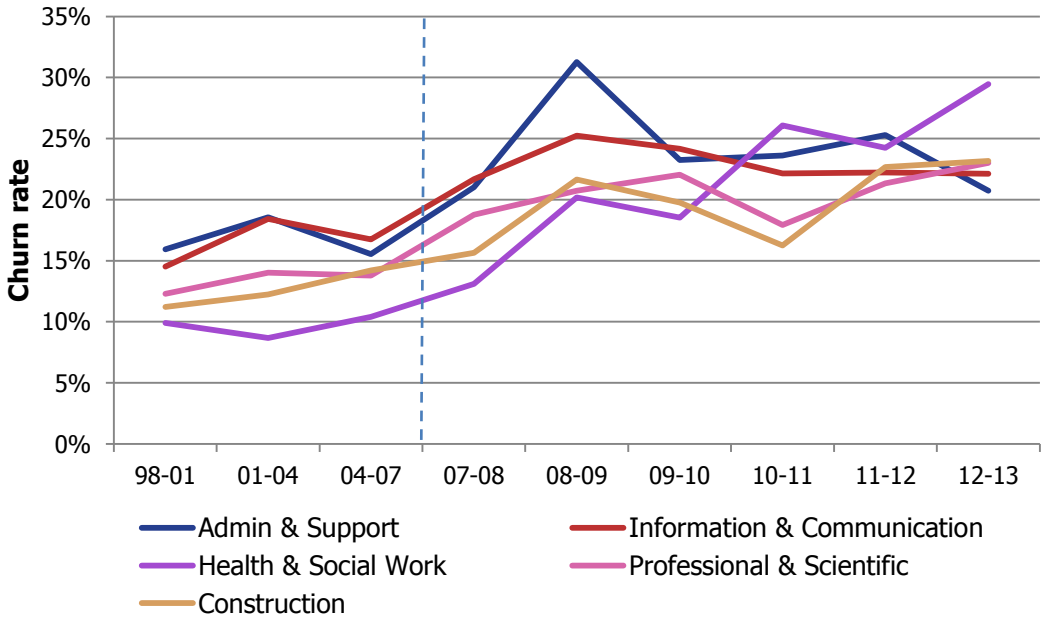
Figure 18: Churn rates of firms in London 1998-2013[6]



Source: TBR Observatory 2015 (TBR ref: W1/S1)

Churn rates vary significantly across sectors, as can be seen from Figure 19, though with some exceptions the patterns over time are relatively similar. The trend follows a gradual rise from the late 1990s to 2012-2013.

Figure 19: Top five sectors by churn rate (across the entire period) in London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S6)

In 2012-13, Health & Social Work, Professional, Scientific & Technical Activities and Construction reported the highest levels of churn.

[6] Churn rates are calculated as the number of births plus deaths as a percentage of business stock in each time period.

6.3 Independent firm births

In this section we focus attention on independent businesses start-ups. These are new firms which are set up by individual persons, as opposed to corporate entities.

6.3.1 Introduction

Start-ups are vital to every economy as they represent additional economic activity and reflect how entrepreneurs are responding to new opportunities and change in the economy. Independent firms have a core role to play, in that they represent brand new activity and not just the expansion or development of an existing enterprise.

New independent firms are identified as:

- Firms which appear in the TCR database for the first time (i.e. firm births).
- Firms that do not have a 'parent' which is an existing firm.

6.3.2 Headlines

The key findings from the analysis of independent firm start-ups are:

- The absolute number of independent start-ups does not appear to have changed significantly between 2007-08 and 2012-13.
- Inner and outer London generate almost the identical number of new independent start-ups, but firms in inner London were on average larger, so contributed more employment.
- The ratio of independent to dependent start-ups has changed gradually over time in favour of independent start-ups.
- Independent start-ups peaked in 2010-11 when they made up nearly 100% of all start-ups.
- In 2012-13, independent start-ups represented almost 90% of all start-ups.
- The Information & Communication, Health & Social Work and Professional, Scientific and Technical Activities sectors consistently generated the highest proportions of independent start-ups over the period 2008 to 2014.

6.3.3 Independent firm births in London

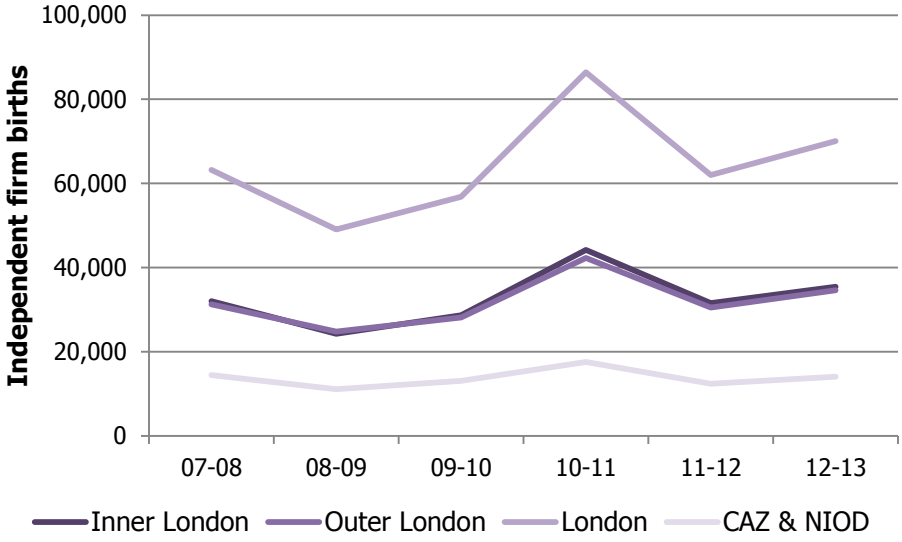
We have structured this section to address independent firm births across London and its sub-geographies first, and then to look at the impact of sectors.

London and sub-geographies

The number of independent firm births has increased marginally over the period 2007-08 to 2012-13 (Figure 20). While there were some significant increases, mainly in 2010-11, these appear to have been part of the normal volatility.

The patterns and levels of start-up activity are all but identical across inner and outer London.

Figure 20: Independent firm births, 2007-2013

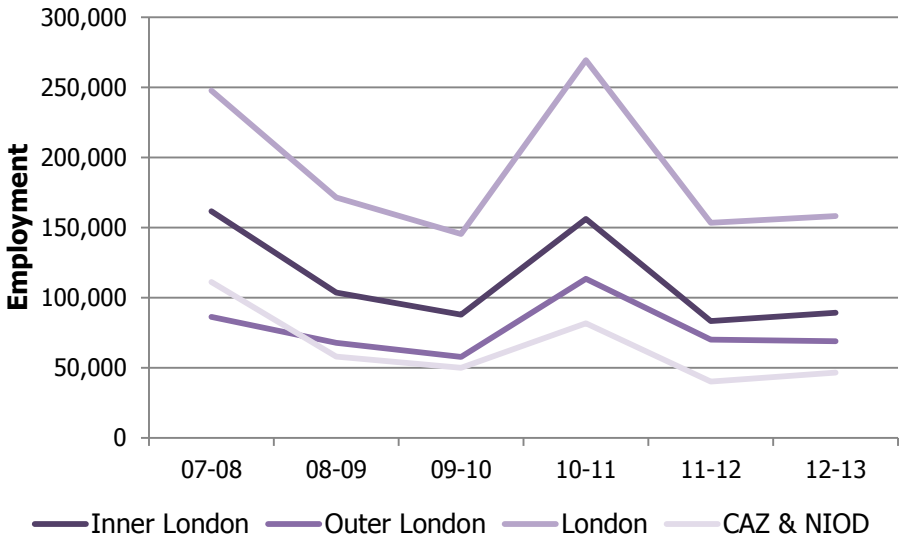


Source: TBR Observatory 2015 (TBR ref: W2/S1)

The trend in independent start-ups is made clearer when looking at the data for associated employment. We note that employment within the first year may not reflect the total number of jobs generated by a new firm over its lifetime.

It is noticeable that that the data for associated employment for inner and outer London diverge, compared to the count of firms. It would seem that new firms in inner London were around 40% larger, based on employment, than their outer London counterparts in 2010-11. By 2012-13 this gap had closed, to closer to 30%.

Figure 21: Associated employment of independent firm births, 2007-2013

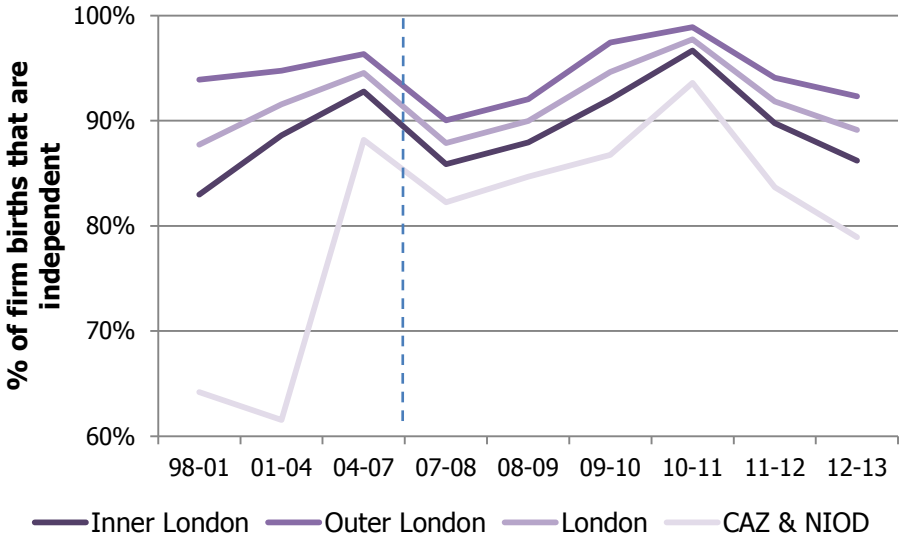


Source: TBR Observatory 2015 (TBR ref: W2/S1)

When we consider the relative proportions of independent start-ups compared to branches and subsidiaries over time (Figure 22) we can see a peak was achieved in 2010-11, soon after the worst of the recession. Thereafter, independent start-ups represented a decreasing proportion of all new firms as subsidiaries and branches have made up a greater share.

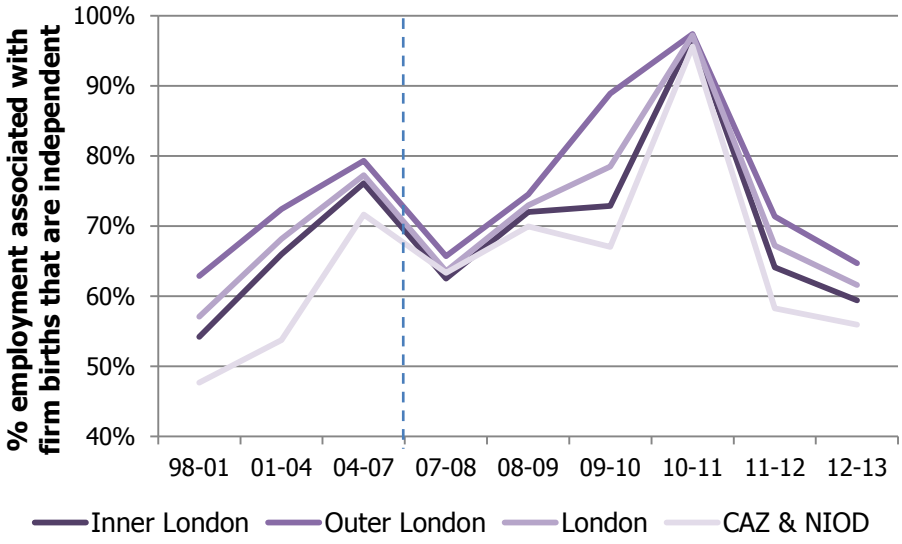
There is some variation across London, with the smallest number of independent firms in the combined CAZ & NIOD area and the largest in outer London.

Figure 22: Percentage of firm births that are independent, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W2/S1)

Figure 23: Percentage of employment associated with independent firm births, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W2/S1)

The data on associated employment indicates that only one third of all jobs in new firms are in independent new firms, implying that the remaining two thirds relate to dependent firms. This is in contrast to independent firms representing some 90% of all firm start-ups in 2012-13. While the data do not provide any indication to explain this, we may speculate that many dependent new start-ups are branches and merely represent the expansion of an existing business. As such, these new entities are able to 'start large' as the business models will be already proven.

Sectors and sub-geographies

Details of the top five sectors for independent starts are provided in Table 2, below. Interestingly only the Information & Communication and Professional,Scientific & Technical Activities sectors appear across both time periods. Also of note is that both the absolute levels of starts and start-up rates have increased.

Table 2: Top five sectors by independent firm birth rate (annual) as percentage of existing sector stock, 1998-2014

1998-2007		
Sector	**Average annual birth rate (percentage of stock)**	**Average annual birth rate (absolute numbers)**
Information & Communication	11.9%	3,609
Administrative & Support Service Activities	11.2%	4,837
Professional, Scientific & Technical Activities	9.7%	5,103
Primary & Utilities	9.0%	261
Construction	9.0%	3,021

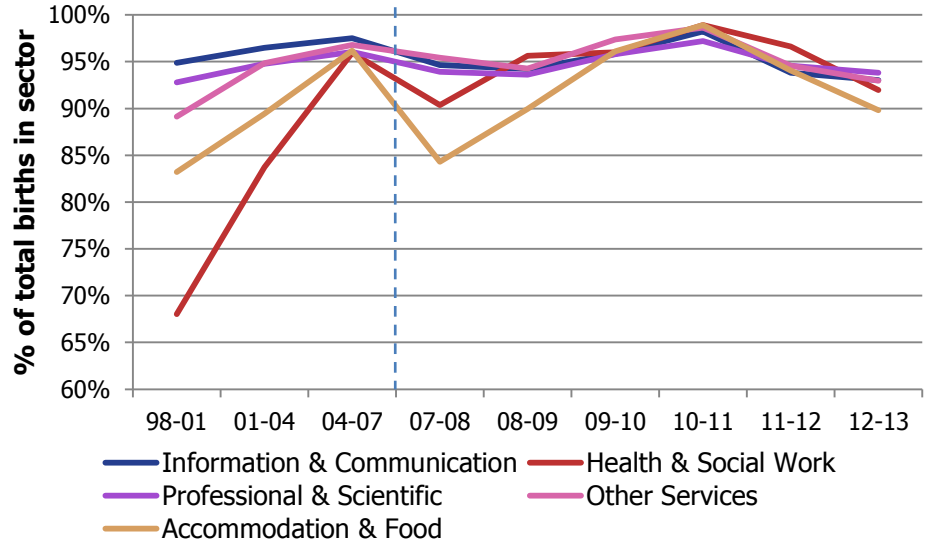
2008-2014		
Sector	**Average annual birth rate (percentage of stock)**	**Average annual birth rate (absolute numbers)**
Information & Communication	12.7%	6,120
Health & Social Work	12.4%	3,626
Professional, Scientific & Technical Activities	11.8%	10,162
Other Services	10.6%	4,200
Accommodation & Food	10.5%	4,741

Source: TBR Observatory 2015 (TBR ref: W2/S6)

Figure 24, below, presents the proportion of start-ups that are independent, rather than subsidiaries. The proportions vary only marginally by sector. For example:

- In the Information & Communication sector, 94% of start-ups were independent (annual average for 1998-2014).
- In the Health & Social Work sector, 89% of start-ups were independent (annual average for 1998-2014).
- In Professional, Scientific & Technical Activities, 94% of start-ups were independent (annual average for 1998-2014).

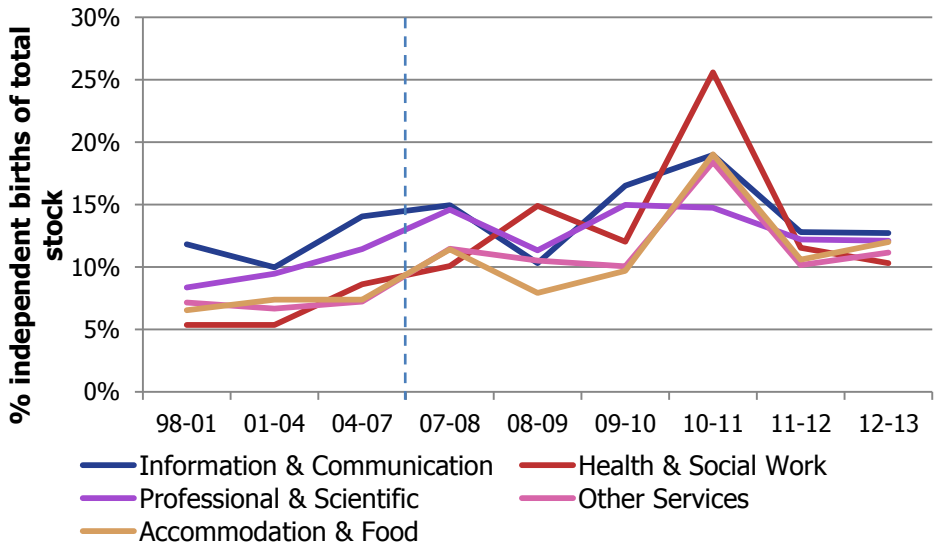
Figure 24: Proportion of firm births in London that are independent, top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W2/S6)

Once the size of the sectors is factored in, the degree of variation increases, as does the volatility on a year by year basis (Figure 25).

Figure 25: Firm births in London as percentage of total firm stock, top five sectors, 1998-2013



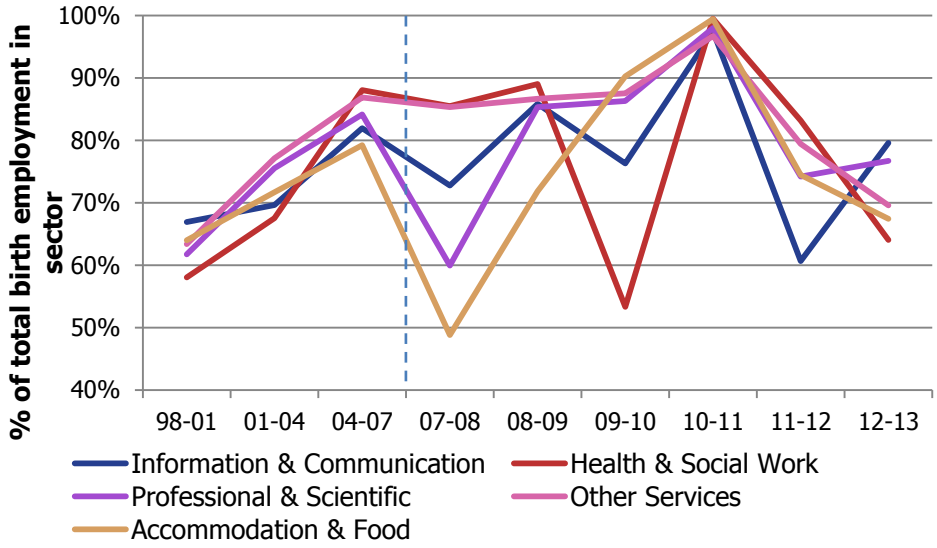
Source: TBR Observatory 2015 (TBR ref: W2/S6)

Consideration of the start-up data and the changing proportions between independent start-ups and the creation of subsidiaries or dependent start-ups raises questions about a fall in the number of new business opportunities being identified or an increase in activity by established businesses.

The situation is exacerbated when employment is considered (see Figure 26, below). The data would appear to corroborate the assertion that large start-ups are being set up as subsidiaries, or vice versa, that subsidiaries or branches tend to be large compared to independent start-ups. For instance, almost 90% of Information & Communication and Professional, Scientific & Technical Activities start-ups were

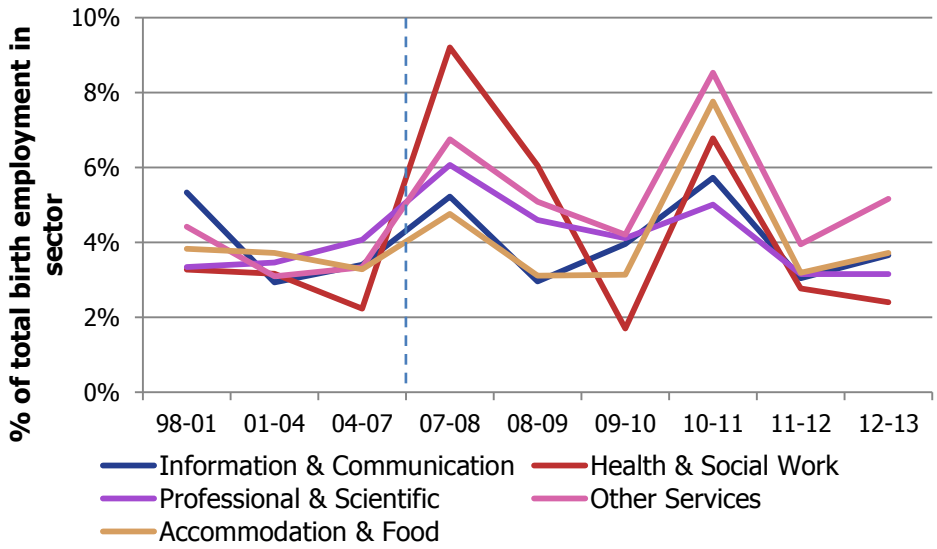
independent, indicating that just over 10% were subsidiaries. Yet these 90% (independent start-ups) were responsible for 75% and 80% of employment respectively. This means the 10% of dependent firm start-ups represented a disproportionate amount of employment in these sectors, indicating they are bigger firms with a higher number of average employees. Similarly, independent firm births represent a higher proportion stock in the top five sectors than they do for employment in these sectors. Through the time period, the proportion of stock in the top five sectors made up by independent firm births ranges from 5% to 25% (Figure 25), whereas they only make up between 2%-9% of employment in these sectors (Figure 27).

Figure 26: Proportion of employment associated with firm births in London that is from independent firm births, in top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W2/S6)

Figure 27: Employment associated with independent firm births in London as a percentage of total employment, top five sectors, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W2/S6)

For a detailed analysis of independent firm births by sector across the sub-geographies of London, see section 13.1 in the appendix.

6.4 Firm births of subsidiaries or branches

6.4.1 Introduction

New firms may be created as brand new entities or as subsidiaries of existing businesses. In this section, we focus on firms that are started by existing businesses, referred to as dependent start-ups, subsidiaries or branches.

Dependent firms are an important component of the economy. They represent a key mechanism for existing, and successful, businesses to expand. Depending on their legal structure, they also provide a means for 'parent firms' to limit the risk associated with increasing capacity and reducing the potential of contagion between disparate parts of a large organisation.

6.4.2 Headlines

The key findings from the analysis of dependent firm start-ups are:

- The number of new dependent firms fell dramatically (around 80%) between 2007-08 and 2010-11 and had nearly recovered by 2012-13.
- The data for associated employment is even more dramatic with the total for London falling from 140,000 in 2007-08 to under 10,000 in 2010-11. Full recovery has yet to be achieved.
- New subsidiaries and branches represent an increasing proportion of all start-ups. This is even more pronounced when reviewing associated employment.
- New subsidiaries and branches are, on average, significantly larger than independent start-ups.
- Public Administration & Defence; Compulsory Social Security and Wholesale & Retail trade consistently generate the largest number of new branches (dependent start-ups), including in the combined CAZ & NIOD.

6.4.3 Dependent firm births in London

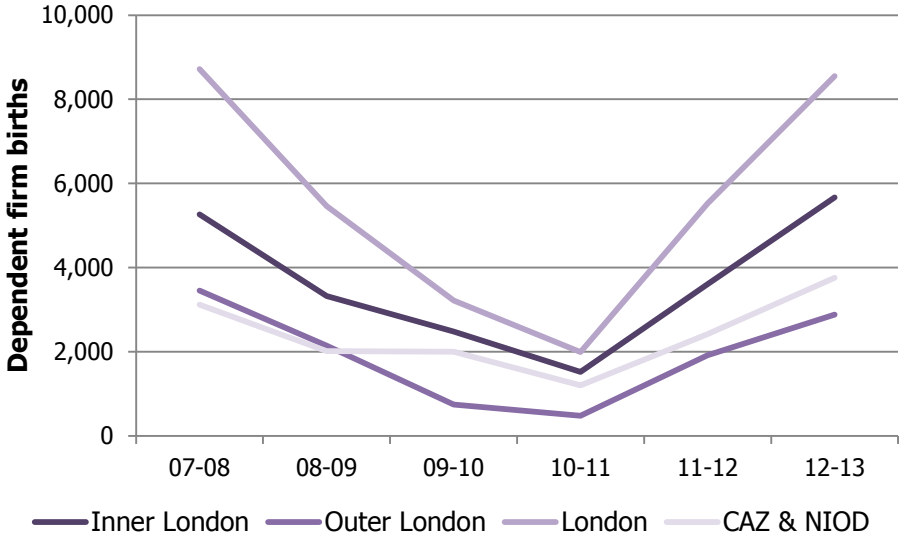
We have structured this section to address dependent firm births across London and its sub-geographies first, and then to look at the impact of sectors.

London and sub-geographies

From Figure 28, we can see that the recession coincided with a major decrease in the number of new subsidiaries or branches being set up. Following a low in 2010-11, numbers recovered in 2012-13 to the level previously seen in 2007-08.

The trend in new subsidiaries is clearly different to that of independent start-ups, which peaked in 2010-11, followed by a reduction in numbers.

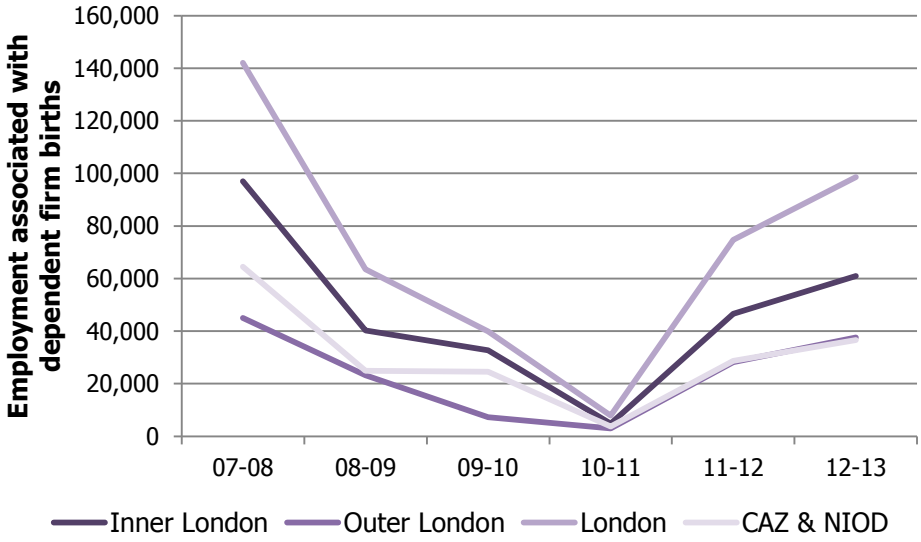
Figure 28: New business branches or subsidiaries, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

The associated employment data (see Figure 29) make the trend clearer with relatively few jobs being generated from new subsidiaries in 2010-11.

Figure 29: Associated employment of new business branches or subsidiaries, 2007-2013



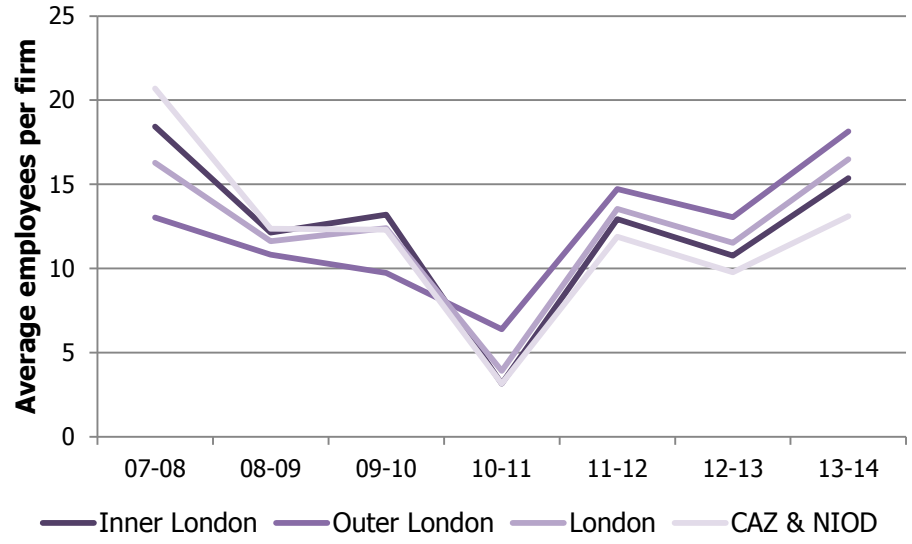
Source: TBR Observatory 2015 (TBR ref: W3/S1)

The percentage fall in employment associated with branch or subsidiary start-ups from 2007-2011 is even greater than the percentage decline in the number of firms. This is because not only were fewer branches or subsidiaries opening, but the average number of employees per firm also fell steadily during the period – from 16 in 2007-2008 to 4 in 2010-2011 (as shown in Figure 30). Since then, as the number of start-ups has increased, so has the average firm size which has recovered to near pre-2007 levels.

However, there were two exceptions to this trend in 2010-2011 where the Transportation & Storage, and Public Administration & Defence sectors saw a large spike in average employee size of dependent start-

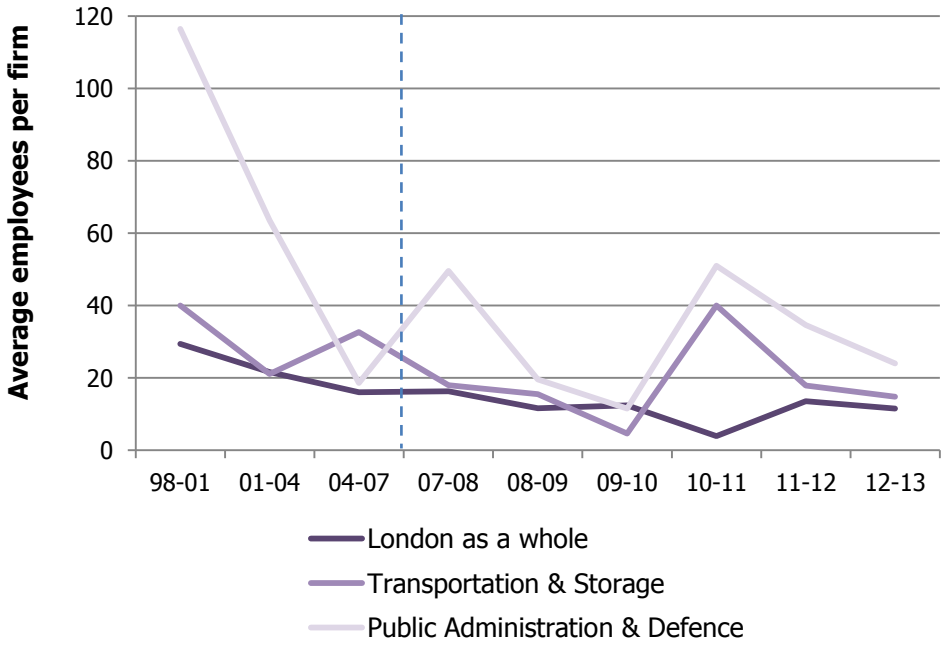
ups. This is even more of an exception when considering that the average employees of dependent start-ups in London as a whole fell in this year (Figure 31).

Figure 30: Average number of employees per firm for new business branches or subsidiaries, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

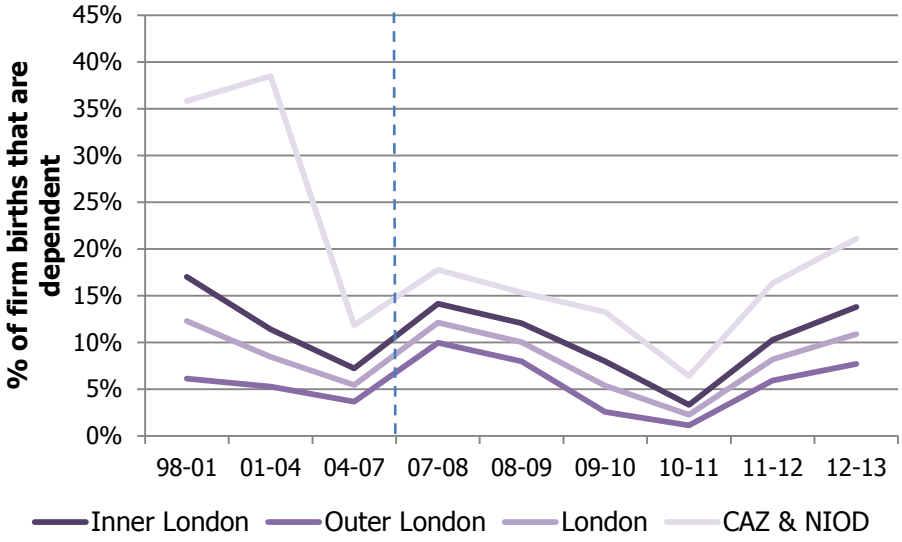
Figure 31: Average employees of new business branches or subsidiaries in London, sector comparison, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1 & W3/S6)

The data reviewing the proportion of start-ups represented by subsidiaries (see Figure 32) reflects the trend in employment shown above and is a mirror image of that for independent start-ups. This sees new subsidiaries now comprising one quarter of all new start-ups, a major change from 2010-11.

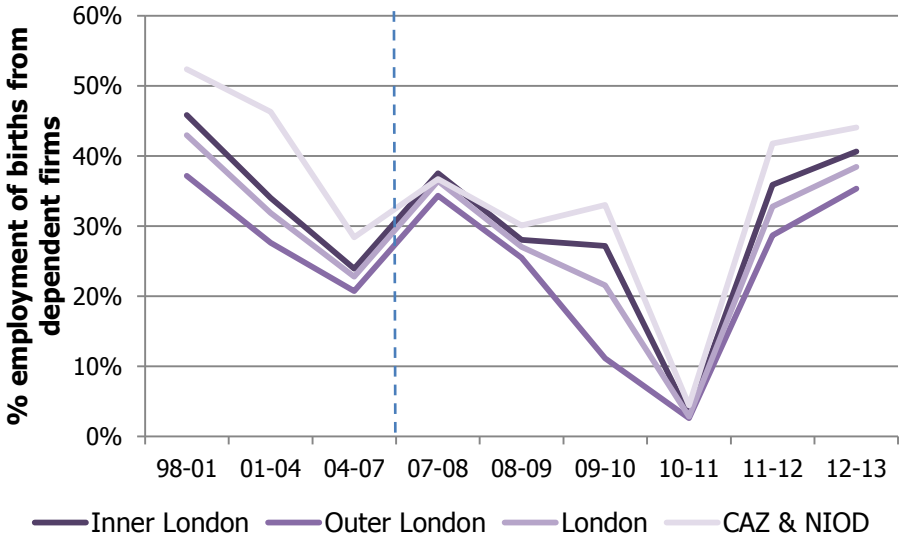
Figure 32: Percentage of births that are branches or subsidiaries, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

Data for associated employment (shown in Figure 33) is more pronounced with subsidiaries and branches responsible for nearly 40% of all employment created by start-ups. As might be expected the combined CAZ & NIOD has a noticeably higher proportion of dependent start-ups, and outer London the lowest.

Figure 33: Percentage of employment associated with births that are branches or subsidiaries, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

Sectors

Data for the top five sectors for subsidiaries are presented in Table 3. The sectors are somewhat different to those for independent business start-ups. There is consistency in that the start-up rates in 2008-2014 are greater than for 1998-2007, apart from in Public Administration & Defence.

Table 3 : Top five sectors by dependent firm birth rate (annual) as percentage of existing sector stock, 1998-2014

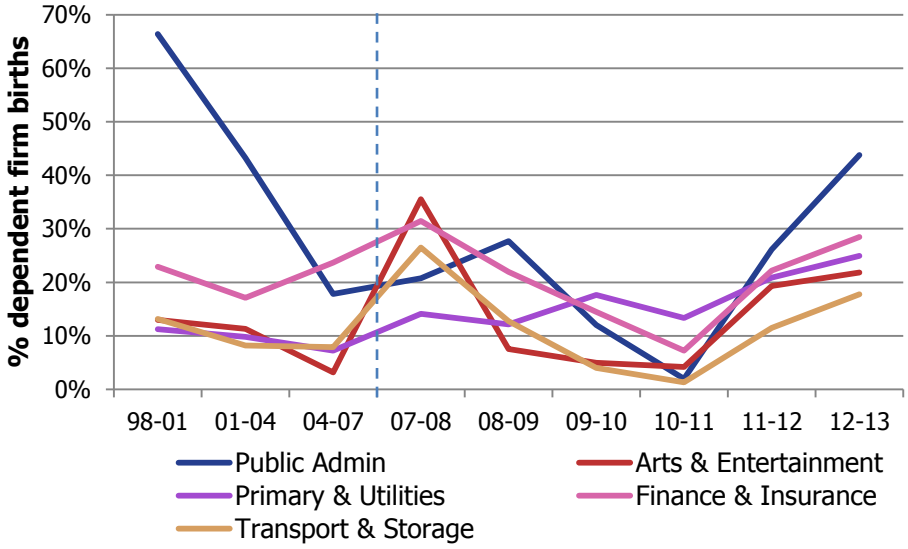
1998-2007		
Sector	**Average annual birth rate (percentage of stock)**	**Average annual birth rate (absolute numbers)**
Public Administration & Defence etc.	5.0%	59
Financial & Insurance Activities	1.4%	313
Health & Social Work	1.3%	216
Education	1.2%	113
Primary & Utilities	0.9%	25

2008-2014		
Sector	**Average annual birth rate (percentage of stock)**	**Average annual birth rate (absolute numbers)**
Public Administration & Defence etc.	2.9%	69
Arts, Entertainment & Recreation	2.2%	389
Primary & Utilities	2.1%	104
Financial & Insurance Activities	2.1%	526
Transportation & Storage	1.3%	194

Source: TBR Observatory 2015 (TBR ref: W3/S6)

The ratio of subsidiaries to independent start-ups varies across these sectors and over time. For example, we see from Figure 34 that proportions of subsidiaries to independent new firms were significantly volatile with a low reached in 2010-11 when the vast majority of starts were independent.

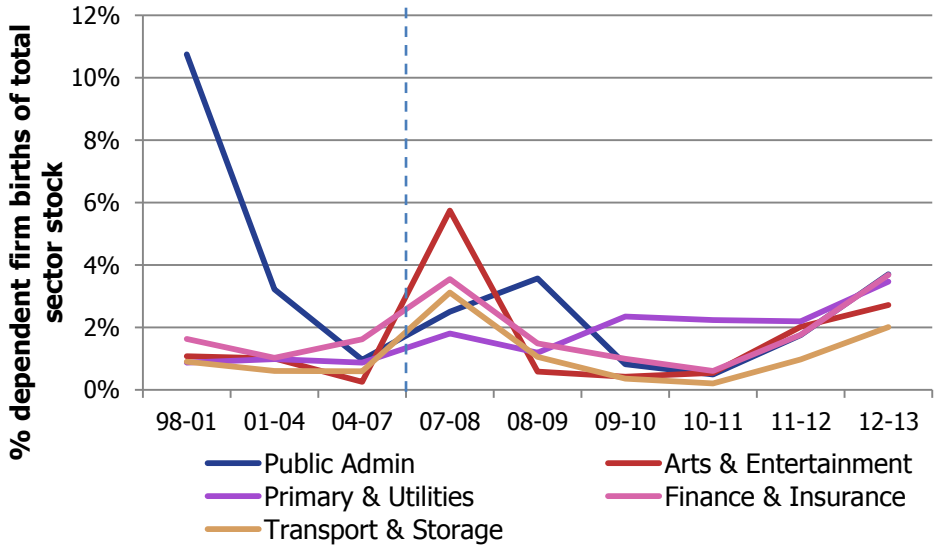
Figure 34: Proportion of sector births that are from branches or subsidiaries in London by key sector, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

Figure 35 indicates that new subsidiaries make up between 2% and 4% of the total firm population across all the sectors, a level only previously see in 2007-08.

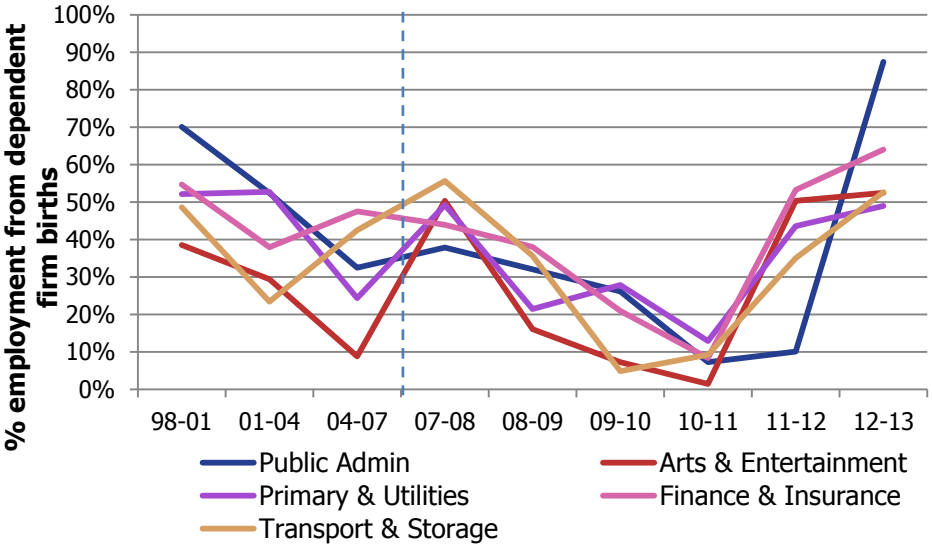
Figure 35: Dependent births as percentage of total sector stock in London by key sector, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S1)

The associated employment data show greater variation between the sectors as well as increased volatility (see Figure 36, below).

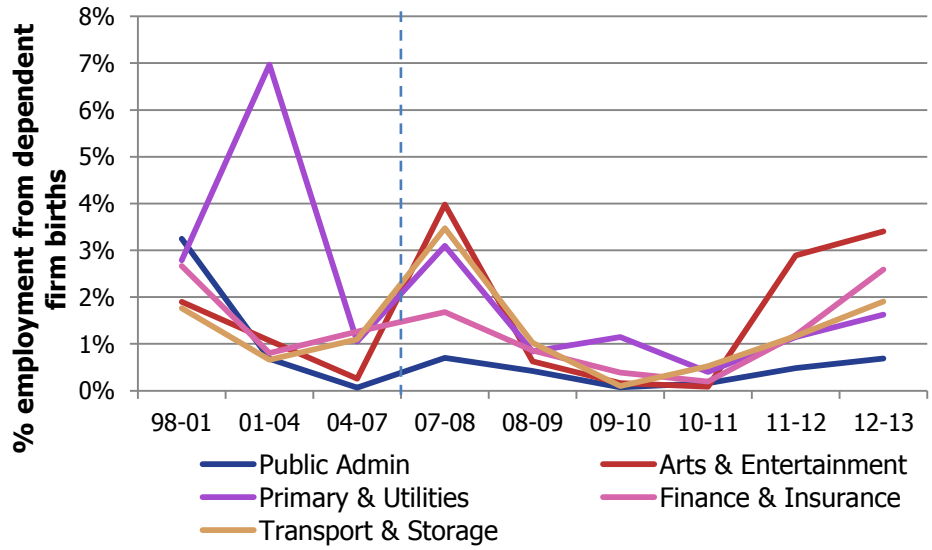
Figure 36: Proportion of sector employment from births that are branches or subsidiaries in London, key sectors, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S6)

Figure 37, below, presents the proportion of total sector employment provided by subsidiaries and branches.

Figure 37: Proportion of dependent employment births of total sector employment in London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W3/S6)

For a detailed analysis of independent firm births by sector across the sub-geographies of London, see section 13.3.2 in the appendix.

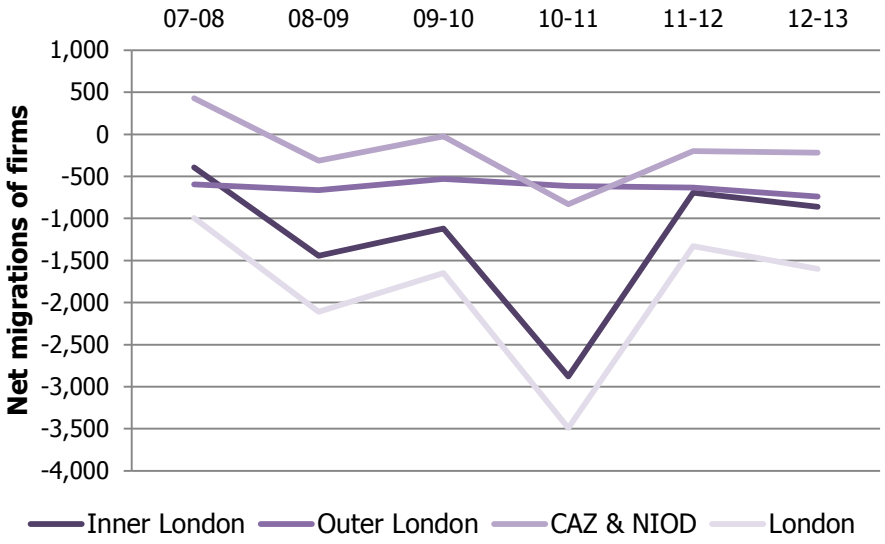
7. Firm migration

In this section we investigate firm migration into, out of and within London.

7.1 Net Migration

Figure 38 demonstrates that net migration in London was consistently negative from 2007-08 to 2012-13, ie there was net out migration. Only the combined CAZ & NIOD posted any net in migration and this was in 2007-08..

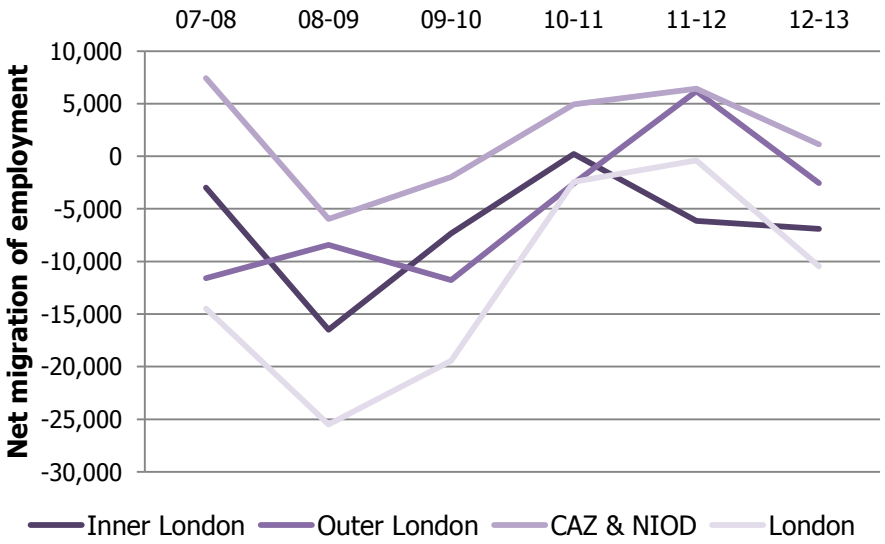
Figure 38: Net migration of businesses, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S1)

Figure 39 shows the net position for employment associated with migration. Here we see some parts of London gaining employment despite the net flow of firms being negative. This suggests that a number of in migrators were larger than their counterparts which moved out of the capital.

Figure 39: Net migration of employment, 2007-2013



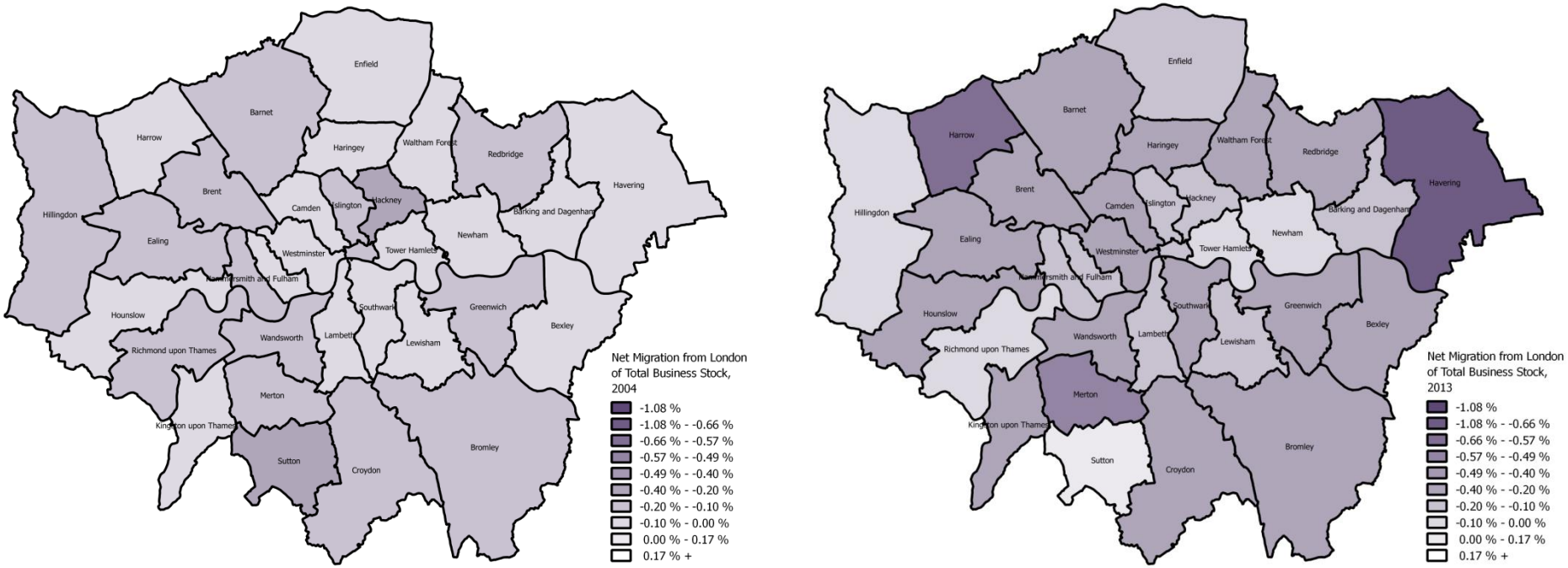
Source: TBR Observatory 2015 (TBR ref: W4/S1)

In absolute terms there has been a loss of firms and employment to the Greater South East and the rest of the UK. In 2012-13, 1,600 more firms migrated out of London than migrated in, resulting in a net loss of employment to the GSE and the rest of the UK of 10,470.

Figure 40 shows net migration in and out of London, by Borough, in 2004 and 2013 (and not including migration between London boroughs). The maps indicate that in 2013, most Boroughs experienced net outward migration, with Sutton the only Borough showing a noticeable net gain from migration.

Figure 40: Net migration of businesses to and from London in 2004 and 2013 (as percentage of business stock)

2004 **2013**



Source: TBR Observatory 2015
QGIS Development Team, 2015. QGIS Geographic Information System.

TBR ref: W4/M1 & M2

7.2 Inward Migration

In this sub-section we investigate the migration of firms into London and within London. Initially we seek to understand where firms are moving to, and then examine the role played by sectors.

7.2.1 Introduction

Inward migration by businesses is important for several reasons:

- It represents an increase in the business stock so adds to economic output and employment.
- In migrating firms bring know-how, represent additional demand for local suppliers and add to the supply base.
- In migration represents a vote of confidence in the local economy.

The analysis was undertaken by:

- Identifying all the firms located within the target geography.
- Selecting all those firms which existed in the preceding year and which had an address outside the target geography.
- Selecting and aggregating data relating to firm numbers and employment.
- Undertaking analysis by sector and firm origin.

The results of the analysis are intended to provide insights into the flows of businesses and employment and help assess the attractiveness of London and its sub-geographies as locations for specific sectors.

7.2.2 Headlines

The key findings from the analysis of firm migration into London are:

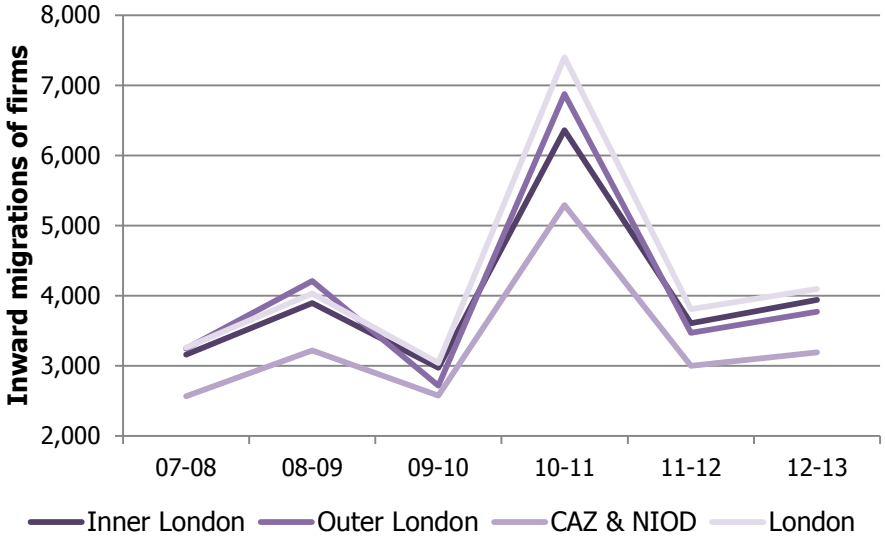
- Firm migration into London has increased from a low base in 1998.
- The trend has been one of consistent increase, but there has been significant turbulence with troughs in 2009-10 and 2011-12 and a significant peak in 2010-11.
- Inward migration has become more important over time as the firms involved make up an increasing share of the firm base and overall employment.
- Inward migration has had greatest impact on the combined CAZ & NIOD.
- Primary & Utilities, Information & Communication and Manufacturing are the sectors most affected by firms migrating into London.
- The Greater South East provides the largest number of inward migrating firms.
- Employment associated with inward migration tends to come equally from the Greater South East and the rest of the UK.

We also note that intra-London migration can cause confusion as the numbers tend to be larger than those for London as a whole.

7.2.3 Firm migration into London

Across London, we can see from Figure 41 that in migration has contributed between 3,000 and 7,000 new firms each year between 2007 and 2013. This represented between 0.2% and 1.2% of the firm population over the extended period 1998 to 2013 (see Figure 45). This compares to business start-ups which comprised 12% of the total firm population in 2013.

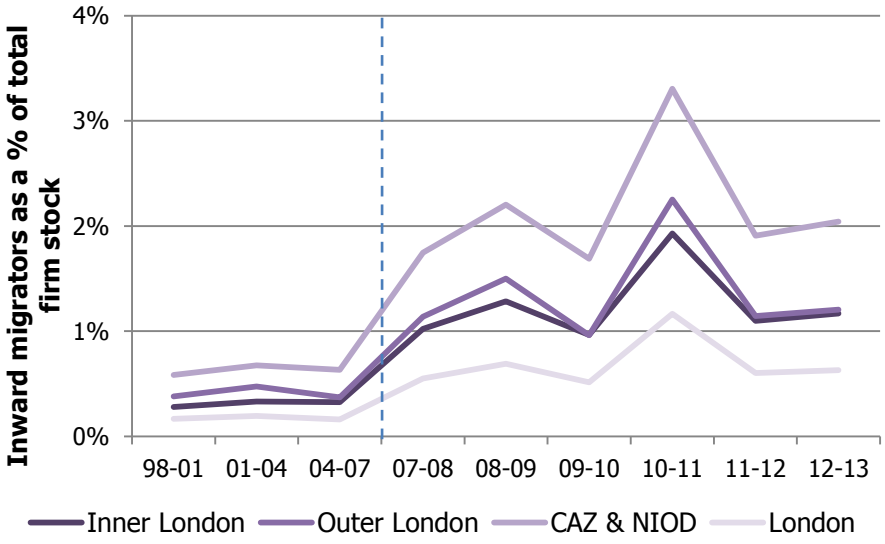
Figure 41: Inward migration of firms into London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S1)

From Figure 42, we can see that the trend line of in-migrating firms as a percentage of business stock is one of gradual increase until 2010-2011 when there was a sudden increase. Since then fluctuation is apparent, as the level of in migration subsequently fell back, only to rise again slightly in 2012-13.

Figure 42: Inward migrating firms as a percentage of total business stock by area, 1998-2013



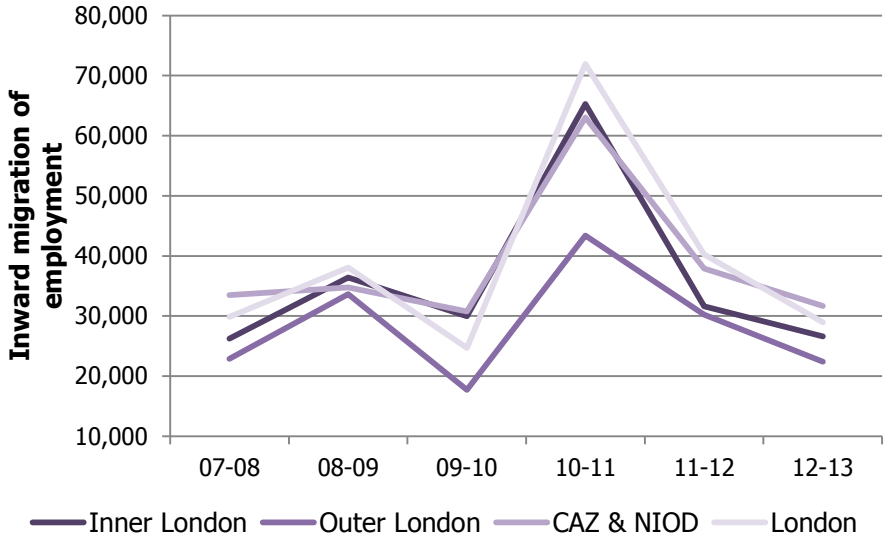
Source: TBR Observatory 2015 (TBR ref: W4/S1)

In addition to the movement of firms themselves, there is the employment associated with these businesses. The 4,100 firms that moved into London in 2013 were responsible for employment of 29,000, an average of of 7 employees per firm. This compares to the average for London's continuing firms of 8.5 employees per firm. While not directly supported by the data, we can surmise that in-migrators are larger, possibly more established businesses.

Figure 43 shows the trend in employment gained via inward migration over the period 2007 to 2013. This follows the pattern of firm numbers. Again, there is little difference in trends across London and its sub-

geographies, though inner London tends to grow proportionally less in terms of employment than firm numbers.

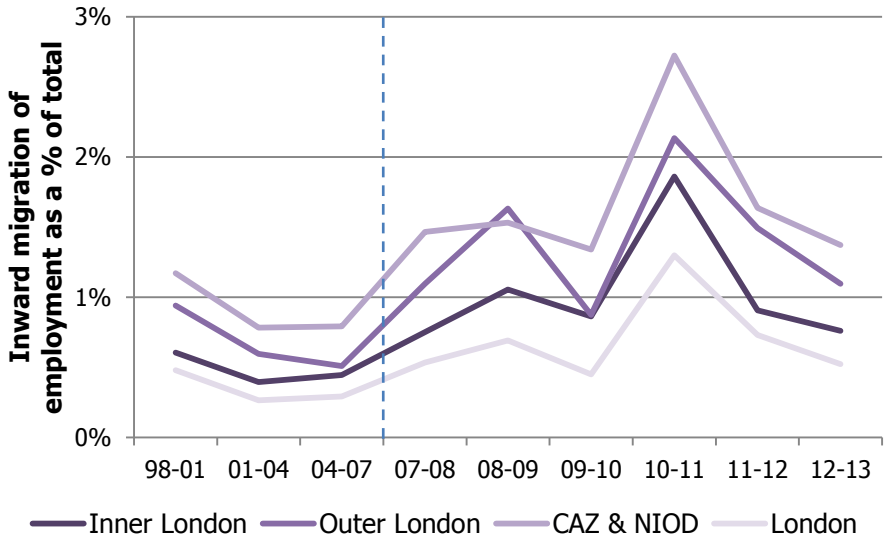
Figure 43: Inward migrations (employment) into areas of London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S1)

Within London, in migration varies in importance by location. The data for London represents migration of firms which originated outside London. However, for the sub-geographies, businesses may have moved from elsewhere in London, eg. from outer London to the combined CAZ & NIOD. For the sake of clarity, it should be noted that firm moves into and within London are independent of each other and that more firms may move within London, than into London from outside.

Figure 44: Inward migration (employment) as a percentage of total stock in each area, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W4/S1)

7.2.4 Role and impact of sectors

In 1998-2007 and 2008-2014, inward migrators to London were focused in sectors outlined in Table 4.

Table 4: Top five sectors by inward migration to London as percentage of existing sector stock, 1998-2014

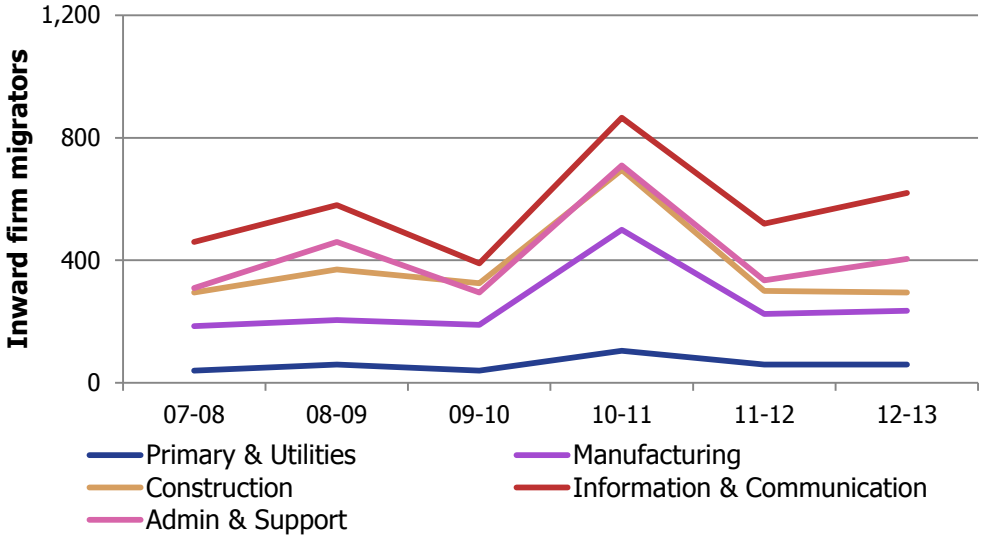
1998-2007 - firms		
Sector	**Average in migration as percentage of sector stock**	**Average in migration per year (absolute numbers)**
Primary & Utilities	0.33%	11
Information & Communication	0.33%	112
Manufacturing	0.26%	61
Financial & Insurance Activities	0.24%	56
Transportation & Storage	0.21%	26

2008-2014 - firms		
Sector	**Average in migration as percentage of sector stock**	**Average in migration per year (absolute numbers)**
Primary & Utilities	1.34%	70
Information & Communication	1.21%	631
Manufacturing	1.06%	274
Administrative & Support Service Activities	0.94%	434
Construction	0.86%	394

Source: TBR Observatory 2015 (TBR ref: W4/S6)

In keeping with the pattern of overall inward migration, the four largest of these sectors show an increase in migration over the period 2007-2014 with a spike in 2010-2011, with the Information & Communication sector seeing the fastest growth in inward firm migration in recent years. The exception is the Primary & Utilities sector which has more consistent, albeit lower absolute numbers, of inward migrating firms over the time series.

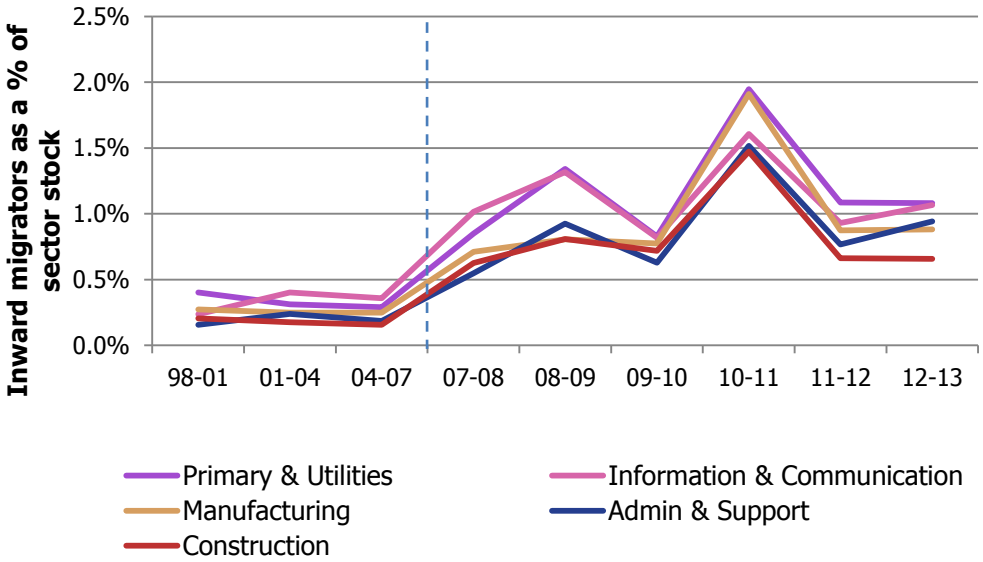
Figure 45: Firms migrating to London in the top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S6)

Figure 46, below, highlights the importance of inward migration to sectors in London in 2013 compared with 2008

Figure 46: Firms migrating to London as percentage of sector stock, in the top five sectors, 2008-2013



Source: TBR Observatory 2015 (TBR ref: W4/S6)

The top five sectors in terms of associated employment of in-migrating firms in 1998-2007 and 2008-2014 are shown in Table 5.

Table 5: Top five sectors by employment associated with inward migrators to London (as percentage of existing sector employment), 1998-2014

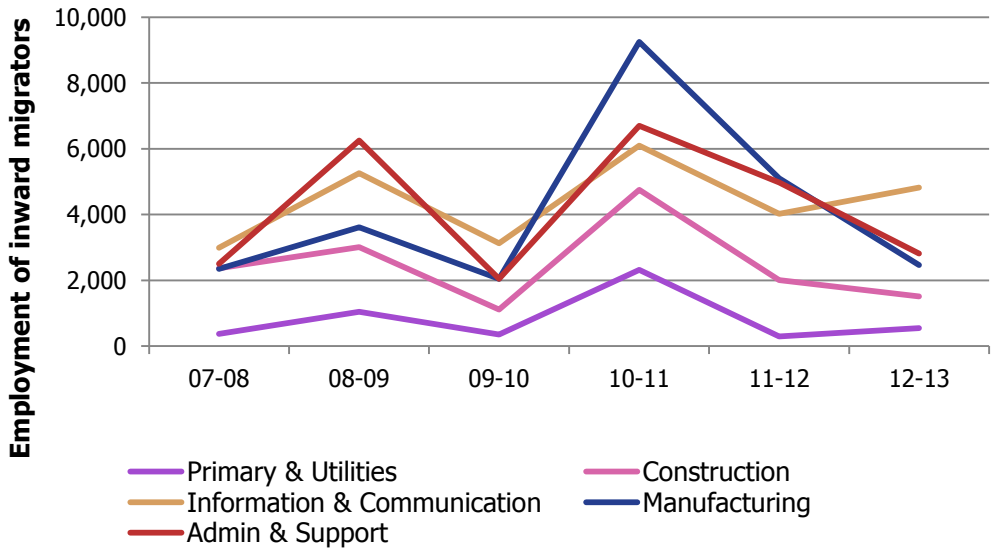
1998-2007 - employment		
Sector	**Average in migration as percentage of sector stock**	**Average in migration per year (absolute numbers)**
Information & Communication	0.49%	2,283
Manufacturing	0.41%	1,838
Construction	0.36%	1,027
Public Administration & Defence etc.	0.32%	1,717
Transportation & Storage	0.31%	914

2008-2014 - employment		
Sector	**Average in migration as percentage of sector stock**	**Average in migration per year (absolute numbers)**
Manufacturing	1.61%	4,207
Primary & Utilities	1.31%	886
Information & Communication	1.22%	4,931
Construction	1.18%	2,579
Administrative & Support Service Activities	1.14%	4,833

Source: TBR Observatory 2015 (TBR ref: W4/S6)

The amount of associated employment migrating into London in each sector from 2007-2013 followed a similar pattern, as seen in Figure 47 below. There has been a growth in employment in inward migrating firms with a spike in 2010-2011 (most notably in Manufacturing) and faster growth in recent years (most notably in Administrative & Support Service Activities).

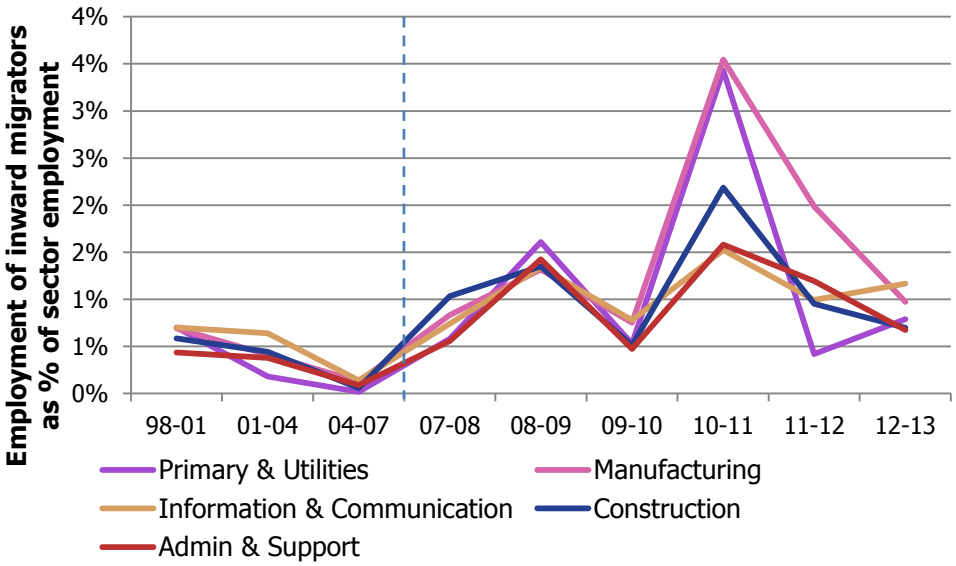
Figure 47: Employment of firms migrating to London in the top five sectors (in-migration as percentage of total employment in the sector), 2008-2013



Source: TBR Observatory 2015 (TBR ref: W4/S6)

Figure 48, below, shows the percentage of all sector employment made up of inward migrating employment associated with the top five sectors. The trend follows a similar pattern for each sector, aside from in 2010-2011 where Primary & Utilities and Construction see a large peak. For Primary & Utilities this most likely represents a small number of 'big moves' – ie a smaller number of firms with large employment.

Figure 48: Employment of firms migrating to London as percentage of sector employment, top five sectors, 2008-2013



Source: TBR Observatory 2015 (TBR ref: W4/S6)

7.2.5 Origin of inward migrators

In this section, we examine the origin of firms migrating into London and its sub-geographies. A review of the origin of in-migrating firms during the period 2008-2014 provides a number of insights:

- The majority of the most common origins for firms are local authority districts located adjacent to London or in the Greater South East.
- There is variation between the top origins for firms and those for employment, with Birmingham being the largest origin of firm employment (Table 6). Birmingham is notable in that it is in both lists and is outside the Greater South East. Its inclusion is most probably driven by size as it is the largest single local authority in the UK.

Table 6 : Origin of inward migrating firms to London by top ten local authority contributors of firms and employment, 2008-2014

Firms per year (average)	
Origin	**Firms**
Hertsmere	128
Elmbridge	101
Epping Forest	95
Birmingham	75
Slough	68
Brighton and Hove	68
Sevenoaks	63
St Albans	63
Reigate and Banstead	61
Three Rivers	58

Employment per year (average)	
Origin	**Employment**
Birmingham	1,279
Slough	1,229
Elmbridge	1,065
St Albans	873
Bristol, City of	828
Edinburgh	751
Manchester	718
Hertsmere	675
Runnymede	658
Spelthorne	647

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

The data do not provide any indication about why firms migrate into London. However, we can speculate that a number of factors may be at play, which are all benefits of agglomeration, for example:

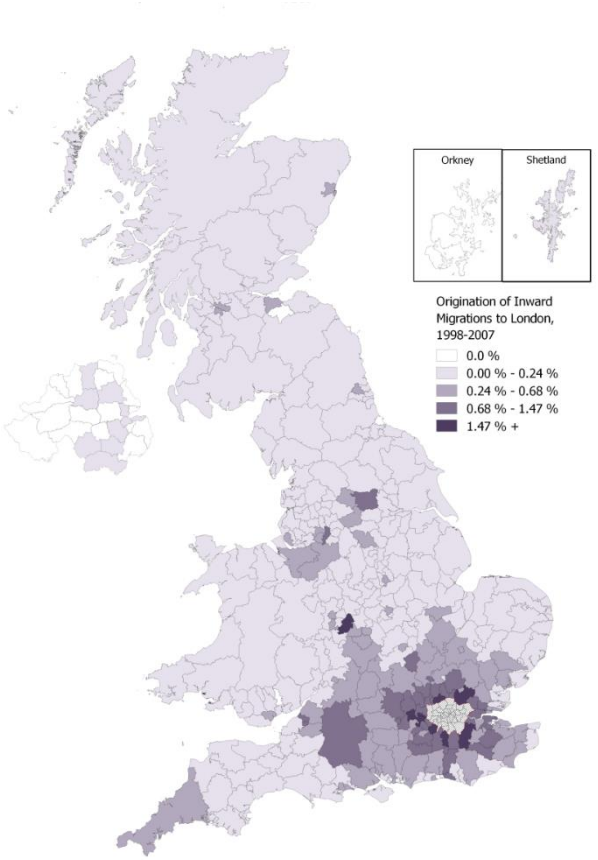
- Access/proximity to clients
- Access/proximity to other firms operating in the supply chain
- Access to labour
- Connectivity

It would appear reasonable to assume that premises, labour and other input costs would be higher in London than outside the capital, so the advantages of a London location are great enough to justify the additional costs.

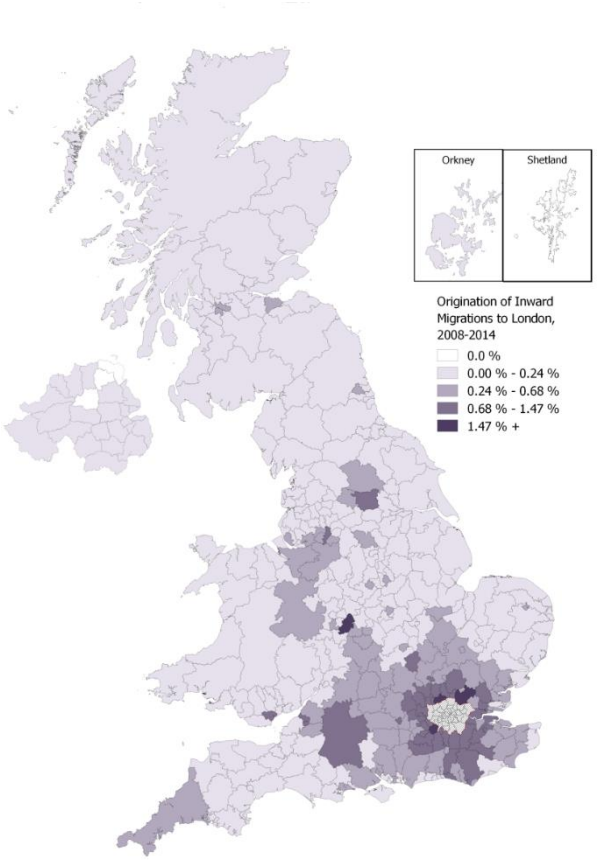
Figure 49 illustrates the origin of firms migrating into London throughout the periods 1998-2007 and 2008-2014. It is presented as a thematic map, with those local authorities which contribute the most firms being shaded darkest. In both time periods the areas immediately surrounding London feature highly along with the Greater South East. There are a small number of local authorities which are further away which feature in both time periods, most notably Birmingham.

Figure 49 Origin of inward migrating firms 1998-2007 and 2008-2014 (percentage of all inward migration)

1998-2007



2008-2014



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.

TBR ref: W5/M5 and M6

7.3 Outward migration

In this section we investigate the migration of businesses out of London. Initially we seek to understand where firms move to and then look in more detail at a selection of sectors.

7.3.1 Introduction

Outward migration by businesses is important for several reasons:

- It represents a decrease in the business stock so diminishes economic output and employment.
- Out migrating firms take with them know-how, represent a reduction in demand for local suppliers and detract from the supply base.
- Out migration represents changing factors in the attractiveness of the local economy compared to other locations.

The analysis was undertaken by:

- Identifying all the firms located within the target geography at the start of the period being investigated.
- Selecting all those firms which no longer had an address within the target geography
- Selecting and aggregating data relating to firm numbers and employment.
- Undertaking analysis by sector and firm destination.

The results of the analysis are intended to provide insights into the flows of businesses and employment and help assess the extent to which London and its sub-geographies are no longer seen as key locations for specific sectors.

7.3.2 Headlines

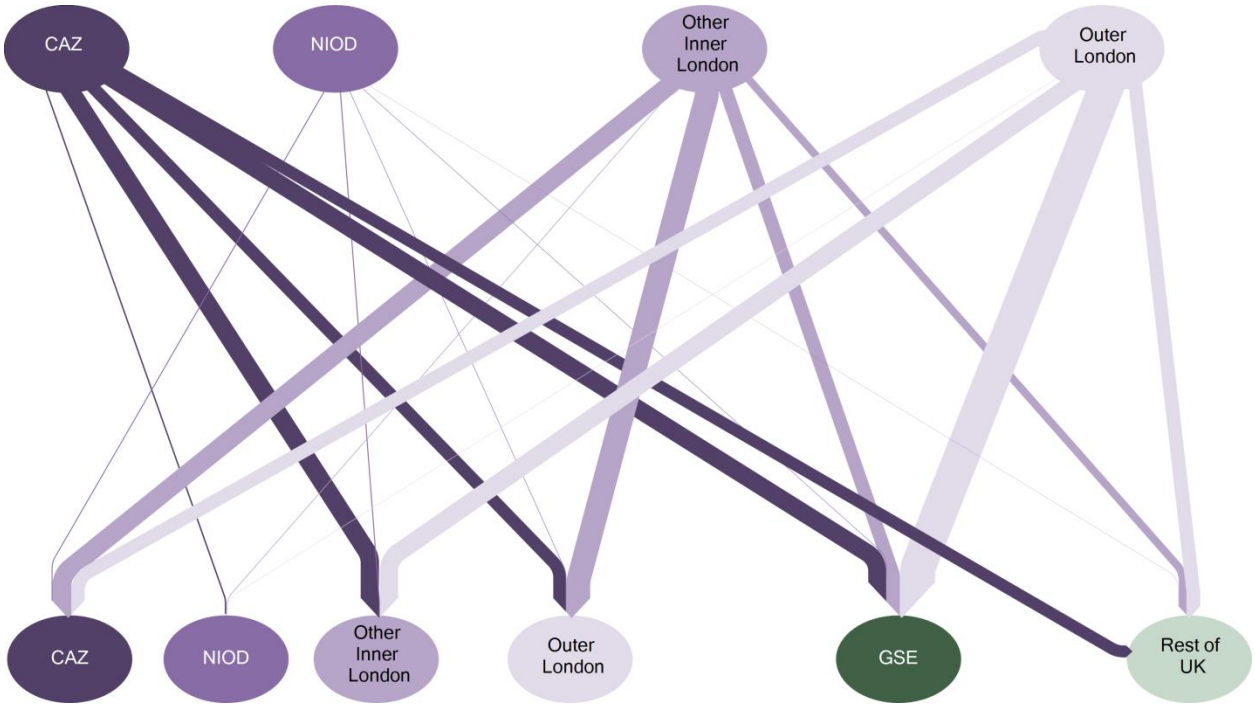
The key findings from the analysis of firm migration out of London are:

- The trend has been one of consistent increase, but there has been significant turbulence with troughs in 2009-10 and 2011-12 and a significant peak in 2010-11.
- Outward migration has become more important over time as the firms involved make up an increasing share of the firm base and overall employment.
- The Information & Communication, Health & Social Work and Professional, Scientific & Technical Activities sectors are those most affected by out migration over the period 2008 to 2013.
- The Greater South East is the preferred destination for out migrating businesses.
- Employment associated with outward migration tends to relocate fairly equally to the Greater South East and the rest of the UK.

Figure 50 shows the size of outward migration flows from the sub-geographies within London relative to each other, and how outward migration from each is spread across different destinitations. For example, a similar number of firms migrating from the CAZ move to elsewhere in inner London as they do the Greater South East, whereas from outer London the GSE is the leading destination for outward migrating firms.

It is interesting to see that most firms leaving inner London (excluding the CAZ) stay within the capital, with similar numbers moving into the CAZ or to outer London.

Figure 50: Overview of outward migration of firms from London sub-geographies

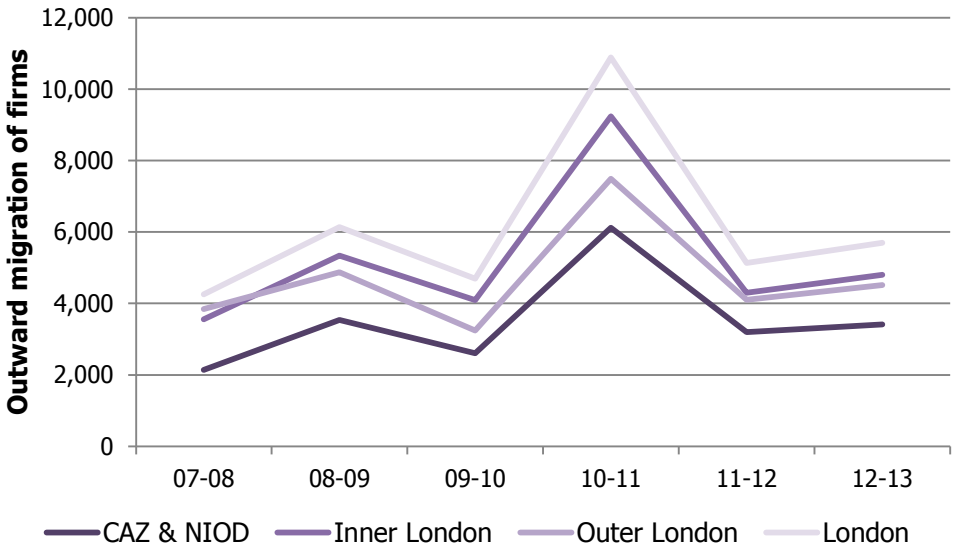


Source: TBR Observatory 2015 (TBR ref: W7/M7)

7.3.3 Migration out of London

Figure 51 shows that as with inward migration, the number of firms moving out of London has increased steadily over the period 1998 to 2013. There has been some volatility with a spike in 2010-11.

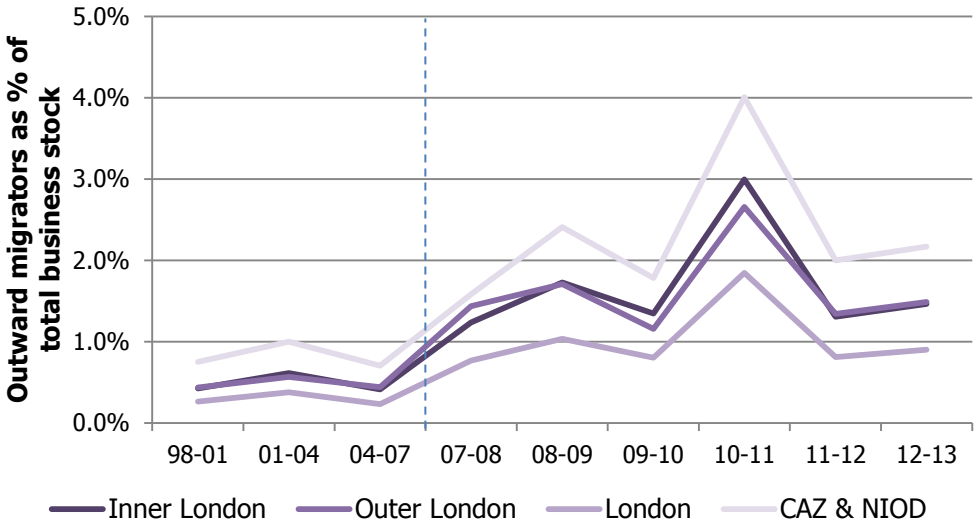
Figure 51: Outward migrations of firms from London and sub-geographies, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W6/S1)

The impact of firm out migration on the overall stock of businesses is shown in Figure 52, below.

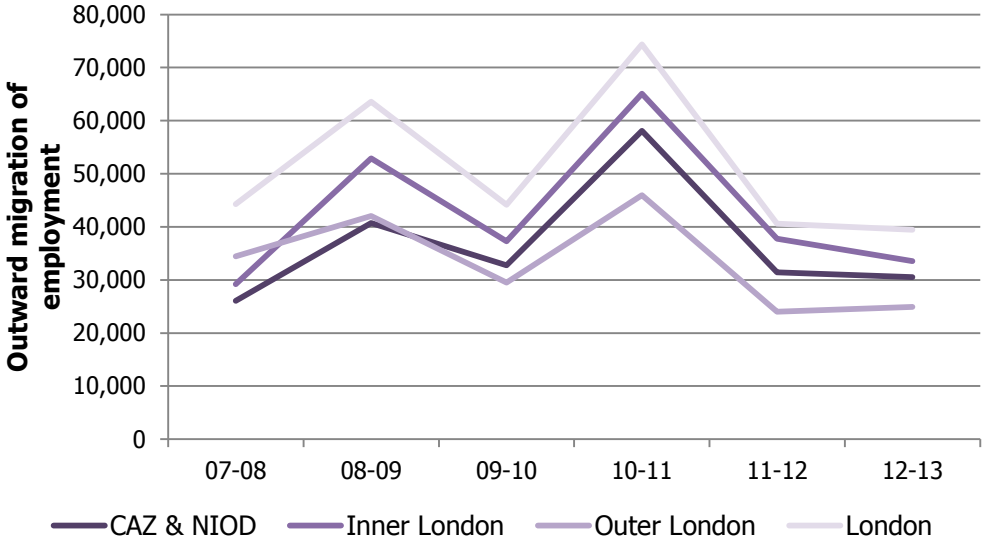
Figure 52: Outward migrations as a percentage of total business stock in areas of London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W6/S1)

Figure 53 shows the pattern of employment associated with out migrating businesses, following a similar pattern as for firm migration.

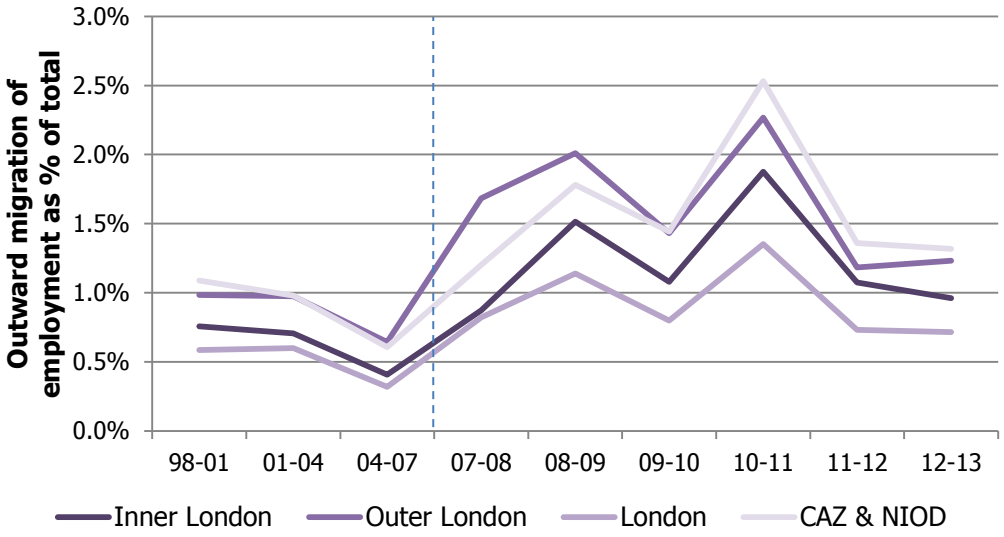
Figure 53: Outward migrations (employment) from London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W6/S1)

Figure 54, below, shows the impact of the loss of employment through out migration. Since 2007-2008, London as a whole has seen around 1% of its business stock migrate out each year.

Figure 54: Outward migrations (employment) as percentage of total employment in areas of London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W6/S1)

7.3.4 Role and impacts of sectors

In 1998-2007 and 2008-2014, outward migrators from London were focused in the sectors outlined in Table 7. We see that the average number of firms, as well proportions, migrating out of London have increased significantly in the period 2007 to 2014.

Table 7: Top five sectors by outward migrating firms out of London as percentage of existing sector stock, 1998-2014

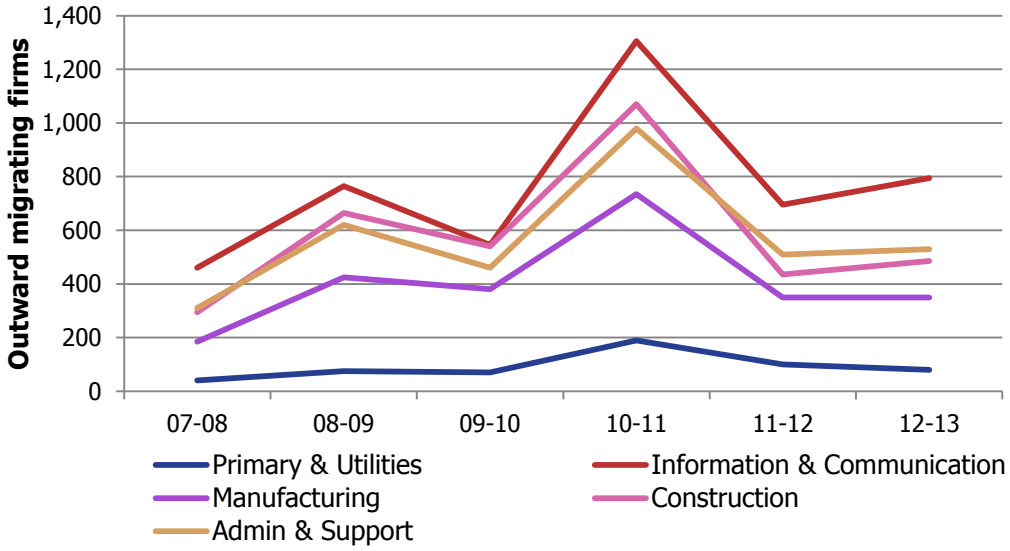
1998-2007 - firms		
Sector	**Average migration rate out of London (percentage of stock)**	**Average outward migration per year (absolute numbers)**
Primary & Utilities	0.63%	18
Manufacturing	0.57%	134
Information & Communication	0.51%	160
Transport & Storage	0.40%	48
Construction	0.35%	117

2008-2014 - firms		
Sector	**Average migration rate out of London (percentage of stock)**	**Average outward migration per year (absolute numbers)**
Primary & Utilities	1.93%	95
Information & Communication	1.68%	840
Manufacturing	1.62%	415
Construction	1.31%	598
Admin & Support	1.21%	579

Source: TBR Observatory 2015 (TBR ref: W6/S6)

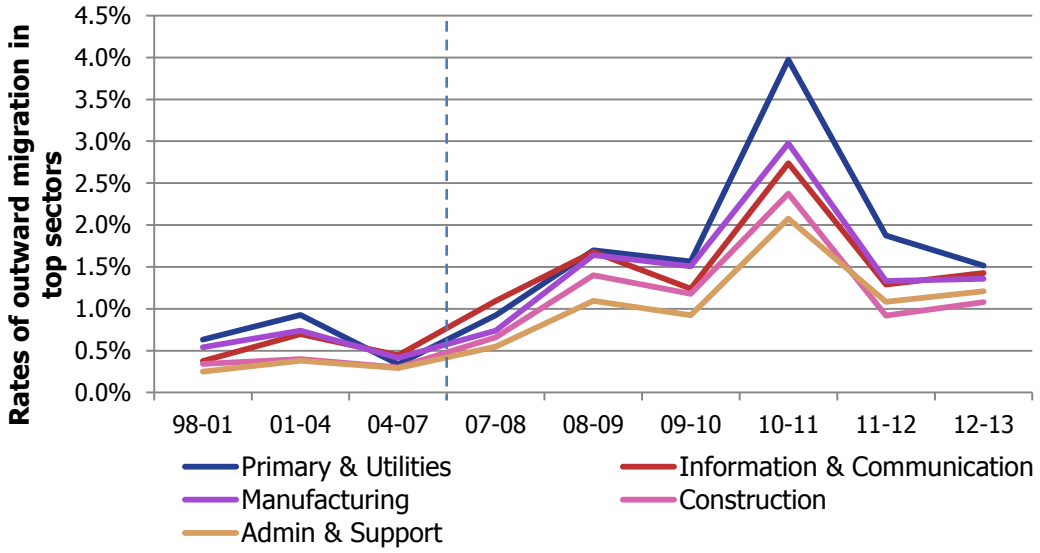
Information & Communication, Primary & Utilities, Manufacturing, Administrative & Support Service Activities and Construction were hardest hit from out migration of firms in terms of the proportion of stock lost. The trend in outward migration of firms in these sectors since 2007-2008 is shown in Figure 55 and Figure 56.

Figure 55: Firms migrating out of London in the top five sectors (out-migration as percentage of sector stock), 2008-2013



Source: TBR Observatory 2015 (TBR ref: W6/S6)

Figure 56: Outward migration rates in percent of top sectors, London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W6/S6)

The associated employment of outward migrating firms in 1998-2007 and 2008-2014 was focused in the sectors outlined in Table 8.

Table 8 : Top five sectors by outward employment migration to London as percentage of existing sector employment, 1998-2014

1998-2007 - employment		
Sector	**Average migration rate out of London (percentage of stock)**	**Average outward migration per year (absolute numbers)**
Manufacturing	1.39%	5,008
Primary & Utilities	0.83%	472
Construction	0.74%	1,716
Information & Communication	0.68%	2,602
Transportation & Storage	0.62%	1,478

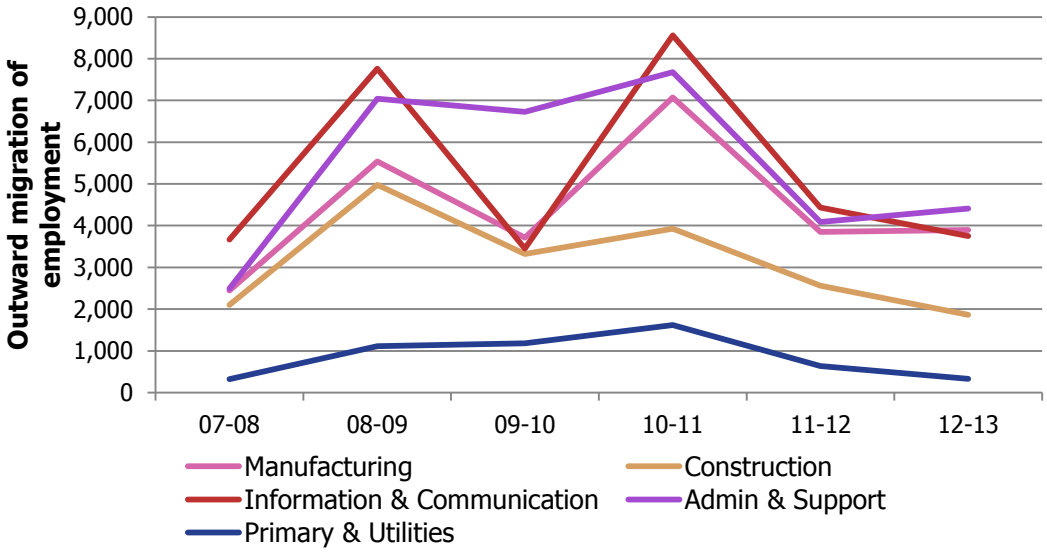
2008-2014 - employment		
Sector	**Average migration rate out of London (percentage of stock)**	**Average outward migration per year (absolute numbers)**
Manufacturing	1.88%	5,003
Construction	1.56%	3,430
Information & Communication	1.51%	6,074
Administrative & Support Service Activities	1.36%	5,867
Primary & Utilities	1.31%	866

Source: TBR Observatory 2015 (TBR ref: W6/S6)

The trend in outward migration of employment in these sectors is shown in Figure 56 and Figure 57. Whilst the Information & Communication sector has lost the most employment, especially since 2010, it is Manufacturing which has been hardest hit in terms of the proportion of jobs leaving London since 2010.

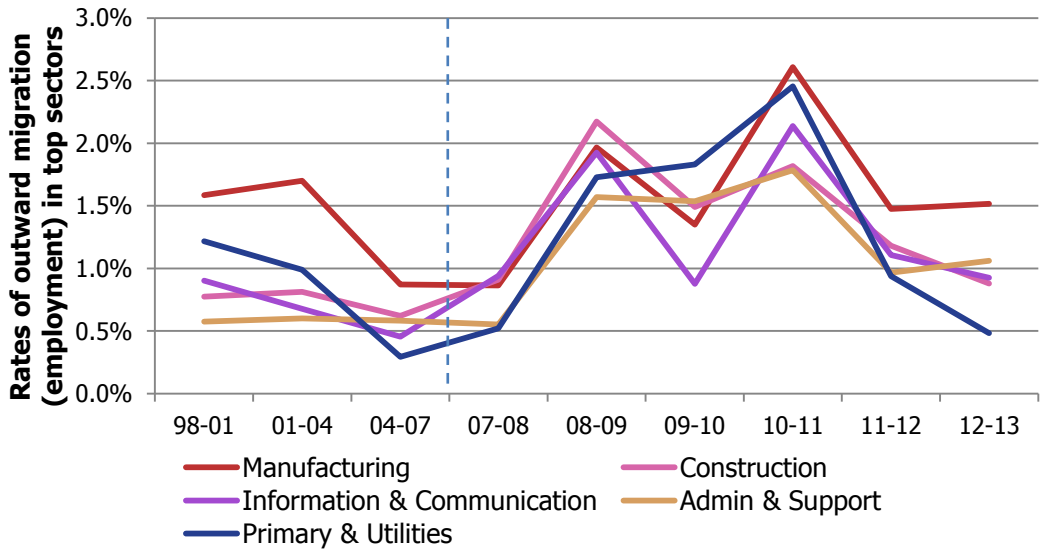
One observation is that prior to a peak in outward migration from all the top sectors in 2010, Manufacturing's rate of employment loss was no different from the other four sectors. However, since then Manufacturing has maintained a higher rate of outward employment migration.

Figure 57: Associated employment migrating out of London in the top five sectors (out-migration as percentage of total employment in the sector), London 2008-2013



Source: TBR Observatory 2015 (TBR ref: W6/S6)

Figure 58: Rates of outward migration (employment) in percent of top sectors, London 1998-2013



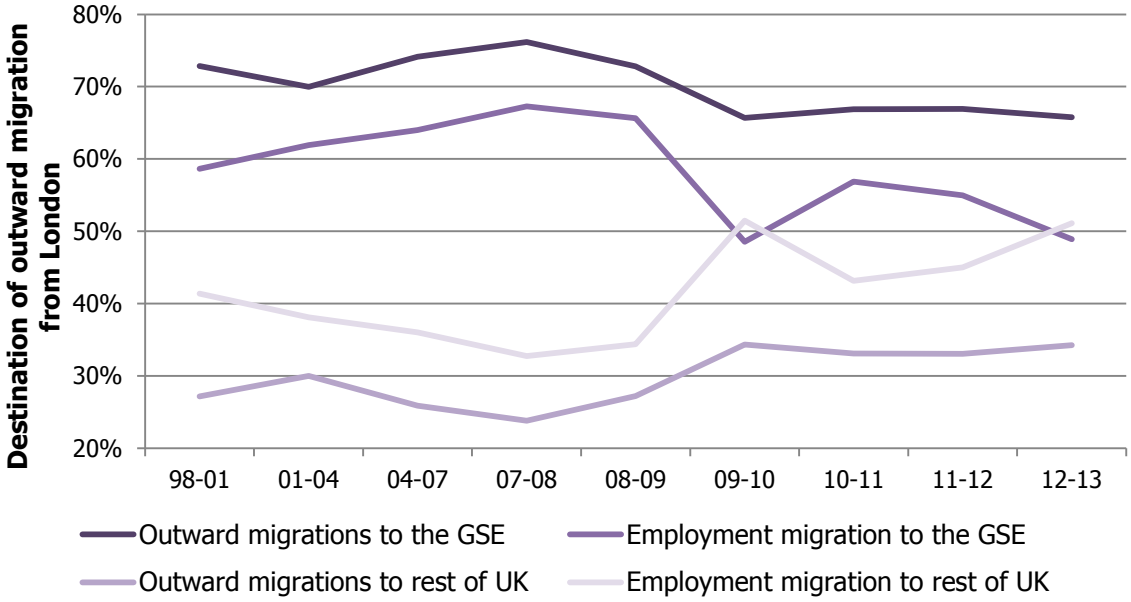
Source: TBR Observatory 2015 (TBR ref: W6/S6)

7.3.5 Destinations of outward migrators

In this section, we seek to gain further insight into the destinations of firms migrating out of London and its sub-geographies. Figure 59 shows the proportion of firms and associated employment migrating to the Greater South East compared with the Rest of the UK.

In 2012-13 the majority of firms which left London moved to the Greater South East, with 65.8% of firms who migrated out of London moving there (with 34.2% moving to the rest of the UK)[7]. In contrast, 51.1% of outwardly migrating employment moved from London to the rest of the UK, and 48.9% to the GSE. This suggests that more large firms (in terms of employee numbers) have moved to the rest of the UK than to the GSE.

Figure 59: Destinations of outward migration from London (firms and employment), 1998 – 2013



Source: TBR Observatory 2015 (TBR ref: W9/S5b-c)

Table 9 sets out the top ten destinations in terms of firm numbers and associated employment for firms leaving London during the period 2007-2014. All of the top ten destinations by firm count are in local authorities neighbouring London or within the GSE. However, the data on employment associated with these migrators is more diverse with a greater variety of destinations, almost half of which are not in the GSE.

[7] Note: Migration data only refers to moves within the UK. Firms who migrate outwards internationally are registered as closures, and firms who migrate inwards internationally are registered as births.

Table 9: Top ten destinations of outward migrating firms from London by firm count and employment, 2007-2014

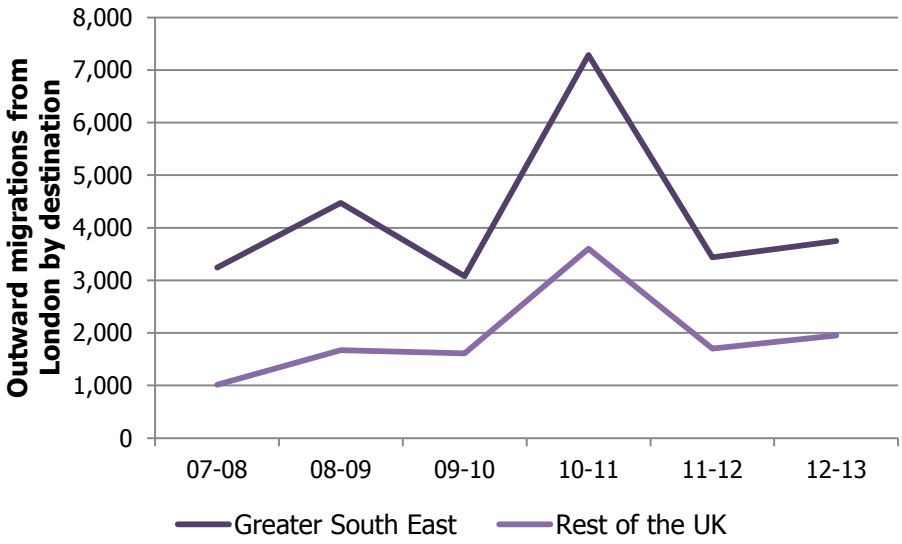
Firms per year (average)	
Destination	**Firms**
Hertsmere	173
Elmbridge	155
Epping Forest	139
Sevenoaks	101
Three Rivers	99
Brighton and Hove	97
Reigate and Banstead	92
Watford	89
Dartford	83
St Albans	82

Employment per year (average)	
Destination	**Employment**
Elmbridge	1,432
Manchester	1,287
Hertsmere	1,187
Birmingham	1,174
Watford	820
City of Edinburgh	782
Leeds	772
Epping Forest	766
Runnymede	756
Sevenoaks	751

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

Again the data do not provide any indication for the reasons that firms relocate out of London. It would appear reasonable to suppose that for these firms, when comparing against other locations, the drawbacks associated with a London location (such as cost and competition for resources) outweigh the advantages.

Figure 60: Outward migrations from London (firms) by destination, 2007-2013



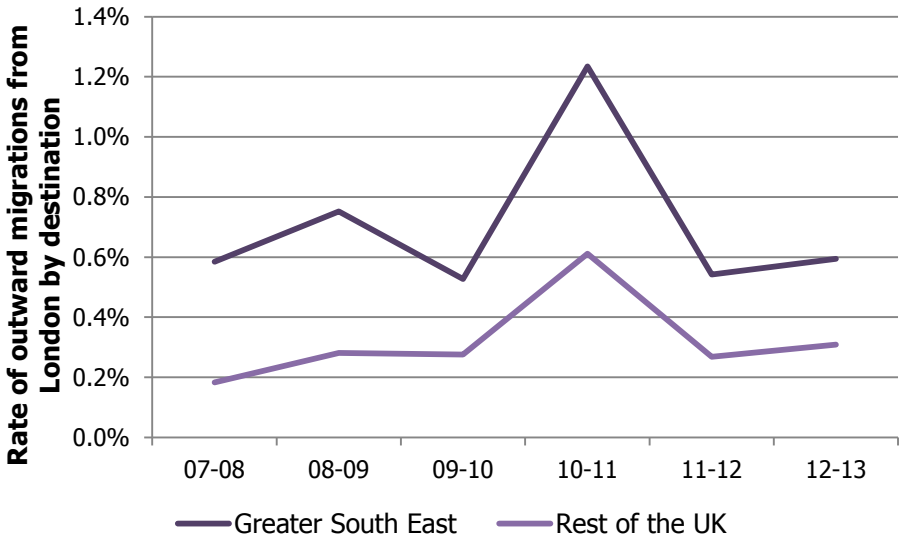
Source: TBR Observatory 2015 (TBR ref: W7/S1)

The number of firms relocating out of London has fluctuated since 2007. Although there isa spike in 2010-11 in both the absolute number of out migrating firms and the proportion of London's business stock relocating, by 2012-2013 the rate of out migration had fallen to almost identical levels as in 2007-2008.

Around twice as many firms moved to the Greater South East in 2012-2013 as to the rest of the UK, although this ratio has widened, and then narrowed since 2007 when over three times as many firms moved to the GSE than to the rest of the UK.

As can be seen from Figure 61, the pattern of migration to these destinations over time. The trends are very similar, though movement to areas outside the GSE are marginally less volatile.

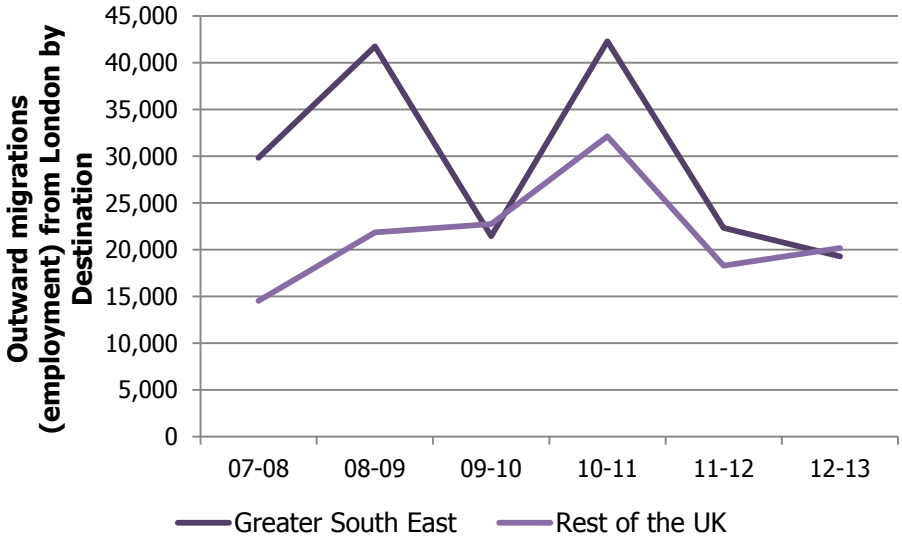
Figure 61: Rate in percent of outward migrations (firms) from London by destination, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W7/S1)

We see from Figure 62 that the upturn in outward migration to the Greater South East had a much larger impact on employment than it did on firm numbers. We also note that the relative differences between the two destinations were less pronounced for employment than firm numbers. There was in fact two periods ofconvergence in 2009-2010 and again in 2011-2013. Wheeras in 2007-2008 out migration of employment to the GSE was twice that of out migtration to the rest of the UK, by 2012-2013 the levels were almost the same, with the rest of the UK being slightly higher

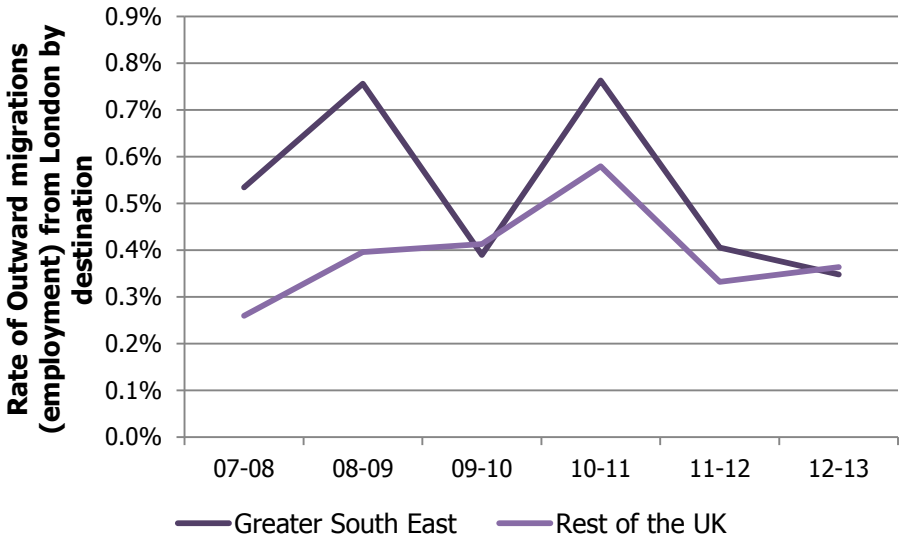
Figure 62: Outward migration (employment) from London by destination, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W7/S2)

The pattern is repeated in terms of the impact of outward migration on total employment.

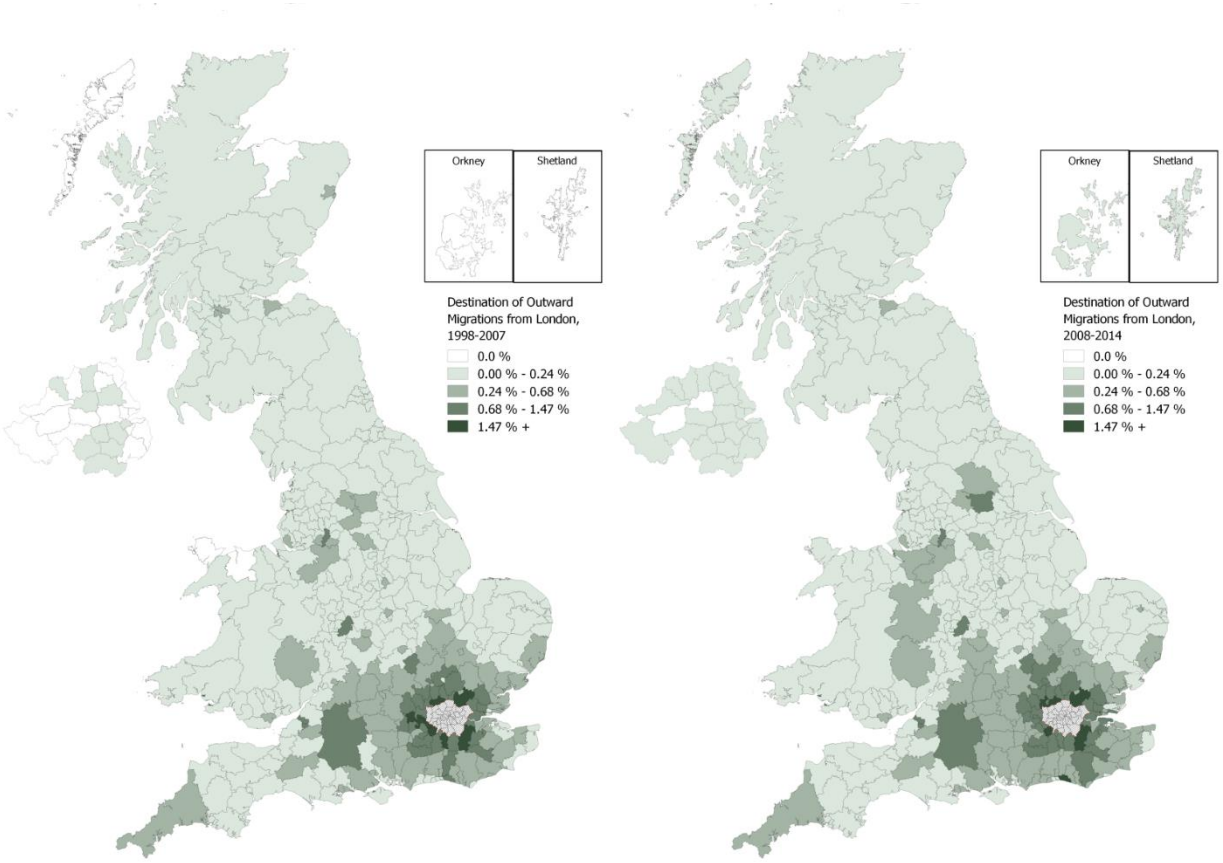
Figure 63: Rate in percent of outward migration (employment) from London by destination, 2007-2014



Source: TBR Observatory 2015 (TBR ref: W7/S2)

Figure 64: Destination of outward migrating firms, 1998-2007 and 2008-2014, by local authority (percentage of all outward migration)

1998-2007 **2008-2014**



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015. TBR ref: W11/M1

8. The movement and growth of established firms in London

8.1 Introduction

In this section we review activity of established firms in London during the timespan 1998 to 2014, with an emphasis on the period since 2007-08.

We define established firms as those which are aged 5 years or older in a given year, ie a firm which was born 5 or more years ago and has continued since. Due to the fact that we are looking at a long time series of data, more firms will become classified as established as we look at more recent data. For example, a firm born in 2001 would become classified as 'established' in 2006 and each subsequent year it is operating.

We have analysed established firms to assess whether businesses that have been in existence for a period of time have grown in London, or migrated into or out of London to or from the Greater South East or the rest of the UK.

Our analysis covers these main topics:

- Established firms and their employment – trends in the number and employment of established firms
- Sub-geographies – trends in the number and employment of established firms in London sub-geographies
- Established firm migration – trends in the inward and outward migration of established firms

8.2 Headlines

Key headlines from the analysis of established firms are:

- The number of established firms in London and each of the sub-geographies has increased over time from 1998 to 2013, albeit modestly:
    - The proportion of all London firms which are established firms has changed from 49% in 2008 to 51% in 2013.
- There has been a more striking in change in the proportion of London employment made up by established firms:
    - The proportion of all London employment which is in established firms has changed from 55% in 2008 to 70% in 2013
- Established firms represent a smaller proportion of inward and outward migration in 2013 than at any time since 1998.

8.3 Established firms in London

The number of established firms in London and each of the sub-geographies has increased over time from 1998 to 2013. This growth is in keeping with the rise in firms in London as a whole, meaning that the contribution of established firms to London's total business stock remains relatively static. The data shows the proportion of all London firms which are established firms changing just two percentage points from 49% in 2008 to 51% in 2013.

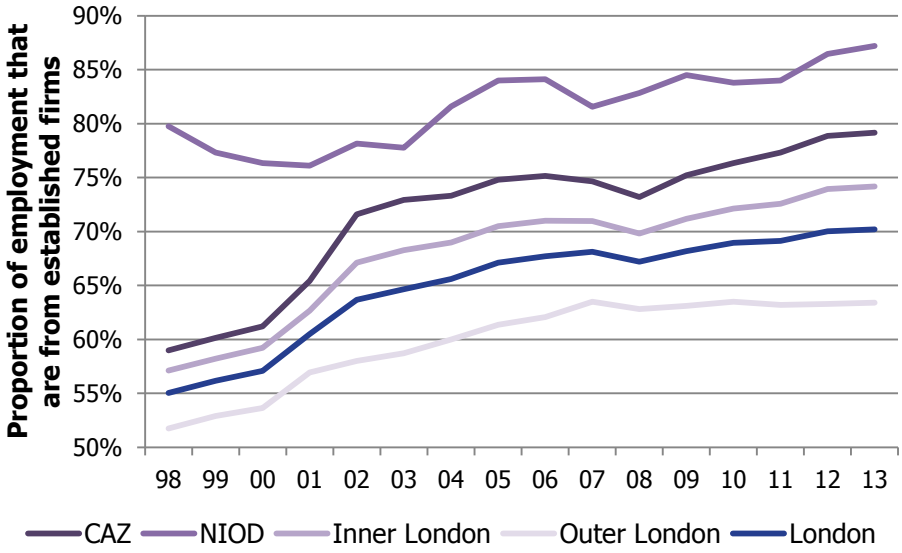
There has been a more striking in change in the employment of established firms and their contribution to employment in the London and sub-geography economies as a whole. The proportion of all London employment which is in established firms has changed from 55% in 2008 to 70% in 2013

The NIOD had the smallest proportion of established firms among its of its business population in 2013 up (48%), although the area has seen the joint highest percentage point increase since 1998 (44%). A

similar rise has been seen in the CAZ which has consistently had the highest proportion of established firms of any of the geographies studied from 1998 (53%) through to 2013 (57%).

When looking at the proportion of total employees made up of established firms, all the sub-geographies have seen a substantial increase. In the CAZ in 2013, 79% of employment is made up of established firms, compared to just 59% in 1998. Inner London (74% from 57%) and outer London (63% from 52%) have also seen increases. Overall, the proportion of total London employment represented by established firms has risen from 55% to 70% (Figure 65).

Figure 65: Proportion of total employment contributed by established firms by area, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W8/S1)

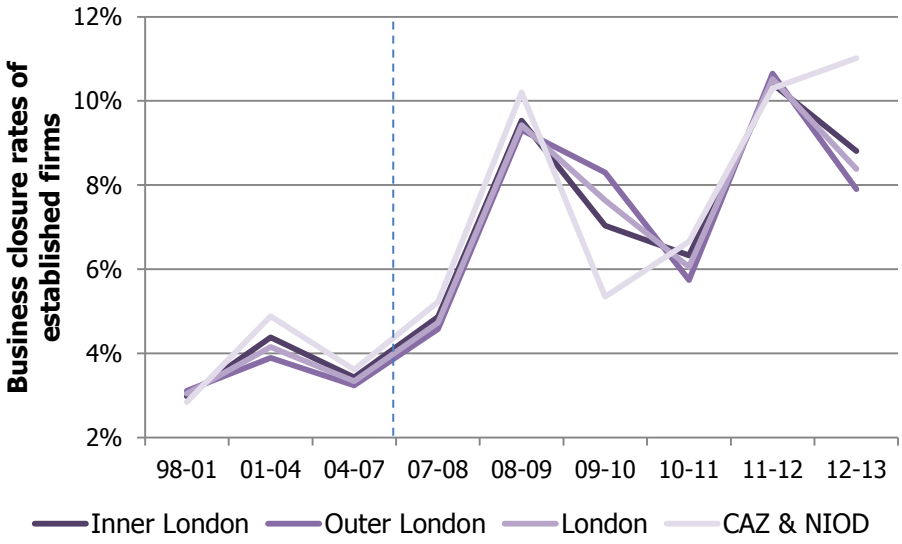
When looking at firm size, established firms in NIOD have seen a drastic fall in the average number of employees, from 81 employees per firm in 1998, to 39 employees per firm in 2014. This is likely due to growth in the relatively small firm population and development of the area as a business location over a relatively short time period which has seen a greater range of firm sizes move to the area.

Whilst the other areas have seen falls in average employment, these have been much more modest. For example, the CAZ, inner London, and outer London have seen falls from 23, 17 and 12 to 20, 15 and 8 respectively. London as a whole saw average employment per firm fall a small amount from 15 in 1998 to 12 in 2015.

Reflecting on these trends, it becomes evident that established firms in London have behaved differently and with different characteristics to other firms. The proportion of business stock made up of established firms has increased slightly and the average number of employees per established firm has fallen slightly. However, the proportion of all employment in established firms has increased at a higher and more disproportionate rate. This suggests that non-established firms must have seen even greater falls in the average number of employees per firm, or even a fall in employment across the economy.

Trends in closure rates of established firms are clearly different before and after the financial crisis. In all geographies there has been a step change in the rate of closure following 2008. Following a peak in closure rates in 2011-2012 there appears to be an end to the post-2008 trend, with closure rates in 2012-2013 reverting to pre-2008 levels. However, it is too early to tell how sustained this trend will be in future years.

Figure 66: Closure rates of established businesses, 1998 – 2013



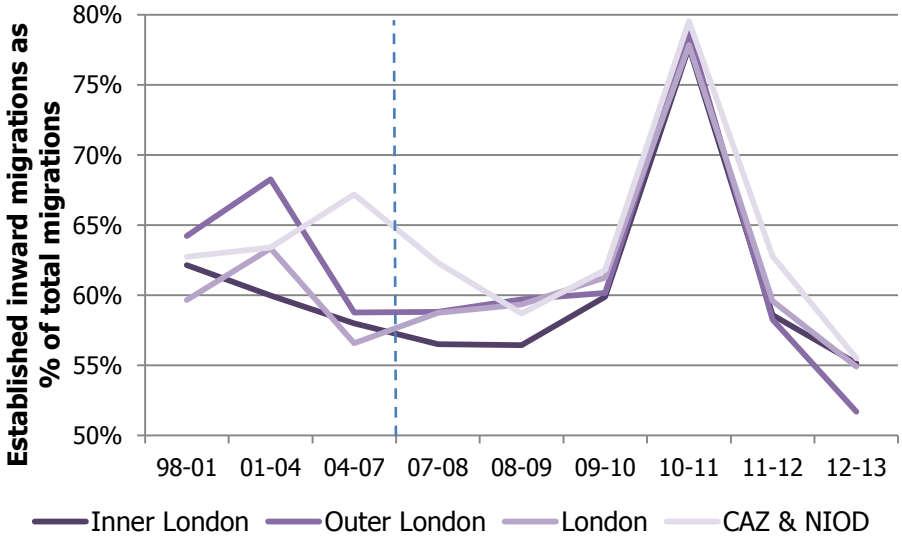
Source: TBR Observatory 2015 (TBR ref: W8/S2)

8.4 Migration of established firms

The NIOD has consistently seen a high proportion of inward migrating firms among its established business count. In 2013, inward migrating firms comprised 4% of all established business compared with 1% in London as a whole. Although not directly comparable across geographies due to different absolute numbers of firms, this can give an indication that the make-up of the NIOD business base is still developing, with a relatively high proportion of this business base being firms which have migrated in.

It is more comparable to study what proportion of firms which migrate into these areas are established firms. Since 2007, the proportion of in migrators which are established firms has not varied between the sub-geographies (see Figure 67). However, it is evident that in recent years the proportion of all migration into London made up of established firms has reduced.

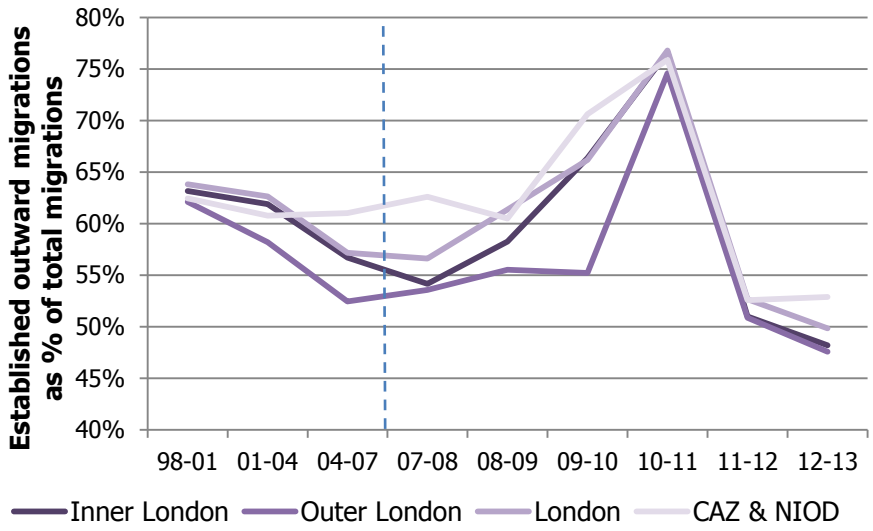
Figure 67: Proportion of inward migration made up of established firms, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W8/S4)

The same pattern can be seen for the proportion of outward migration represented by established firms, although there is a more visible difference between the sub-geographies with migration from outer London consisting of proportionally fewer established firms than other areas (see Figure 68).

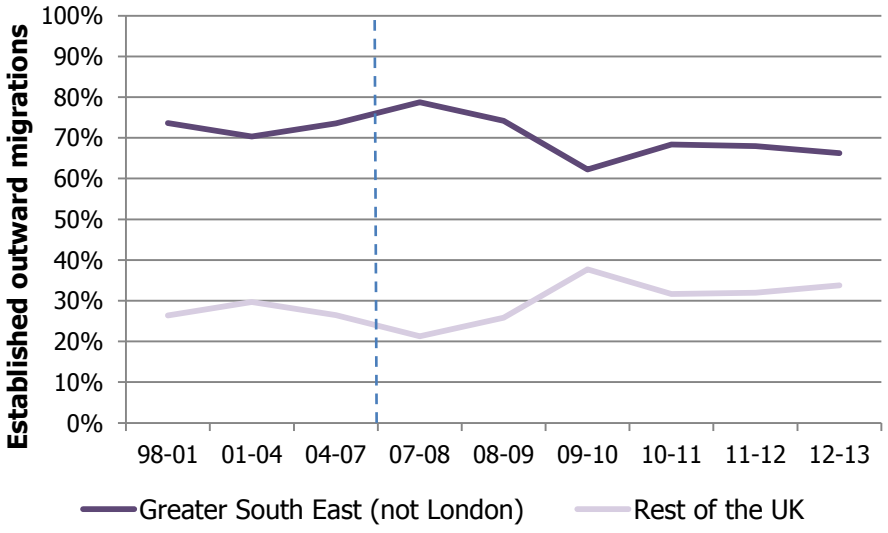
Figure 68: Proportion of outward migration made up of established firms, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W8/S5)

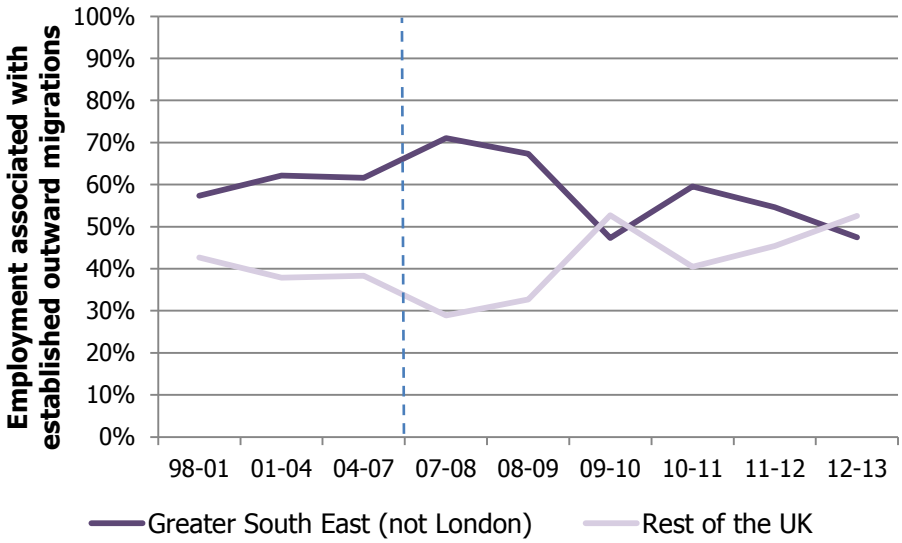
Established firms who migrate out of London are now moving further afield than in the past. The Greater South East has always been a key destination for firms leaving London. However, this pattern has not been without change. In the period 1998-2001, 74% of established businesses migrating out of London went to the GSE. This rose to 79% by 2007-2008. Since then the level has fluctuated although it has remained consistently below the pre-2008 level. For example, in 2009-2010 as few as 62% of established firms who left London moved to the GSE, with 68% in 2011-2012 and 66% in 2012-2013. This may indicate the same push factors for firms leaving London are now growing in importance in the GSE as well. Migration to the rest of the UK mirrors this pattern (see Figure 69). These trends are also seen in the destinations of established employment migrating out of London (see Figure 70).

Figure 69: Percentage by destination of firm migrations from London which are established firms, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W8/S5b)

Figure 70: Percentage by destination of employment migration from London which is associated with established firms, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W8/S5b)

8.5 Components of change

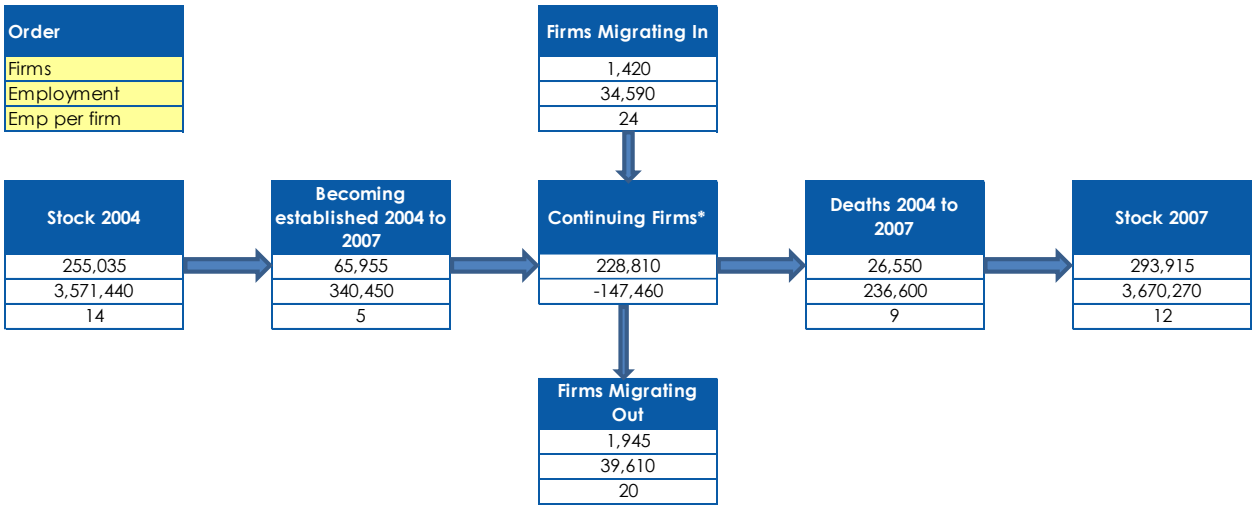
Our components of change analysis shows how the stock of firms, their employment and the average employment per firm has changed from one year to the next in a given area. For example, Figure 71 shows that the stock of established firms in London increased from 255,035 in 2004 to 293,915 in 2007 and that employment in established firms also rose from 3,571,440 to 3,670,270 over the same period, with a reduction in average employment per firm from 14 to 12.

A mix of factors causes the stock and associated employment to change. These are:

- More firms becoming established (ie, reaching 5-years old or more).
- Firms migrating in.
- Firms migrating out.
- Firms closing.

The components of change analysis shows how these factors interact and the impact they have on total business stock and employment.

Figure 71: Components of change of established firms in London, 2004-2007

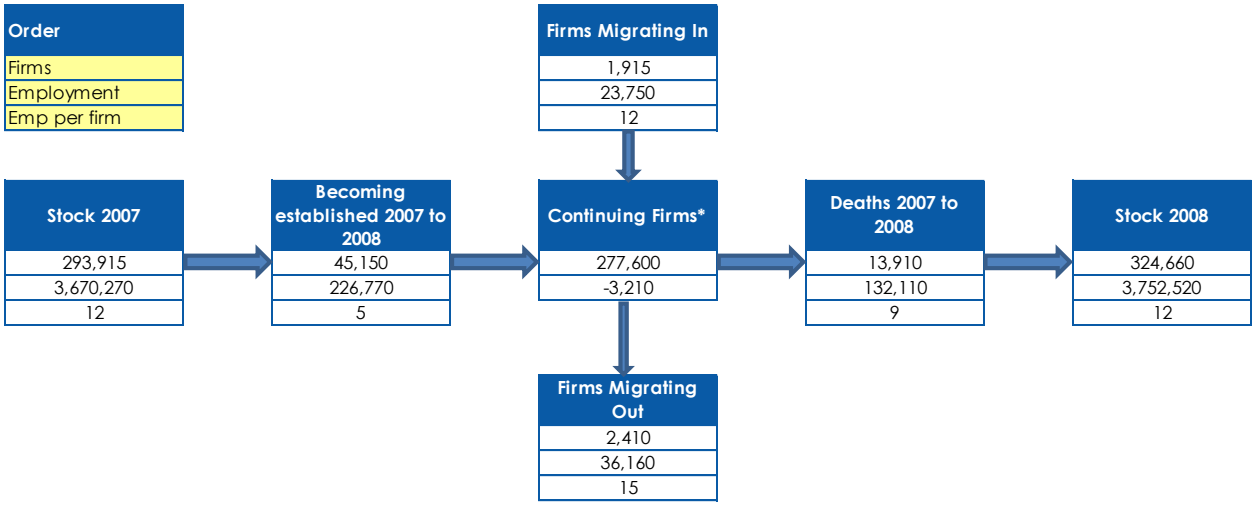


Source: TBR Observatory 2015 (TBR ref: W8). *'Continuing Firms' employment indicates the change in employment of these firms between 2004 and 2007.

Figure 72 and Figure 73 show components of change in more recent time periods. This allows a snapshot comparison of how the different factors at play change over time. For example, whilst the net effect of inward and outward migration was not hugely different in 2012-2013 compared to 2007-2008, the number of established firms closing in 2012-2013 was more than double that in 2007-2008.

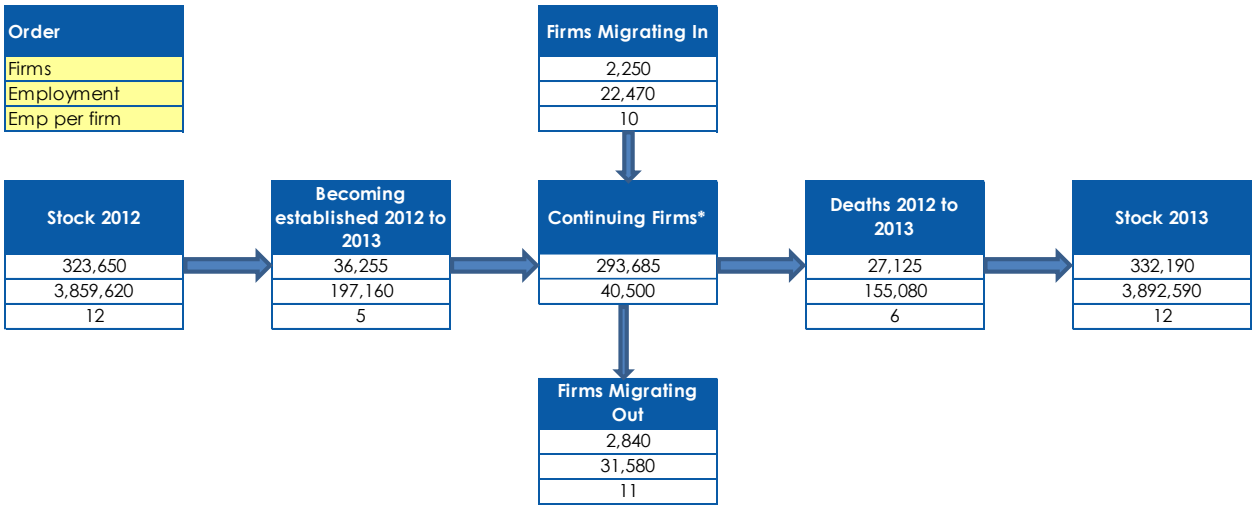
Comparing established firms in 2013 with 2007, there has been an increase in stock from 293,915 to 332,190. Employment in established firms has also risen from 3,670,270 in 2007 to 3,892,590 in 2013. The size of firms is the same in both years with an average of 12 employees per firm.

Figure 72: Components of change of established firms in London, 2007-2008



Source: TBR Observatory 2015 (TBR ref: W8). *'Continuing Firms' employment indicates the change in employment of these firms between 2007 and 2008.

Figure 73: Components of change of established firms in London, 2012-2013



Source: TBR Observatory 2015 (TBR ref: W8). *'Continuing Firms' employment indicates the change in employment of these firms between 2012 and 2013.

9. The movement and growth of firms in London by age-band

9.1 Introduction

In this section we review activity of firms of different ages in London during the timespan 1998 to 2013, with an emphasis on the period since 2007-08. This adds more insight into the analysis of established firms.

We have analysed firms to assess whether businesses of different ages have displayed different trends and characteristics in how they have grown in London, or migrated into or out of London to or from the Greater South East or the rest of the UK.

Our analysis covers these main topics:

- Trends in the number and employment of firms in different age-bands.
- Trends in the number and employment of firms in different age-bands in London sub-geographies.
- Trends in the inward and outward migration of firms in different age-bands

9.2 Headlines

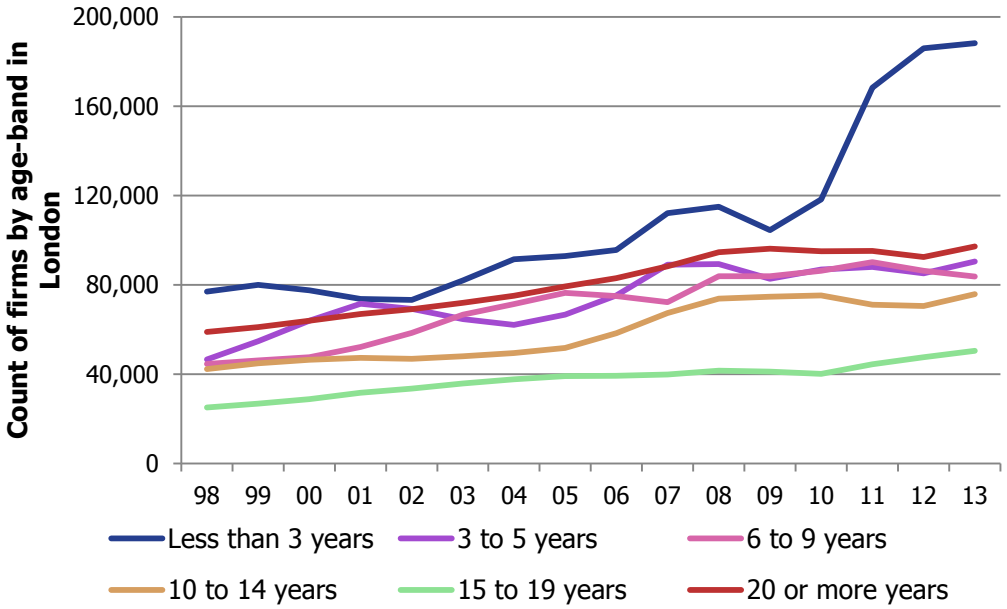
Key headlines from the analysis of firms in different age-bands are:

- There has been a rise in the number of firms in all age bands.
- Employment has fluctuated in firms of all ages since 1998, aside for firms 20 years old or more who have seen employment steadily increase.
    - The proportion of all London employment which is in firms aged 20 years or more has changed from 27.7% in 2008 to an all-time high of 33.6% in 2013.
- Firms less than 5 years old now have a higher closure rate than older firms

9.3 Firms of different ages in London

Between 1998 and 2013 there has been an absolute increase in the number of firms recorded in every age-band (not counting branches of existing firms or new firms). A dip in the growth of firm numbers can be seen after the financial crash with recovery since, however the impact of the downturn appears to vary between different age-bands (see Figure 74).

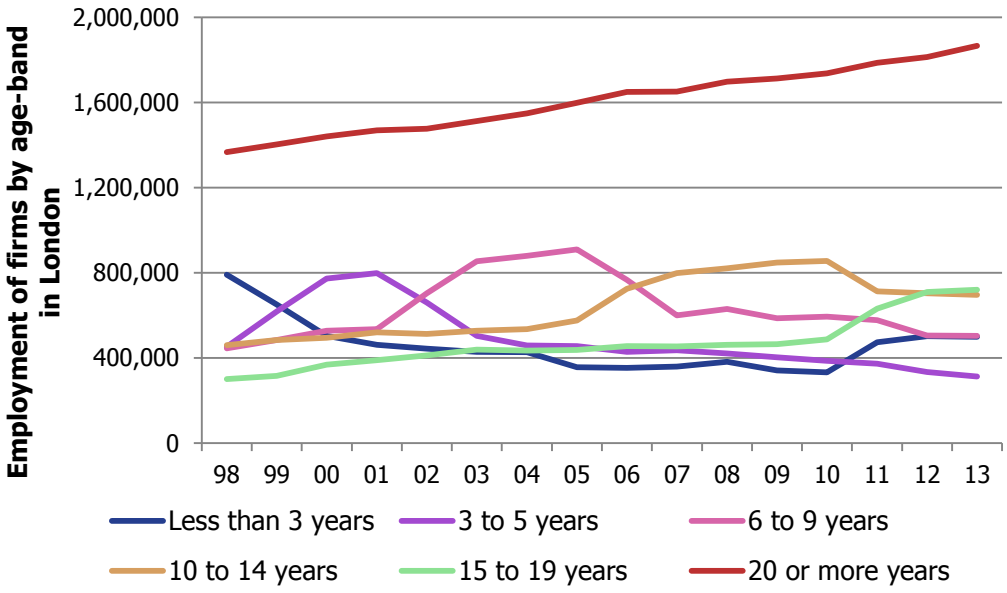
Figure 74: Count of firms in London by age-band, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S1)

When looking at the make-up of business and employment in London, there have been changes in the characteristics of firms. Whilst the proportion of younger firms (9 years old or less) in London has increased over the time period, the proportion of employment they represent has fallen. For example, firms of less than 3 years contributed much less employment in 2013 (474,710) than they did in 1998 (789,640).

Figure 75: Employment of firms in London by age-band, 1998-2013

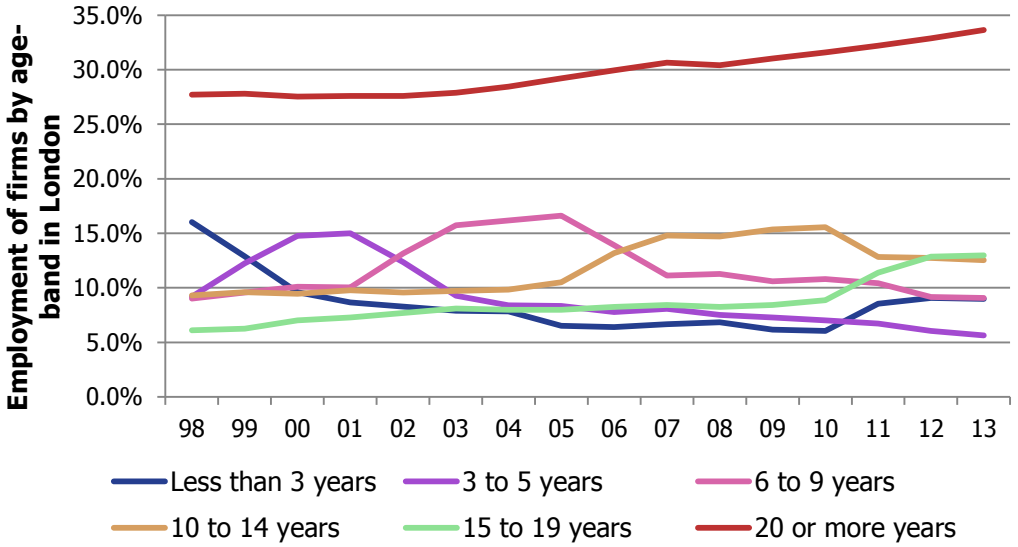


Source: TBR Observatory 2015 (TBR ref: W9/S1)

As we have seen in other areas of the analysis, this trend indicates that the average employment of young and new firms has been getting smaller over time relative to average employment in older, more established firms. The proportion of employment made up of firms of different ages follows an almost identical trend to firm numbers. Young firms now make up the smallest proportion of employment in

London, whilst the oldest firms (aged 20 years plus) have never contributed as much employment as they have in 2013 (see Figure 76).

Figure 76: Proportion of employment in London by firm age-band, 1998-2013

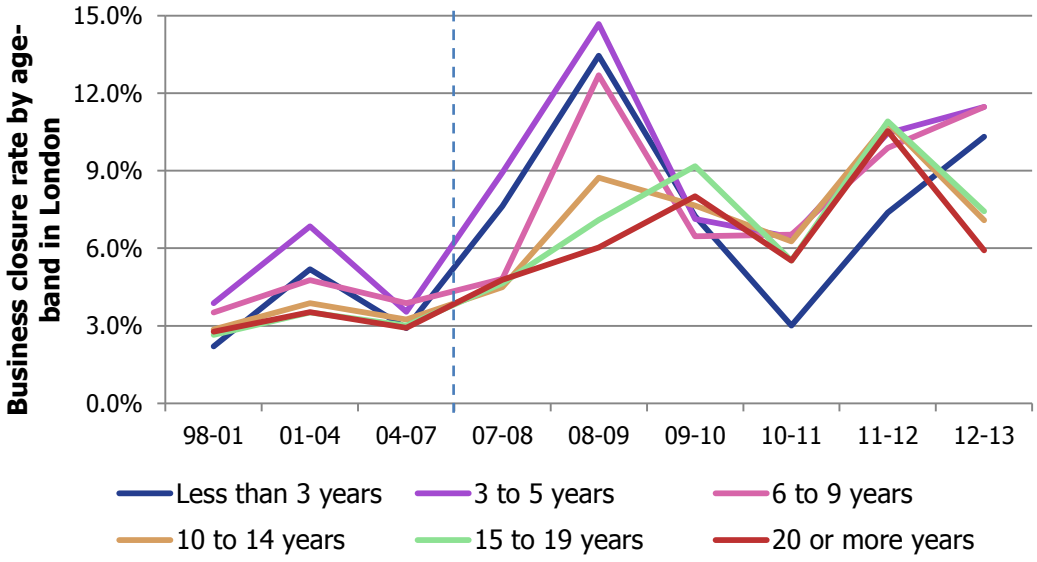


Source: TBR Observatory 2015 (TBR ref: W9/S1)

Differences between older and younger firms are also apparent when looking at trends in business closure rates. Closure rates – the percentage of businesses which close in a given year – increased for all businesses after 2007, however this increase was more pronounced for younger firms. For example, in 2008-2009 businesses aged 3-5 years old experienced closure rates of 14.7% compared with just 2.5% during the years 2004-2007. For firms aged 20 years or more the equivalent rise was from 2.9% in 2004-2007 to 6.0% in 2008-09.

Similarly, whilst firms aged 6 years old or more have seen their closure rates fall back to pre-2007 levels, younger firms have maintained a consistently higher level of closures (see Figure 77).

Figure 77: Firm closure rates by age-band in London, 1998-2013



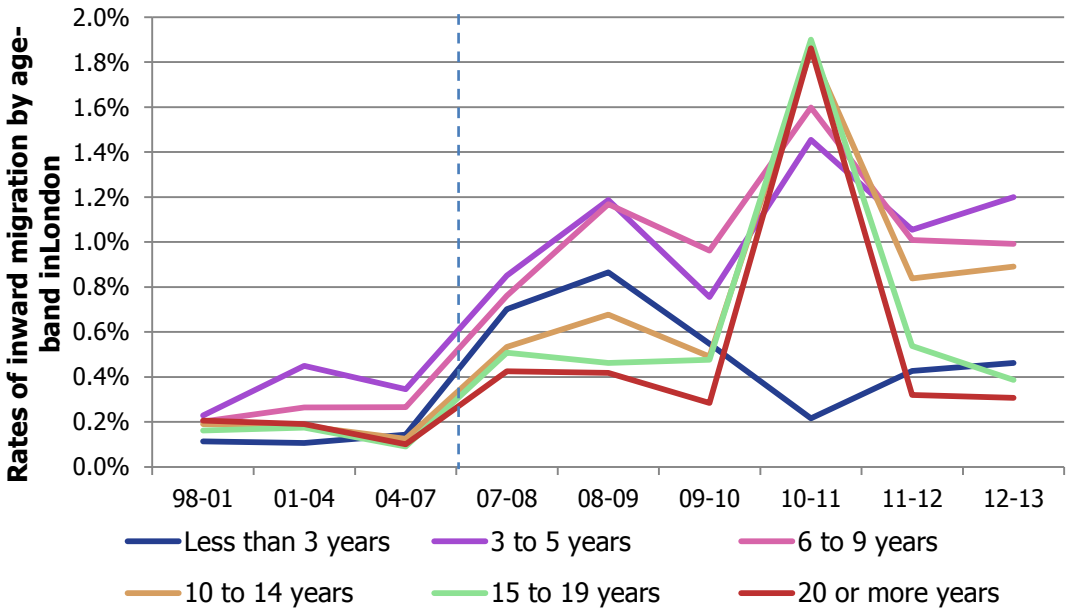
Source: TBR Observatory 2015 (TBR ref: W9/S2)

9.4 Migration of firms of different age-bands

Firms in London have become more mobile, or at least, a higher proportion of London's business stock is now made up of geographically mobile firms than in previous years. From 1998 to 2007, the proportion of London's firms made up of inward migrators did not rise above 0.4%. Since 2007, however, there has been an upward, albeit fluctuating, trend with 1.2% of London's business stock in 2010-2011 being inward migrators, falling to 0.6% in 2012-2013. An almost identical pattern is seen for outward migrating firms – 0.3% of businesses migrated out of London in 1998-2001, rising to 0.9% in 2012-2013 following a peak of 1.8% in 2010-2011. Differences between older and younger firms are apparent here too, with a greater proportion of younger firms having migrated into London or migrated out.

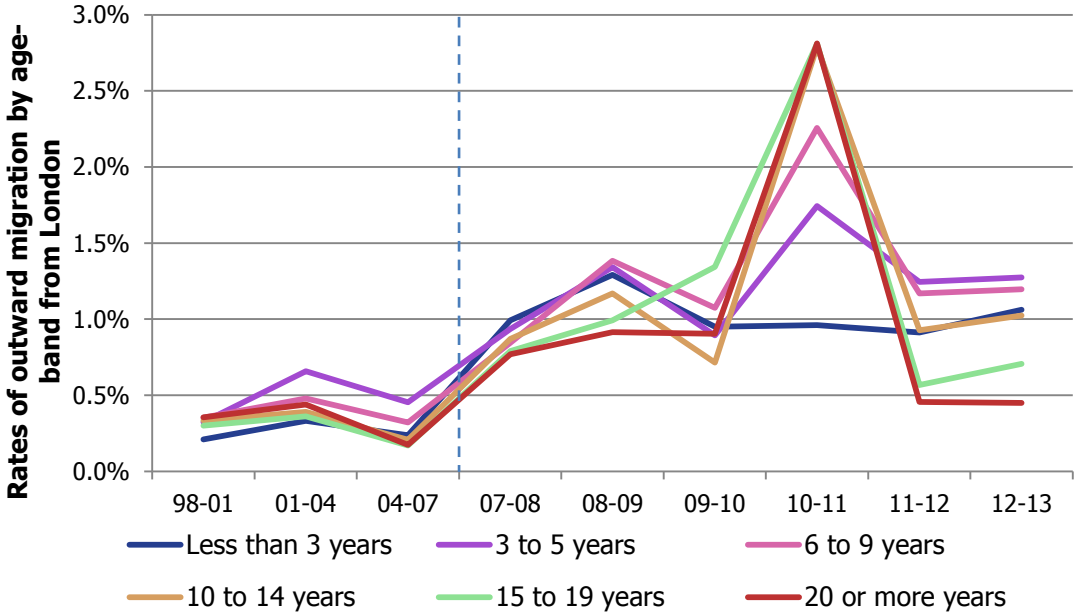
During 1998-2007, there was a negligible difference in inward migration rates between old and young firms. By 2012-13, however, the proportion of firms aged 3-9 years who have migrated to London is noticeably higher (see Figure 78).This same pattern is seen for outward migration (as shown in Figure 79), where in fact for firms aged 3-5 years a greater proportion migrated out in 2013-2014 than migrated in. Thus the data suggests that whilst London appears to be an attractive destination for young firms there are also factors influencing young businesses' decisions to leave the capital.

Figure 78: Rates of inward firm migration into London by age-band, 1998-2013



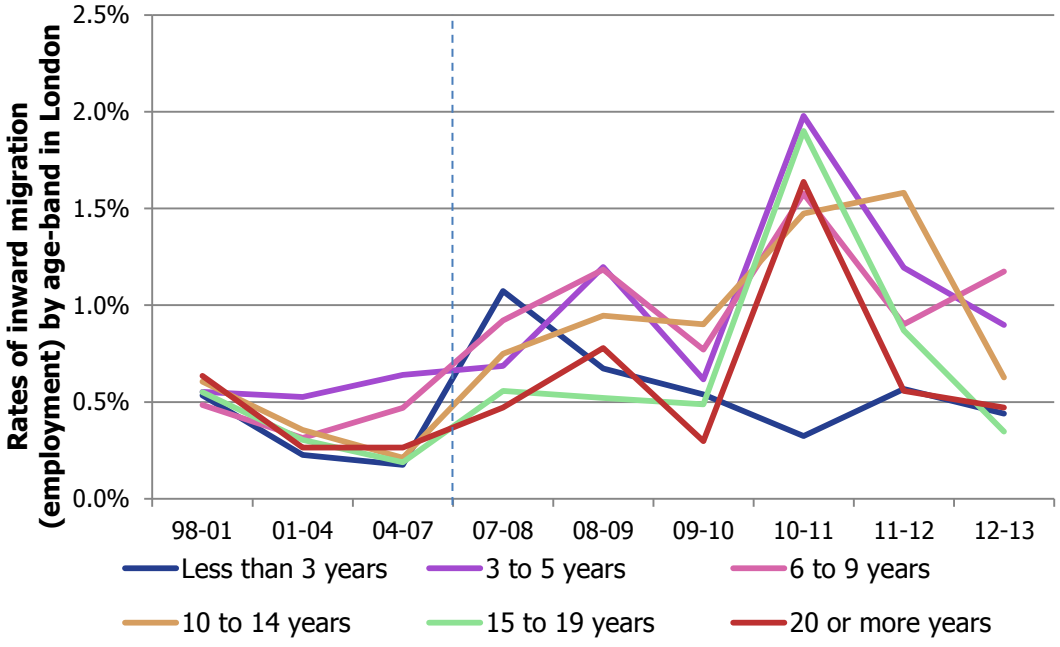
Source: TBR Observatory 2015 (TBR ref: W9/S4)

Figure 79: Rates of outward firm migration from London by age-band, 1998-2013



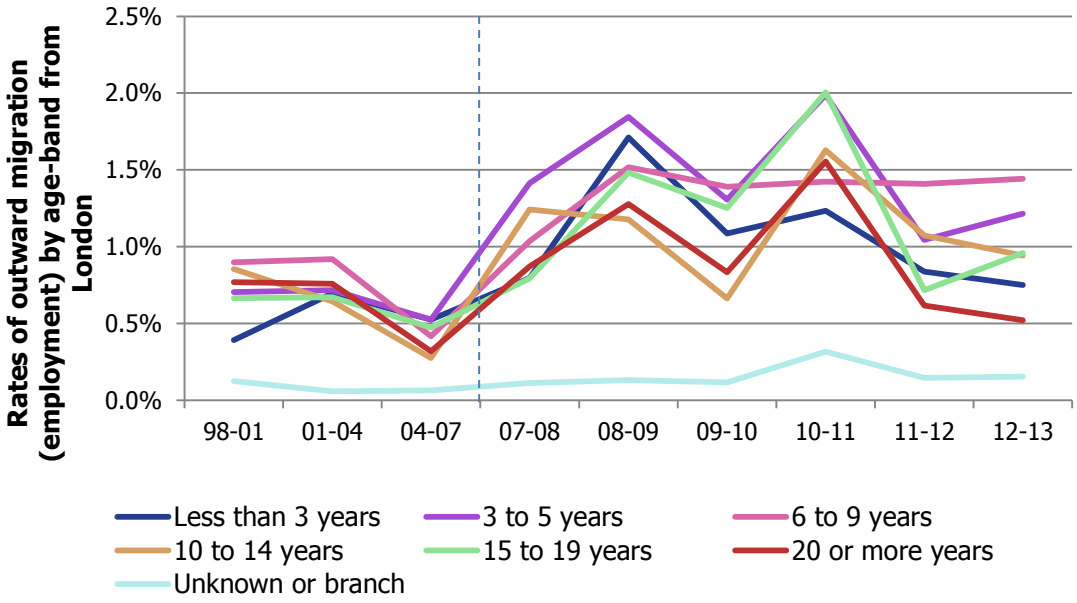
Source: TBR Observatory 2015 (TBR ref: W9/S5)

Figure 80: Rates of inward migration (employment) into London by age-band, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S4)

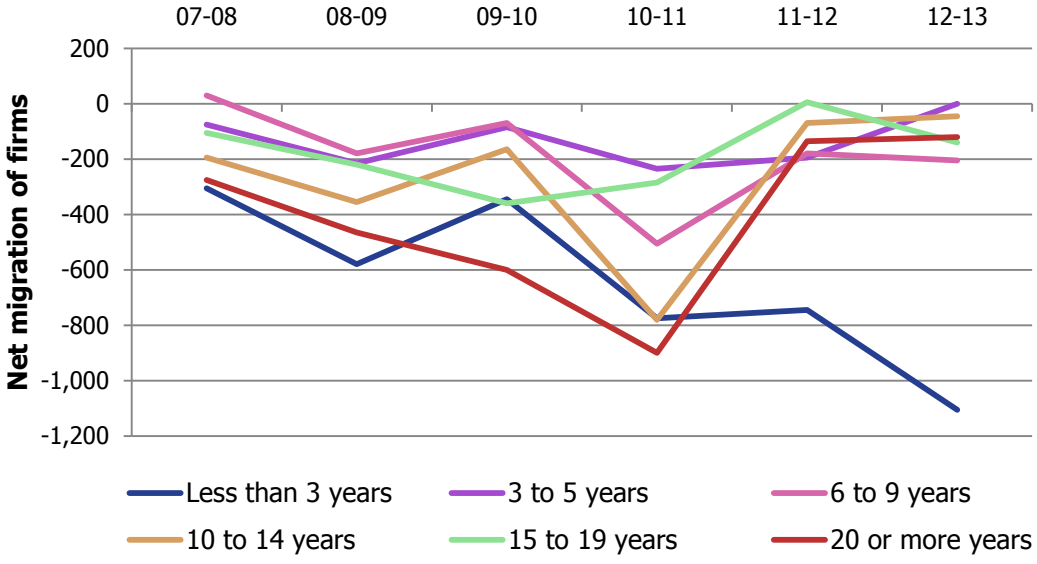
Figure 81: Rates of outward migration (employment) from London by age-band, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S5)

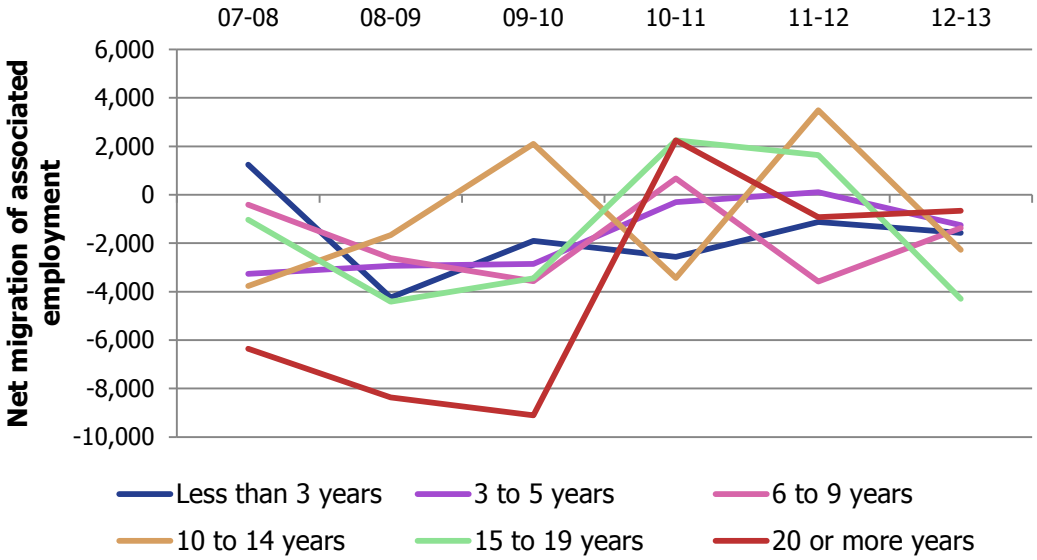
There has been some variation in the impact of net migration on the stock of firms of different ages. As demonstrated in Figure 82, there has been a net loss of firms as a result of migration. The most significant year for this was 2010-2011. Since then the loss of stock has decreased for firms aged 3 or more. For firms aged less than 3 years old, the amount of stock lost from net migration has continued to grow. The pattern for employment lost from firms migrating out of London is more volatile, fluctuating between net gain in some years and net loss in others (seeFigure 83).

Figure 82: Net migrations by age-band in London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W9/S3)

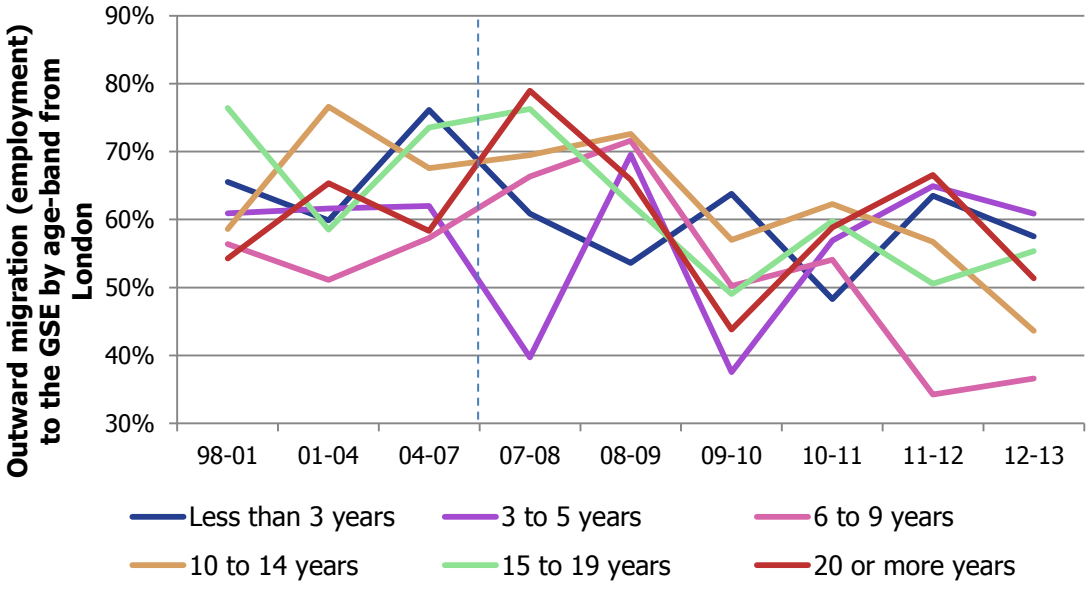
Figure 83: Net migration of associated employment by age-band in London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W9/S3)

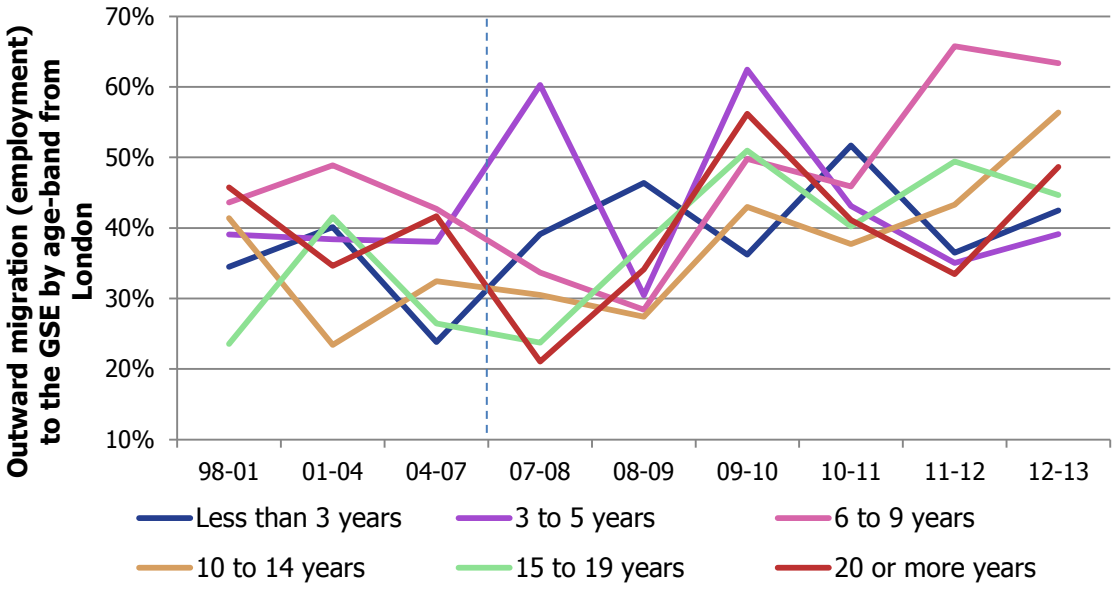
There is little variation between the destinations firms of different ages migrate to, ranging from 58% of firms less than 3 years old migrating to the Greater South East, to 61% of firms 3-5 years old. There is however a distinction between firm age-bands when looking at the proportion of employment leaving London to either the GSE or the rest of the UK. For example in 2012-13, 49% of employment in outwardly migrating firms aged over 20 years years moved to the GSE compared with 51% moving to the rest of UK. For younger firms, 58% of employment in firms aged less than 3 years moved to the rest of the UK and 42% to the GSE (see Figure 84 and Figure 85).

Figure 84: Outward migration rate (employment) from London to the Greater South East by age-band, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S5b-c)

Figure 85: Outward migration rate (employment) from London to the rest of UK by age-band, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S5b-c)

10. Firm specialisation

10.1 Introduction

The degree to which London and its sub-geographies specialise in an economic sector has been calculated and analysed using three methods, discussed below.

Location Quotients (LQs)

Location Quotients are an indicator of specialism within a local area. They reflect the specialism in an industry in a geographical area when compared to a larger reference area – in this case the UK – in terms of firm counts. An LQ greater than 1 represents a high concentration, while an LQ less than 1 represents a scarcity.

Krugman Index (KI)

The scores show the share of employment in the sector for each region compared the national share of employment in the sector. Positive scores indicate that the area has a higher share of employment in the sector compared to the UK as a whole, while negative scores indicate that the region has a low share of employment in the sector compared to the UK as a whole.

Maurel & Sedillot Index (M&S)

The M&S index indicates whether industry specific employment is more or less concentrated in a small number of areas compared to the distribution of total employment, but also takes into account the size distribution of firms in the industry. Because the M&S index corrects for industrial concentration, a higher score indicates that the industry is highly concentrated in a few geographical areas and within these areas employment is spread across a relatively high number of firms (as opposed to being geographically concentrated due to a high level of employment within a few very large firms). There is no scale in the index per se; rather, the values for one sector in an area are relative to those for another sector in that area. For example, Table 10 shows that in 2013 the Information & Communication sector has an M&S index score of -0.11, which is lower than the Professional, Scientific & Technical Activities sector with a score of -0.04. Thus, the Information & Communication sector displays less geographical concentration within London than Professional, Scientific & Technical Activities.

10.2 Specialisation in London

London has traditionally had specialisms in the three sectors presented in Table 10 (marked J, K and M). The highest level of specialism is in Information & Communication, although the degree of specialisation in each sector has reduced over time.

More detailed analysis of sector specialisations in sub-geographies can be found in the appendix, 13.9.

Table 10: Sector specialisation in London

Sector	2004			2013		
	LQ	KI	M&S	LQ	KI	M&S
Information & Communication	1.57	0.03	-0.11	1.52	0.03	-0.11
Financial & Insurance Activities	1.32	0.05	-0.08	1.30	0.04	-0.10
Professional, Scientific & Technical Activities	1.33	0.04	-0.05	1.26	0.05	-0.04
Legal & Accounting Activities	1.46	0.02	-0.14	1.33	0.02	-0.15
Activities of Head Offices & Management Consultancies	1.46	0.01	-0.16	1.36	0.01	-0.16

Source: TBR Observatory 2015 (TBR ref: W10/S1, S11, S12)

11. Co-locating sectors in London

11.1 Introduction

Using TBR's TCR data we have explored the extent to which there is co-location of firms within specific sectors, ie do firms in the same sector agglomerate? In addition to this, using TCR alongside analysis of UK Input-Output Analytical (Supply and Use) Tables provided by ONS[8] we have explored the extent to which there is co-location of firms between 'complementary' sectors. For example, have businesses in particular sectors agglomerated/co-located with firms in complementary sectors, or have they agglomerated/co-located with firms in other (but not necessarily known complementary) sectors?

11.2 Co-locating sectors

Looking at the top ten co-locating sectors for 2013 (shown in Table 11), there are some where we would expect to see agglomeration as firms benefit from labour market pooling and spill-overs of ideas and innovation resulting from localisation economies.

Table 11: Top ten co-locating sectors (based on firm counts) in 2013

Rank	2 digit SIC	Sector Description	2 digit SIC	Sector Description	Combined employment
1	47	Retail Trade, except of Motor Vehicles & Motorcycles	56	Food 7 Beverage Service Activities	678,120
2	56	Food & Beverage Service Activities	96	Other Personal Service Activities	409,370
3	47	Retail Trade, except of Motor Vehicles & Motorcycles	96	Other Personal Service Activities	523,920
4	41	Construction of Buildings	43	Specialised Construction Activities	203,630
5	59	Motion Picture, Video & Television Programme Production, Sound Recording & Music Publishing Activities	90	Creative, Arts & Entertainment Activities	91,460
6	63	Information Service Activities	70	Activities of Head Offices & Management Consultancies	318,330
7	45	Wholesale & Retail Trade & Repair of Motor Vehicles & Motorcycles	77	Rental & Leasing Activities	83,430
8	46	Wholesale Trade, except of Motor Vehicles & Motorcycles	52	Warehousing & Support Activities for Transportation	236,000
9	59	Motion Picture, Video & Television Programme Production, Sound Recording & Music Publishing Activities	73	Advertising & Market Research	147,720
10	70	Activities of Head Offices & Management Consultancies	74	Other Professional, Scientific & Technical Activities	275,690

Source: TBR Observatory 2015 (TBR ref: W11/S1)

[8] UK Input-Output Analytical Tables-Detailed, 2010, Office for National Statistics. 2014. www.ons.gov.uk/ons/rel/input-output/input-output-analytical-tables/2010/index.html (last accessed on 17/11/2015)

Co-location of firms in the Motion Picture, Video & Television Programme Production, Sound Recording & Music Publishing Activities sector with those in the Creative, Arts & Entertainment Activities sector, and of those in Information Service Activities with Activities of Head Offices & Management Consultancies are two examples.

Firms can also benefit from urbanisation economies where as well as labour market pooling, common infrastructure – such as property types and transport access – means co-location rises between firms with similar characteristics even if they are in different sectors. For example, in the top ten co-locating sectors in London we see Wholesale Trade co-located with Warehousing & Support Activities for Transportation. Furthermore, firms in different sectors may also co-locate because their customer market is the same. The top three co-locating sectors in London are different combinations of Retail Trade, Food & Beverage Services, and Other Personal Services. As well as sharing a labour market pool and property type, these sectors serve the same customer base – for example people visiting retail destinations buying food and drink, or office workers visiting both retail and food and drink outlets – and thus benefit from co-location.

Table 12: Top ten co-locating sectors (based on firm counts) in 2004

Rank	2 digit SIC	Sector Description	2 digit SIC	Sector Description	Combined employment
1	47	Retail Trade, except of Motor Vehicles & Motorcycles	56	Food & Beverage Service Activities	681,280
2	47	Retail Trade, except of Motor Vehicles & Motorcycles	96	Other Personal Service Activities	536,400
3	56	Food & Beverage Service Activities	96	Other Personal Service Activities	350,710
4	68	Real Estate Activities	70	Activities of Head Offices & Management Consultancies	326,760
5	47	Retail Trade, except of Motor Vehicles & Motorcycles	53	Postal & Courier Activities	471,200
6	70	Activities of Head Offices & Management Consultancies	74	Other Professional, Scientific & Technical Activities	199,290
7	73	Advertising & Market Research	74	Other Professional, Scientific & Technical Activities	133,520
8	65	Insurance, Reinsurance & Pension Funding, except Compulsory Social Security	66	Activities Auxiliary to Financial Services & Insurance Activities	186,980
9	46	Wholesale Trade, except of Motor Vehicles & Motorcycles	52	Warehousing & Support Activities for Transportation	269,620
10	59	Motion Picture, Video & Television Programme Production, Sound Recording & Music Publishing Activities	74	Other Professional, Scientific & Technical Activities	124,100

Source: TBR Observatory 2015 (TBR ref: W11/S1)

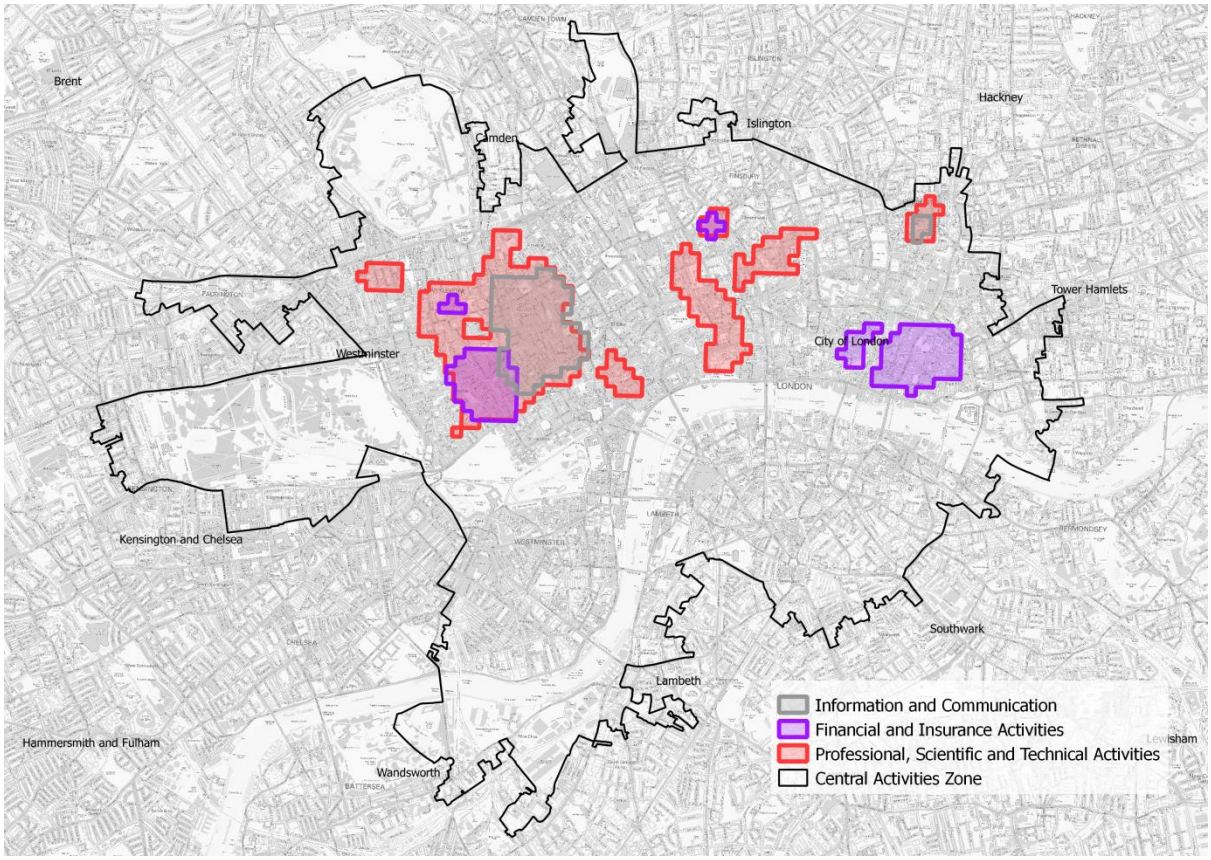
Inherent market similarities could explain why the top three co-locating sectors have not changed since 2004 (see Table 12). Interestingly though, there have been changes in the make-up of the top ten co-locating sectors. For example, in 2004 Real Estate Activities and Activities of Head Offices & Management Consultancies was the fourth most strongly co-located combination, whereas by 2013 this combination did not feature and Information Service Activities was the sector most commonly co-located with Activities of Head Offices & Management Consultancies. Changes such as these are likely to result from

changes in the make-up of businesses in London within these sectors or different rates of growth in firm counts in some sectors compared with others.

Focusing the analysis on co-location within three sectors – Information & Communication, Financial & Insurance Activities, and Professional, Scientific & Technical Activities – it is apparent that whilst there is a high proportion of employment in the NIOD in Financial & Insurance Activities sector, there is not a high density of businesses.

Figure 86 shows areas where there is a high density of co-locating firms within these sectors in 2013, which all fall within the CAZ. It is interesting to see that within the CAZ there are areas where firms not only co-locate within a key sector, but where these clusters also co-locate with one or both of the other sectors (e.g. to the west of the CAZ).

Figure 86: Heat-map of co-locating firms in selected sectors in the CAZ, 2013



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref: W11/M1

11.3 Complementary sectors

Sectors can be 'complementary' where firms in them are closely linked in the production or consumption of each other's output. The consumption of one industry's output by other industries is quantified in the ONS's Supply and Use tables. These tables quantify in basic prices the amount of output that flows between industries from which percentages and ranks can be calculated. There is no defined threshold of spending for what constitutes complementary sectors and many sectors may be complementary in different ways – for example the flow of employees.

The tables below show complementary relationships between subsectors (classified by 2-digit SIC), listed in order of the strength of the relationship. Table 13 shows the top ten sectors where the purchasing

subsector is among our selected sectors (in bold). Table 14 shows the top ten sectors where the supplying subsector is among our selected sectors (in bold).

Complementary sectors are not always co-located. Where there is significant co-location between complementary sectors, we have highlighted this in blue in the table. The following density maps show where there are high numbers of firms in co-located and complementary sectors, eg see Figure 86.

Table 13: Top ten complementary sectors where the purchasing subsector is among our selected sectors, 2013

Rank	Purchasing industry		Supplier industry	
	Industry 2 digit SIC	Industry Description	Product 2 digit SIC	Product Description
1	**73**	**Advertising & Market Research**	70	Activities of Head Offices & Management Consultancies
2	**71**	**Architectural & Engineering Activities; Technical Testing & Analysis**	84	Public Administration & Defence; Compulsory Social Security
3	**66**	**Activities Auxiliary To Financial Services & Insurance Activities**	62	Computer Programming, Consultancy & Related Activities
4	**63**	**Information Service Activities**	62	Computer Programming, Consultancy & Related Activities
5	**72**	**Scientific Research & Development**	78	Employment Services
6	**58**	**Publishing Activities**	18	Printing & Reproduction of Recorded Media
7	**64**	**Financial Service Activities, Except Insurance & Pension Funding**	70	Activities of Head Offices & Management Consultancies
8	**59-60**	**Motion Picture, Video & TV Programme Production, Sound Recording & Music Publishing and Programming & Broadcasting Activities**	61	Telecommunications
9	**61**	**Telecommunications**	62	Computer Programming, Consultancy & Related Activities
10	**72**	**Scientific Research & Development**	85	Education

Source: TBR Observatory 2015 (TBR ref: W11/S2)

Table 14: Top ten complementary sectors where the supplying subsector is among our selected sectors, 2013

Rank	Purchasing industry		Supplier industry	
	Industry 2 digit SIC	Industry Description	Product 2 digit SIC	Product Description
1	8	Other Mining & Quarrying	**64**	**Financial Services, except Insurance & Pension Funding**
2	21	Manufacture Of Basic Pharmaceutical Products & Pharmaceutical Preparations	**64**	**Financial Services, except Insurance & Pension Funding**
3	51	Air Transport	**62**	**Computer Programming, Consultancy & Related Activities**
4	63	Information Service Activities	**62**	**Computer Programming, Consultancy & Related Activities**
5	66	Activities Auxiliary to Financial Services & Insurance Activities	**62**	**Computer Programming, Consultancy & Related Activities**
6	68	Real Estate Activities	**64**	**Financial Services, except Insurance & Pension Funding**
7	73	Advertising & Market Research	**70**	**Activities of Head Offices & Management Consultancies**
8	86	Human Health Activities	**64**	**Financial Services, except Insurance and Pension Funding**
9	90	Creative, Arts & Entertainment Activities	**63**	**Information Service Activities**
10	96	Other Personal Service Activities	**69**	**Legal & Accounting Activities**

Source: TBR Observatory 2015 (TBR ref: W11/S3)

12. Individual 'hubs' of firms in the same sectors

12.1 Introduction

This analysis considers whether firms and employment are co-located in a particular postcode, to identify if there are any postcode 'hubs'. Once these postcodes were identified we then investigated whether these postcodes contain key office spaces or buildings that firms preside. These locations are shown in the accompanying maps, for example see Figure 87.

12.2 Postcode hubs

Looking at co-location of firms, the top ten postcodes by firm count are shown in Table 15, along with the buildings located there. Some of these locations have grown considerably – most notably retail destinations such as Westfield London.

Table 15: Postcode hubs by firm count (top five for retail and business), 2013 (with associated employment and 2004 data)

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
W12 7GF	85	2,100	35	1,200	Westfield London
W1G 0PW	135	5,070	35	670	Cavendish Square
SW1Y 4LR	130	1,340	30	2,300	Regent Street
W5 5JY	65	1,430	75	1,500	Ealing Broadway Shopping Centre
NW4 3FP	30	1,660	30	1,620	Brent Cross Shopping Centre
SW9 6DE	75	1,580	30	1,010	Kennington Business Park
CR0 0XZ	210	1,000	95	830	Airport House
N7 9DP	130	730	95	750	The Busworks
NW5 1TL	70	3,630	60	1,780	Highgate Studios
EC3R 7DD	45	1,630	25	1,750	Minster Court

Source: TBR Observatory 2015 (TBR ref: W12/S7)

The top ten postcodes for employment are all at different locations, and are all home to a smaller number of large employers as shown in Table 16.

Table 16: Postcode hubs by employment (top five for retail and business), 2013 (with associated firm count and 2004 data)

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
SE1 9RT	10	12,240	15	11,610	Guy's Hospital
E14 5HP	25	6,760	10	9,620	1 Churchill Place
EN1 3XA	*	10,800	Not in existence in 2004		Enfield Civic Centre
CR9 3JS	5	11,560	*	11,900	Taberner House
W14 8UD	55	10,690	10	3,390	N/A
SE1 7NA	50	8,600	70	9,600	Shell Centre
W2 1NY	5	8,770	10	110	St Marys Hospital
CR9 2BY	5	8,210	*	140	Lunar House
N11 1NP	10	6,170	5	80	North London Business Park
W2 1NW	5	5,730	5	5,740	Waterside House

Source: TBR Observatory 2015 (TBR ref: W12/S7). * indicates data has been suppressed due to reasons of confidentiality.

Figure 87: Top ten postcode hubs by firm count, London, 2013

Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.

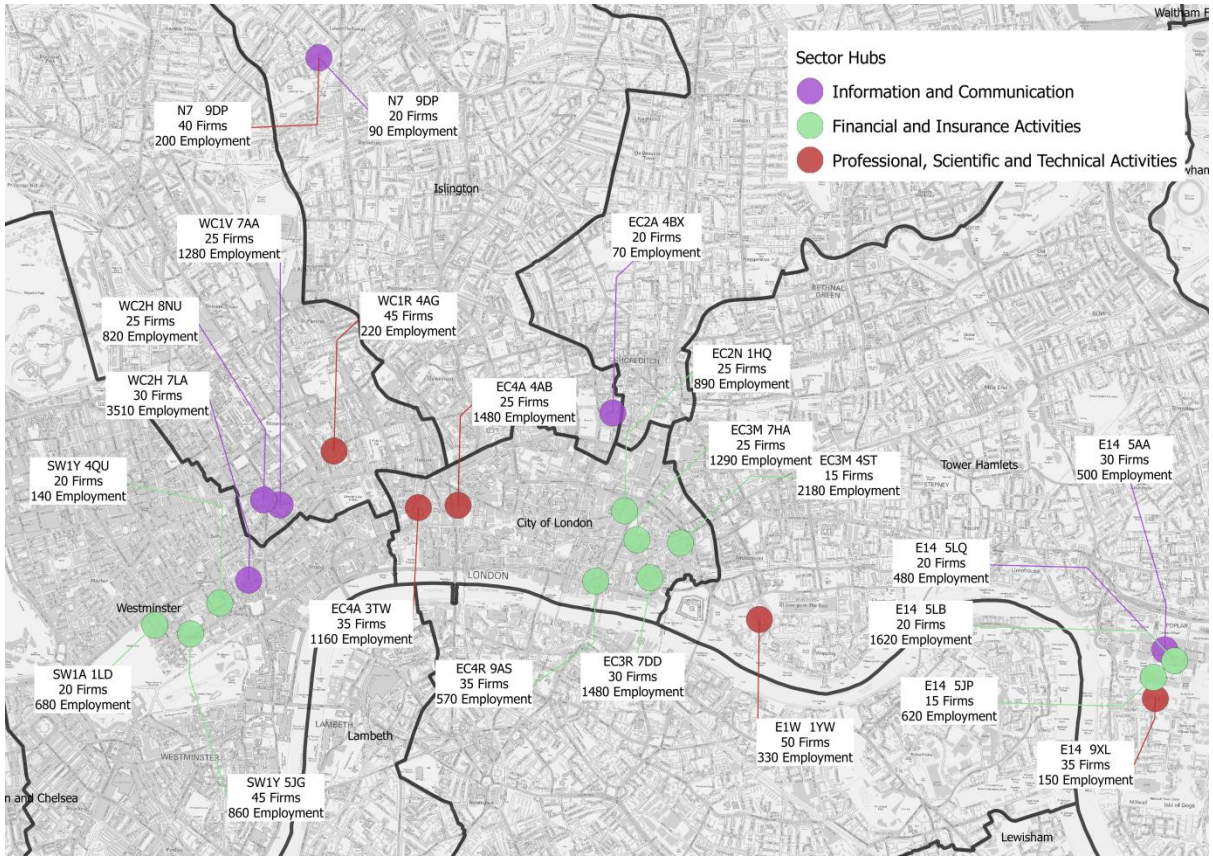
TBR ref: W12/M5

Figure 88: Top 10 postcode hubs by employment, London, 2013

Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.
Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref W12/M5

This analysis of co-location has also been undertaken for specific sectors (see section 13.12 in the appendix). As an example, Figure 89 displays selected sector-specific hubs in central London.

Figure 89: Selected sector postcode hubs in central London, 2013



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.
Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref: W12/M1

13. Appendix

13.1 Detail of sectors used in analysis

In total we analysed 21 sectors, defined by Broad Sector in the ONS UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007). Of these, four Broad Sectors (A, B, D and E) were grouped into one, referred to as Primary Utilities. Additionally, we also looked in more granularity at four 'subsectors', which are Two Digit SIC Divisions (46, 47 69 and 70) which are subsets of Broad Sectors. The sectors, groupings and subsectors are shown in Table 17.

It is important to note that in section 11 when studying co-location, the analysis has used Two Digit SIC Divisions. The description of these is included in the analysis presented in section 11.

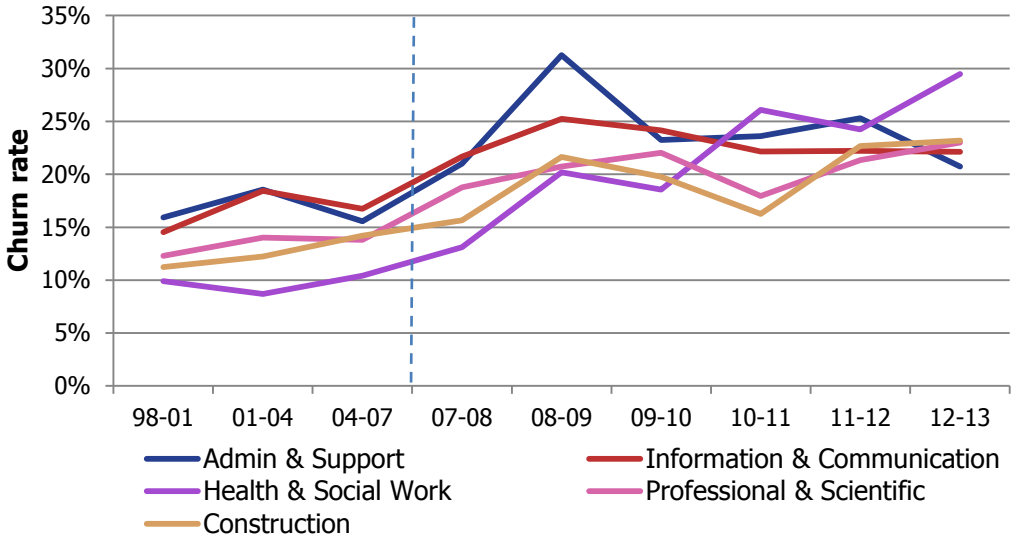
Table 17: Breakdown of sectors used in our analysis

Broad Sector	Description	Group / Subset	
A	Agriculture, Forestry & Fishing	Broad sectors A, B, D, E are grouped as 'Primary & Utilities'	
B	Mining & Quarrying		
D	Electricity, Gas, Steam & Air Conditioning Supply		
E	Water Supply; Sewerage, Waste Management & Remediation Activities		
C	Manufacturing		
F	Construction		
G	Wholesale & Retail trade; Repair of Motor Vehicles &Motorcycles	From which we look at the Two Digit SIC classifications:	
		46	Wholesale Trade
		47	Retail Trade
H	Transportation & Storage		
I	Accommodation & Food Service Activities		
J	Information & Communication		
K	Financial & Insurance Activities		
L	Real Estate Activities		
M	Professional, Scientific & Technical Activities	From which we look at the Two Digit SIC classifications:	
		69	Legal & Accounting Activities
		70	Activities of Head Offices & Management Consultancies
N	Administrative & Support Service Activities		
O	Public Administration & Defence; Compulsory Social Security		
P	Education		
Q	Human Health & Social Work Activities		
R	Arts, Entertainment & Recreation		
S	Other Service Activities		
T	Activities of Households as Employers; Undifferentiated Goods, etc.		
U	Activities of Extraterritorial Organisations & Bodies		

13.2 Churn by sector in sub-geographies

The following series of charts display the trends of churn rates over time in each of the sub-geographies studied. The data is presented for the five sectors which have the highest churn rates in each sub-geography across the time period.

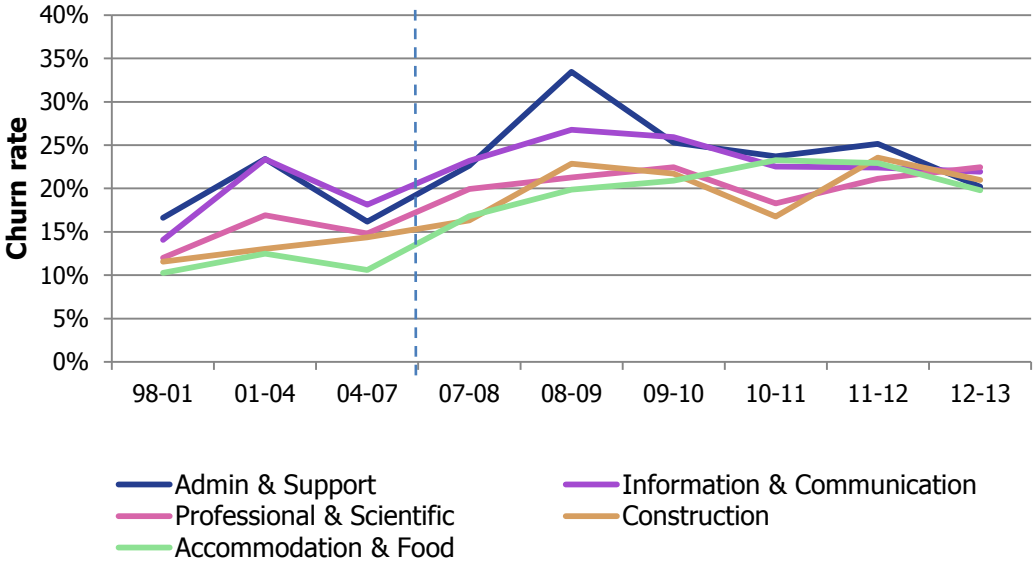
Figure 90: Top five sectors by churn rate (across the entire period) in inner London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S4)

The data for outer London, shown in Figure 91, follows a similar pattern although with a slight difference in the sectors which make up the top five. Closer inspection and comparison with the data for inner London reveals marginally more diversity in churn across the sectors within outer London.

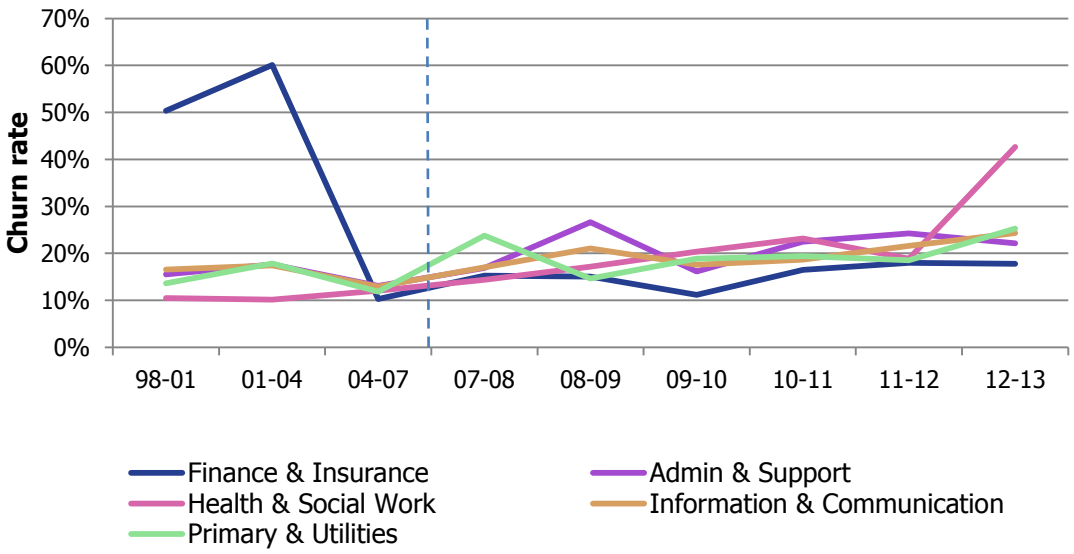
Figure 91: Top five sectors by churn rate (across the entire period) in outer London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S5)

Across the combined CAZ & NIOD, churn rates are relatively stable with a slight increase in the top five sectors over the time period. The only exception is the Financial & Insurance Activities sector which had a very high rate of churn from 1998 to 2004, suggesting that this was a busy period of activity and change in the sector. Interestingly, since the financial crisis Financial & Insurance Activities has seen the lowest churn rate of the top five sectors. There has also been an upturn in the churn rate in the Health & Social Work sector in 2012-2013, although it is too early to say how sustained this will be in future years.

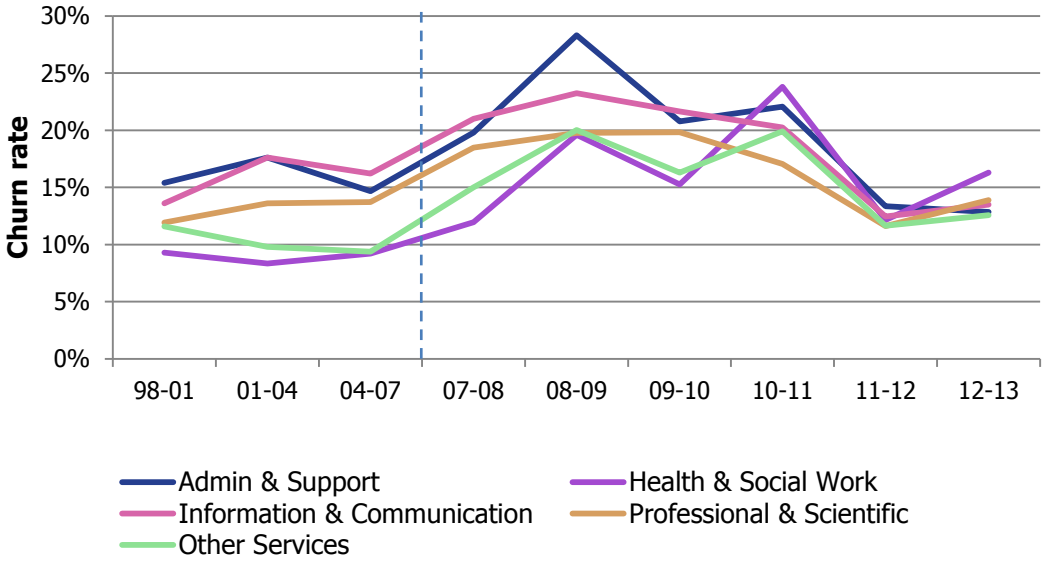
Figure 92: Top five sectors by churn rate (across the entire period) in CAZ & NIOD, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S9)

For the Greater South East, churn rates are similar to London as a whole, albeit with some variation in the top five sectors.

Figure 93: Top five sectors by churn rate (across the entire period) in the Greater South East (including London), 1998-2013



Source: TBR Observatory 2015 (TBR ref: W1/S7)

Across the UK, churn rates are even more muted with Manufacturing showing a churn rate of 7% in 2012-13 and Activities of Head Offices & Management Consultancies 13% in the same year.

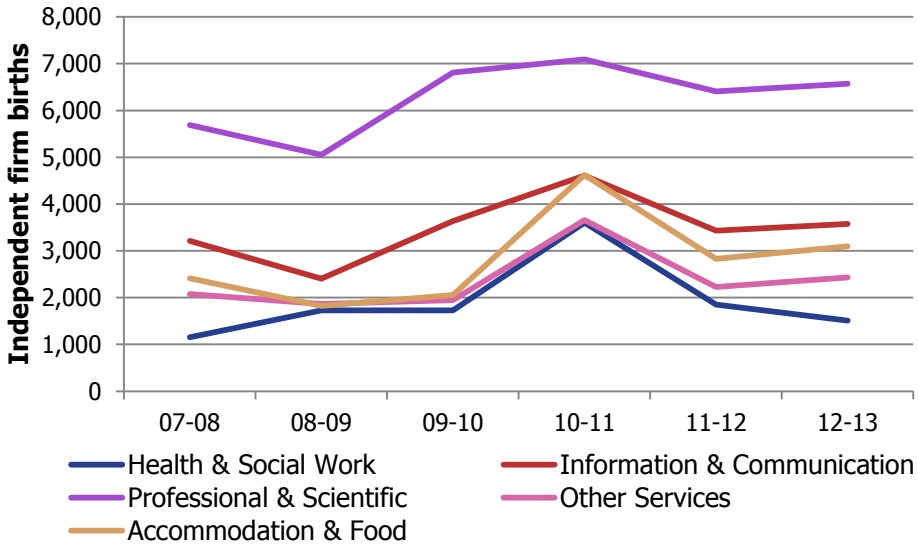
13.3 Detailed analysis of independent start-ups, branches and subsidiaries

Here we present analysis of start-ups by sector across the sub-geographies of London.

13.3.1 Independent start-ups

For inner London, the start and end points were similar for the top five sectors over the period 2007-08 to 2012-13 (see Figure 94). Most sectors registered a spike in 2010-11, though this was muted forProfessional,Scientific & Technical Activities, the lead sector in terms of independent births in inner London.

Figure 94: Top five sectors in inner London by firm births that are independent , 2007-2013

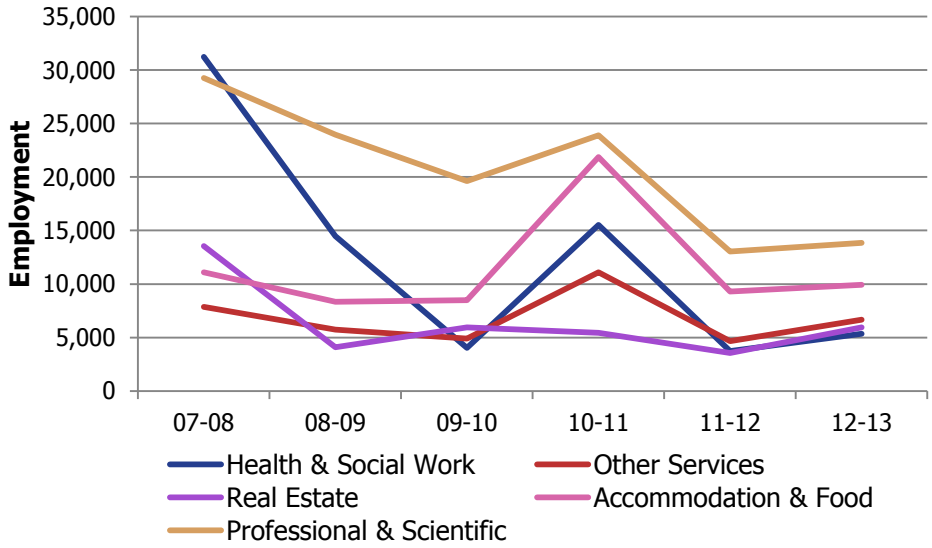


Source: TBR Observatory 2015 (TBR ref: W2/4)

The data on employment associated with independent firm births in inner London are presented in Figure 95, and are broadly similar in pattern to those for firm numbers, viz, the start and end points are comparable, with a spike in between, though for Professional, Scientific & Technical and Accommodation and Food, the numbers fell away quite dramatically.

The Professional, Scientific & Technical Activities sector generates the greatest number of employees, in line with its position as the leading producer of new firms.

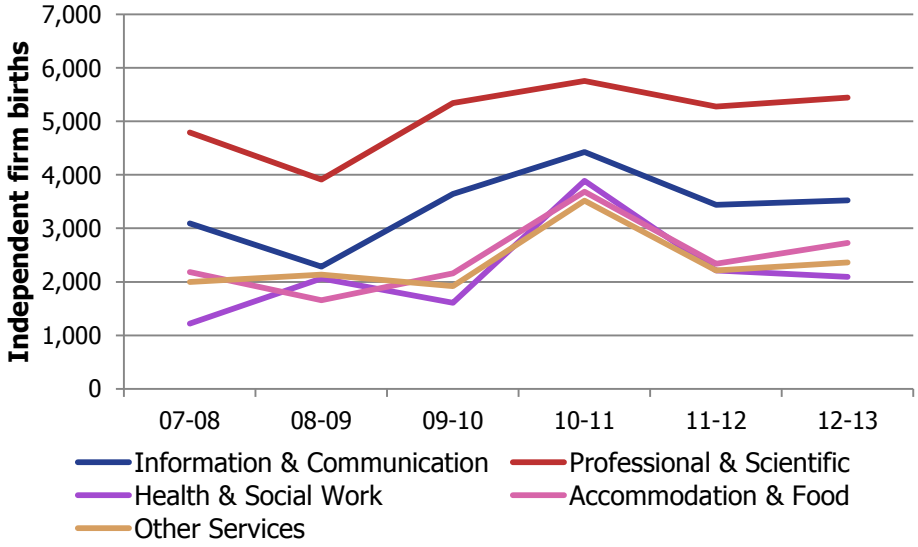
Figure 95: Employment associated with firm births in inner London that are independent for the top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W2/S4)

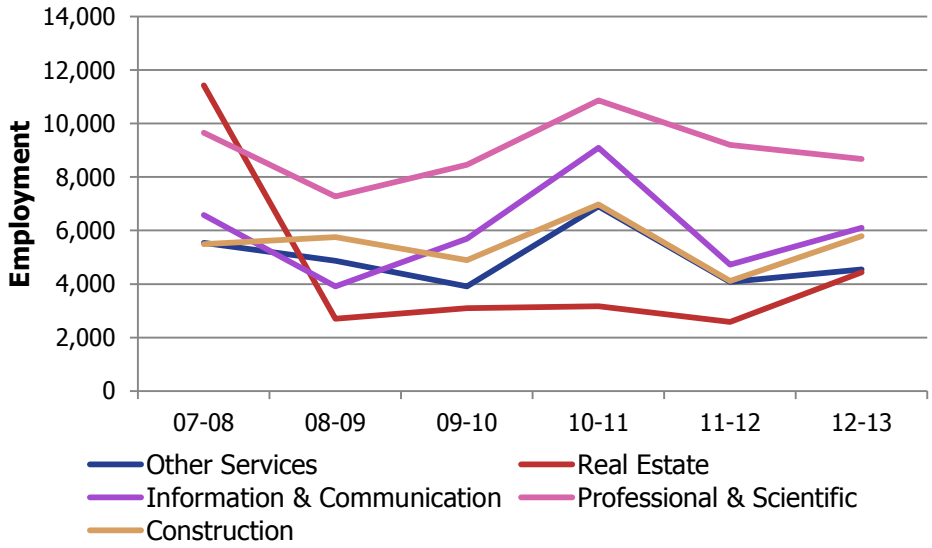
Within outer London, the patterns in terms of start-up numbers are similar, again with a peak in 2010-2011. The Professional, Scientific & Technical Activities sector once again leads the way in terms of firm births and associated employment.

Figure 96: Top five sectors in outer London by firm births that are independent, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W2/S5)

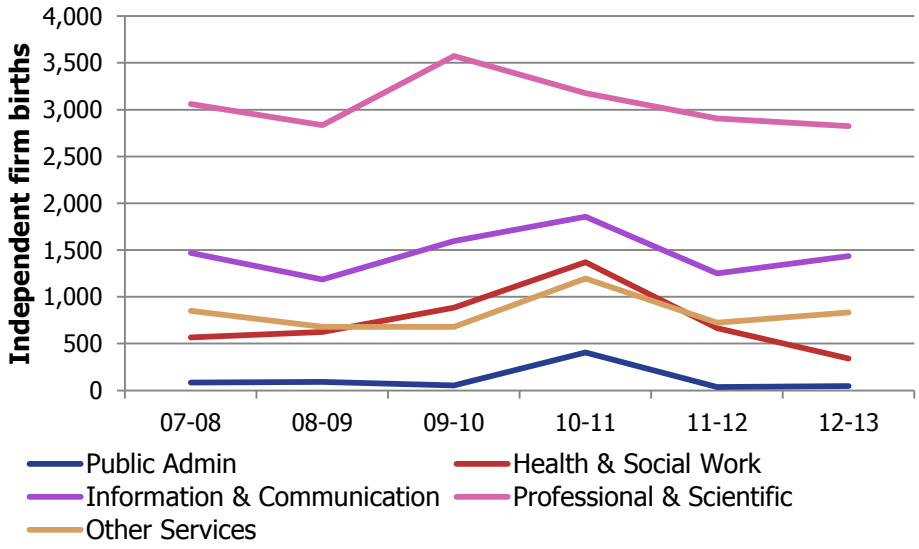
Figure 97: Employment associated with firm births in outer London that are independent for the top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W2/S5)

Within the combined CAZ & NIOD, the Professional,Scientific & Technical Activities sector once again generated by far the largest number of independent start-ups.

Figure 98: Top five sectors by firm births in CAZ & NIOD that are independent , 2007-2013

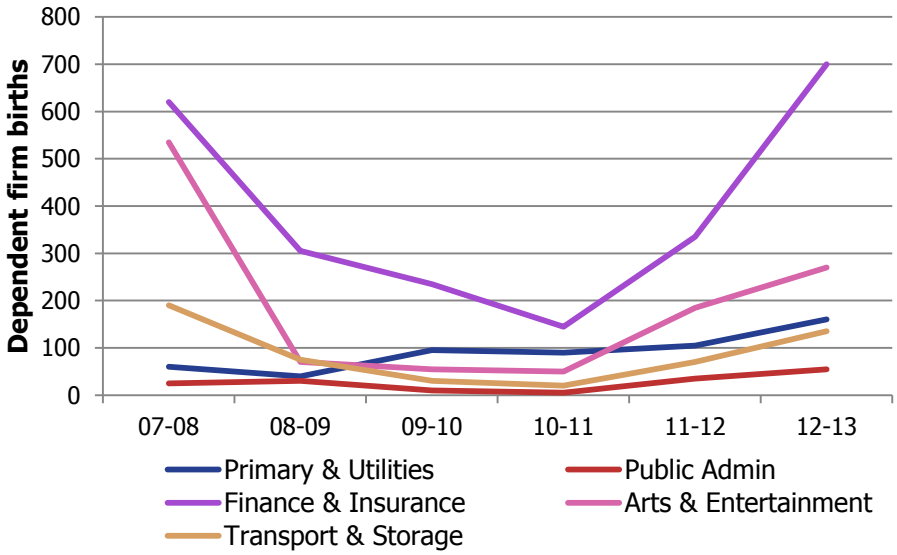


Source: TBR Observatory 2015 (TBR ref: W2/S7)

13.3.2 Subsidiaries and branches

Within inner London, the details of the top five sectors for new subsidiaries and branches are set out in Figure 99, below. It is noticeable that in contrast to independent firm start-ups there is a trough in the trend of branch or subsidiary firm births in 2010-2011 for the Finance and Insurance and Arts and Entertainment sectors, representing the low point in a post-2008 downward trend in start-ups. Since 2011 there has been an upturn in branch or subsidiary start-ups, with levels in the top five sectors returning towards pre-2008 levels.

Figure 99: Top five sectors for new business branches or subsidiaries in inner London, 2007-2013

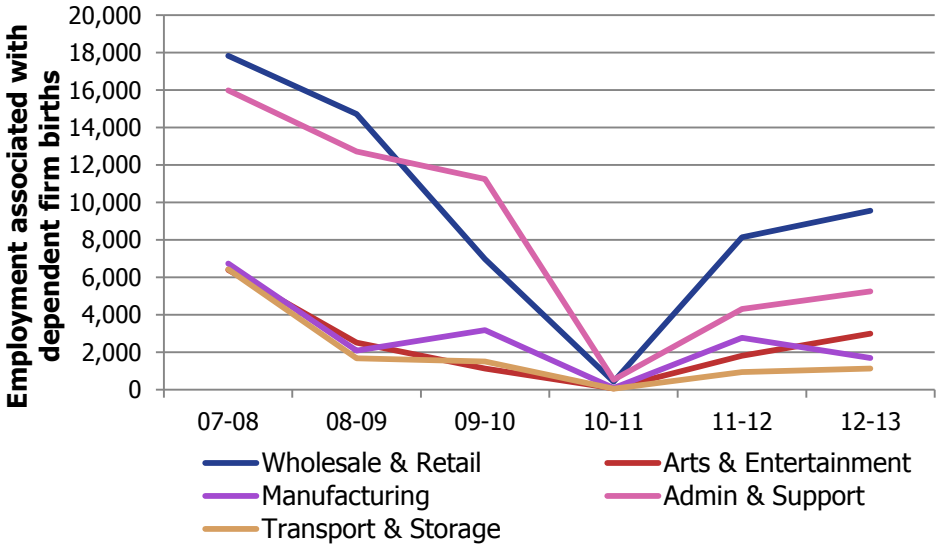


Source: TBR Observatory 2015 (TBR ref: W3/S4)

In terms of the associated employment (shown in Figure 100), the range of sectors is somewhat different. Only Transportation & Storage is common between the two sets. This suggests that the starts in the sectors in Figure 99 were relatively numerous but small, whereas those in Figure 100 were large but smaller in number. However, despite the sectors being different, the trend in associated employment follows the same pattern as firm starts with a trough in 2010-2011 for some sectors.

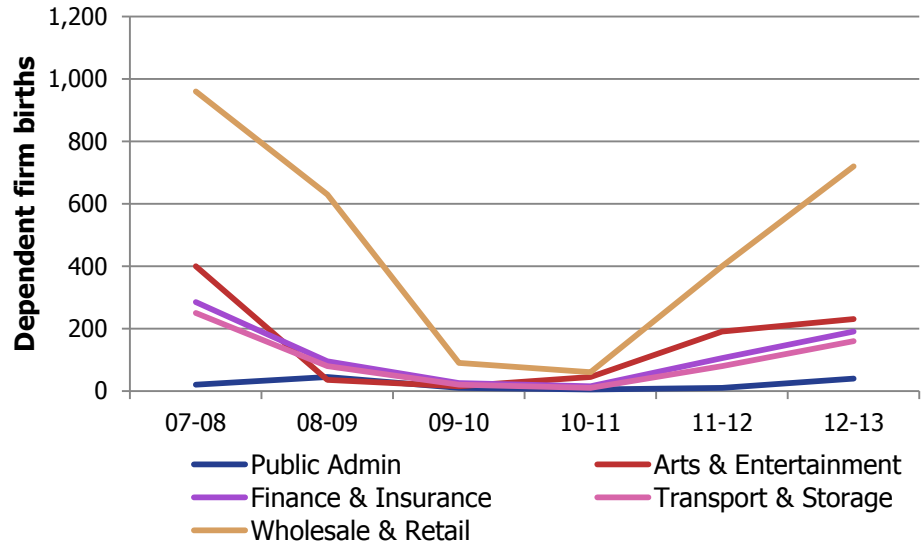
In fact, this trend is replicated across all the sub-geographies studied as the following series of charts demonstrates.

Figure 100: Associated employment of new business branches or subsidiaries in inner London for the top five sectors, 2007-2013



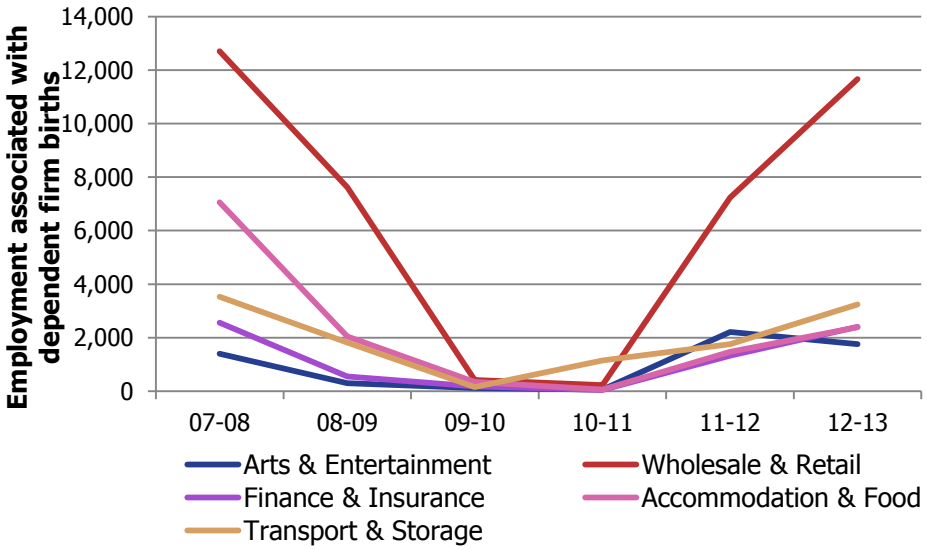
Source: TBR Observatory 2015 (TBR ref: W3/S4)

Figure 101: Top five sectors for new business branches or subsidiaries in outer London, 2007-2014



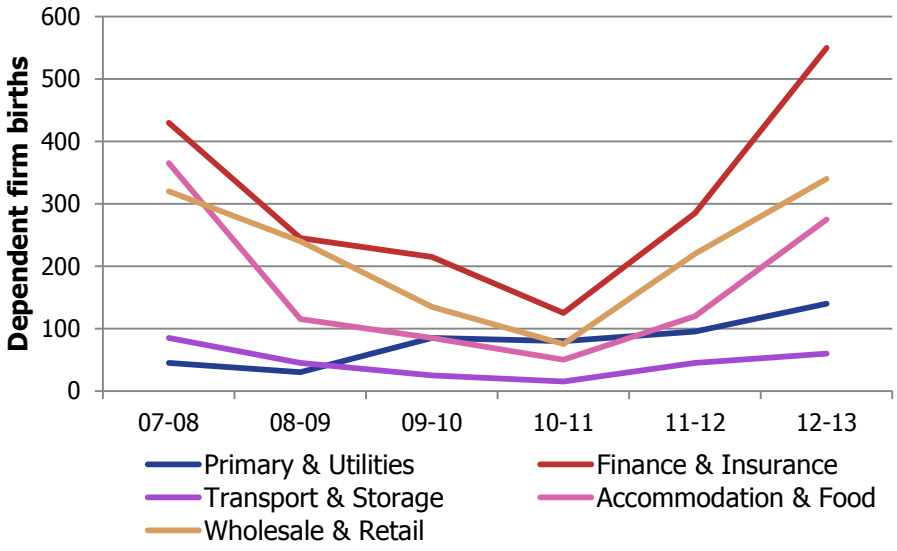
Source: TBR Observatory 2015 (TBR ref: W3/S5)

Figure 102: Associated employment of new business branches or subsidiaries in outer London for the top five sectors, 2007-2013



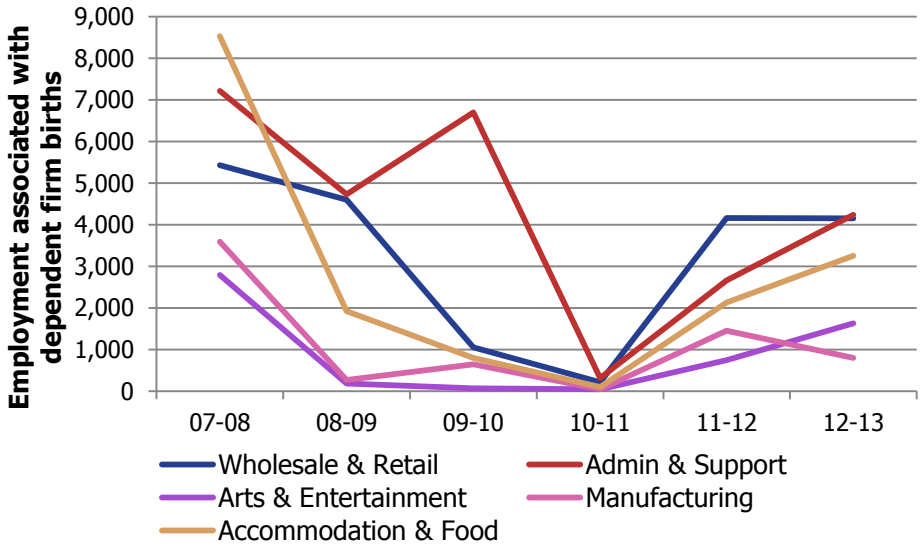
Source: TBR Observatory 2015 (TBR ref: W3/S5)

Figure 103: Top five sectors for new business branches or subsidiaries in CAZ & NIOD, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W3/S7)

Figure 104: Associated employment of new business branches or subsidiaries in CAZ & NIOD for the top five sectors, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W3/S7)

13.4 Origin of inward migration within sectors

In this section we review the origins of firms and employment migrating into London by sector, focusing on a selection of sectors which are important in the London economy.

The Information & Communication sector in London has benefited from a range of local authorities in terms of in migrating firms and associated employment.

Table 18: Origin of migrating firms to London in the Information & Communication sector, by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
Hertsmere	15
Elmbridge	14
Brighton and Hove	13
Windsor and Maidenhead	12
Birmingham	11
Reading	10
Milton Keynes	10
Bristol, City of	9
Dacorum	9
Manchester	9

Employment per year (average)	
Origin	**Employment**
Bracknell Forest	385
Hart	210
Windsor and Maidenhead	184
Welwyn Hatfield	174
Milton Keynes	164
Manchester	153
Brighton and Hove	118
Slough	109
Runnymede	107
Sheffield	100

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

Despite providing the greatest number of jobs, Bracknell Forest does not appear in the list of firms re-locating to London (see Table 18). This suggests a small number of large firms moving into London.

Table 19 shows that origins of inward migrating firms and employment in the Financial & Insurance Activities sector is more geographically diverse. The top ten lists show a number of origins outside of London and outside of the GSE.

Table 19: Origin of migrating firms to London in the Financial & Insurance Activities sector, by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
Hertsmere	5
Sevenoaks	4
Reading	4
Elmbridge	4
Reigate and Banstead	4
Manchester	3
Birmingham	3
Bristol, City of	2
Leeds	2
Cheltenham	2

Employment per year (average)	
Origin	**Employment**
Cheshire East	151
Basingstoke and Deane	132
Dartford	117
Manchester	116
Bristol, City of	106
Oldham	103
Chichester	87
Reading	77
Cardiff	74
Ipswich	65

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

Table 20 shows the top ten origins for inward migration in the Professional, Scientific & Technical Activities sector. The majority of incoming firms moved from relatively nearby local authorities in the Greater South East, except for Birmingham, Manchester and City of Bristol. Interestingly, though, the majority of employees came from further afield, including Hull and Edinburgh, as well as Birmingham, Manchester and City of Bristol.

Table 20: Origin of migrating firms to London in the Professional, Scientific & Technical Activities sector, by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
Hertsmere	17
Elmbridge	15
Brighton and Hove	13
Bristol, City of	12
Windsor and Maidenhead	11
Epping Forest	11
Birmingham	10
St Albans	10
Manchester	10
Three Rivers	10

Employment per year (average)	
Origin	**Employment**
Slough	602
Manchester	147
Colchester	136
Hertsmere	114
Elmbridge	105
Solihull	102
Kingston upon Hull, City of	98
Bristol, City of	96
Birmingham	87
Basingstoke and Deane	86

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

13.5 Inward migration to London's sub-geographies

The top five sectors for inward migrating firms to the combined CAZ & NIOD in the periods 1998-2007 and 2008-2014 are shown in Table 21. Four of the top five sectors are the same in both time periods, however there is a noticeably higher level of inward migration in the more recent time period for these four.

Table 21: Top five sectors by inward migrators to CAZ & NIOD as percentage of existing sector stock, 1998-2014

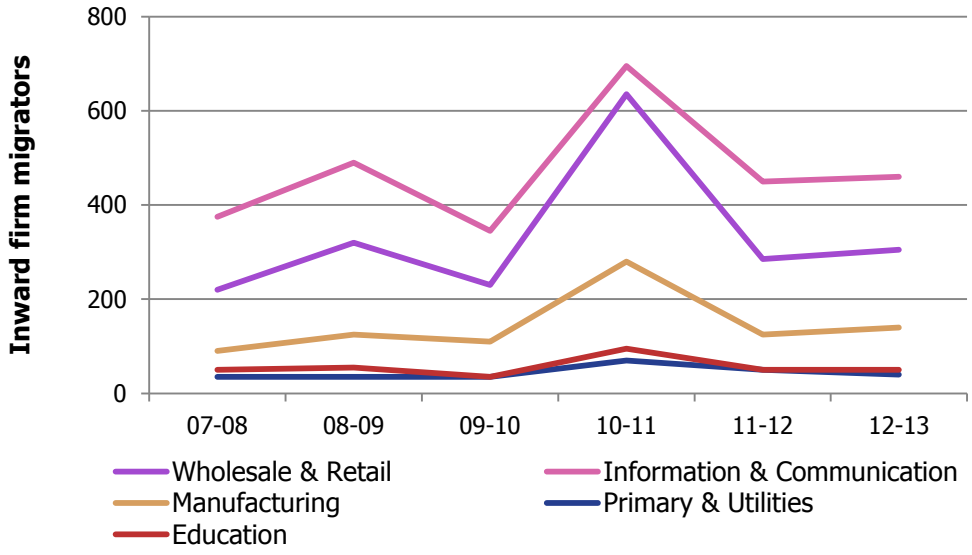
1998-2007 – firm stock		
Sector	**Average migration in as percentage of sector stock**	**Average migration in per year**
Information & Communication	1.18%	108
Manufacturing	1.01%	39
Education	0.76%	12
Transportation & Storage	0.75%	15
Wholesale & Retail	0.73%	87

2008-2014 – firm stock		
Sector	**Average migration in as percentage of sector stock**	**Average migration in per year**
Information & Communication	3.86%	529
Manufacturing	3.66%	161
Education	2.80%	64
Primary & Utilities	2.80%	51
Wholesale & Retail	2.67%	360

Source: TBR Observatory 2015 (TBR ref: W4/S2 and S3)

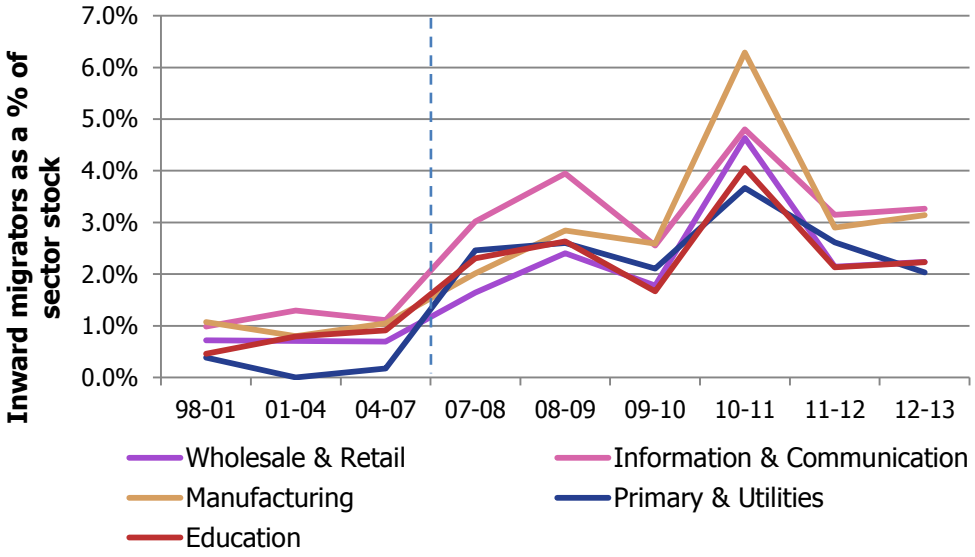
Figure 105 and Figure 106 show the trends in the number firms migrating into the CAZ in the top five sectors over the time period 2008-2013, and accompanying trends in the proportion of business stock in those sectors which is made up of inward migrating firms. The same is also shown for employment associated with these firms in Figure 107 and Figure 108.

Figure 105: Top five sectors for firms migrating to CAZ, 2008-2013



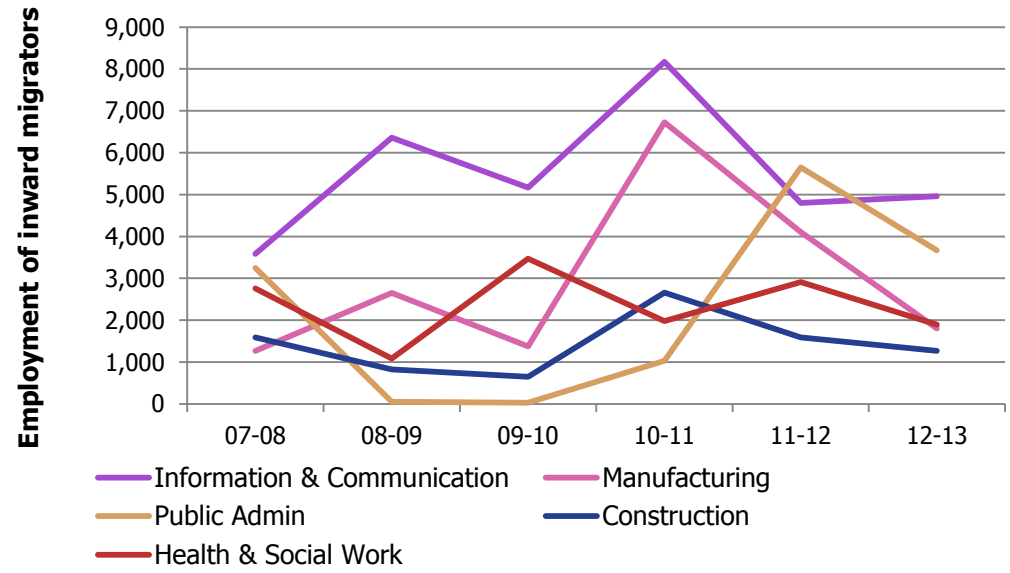
Source: TBR Observatory 2015 (TBR ref: W4/S2)

Figure 106: Top five sectors for firms migrating to CAZ as percentage of sector stock, 2008-2013



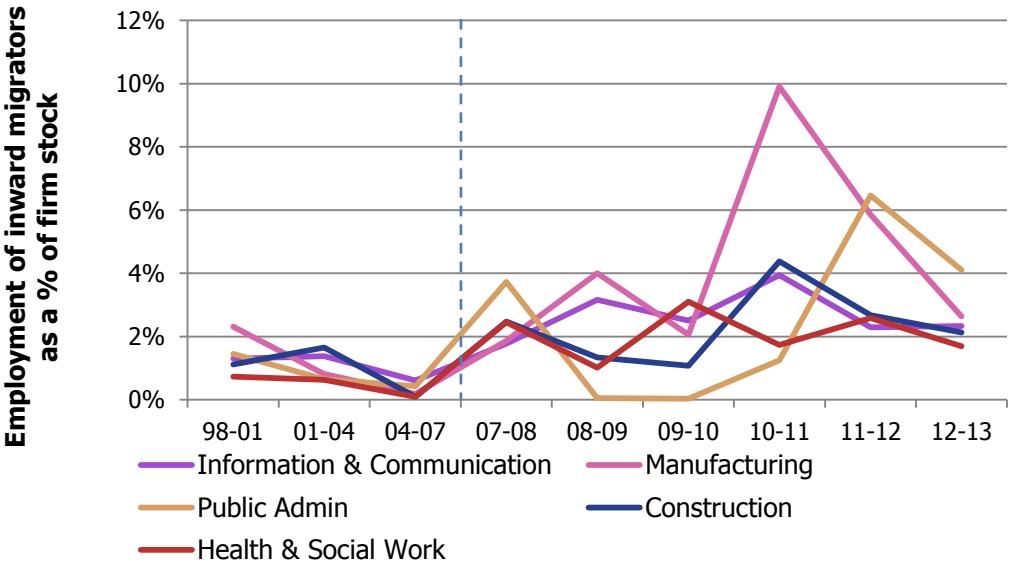
Source: TBR Observatory 2015 (TBR ref: W4/S2)

Figure 107: Employment of firms migrating to CAZ in the top five sectors, 2008-2014



Source: TBR Observatory 2015 (TBR ref: W4/S2)

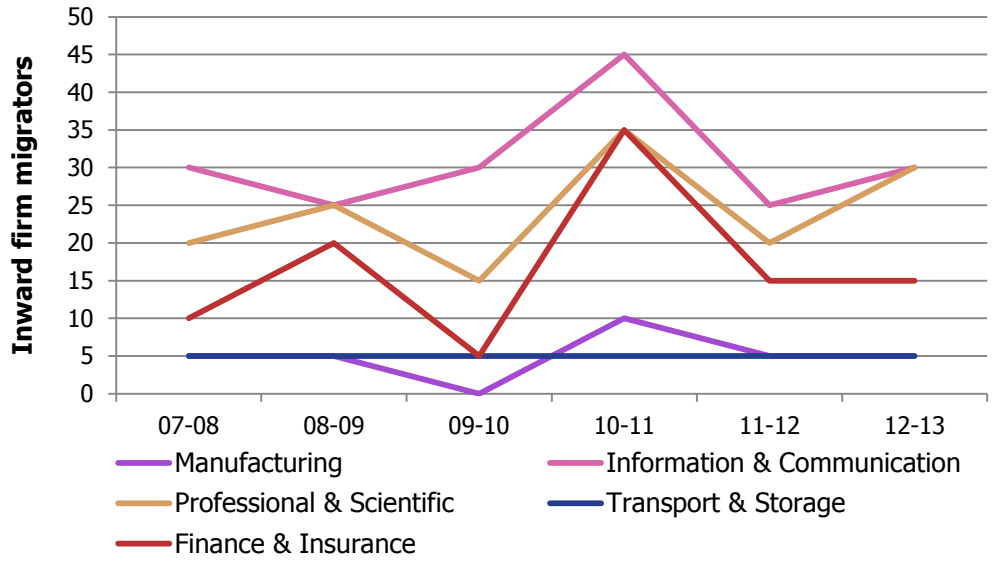
Figure 108: Employment of firms in the top five sectors migrating to CAZ as percentage of sector employment, 2008-2013



Source: TBR Observatory 2015 (TBR ref: W4/S2)

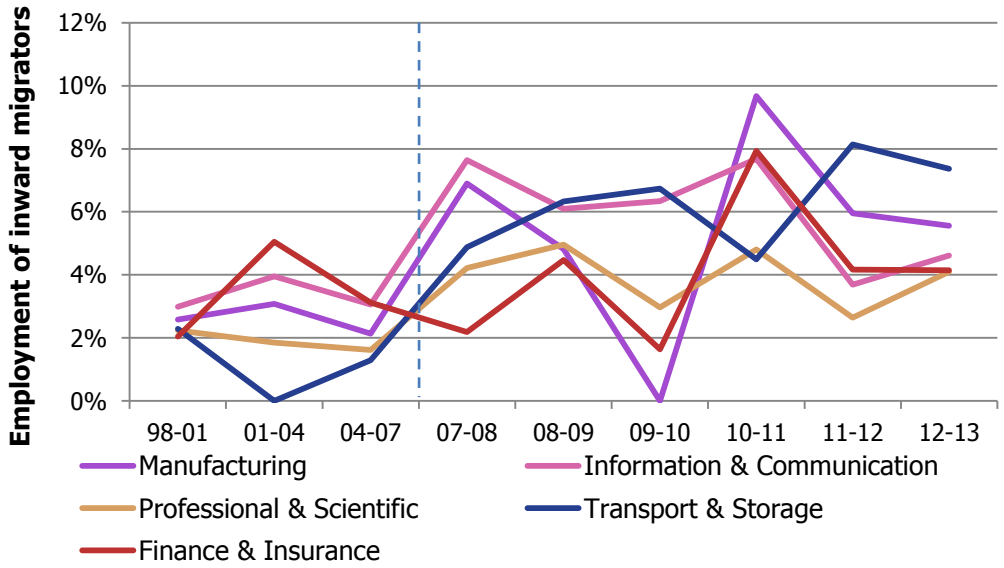
We have presented the trends for the top sectors in the NIOD separately from the CAZ. As the NIOD population is significantly smaller, the potential impact of firm migration on the local economy is greater meaning the trends are more volatile and show more fluctuation than in the CAZ (see Figure 109 to Figure 112).

Figure 109: Top five sectors for firms migrating to NIOD, 2008-2013



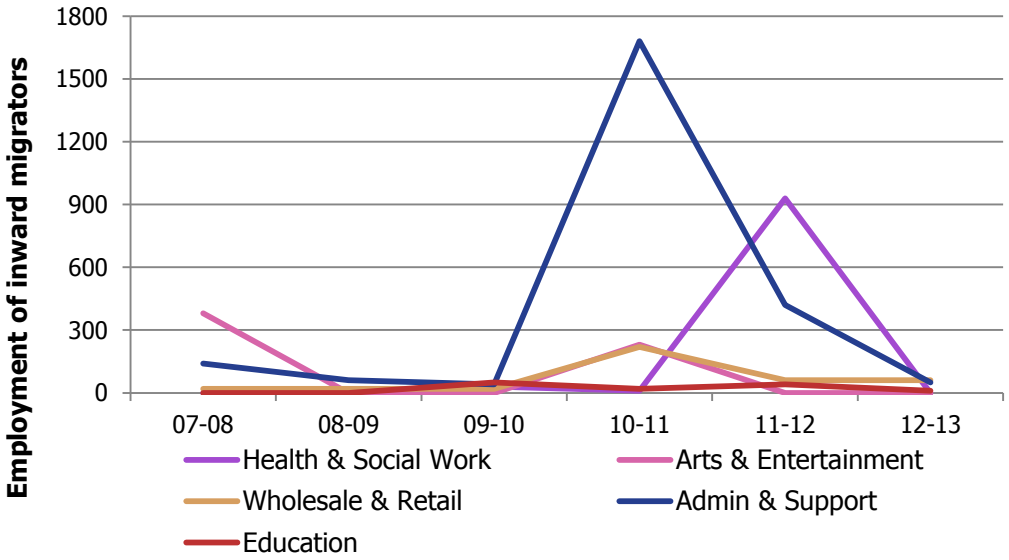
Source: TBR Observatory 2015 (TBR ref: W4/S3)

Figure 110: Top 5 sectors for firms migrating to NIOD as percentage of sector stock, 2008-2013



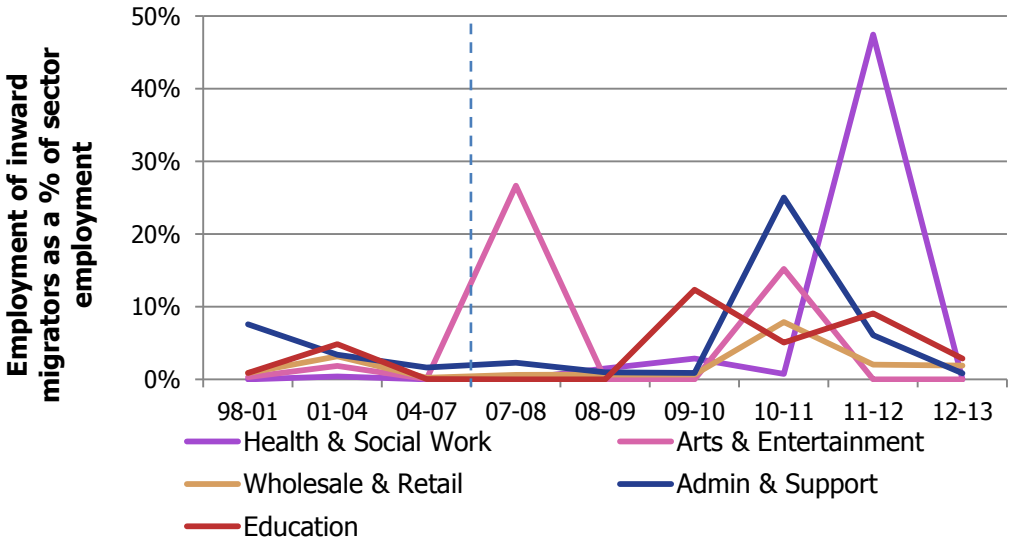
Source: TBR Observatory 2015 (TBR ref: W4/S3)

Figure 111: Employment of firms in the top five sectors migrating to NIOD, 2008-2013



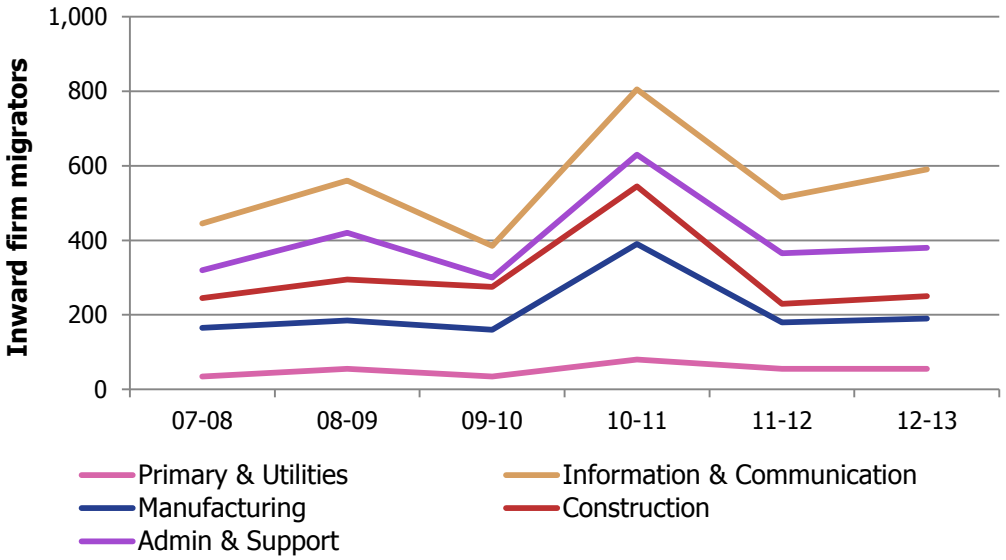
Source: TBR Observatory 2015 (TBR ref: W4/S3)

Figure 112: Employment of firms in the top 5 sectors migrating to NIOD as percentage of sector employment, 2008-2013



Source: TBR Observatory 2015 (TBR ref: W4/S3)

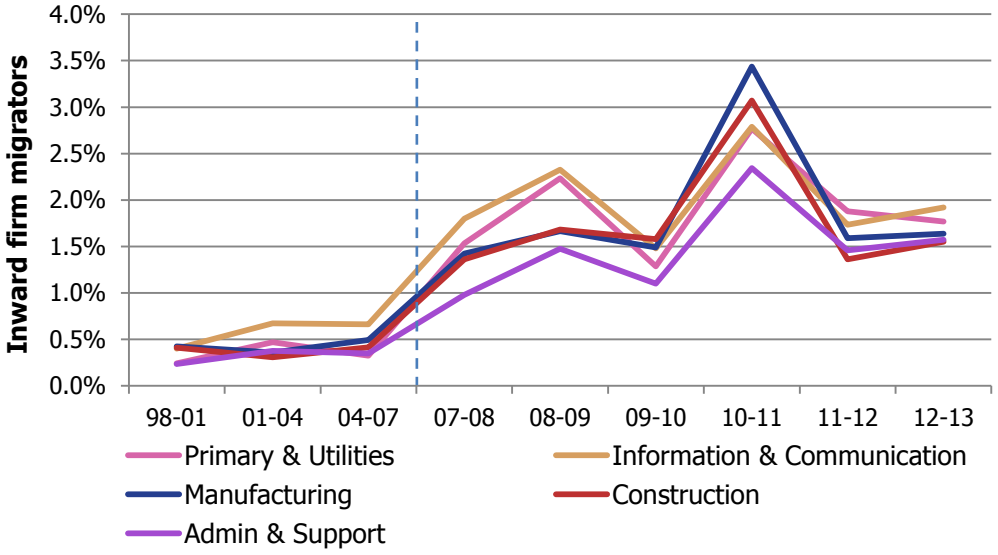
Figure 113: Top five sectors for firms migrating to inner London, 2007-2014



Source: TBR Observatory 2015 (TBR ref: W4/S4)

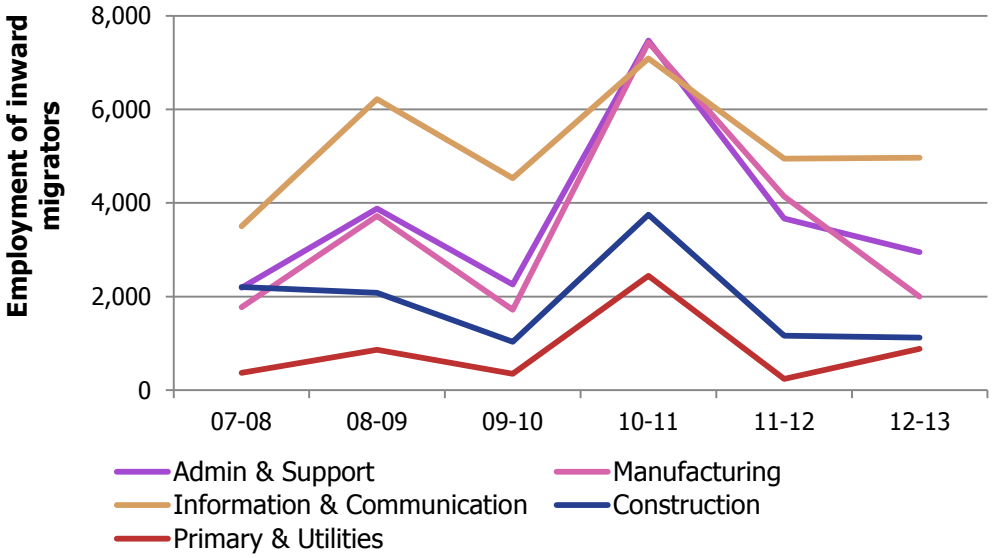
The percentage of stock that inward migrators contribute has gradually risen over the period, as shown in Figure 114. In the years up to 2007, in migration represented less than half of one percent (apart from Administrative & Support Service Activities). Thereafter it rose gradually, normal volatility excepting, to cover a range of 1.5% to 3% of each of the top five sectors in 2013-14.

Figure 114: Top five sectors for firms migrating to inner London as percentage of sector stock, 2008-2013



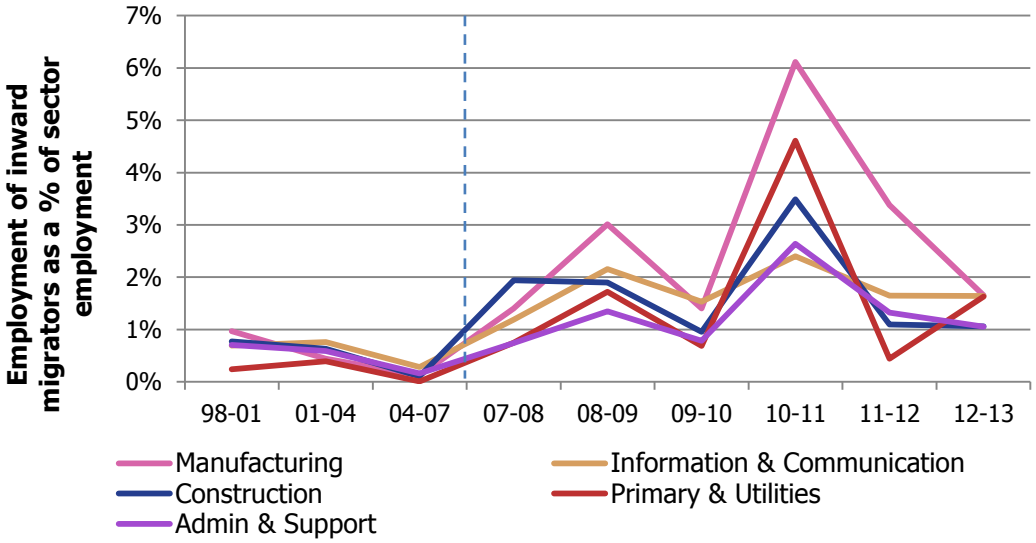
Source: TBR Observatory 2015 (TBR ref: W4/S4)

Figure 115: Employment of firms in the top five sectors migrating to inner London, 2008-2013



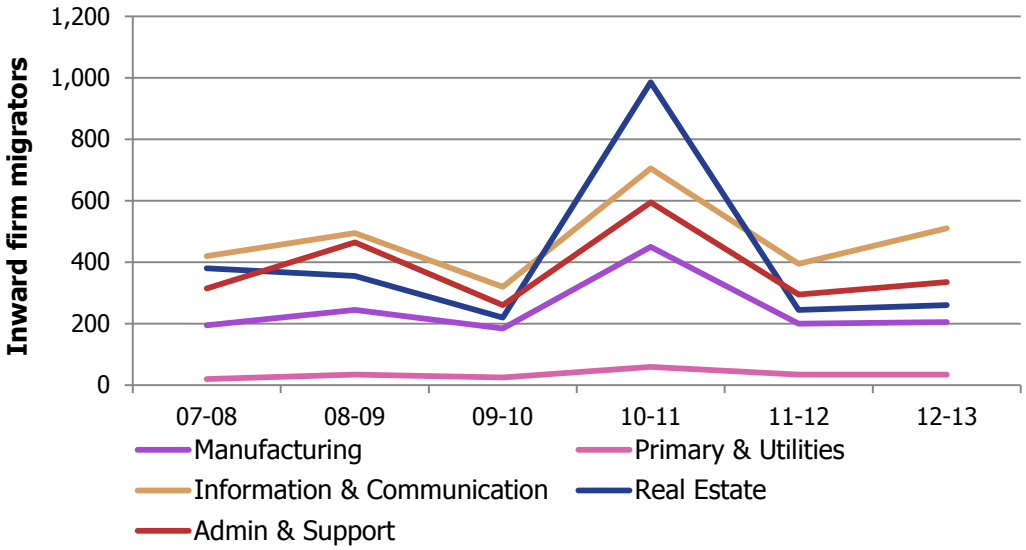
Source: TBR Observatory 2015 (TBR ref: W4/S4)

Figure 116: Employment of firms in the top 5 sectors migrating to inner London as percentage of sector employment,2008-2013



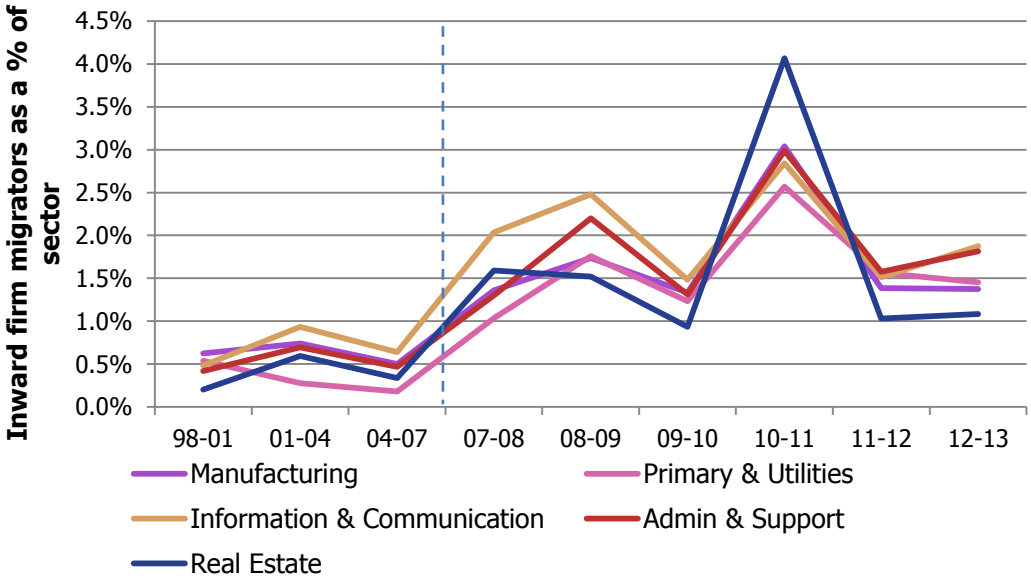
Source: TBR Observatory 2015 (TBR ref: W4/S4)

Figure 117: Top five sectors for firms migrating to outer London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S5)

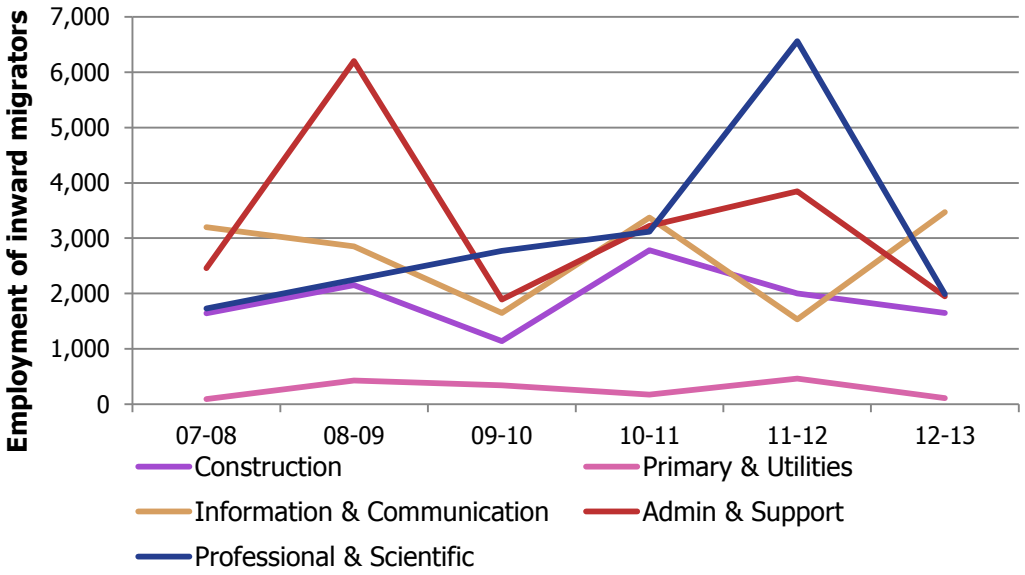
Figure 118: Top five sectors for firms migrating to outer London, as a percentage of sector stock, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W4/S5)

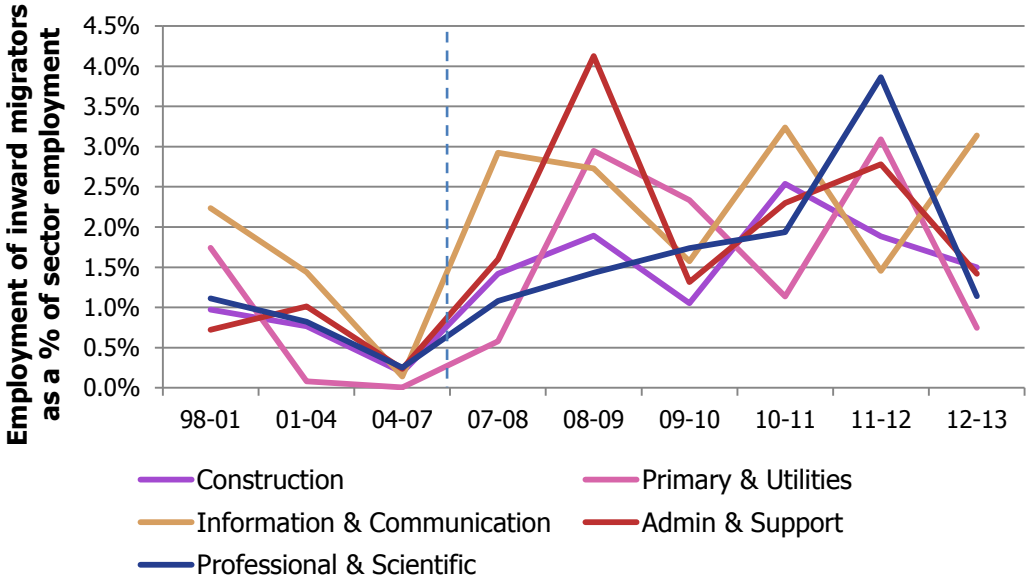
Whilst the trend over time for inward migrating firms into outer London is consistent with the other sub-geographies, the equivalent trends in employment associated with these firms is much more volatile (Figure 119 and Figure 120). This is due to variation in the average number of employees of inward migrating firms from one year to the next in these top sectors. We might expect this to be more apparent in outer London than in inner London or the CAZ due to the greater range in premise sizes and characteristics.

Figure 119: Employment of firms in the top five sectors migrating to outer London, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W4/S5)

Figure 120: Employment of firms in the top five sectors migrating to outer London as percentage of sector employment, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W4/S5)

The origins of firms moving into the sub-geographies of London during the period 2007-2014 are predominantly other London boroughs. This is illustrated in the example for inner London which is presented in Table 22. There is an almost identical situation regarding inward migration of employment into inner London, although Birmingham makes the top ten here. There is not the same level of regularity in terms of the major origins of employment as there is for firm numbers (see right hand column of Table 22).

Table 22: Origin of inward migrating firms to inner London by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
Barnet	297
Brent	148
Ealing	132
Haringey	119
Merton	112
Croydon	109
Redbridge	105
Bromley	100
Richmond upon Thames	100
Harrow	98

Employment per year (average)	
Origin	**Employment**
Hounslow	1,873
Barnet	1,501
Ealing	1,256
Croydon	1,043
Birmingham	922
Merton	890
Harrow	835
Bromley	823
Brent	821
Hillingdon	740

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

Inward migration into the CAZ is even more localised, with the majority of the top ten origins being inner London Boroughs, including Boroughs which border (and contain elements of) the CAZ (Table 23).

Table 23: Origin of inward migrating firms to CAZ by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
Kensington and Chelsea	175
Barnet	149
Tower Hamlets	143
Westminster (outside of CAZ)	137
Camden	132
Hammersmith and Fulham	119
Wandsworth	98
Hackney	88
Islington	85
Lambeth	66

Employment per year (average)	
Origin	**Employment**
Tower Hamlets	1,824
Westminster (outside of CAZ)	1,583
Kensington and Chelsea	1,374
Hounslow	1,228
Southwark	1,176
Islington	1,152
Camden	1,146
Hammersmith and Fulham	1,130
Wandsworth	792
Barnet	739

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

Table 24 presents the origin data for the NIOD. The list of top origins reflects the NIOD's location in East London, with neighbouring Boroughs providing the most in migrations. As can be seen in Table 24, in terms of employment there are some origins outside of London among the top ten, something which was not seen in the CAZ.

Table 24: Origin of inward migrating firms to NIOD by top ten local authority contributors of firms and employment, 2007-2014

Firms per year (average)	
Origin	**Firms**
City of London	29
Tower Hamlets (outside of NIOD)	20
Westminster	15
Southwark	10
Newham	6
Redbridge	5
Camden	5
Islington	5
Hackney	4
Croydon	3

Employment per year (average)	
Origin	**Employment**
City of London	938
Islington	231
Westminster	204
Tower Hamlets (outside of NIOD)	158
Harrow	130
Southwark	111
South Northamptonshire	83
Camden	45
St Albans	41
Croydon	37

Source: TBR Observatory 2015 (TBR ref: W5/S11 and S12)

13.6 Destination of outward migration within sectors

In this section we review the destinations of firms and employment migrating out of London by sector.

Table 25: Destinations of outward migrating firms from London in the Information & Communication sector, by firms and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Elmbridge	21
Brighton and Hove	21
Watford	20
Hertsmere	19
Dacorum	16
Windsor and Maidenhead	14
Three Rivers	13
Epping Forest	12
Reigate and Banstead	11
Wokingham	11

Employment per year (average)	
Destination	**Employment**
Bracknell Forest	360
Hart	214
Portsmouth	208
East Dunbartonshire	188
Elmbridge	165
Bath and North East Somerset	162
Manchester	153
Milton Keynes	144
Windsor and Maidenhead	129
Wokingham	110

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

Table 26: Destinations of outward migrating firms from London in the Financial & Insurance Activities sector, by firms and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Hertsmere	7
Sevenoaks	5
Elmbridge	5
Epping Forest	4
Manchester	4
Reigate and Banstead	3
Tandridge	3
Three Rivers	3
Brighton and Hove	3
Reading	3

Employment per year (average)	
Destination	**Employment**
City of Edinburgh	225
Mole Valley	137
Bristol, City of	137
Milton Keynes	131
Manchester	107
Runnymede	105
Sheffield	96
East Hampshire	94
Birmingham	90
Hertsmere	84

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

Table 27: Destinations of outward migrating firms from London in the Professional, Scientific & Technical Activities sector, by firms and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Elmbridge	33
Hertsmere	22
Brighton and Hove	18
Epping Forest	18
St Albans	16
Three Rivers	15
Sevenoaks	14
Tandridge	14
Wycombe	14
Waverley	14

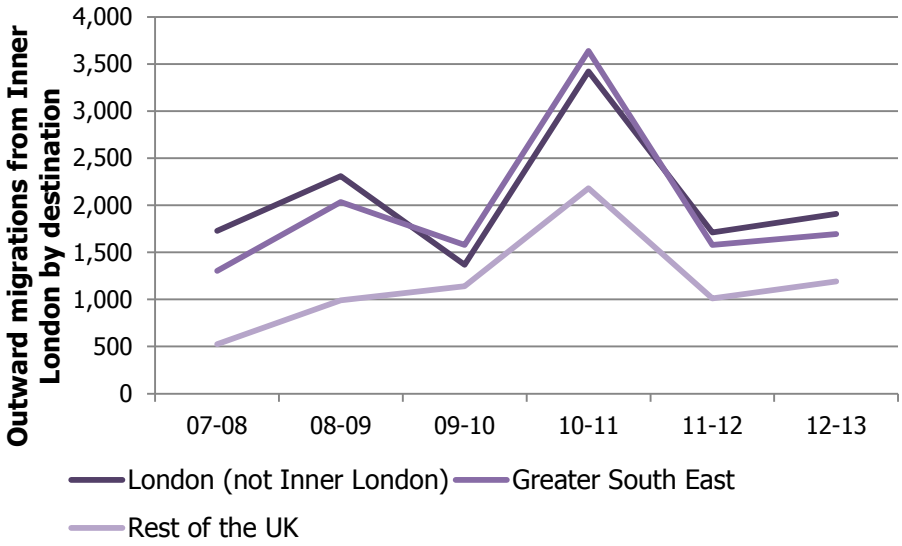
Employment per year (average)	
Destination	**Employment**
Mid Devon	430
Birmingham	256
Solihull	191
Hertsmere	147
Manchester	134
Nottingham	133
Elmbridge	127
Leeds	120
Liverpool	116
Guildford	106

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

13.7 Outward migration from London's sub-geographies

Firms based in London not only move to locations outside of London, they move within London. Thus businesses originally located within inner London may choose to move to an outer London location. We see from Figure 121 that a similar number of firms originally located in inner London seek to stay in London as move out to the Greater South East. The lack of real difference suggests that the arguments for and against a London location are finely balanced with pull factors such as proximity to clients/suppliers, infrastructure and transport links being countered by reduced costs and, possibly, improved logistics.

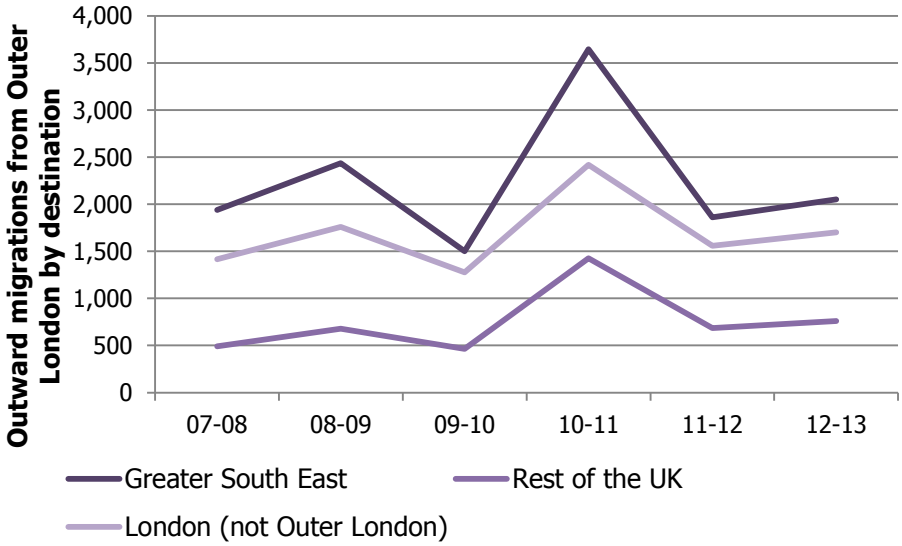
Figure 121: Outward migrations from inner London by destination, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W7/S1)

For outer London the position is reversed, with more firms relocating out to the Greater South East than moving in to inner London.

Figure 122: Outward migrations from outer London by destination, 2007-2013



Source: TBR Observatory 2015 (TBR ref: W7/S1)

Table 28 presents the data for firms migrating out of inner London. The main destinations for firms relocating from inner London are all outer London boroughs, however once again the destinations of employment are more diverse including two destinations outside the Greater South East – Manchester and Birmingham.

Table 28: Top ten local authority destinations of outward migrating firms from inner London by firm count and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Barnet	330
Brent	162
Bromley	157
Ealing	151
Merton	148
Haringey	136
Croydon	128
Harrow	124
Redbridge	121
Hounslow	113

Employment per year (average)	
Destination	**Employment**
Hounslow	2,437
Barnet	1,296
Ealing	976
Merton	961
Brent	952
Manchester	914
Birmingham	795
Bromley	795
Croydon	789
Hillingdon	715

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

Table 29 presents the data for firms relocating out of outer London. For outer London, there are more inner London boroughs than might be expected from the analysis of broad destination with only one of the top ten destinations being outside London. Looking at employment there are more locations outside of London, although still within the Greater South East.

Table 29: Top ten local authority destinations of outward migrating firms from outer London by firm count and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Westminster	375
Camden	254
Islington	157
Hammersmith and Fulham	124
Wandsworth	118
Hertsmere	117
Tower Hamlets	116
Hackney	110
City of London	105
Newham	101

Employment per year (average)	
Destination	**Employment**
Westminster	3,156
Southwark	1,925
Camden	1,864
City of London	1,511
Hammersmith and Fulham	852
Tower Hamlets	815
Elmbridge	811
Hertsmere	781
Islington	780
Epping Forest	618

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

Firms in the CAZ move exclusively within London (Table 30), although in terms of employment there are moves to local authorities outside London, such as Manchester.

Table 30: Top ten local authority destinations of outward migrating firms from CAZ by firm count and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Barnet	153
Camden	143
Kensington and Chelsea	143
Tower Hamlets	131
Westminster	119
Hammersmith and Fulham	112
Wandsworth	84
Islington	84
Hackney	78
Harrow	63

Employment per year (average)	
Destination	**Employment**
Tower Hamlets	3,240
Hounslow	1,807
Islington	1,677
Westminster	1,567
Kensington and Chelsea	1,465
Hammersmith and Fulham	1,169
Camden	1,145
Wandsworth	937
Manchester	866
Southwark	847

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

It is a similar picture for the NIOD with all of the top ten destinations all within London (Table 31), and the top two being neighbouring boroughs. In terms of employment, the same applies aside from one

Table 31: Top ten local authority destinations of outward migrating firms from NIOD by firm count and employment, 2007-2014

Firms per year (average)	
Destination	**Firms**
Tower Hamlets	20
City of London	19
Westminster	17
Camden	8
Southwark	6
Newham	5
Islington	4
Hackney	4
Redbridge	4
Barking and Dagenham	3

Employment per year (average)	
Destination	**Employment**
City of London	699
Westminster	535
Tower Hamlets	254
Camden	176
Waltham Forest	127
Southwark	50
Hackney	43
Islington	32
Bexley	30
Middlesbrough	29

Source: TBR Observatory 2015 (TBR ref: W7/S11 and S12)

13.8 Age-band analysis by selected sectors

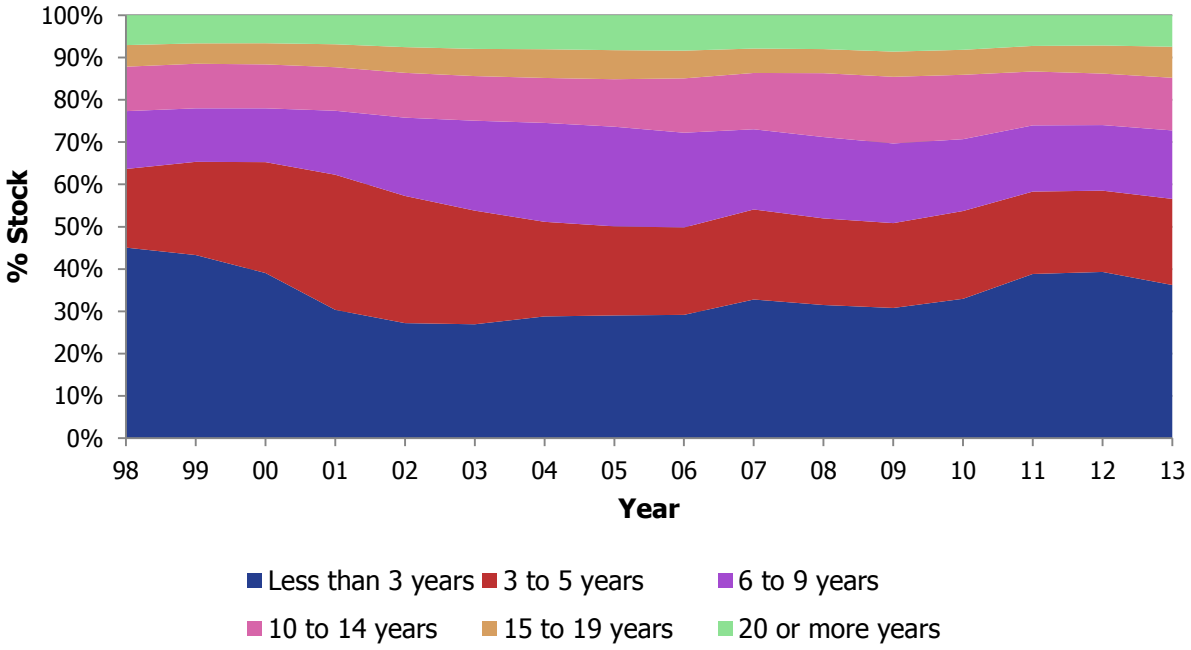
This section focuses on firms of different ages, and their employment, in three selected sectors to give an overview of how the business demographics in these sectors compare, and how they have changed over time.

13.8.1 Information & Communication sector

There has been growth in the number of firms in all age bands in this sector, from 23,255 in 1998 to 58,035 in 2013. However, average firm size has halved over the time period from 14 to 7 employees, meaning the proportional growth in employment from 1998 to 2013 is smaller, from 318,300 to 413,470.

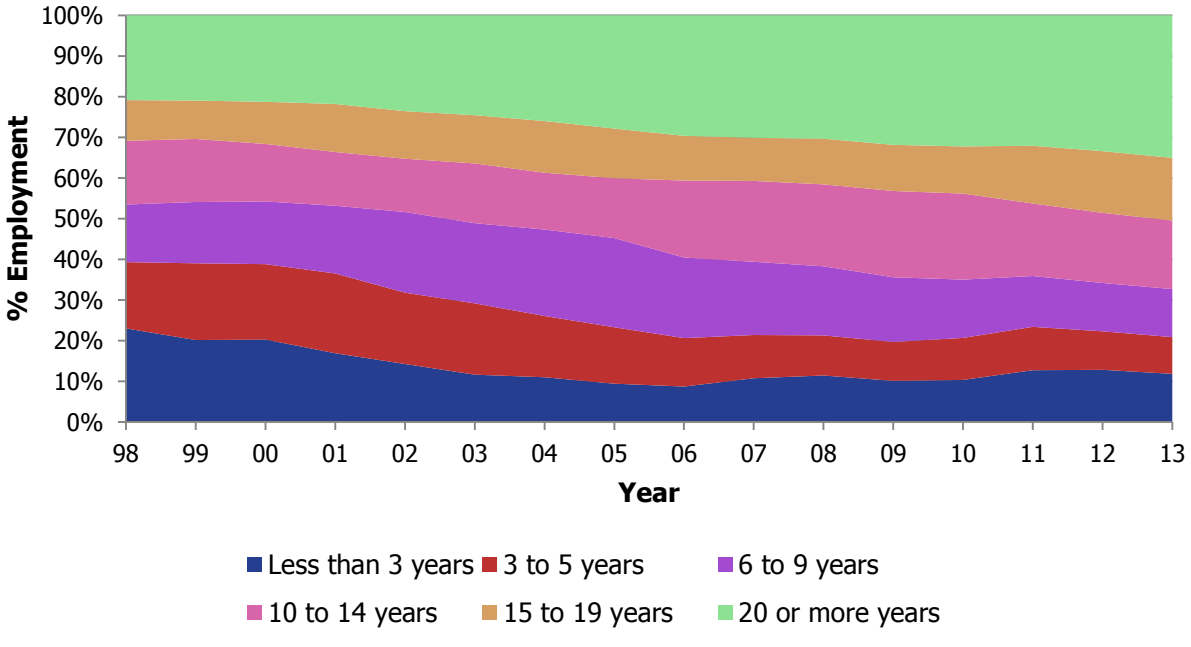
Following a decline in the number of new firms in the sector after the year 2000, there has been a spike in new firms entering the sector as the total business stock rises. In 2013 35.2% of Information & Communication firms were aged less than 3 years, 38.2% in 2012 and 37.5% in 2011, compared with 31.4% in 2010 and 29.0% in 2009 (see Figure 123). A similar trend can be seen in the corresponding employment data (see Figure 124).

Figure 123: Firm stock in the Information & Communication sector by age-band, London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S7)

Figure 124: Employment in the Information & Communication sector by firm age-band, London, 1998-2013

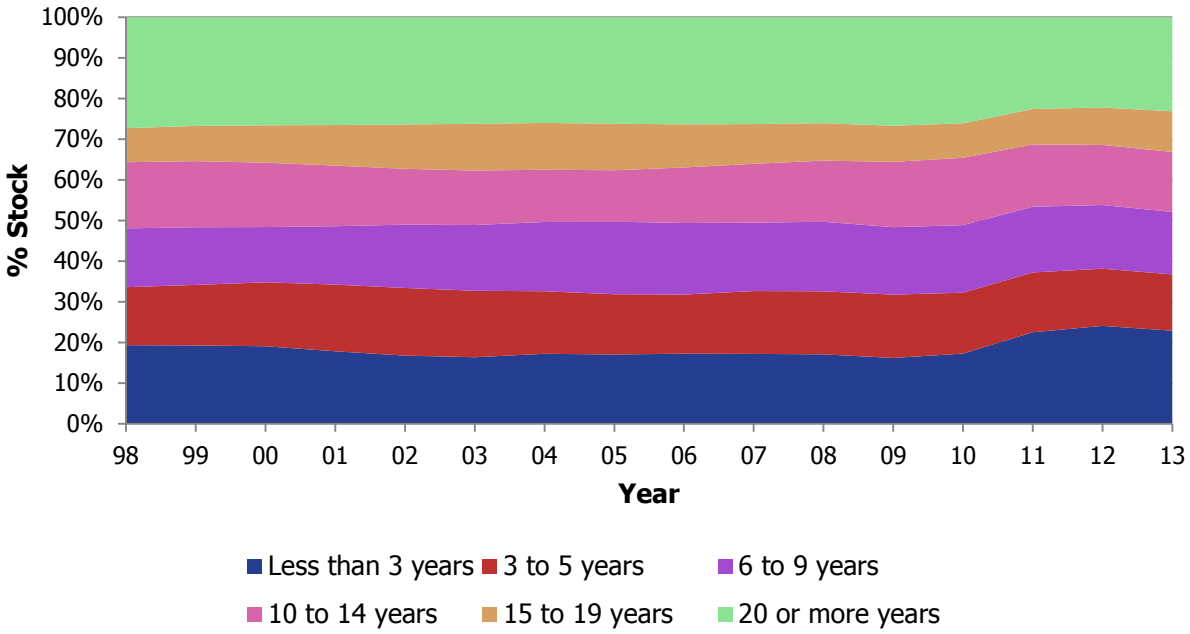


Source: TBR Observatory 2015 (TBR ref: W9/S7)

13.8.2 Financial & Insurance Activities

There has been growth in the number of firms in all age bands in this sector, from 19,725 in 1998 to 25,340 in 2013. However, average firm size has decreased over the time period from 25 to 18 employees, resulting in a fall in employment between 1998 and 2013, from 492,730 to 456,380.

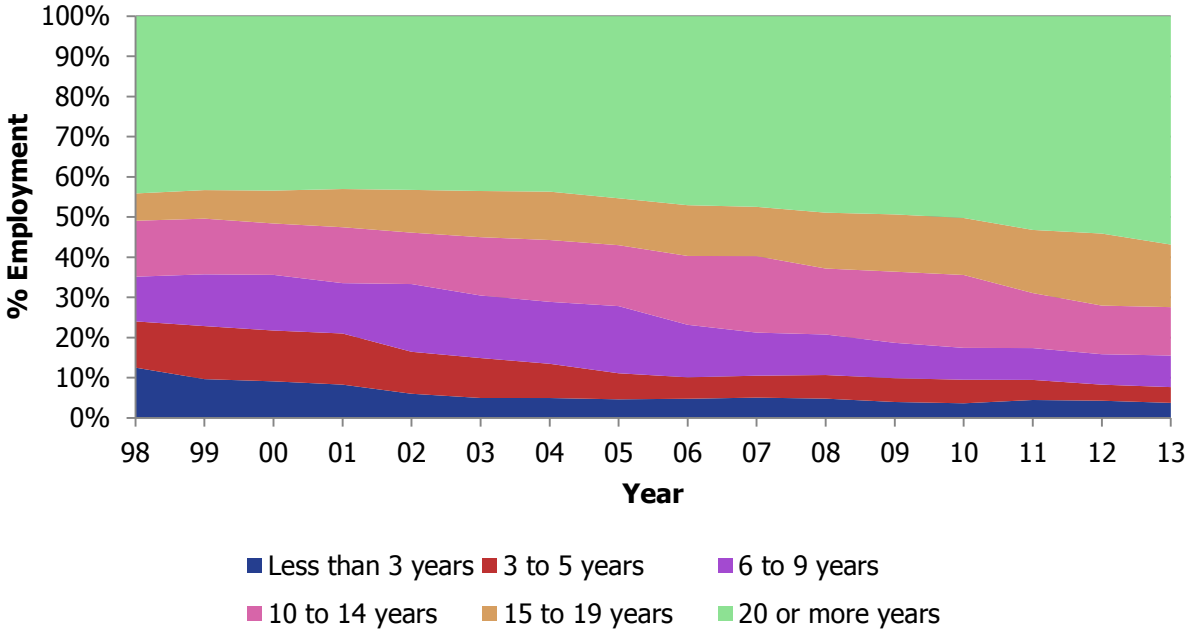
Figure 125: Firm stock in the Financial & Insurance Activities sector by age-band, London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S7)

Following a decline in the number of new firms in the sector after the year 2000, there has been a spike in new firms entering the sector as the total business stock rises. In 2013, 19.3% of Financial & Insurance Activities firms were aged less than 3 years, 20.3% in 2012 and 18.6% in 2011, compared with 13.9% in 2010 and 12.7% in 2009 (see Figure 125). The opposite can be seen in the corresponding employment data (shown in Figure 126).

Figure 126: Employment in the Financial & Insurance Activities sector by firm age-band, London, 1998-2013



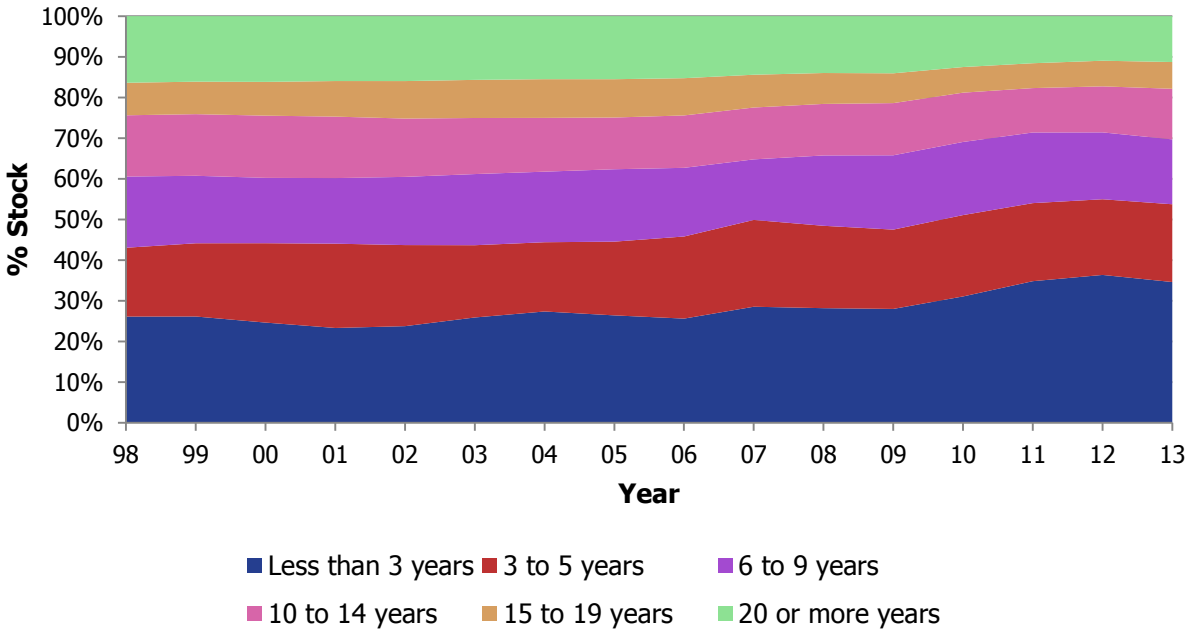
Source: TBR Observatory 2015 (TBR ref: W9/S7)

13.8.3 Professional, Scientific & Technical Activities sector

There has been growth in the number of firms in all age bands in this sector, from 41,880 in 1998 to 101,285 in 2013. However, average firm size has almost halved over the time period, from 13 to 7 employees, resulting in a proportionately smaller, albeit still sizeable, rise in employment between 1998 and 2013, from 551,710 to 716,470.

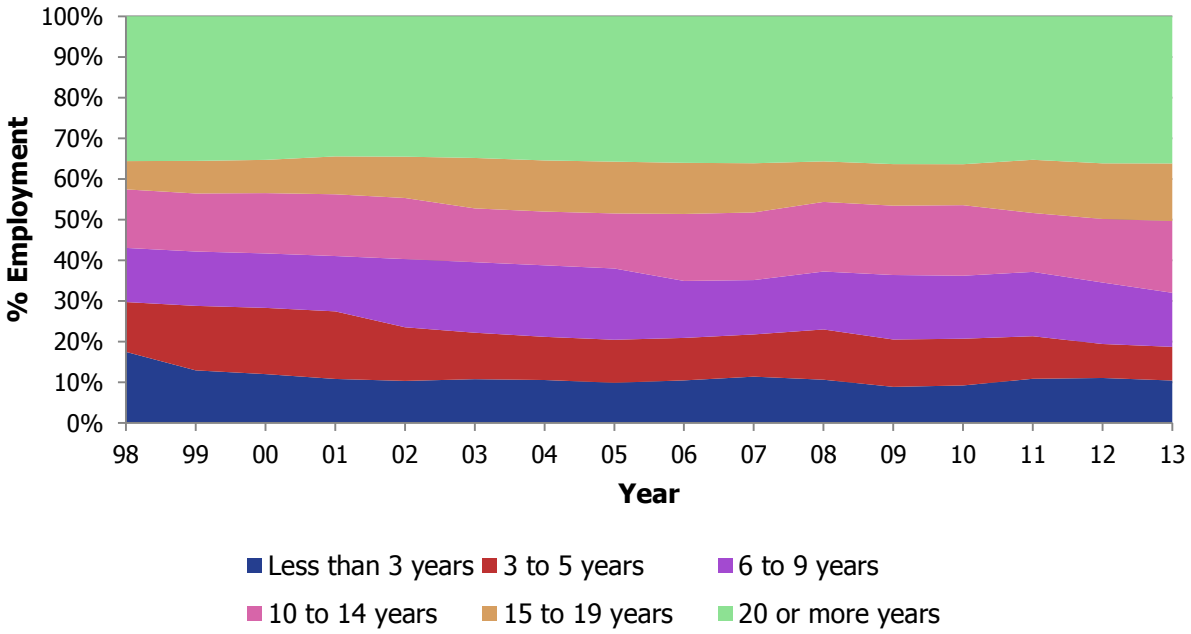
Following a decline in the number of new firms in the sector after the year 2000, there has been a spike in new firms entering the sector as the total business stock rises. In 2013, 33.0% of Professional, Scientific & Technical Activities firms were aged less than 3 years, 34.7% in 2012 and 32.8% in 2011, compared with 28.9% in 2010 and 25.4% in 2009. A similar trend can be seen in the corresponding employment data.

Figure 127: Firm stock in the Professional, Scientific & Technical Activities sector by age-band, London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S7)

Figure 128: Employment in the Financial & Insurance Activities sector by firm age-band, London, 1998-2013



Source: TBR Observatory 2015 (TBR ref: W9/S7)

13.9 Sector specialisation in sub-geographies

The series of tables below show the scores from each of the three indices (Location Quotient, Krugman Index and Maurel & Sedillot) for three sectors; Information & Communication, Financial & Insurance Activities, and Professional, Scientific & Technical Activities, and two subsectors within the third of these, which are Legal & Accounting Activities and Activities of Head Offices & Management Consultancies.

Each table shows the index scores within a single geographical area in 2004 and 2013 to allow for observations of how specialisation has changed over time.

13.9.1 Central Activities Zone

The CAZ has strong specialisms in each of the sectors. However Information & Communication and Professional, Scientific & Technical Activities have become less specialised between 2004 and 2013, especially in the subsector of Activities of Head Offices & Management Consultancies. The location quotient for Financial & Insurance Activities has increased slightly, from a high level, although this trend is not repeated in the other indicators.

Table 32: Specialisation (based on firm count) in CAZ

Sector	2004			2013		
	LQ	KI	M&S	LQ	KI	M&S
Information & Communication (Sector J)	1.89	0.05	0.03	1.59	0.06	0.03
Financial & Insurance Activities (Sector K)	2.57	0.11	0.10	2.68	0.10	0.08
Professional, Scientific & Technical Activities (Sector M)	1.90	0.10	0.11	1.62	0.11	0.14
Legal & Accounting Activities (UKSIC07 69)	2.09	0.04	0.00	1.71	0.05	0.01
Activities of Head Offices & Management Consultancies (UKSIC07 70)	2.12	0.02	-0.03	1.60	0.03	-0.03

Source: TBR Observatory 2015 (TBR ref: W10/S1, S11, S12)

13.9.2 Northern Isle of Dogs

The NIOD has strong specialisms in each of the sectors, to a greater degree than the CAZ – albeit over a smaller geographical area. There has been little change over time in the degree of specialisation. The location quotient for Financial & Insurance Activities has increased slightly, from a high level, although this trend is not repeated in the other indicators.

Table 33: Specialisation in Northern Isle of Dogs

Sector	2004			2013		
	LQ	KI	M&S	LQ	KI	M&S
Information & Communication (Sector J)	2.66	0.09	0.13	2.57	0.08	0.11
Financial & Insurance Activities (Sector K)	3.13	0.39	0.44	3.28	0.33	0.38
Professional, Scientific & Technical Activities (Sector M)	1.44	0.01	0.07	1.42	0.02	0.09
Legal & Accounting Activities (UKSIC07 69)	1.18	0.01	0.03	1.21	0.02	0.04
Activities of Head Offices & Management Consultancies (UKSIC07 70)	1.72	0.00	0.01	1.89	0.00	0.01

Source: TBR Observatory 2015 (TBR ref: W10/S1, S11, S12)

13.9.3 Inner London

Inner London has moderate specialisms in all three sectors, however this has reduced from 2004 to 2013 aside from in Financial & Insurance Activities.

Table 34: Specialisation in inner London

Sector	2004			2013		
	LQ	KI	M&S	LQ	KI	M&S
Information & Communication (Sector J)	1.67	0.04	-0.02	1.56	0.05	-0.02
Financial & Insurance Activities (Sector K)	1.68	0.08	0.03	1.73	0.06	0.01
Professional, Scientific & Technical Activities (Sector M)	1.53	0.07	0.04	1.38	0.07	0.06
Legal & Accounting Activities (UKSIC07 69)	1.52	0.03	-0.06	1.32	0.03	-0.06
Activities of Head Offices & Management Consultancies (UKSIC07 70)	1.72	0.02	-0.08	1.49	0.02	-0.08

Source: TBR Observatory 2015 (TBR ref: W10/S1, S11, S12)

13.9.4 Outer London

Outer London only displays solid specialisms in one sector, Information & Communication, and this has become marginally more specialised over time. Financial & Insurance Activities has become even less specialised from 2004 to 2013 when looking at LQs. Although Professional, Scientific & Technical does not display a specialism, the subsector of Legal & Accounting Activities does, although this has weakened over the time period.

Table 35: Specialisation in outer London

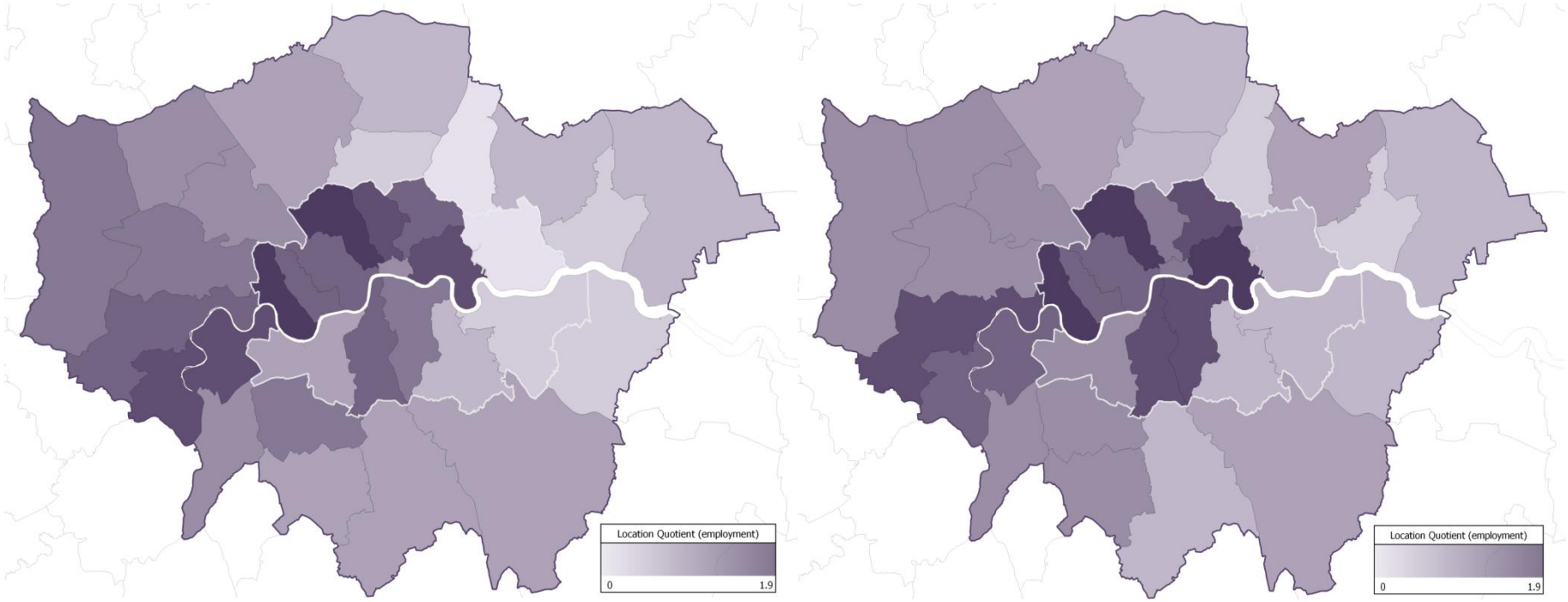
Sector	2004			2013		
	LQ	KI	M&S	LQ	KI	M&S
Information & Communication (Sector J)	1.45	0.01	-0.01	1.48	0.01	-0.01
Financial & Insurance Activities (Sector K)	0.92	-0.01	-0.02	0.84	-0.01	-0.03
Professional, Scientific & Technical Activities (Sector M)	1.11	0.01	0.01	1.12	0.00	0.03
Legal & Accounting Activities (UKSIC07 69)	1.40	0.00	-0.04	1.34	0.00	-0.04
Activities of Head Offices & Management Consultancies (UKSIC07 70)	1.18	0.01	-0.04	1.21	0.01	-0.04

Source: TBR Observatory 2015 (TBR ref: W10/S1, S11, S12)

13.10 London employment location quotient maps (co-location)

Figure 129: London specialisation of employment in Information & Communication, 2004 and 2013

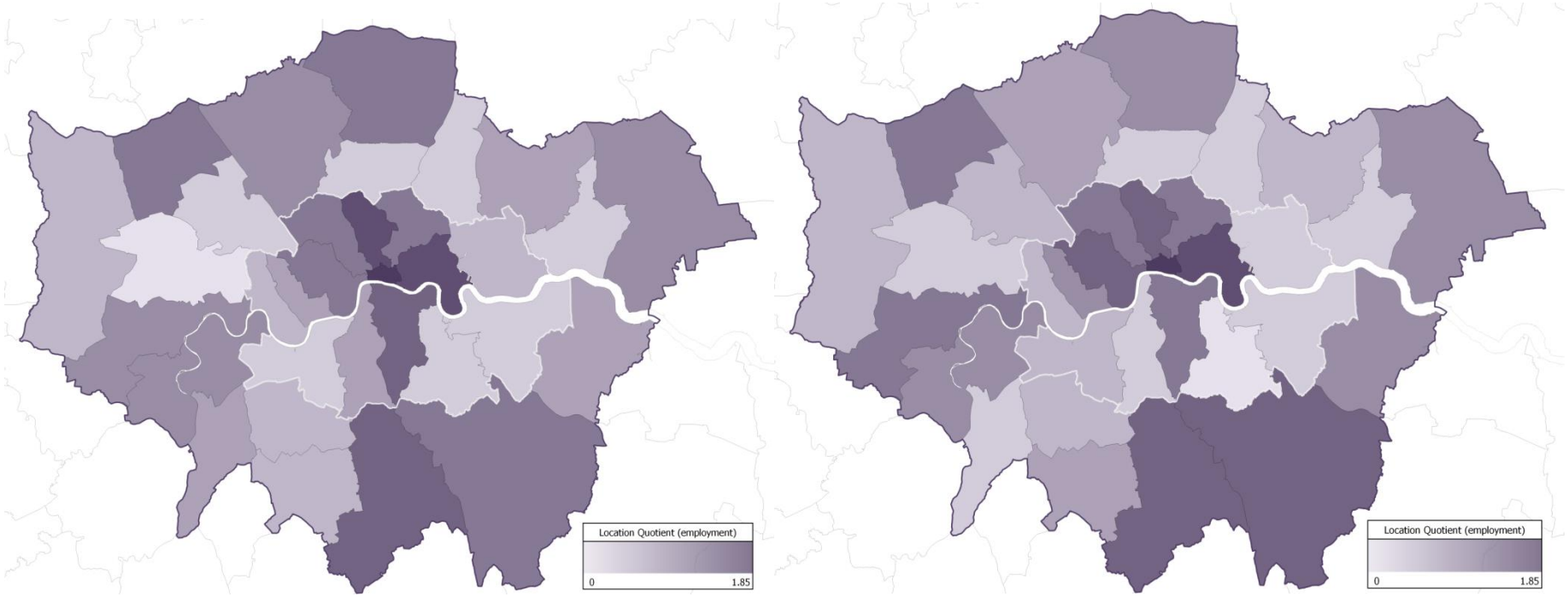
2004 **2013**



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.
Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M1 & M2

Figure 130: London specialisation of employment in Financial & Insurance Activities, 2004 and 2013

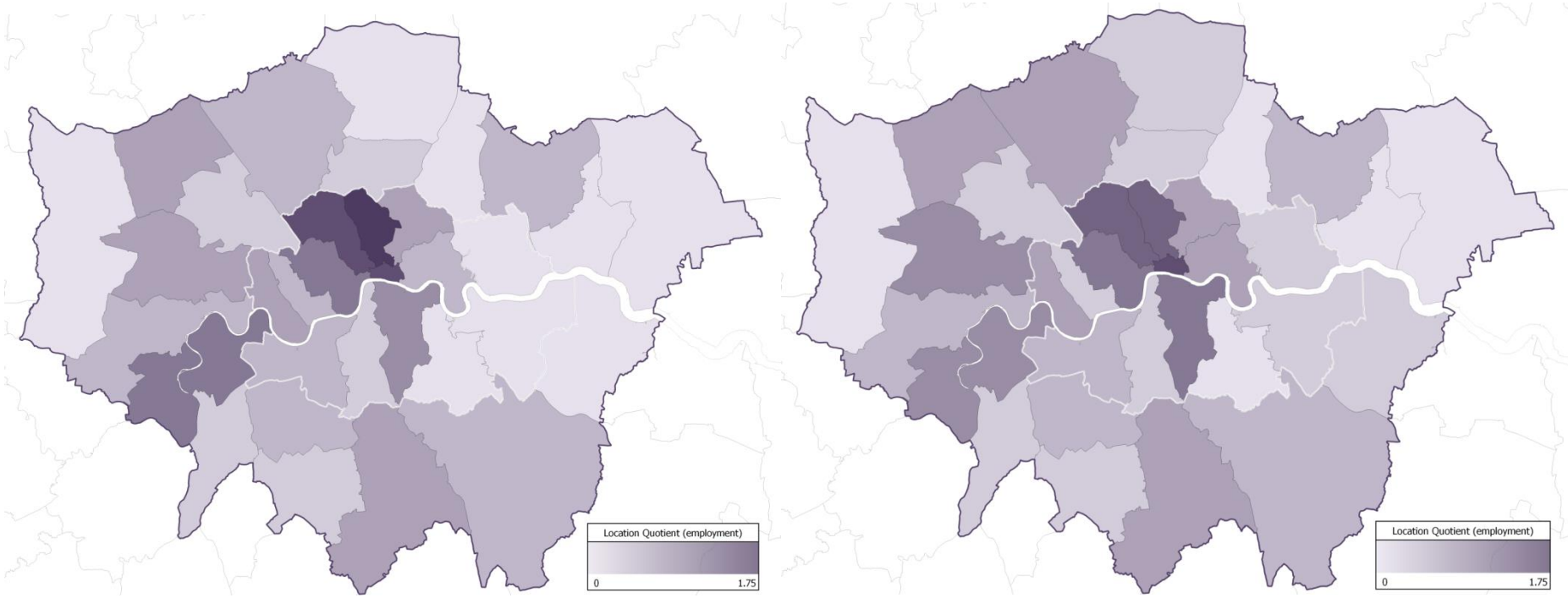
2004 **2013**



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.
Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M3 & M4

Figure 131: London specialisation of employment in Professional, Scientific & Technical Activities, 2004 and 2013

2004 **2013**



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System.
Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M5 & M6

13.11 CAZ and NIOD employment location quotient maps (co-location)

This section displays a series of maps which show employment location quotients for selected sectors in the CAZ and NIOD. The geographical units within these areas are Workplace Zones. The darker the shade of a Workplace Zone, the stronger the degree of specialisation in that Workplace Zone.

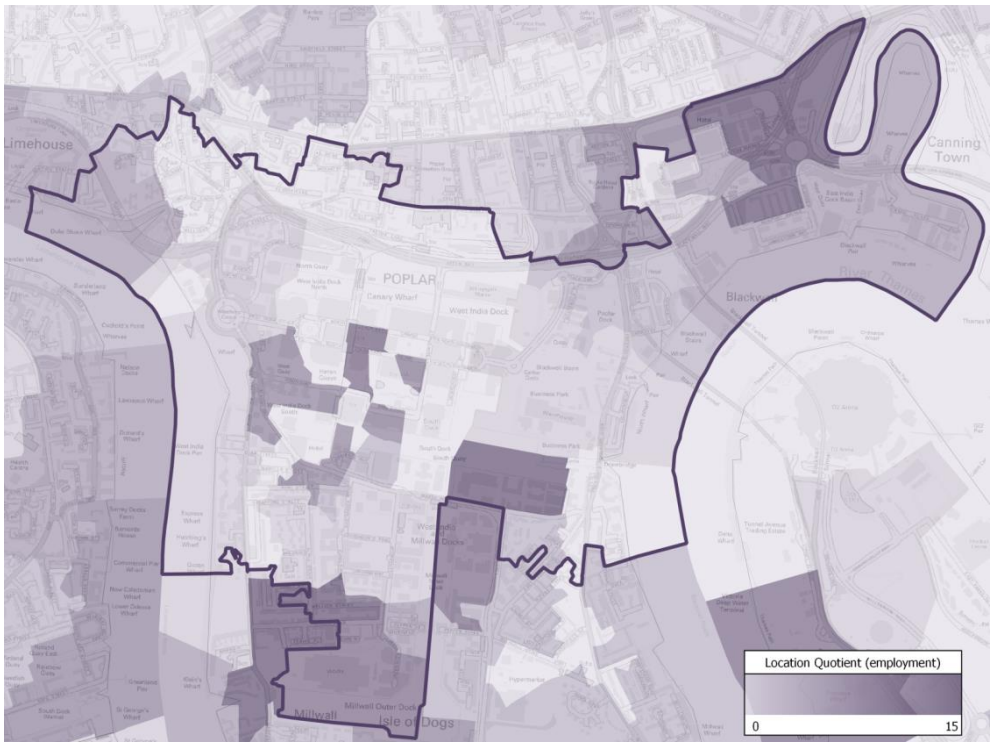
Figure 132**: CAZ, 2013, specialisation of employment in Information & Communication**

Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M8

Figure 133: CAZ, 2004, specialisation of employment in Information & Communication

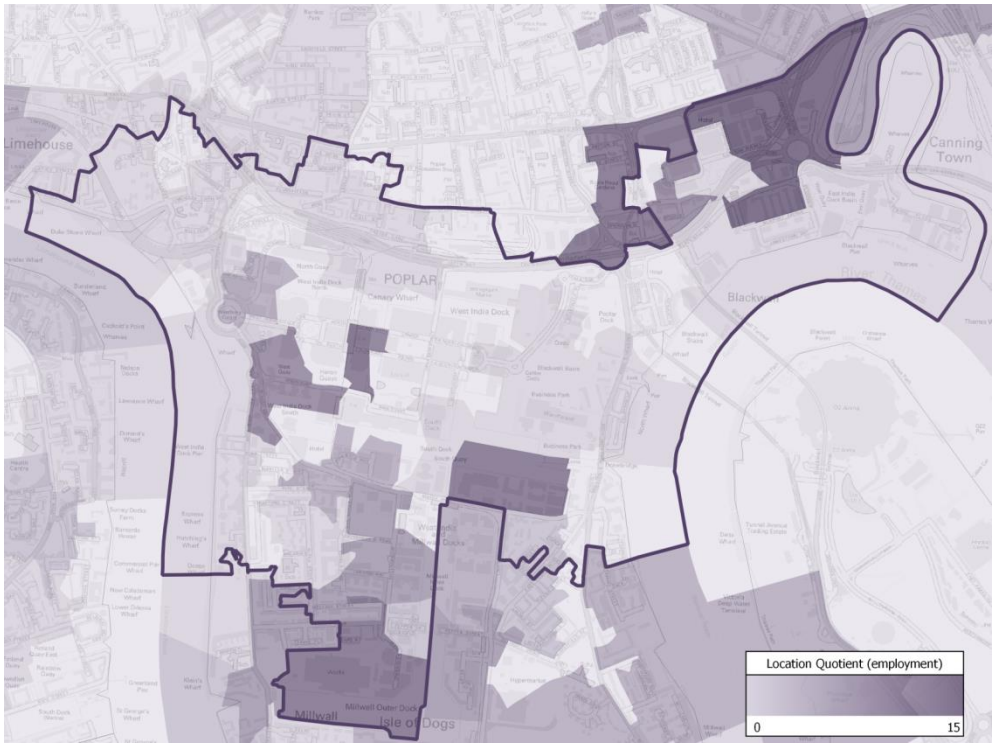
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M7

Figure 134: NIOD, 2013, specialisation of employment in Information & Communication



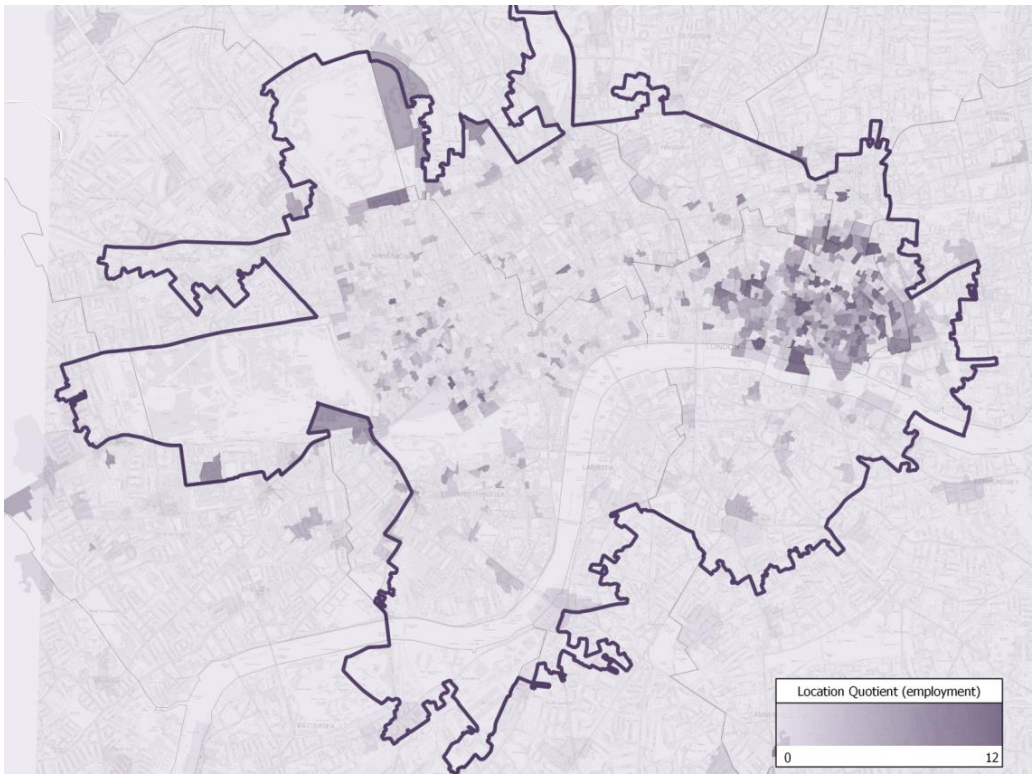
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M14

Figure 135: NIOD, 2004 specialisation of employment in information and communication



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M13

Figure 136: CAZ, 2013, specialisation of employment in Financial & Insurance Activities

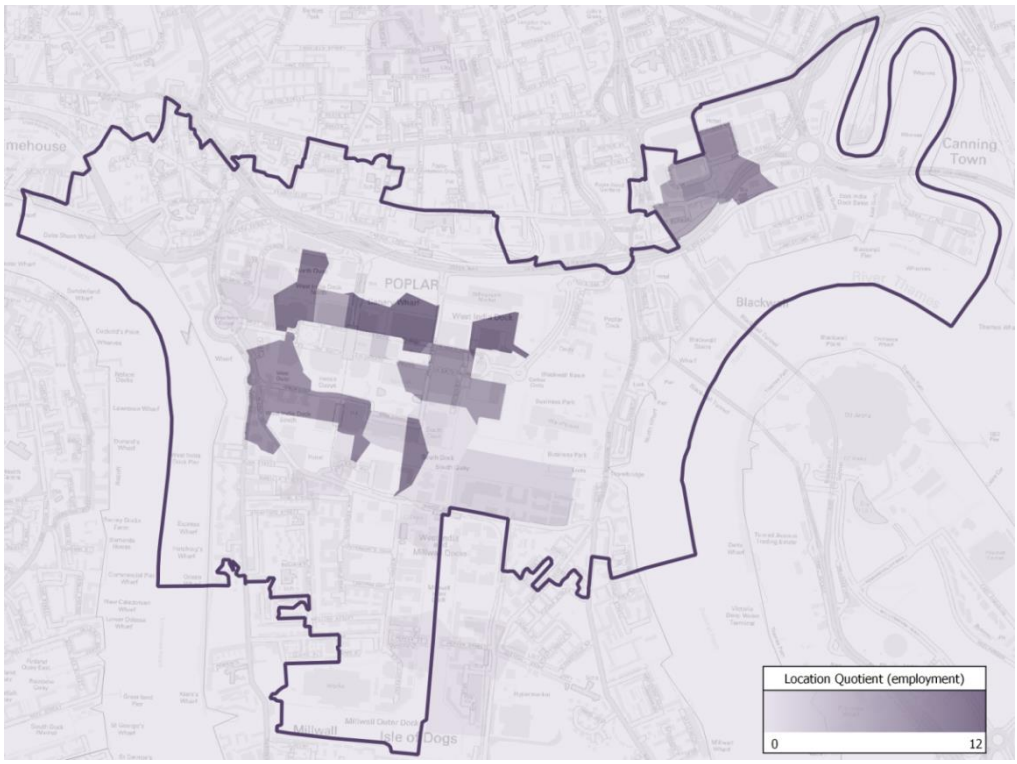


Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M10

Figure 137: CAZ, 2004, specialisation of employment in Financial & Insurance Activities

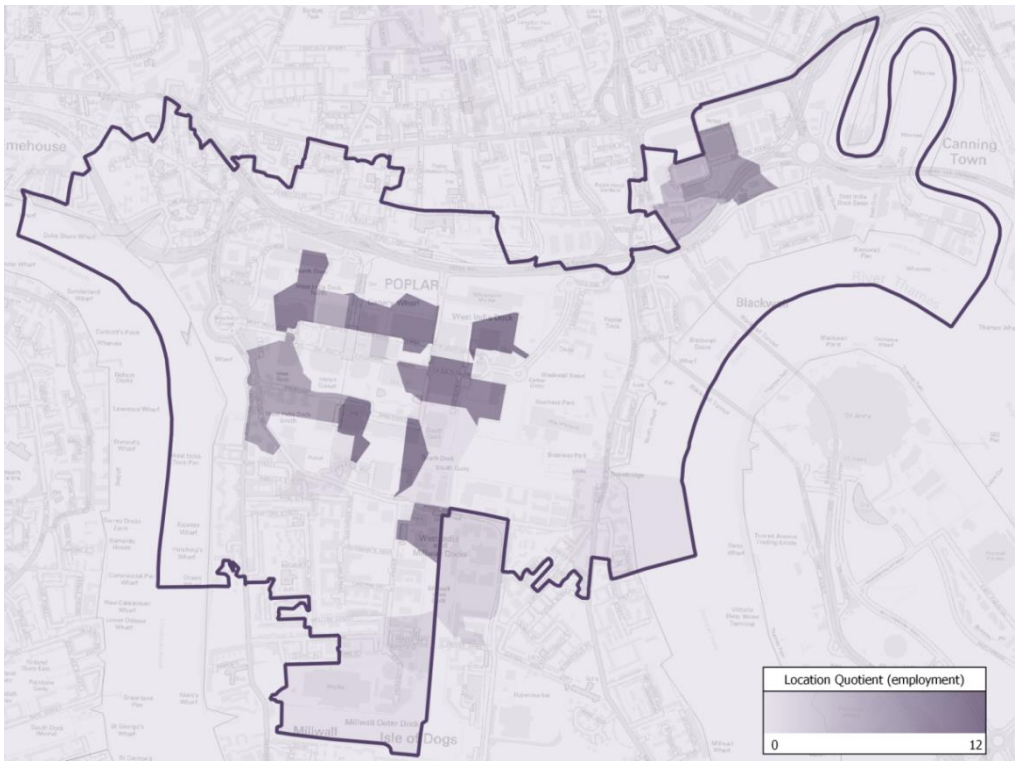
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M9

Figure 138: NIOD, 2013, specialisation of employment in Financial & Insurance Activities



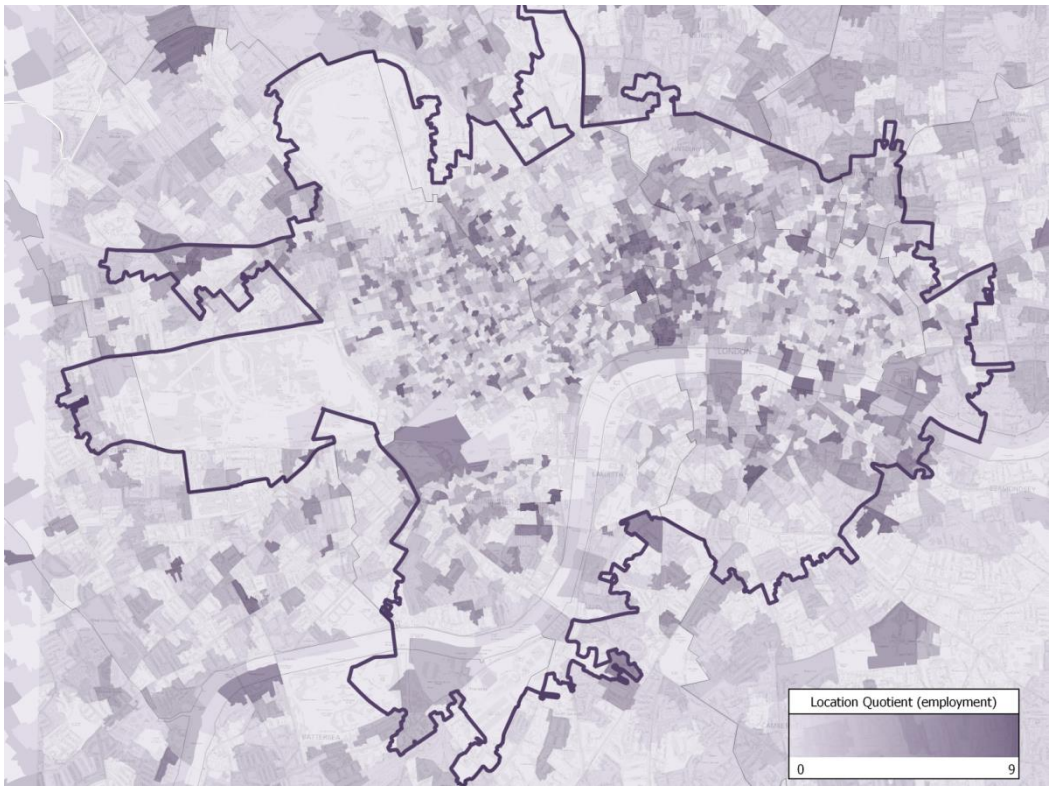
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M16

Figure 139: NIOD, 2004, specialisation of employment in Financial & Insurance Activities



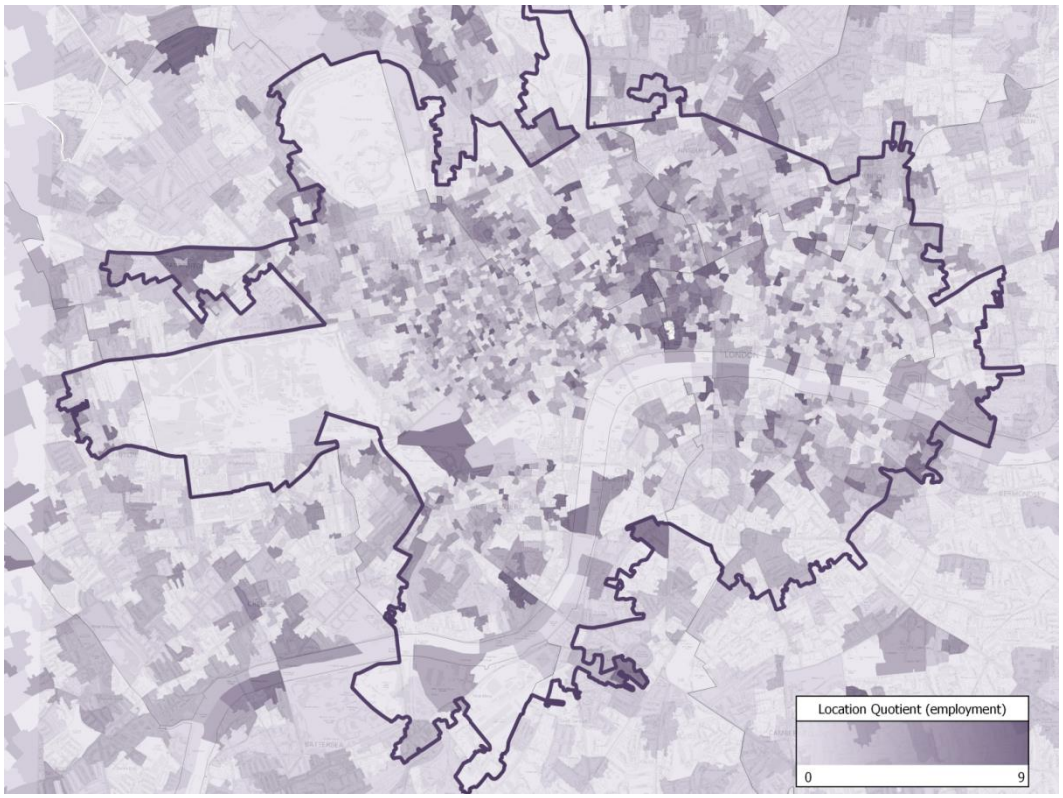
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M15

Figure 140: CAZ, 2013, specialisation of employment in Professional, Scientific & Technical Activities



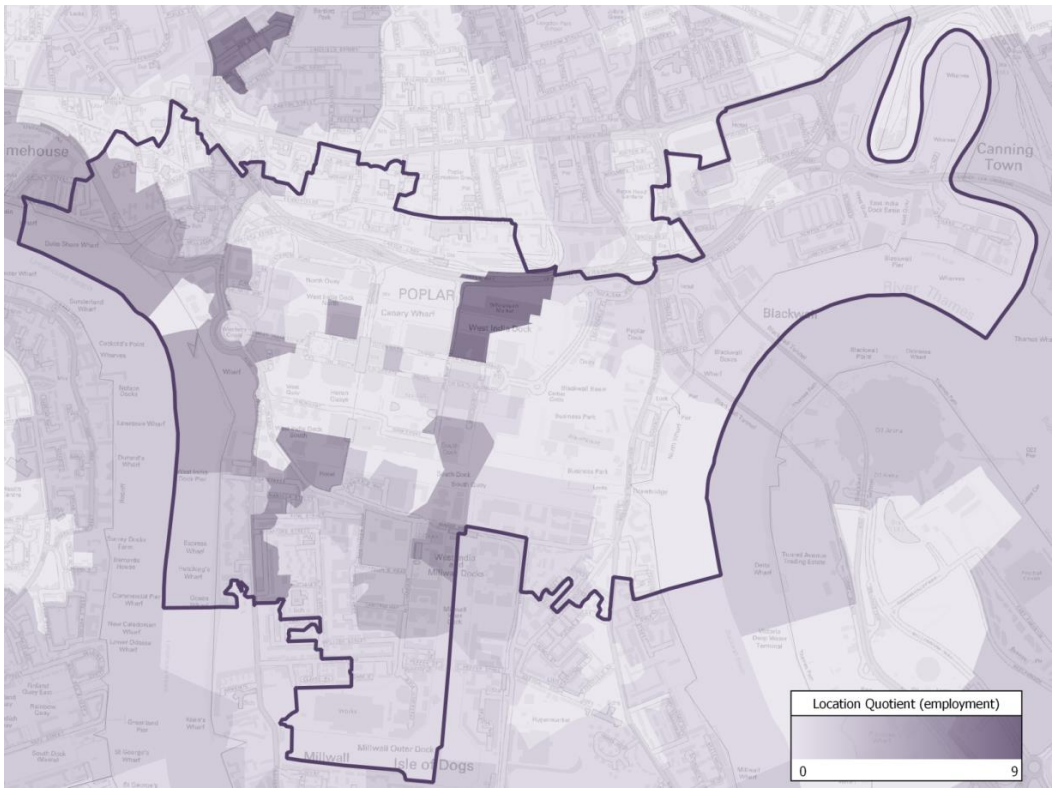
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M10

Figure 141: CAZ, 2004, specialisation of employment in Professional, Scientific & Technical Activities



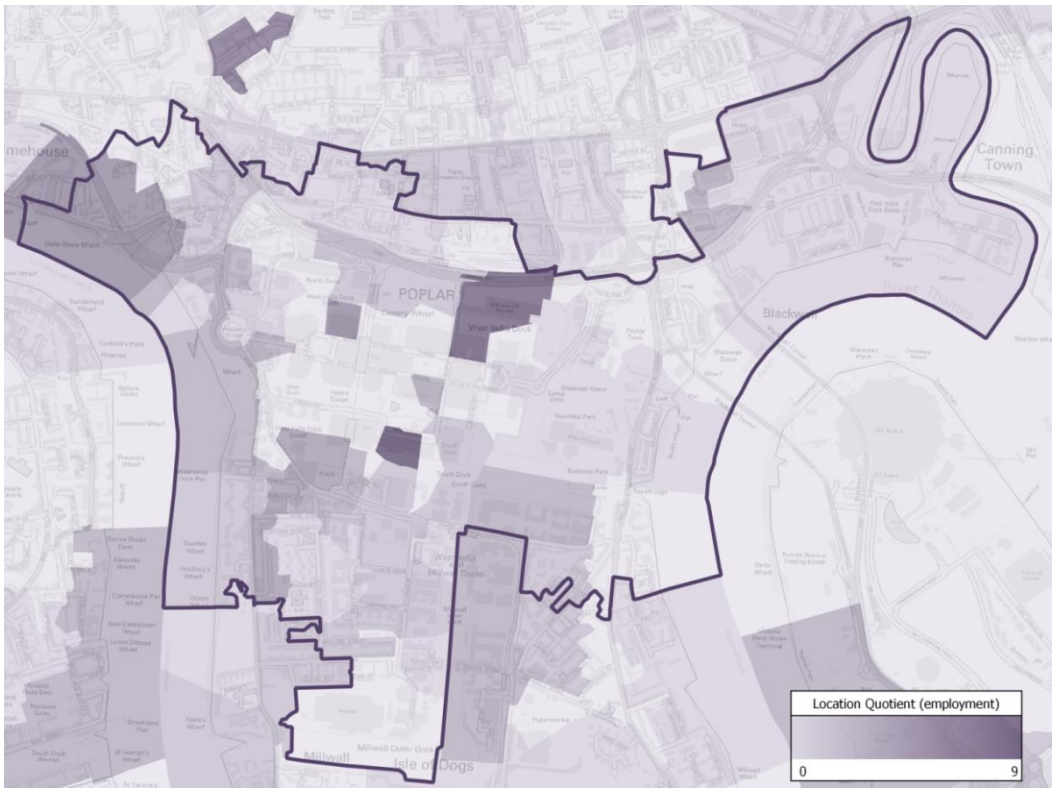
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M11

Figure 142: NIOD, 2013, specialisation of employment in Professional, Scientific & Technical Activities



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M18

Figure 143: NIOD, 2004, specialisation of employment in Professional, Scientific & Technical Activities



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W10/M17

13.12 Postcode hubs in selected sectors

The following tables show the top ten postcode hubs (by firm count) for each of the selected sectors in 2004 and 2013. The tables show the number of firms and associated employment in each postcode in the given year alongside the corresponding data for the alternate year to indicate how the hub has grown or shrunk in size.

Table 36: Top ten London postcodes in 2013 for firms in the Information & Communication sector

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
E14 5AA	30	500	5	390	Canary Wharf
W5 5EP	30	270	5	20	Ealing Studios
WC2H 7LA	30	3,510	15	2,600	29-30 Leicester Square
E14 5LQ	20	480	Not in existence in 2004		25 Canada Square
WC1V 7AA	25	1,280	10	180	Berkshire House
WC2H 8NU	25	820	Not in existence in 2004		Central Saint Giles
EC2A 4BX	20	70	5	70	Campus London
W4 5YA	15	90	5	130	Chiswick Park
N7 9DP	20	90	15	90	The Busworks
W6 9PE	20	770	0	30	N/A

Source: TBR Observatory 2015 (TBR ref: W12/S1)

Table 37: Top ten London postcodes in 2004 for firms in the Information & Communication sector

Postcode	2004		2013		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
SM2 5AS	20	780	20	3,080	Quadrant House
W6 7JP	20	1,080	25	1,250	174 Hammersmith Road
W10 5BN	20	70	10	50	Canalot Studios
EC1R 0NE	20	120	15	140	Bowling Green Lane
N7 9DP	15	90	20	90	The Busworks
W4 4PH	15	100	15	110	The Barley Mow Centre
CR0 0XZ	15	170	20	70	Airport House
WC2H 7LA	15	2,600	30	3,510	29-30 Leicester Square
W1F 9LU	15	290	25	310	25 Golden Square
SE16 2XB	15	70	20	50	City Business Centre

Source: TBR Observatory 2015 (TBR ref: W12/S1)

Table 38: Top ten London postcodes in 2013 for firms in the Financial & Insurance Activities sector

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
SW1Y 5JG	45	860	15	620	45 Pall Mall
EC4R 9AS	35	570	15	140	33 Central (33 King William St)
EC3R 7DD	30	1,480	25	1,720	Minster Court
SW1Y 4QU	20	140	5	70	12 Charles II Street
EC2N 1HQ	25	890	20	680	Tower 42
EC3M 7HA	25	1,290	20	1,160	1 Lime Street
SW1A 1LD	20	680	5	30	Cassini House
E14 5JP	15	620	*	50	25 Bank Street
E14 5LB	20	1,620	10	1,320	Canada Square
EC3M 4ST	15	2,180	*	50	N/A

Source: TBR Observatory 2015 (TBR ref: W12/S2)

Table 39: Top ten London postcodes in 2004 for firms in the Financial & Insurance Activities sector

Postcode	2004		2013		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
EC3R 7DD	25	1,720	30	1,480	Minster Court
EC3A 5BA	20	2,930	Not in existence in 2013		International House
EC2N 1HQ	20	680	25	890	Tower 42
EC3M 5BS	20	270	15	100	40 Lime Street
SW1Y 5JG	15	620	45	860	45 Pall Mall
EC3N 1AX	15	500	*	90	Latham House
E14 5HQ	15	2,890	15	2,970	8 Canada Square
NW1 3AN	15	1,860	10	1,480	Triton Square
EC3M 5DJ	15	330	15	250	Fountain House
EC2N 2AT	15	120	10	70	Warnford Court

Source: TBR Observatory 2015 (TBR ref: W12/S2)

Table 40: Top ten London postcodes in 2013 for firms in the Professional, Scientific & Technical Activities sector

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
CR0 0XZ	50	190	25	170	Airport House
WC1R 4AG	45	220	*	*	Red Lion Square
HA1 1BQ	50	250	20	120	N/A
E1W 1YW	50	330	15	640	The Quadrant
N7 9DP	40	200	30	250	The Busworks
HA1 3EX	35	150	10	70	Harrovian Business Village
EC4A 4AB	25	1,480	5	10	N/A
E14 9XL	35	150	15	100	Beaufort Court
CR0 2LX	25	1,630	15	1,740	AMP House
EC4A 3TW	35	1,160	*	640	N/A

Source: TBR Observatory 2015 (TBR ref: W12/S3)

Table 41: Top ten London postcodes in 2004 for firms in the Professional, Scientific & Technical Activities sector

Postcode	2004		2013		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
EC4Y 7AS	35	940	30	810	Lamb Building
W4 4PH	30	230	35	190	The Barley Mow Centre
WC2A 3TG	30	270	30	170	11 Stone Buildings
N7 9DP	30	250	40	200	The Busworks
EC4Y 0HP	25	200	25	100	Temple Chambers
EC4Y 9AD	25	410	15	340	Four Brick Court
CR0 0XZ	25	170	50	190	Airport House
SE1 3ER	20	240	35	330	The Leather Market
WC2A 3SA	20	250	15	190	Lincoln's Inn
WC2A 3SW	20	380	35	1,030	Lincoln's Inn

Source: TBR Observatory 2015 (TBR ref: W12/S3)

The sector which has seen the biggest change in firm counts at postcode hubs is Legal & Accounting Activities, where although employment at the biggest hubs has remained similar, the number of firms has reduced. The cause for this is unknown although it could reflect changes to the nature of these businesses and consolidation of smaller and self-employed businesses into larger companies (for instance Barristers' chambers).

Table 42: Top ten London postcodes in 2013 for firms in the Legal & Accounting Activities sub-sector

Postcode	2013		2004		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
WC2A 3SW	35	1,030	20	380	Lincoln's Inn
WC2A 3TG	30	170	30	270	11 Stone Buildings
EC4Y 7AS	30	810	35	940	Lamb Building
WC1R 5BP	25	80	20	80	Gray's Inn Square
HA1 1BQ	20	170	10	70	N/A
EC4Y 7HB	20	400	15	250	5 Paper Buildings
WC1R 5JH	15	650	5	130	N/A
EC4Y 9AD	15	340	25	410	Four Brick Court
WC2A 3UP	15	380	15	150	XXIV Old Buildings
EC4Y 7EU	15	1,590	15	540	3 Paper Buildings

Source: TBR Observatory 2015 (TBR ref: W12/S3)

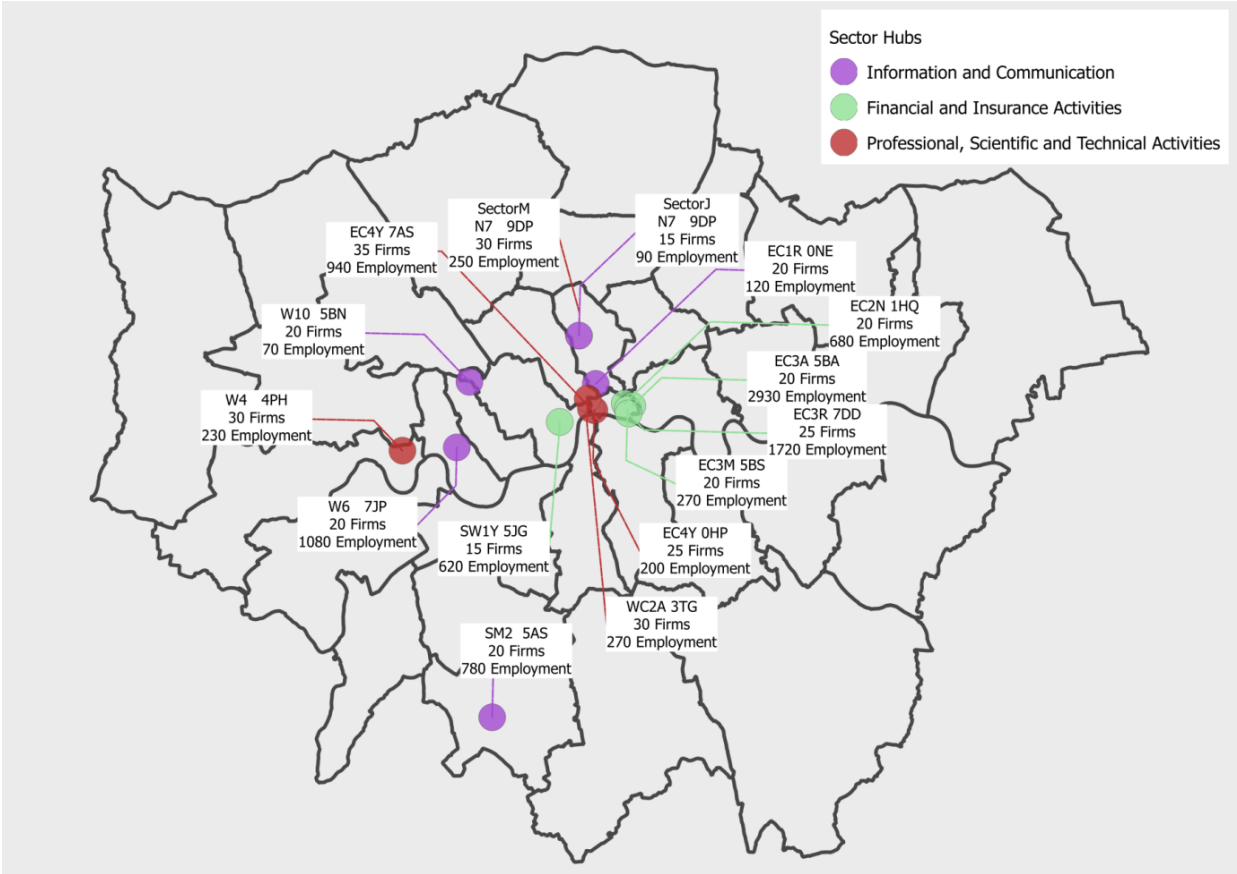
Table 43: Top ten London postcodes in 2004 for firms in the Legal & Accounting Activities sub-sector

Postcode	2004		2013		Key building (if exists) name/details
	Firms	Employment	Firms	Employment	
EC4Y 9DB	65	390	10	320	Harcourt Buildings
EC4Y 7EX	65	230	10	190	Four Paper Buildings
EC4Y 7DR	50	470	10	220	6 King's Bench Walk
EC4Y 7AS	35	940	30	810	Lamb Building
WC2A 3TG	30	270	30	170	11 Stone Buildings
EC4Y 9AD	25	410	15	340	Four Brick Court
EC4Y 9AU	35	280	10	160	3 Temple Gardens
WC1R 5NT	35	180	5	110	3 Verulam Buildings
EC4Y 7EB	30	260	15	440	10 King's Bench Walk
WC2A 3UT	30	170	Now WC2A 3UP		XXIV Old Buildings

Source: TBR Observatory 2015 (TBR ref: W12/S3)

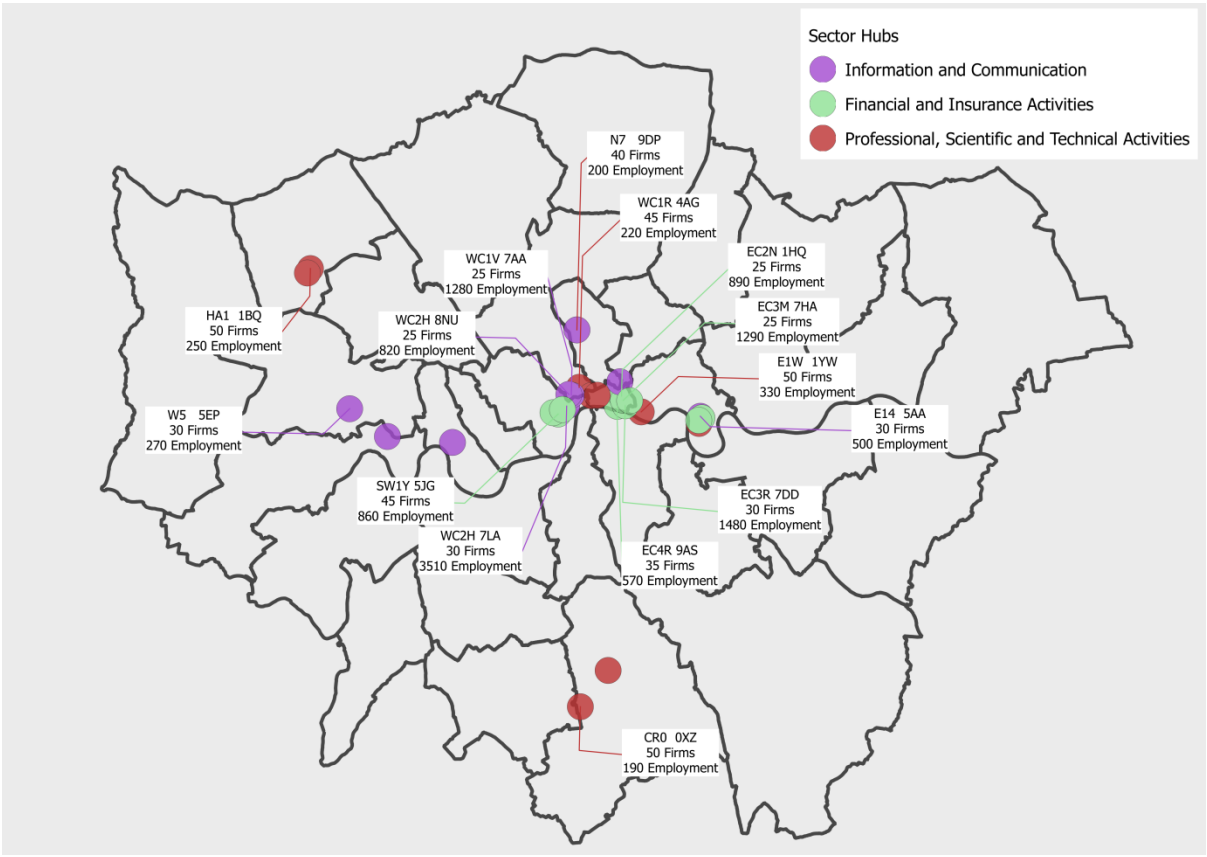
13.12.1 Postcode hubs in selected sectors

Figure 144: Selected sector postcode hubs, London, 2004



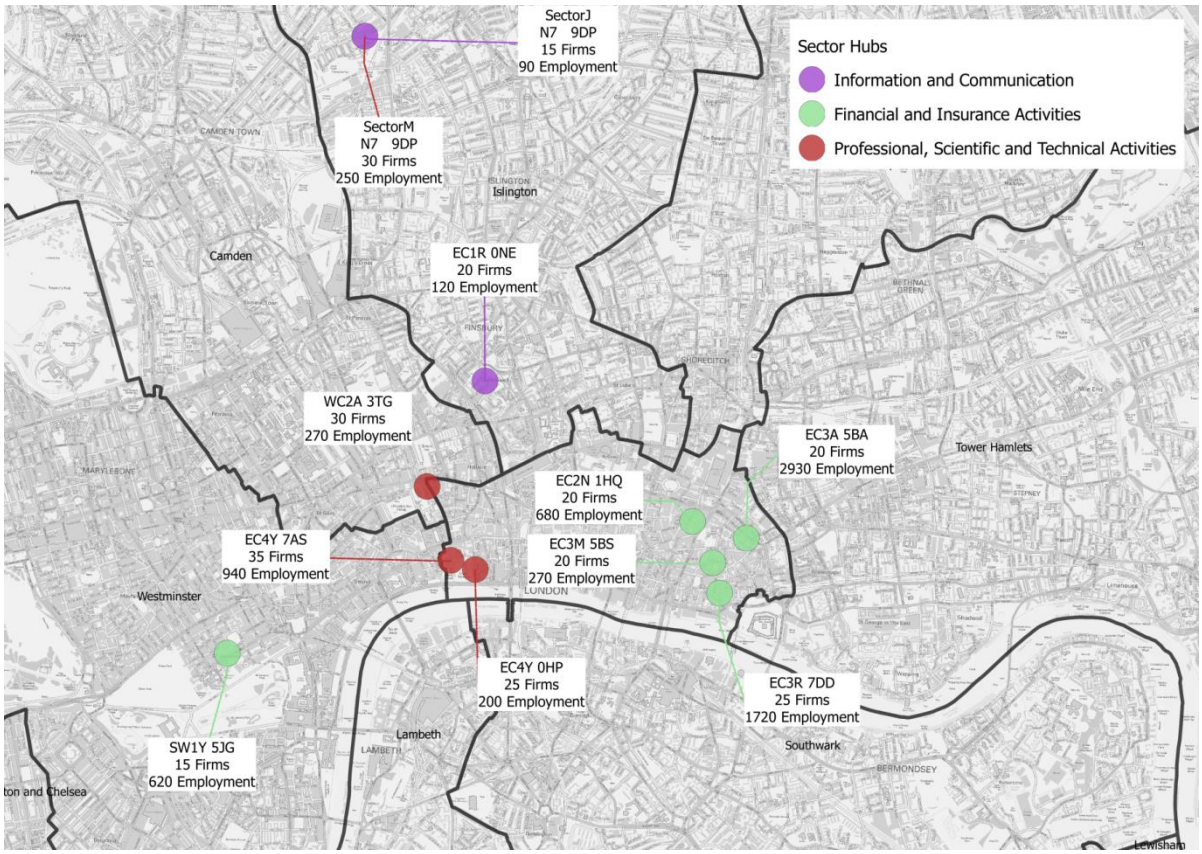
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref:W12/M2

Figure 145: Selected sector postcode hubs, London, 2013



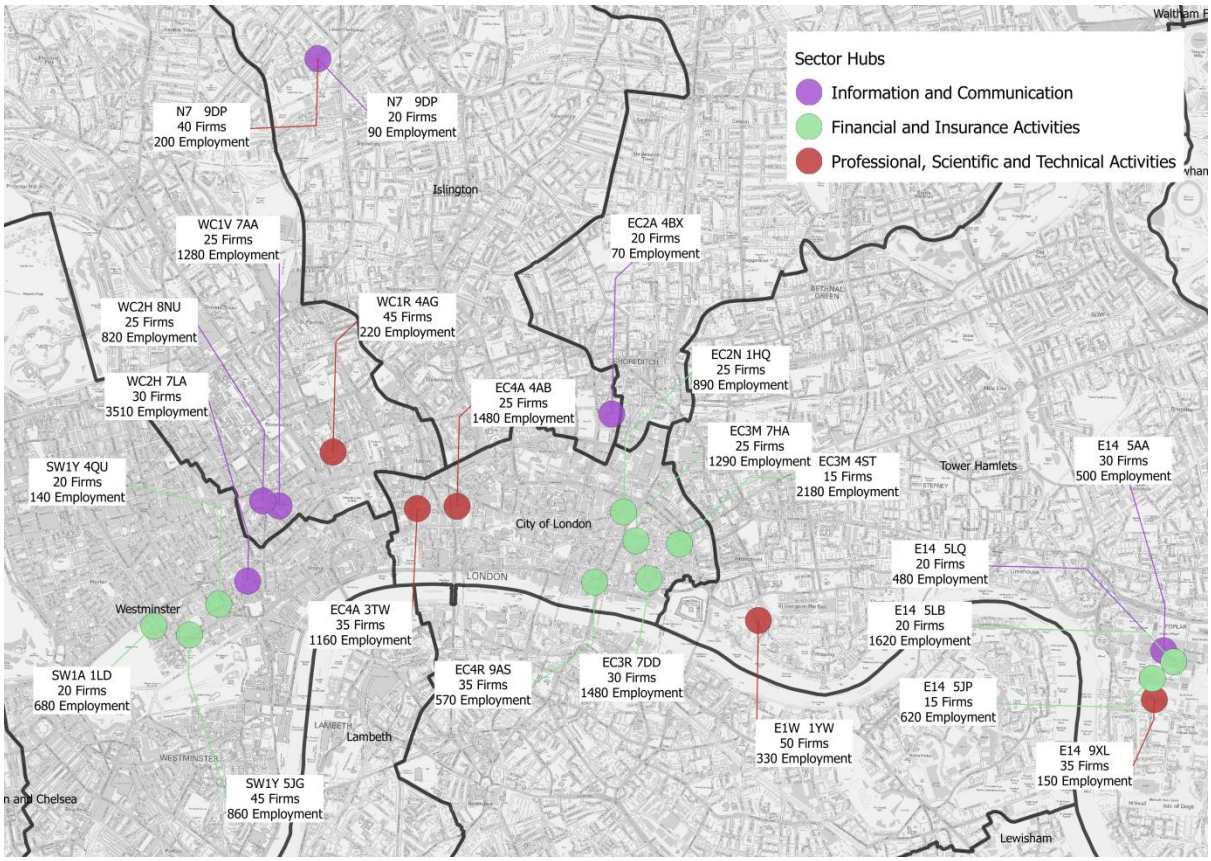
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref: W12/M1

Figure 146: Selected sector postcode hubs, central London, 2004



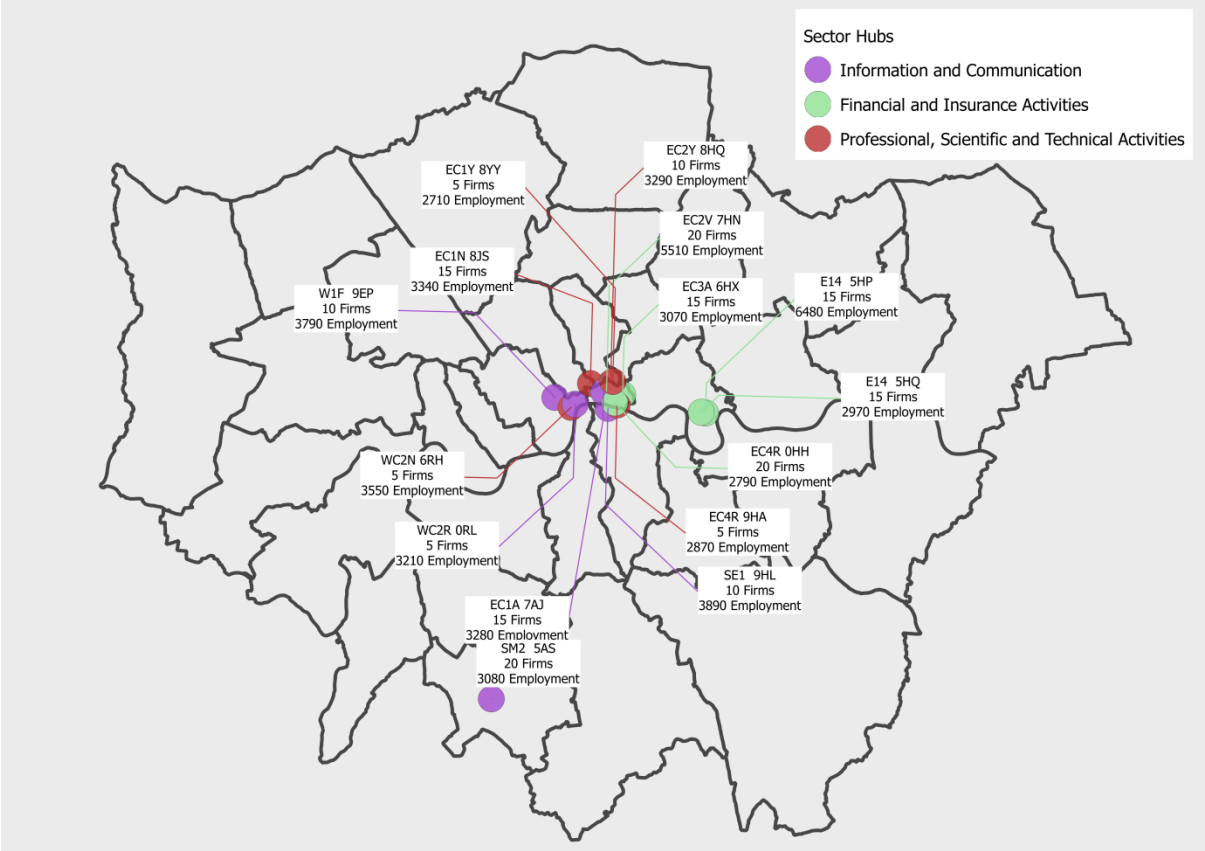
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref:W12/M2

Figure 147: Selected sector postcode hubs, central London, 2013



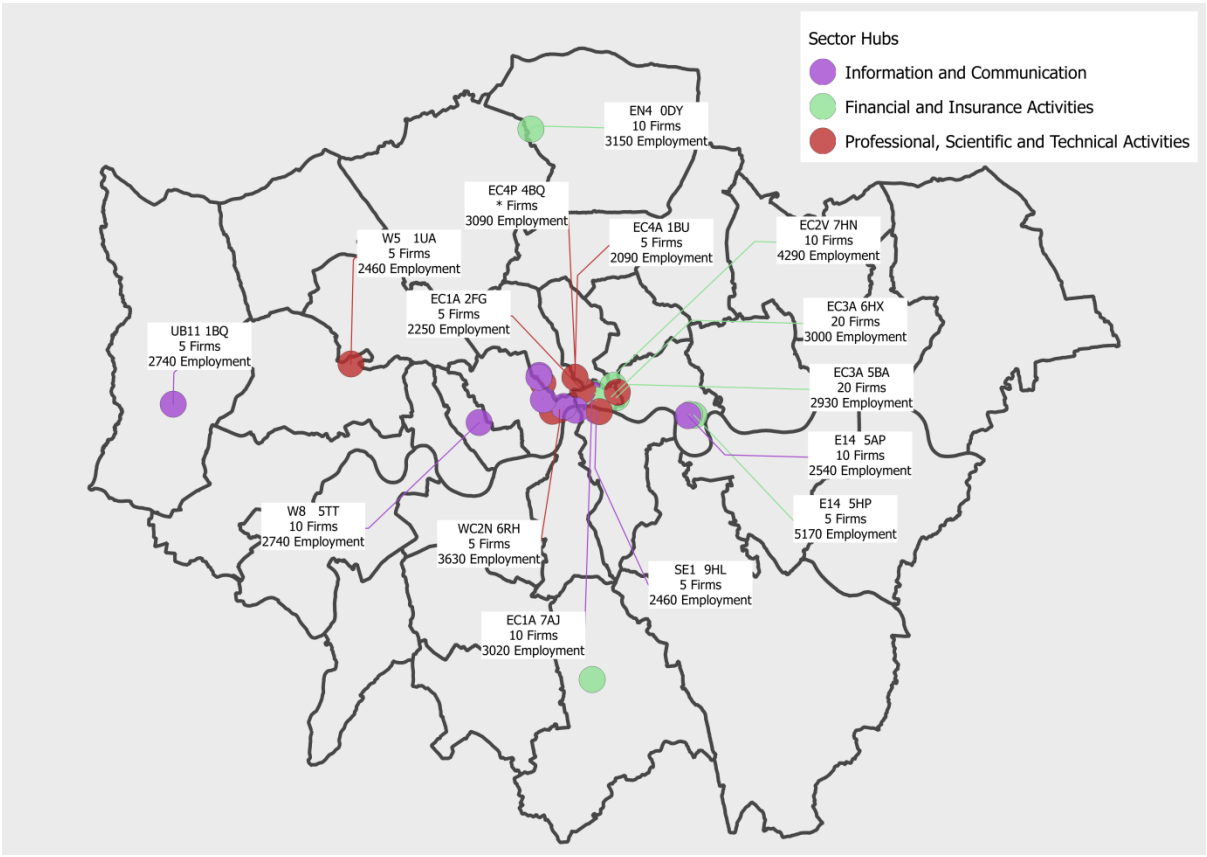
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015
TBR ref: W12/M1

Figure 148: Selected sector postcode hubs (employment), London, 2013



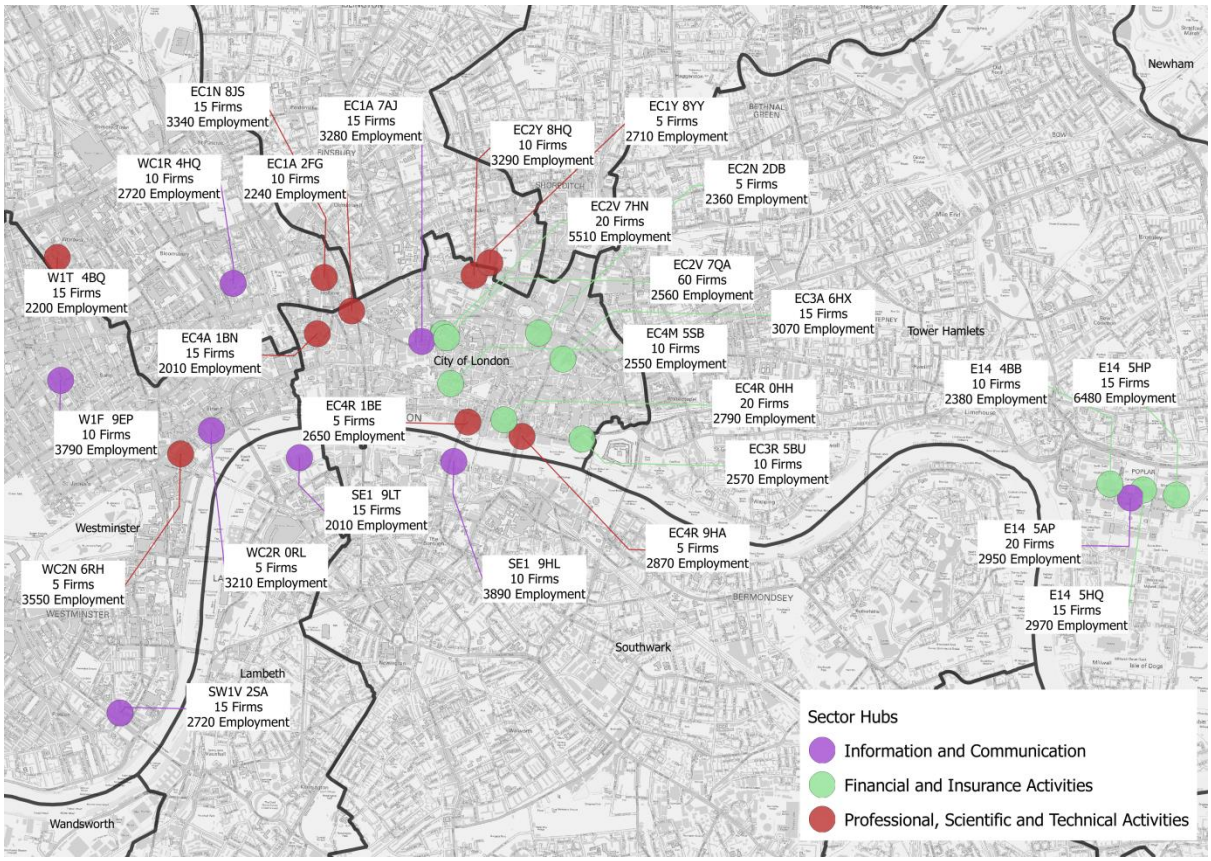
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W12/M3

Figure 149: Selected sector postcode hubs (employment), London, 2004



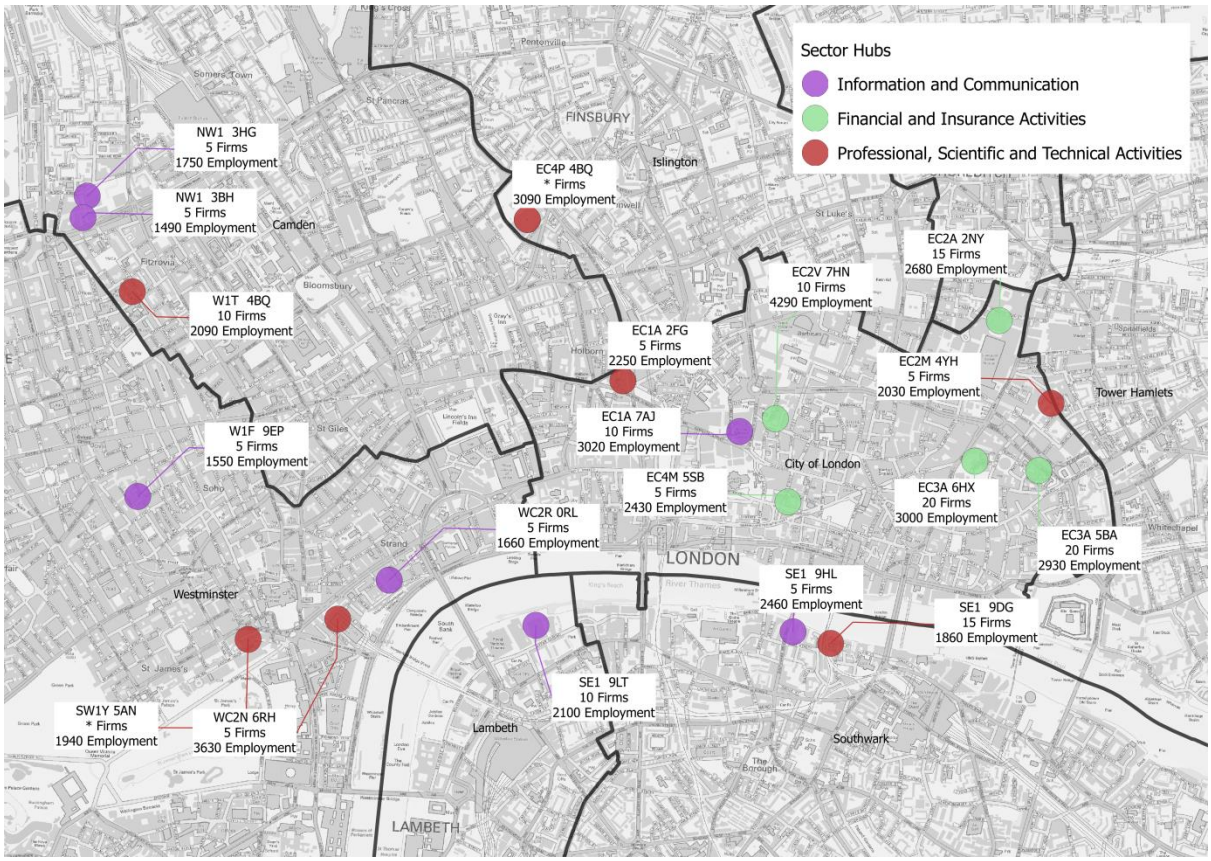
Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W12/M4

Figure 150: Selected sector postcode hubs (employment), central London, 2013



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
TBR ref: W12/M3

Figure 151: Selected sector postcode hubs (employment), central London, 2004



Source: TBR Observatory 2015. QGIS Development Team, 2015. QGIS Geographic Information System. Contains National Statistics data and Ordnance Survey data © Crown copyright and database right 2015.
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