

Working Paper 68

Work and life in the Central Activities Zone, northern part of the Isle of Dogs and their fringes

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Executive summary

- The Central Activities Zone had over 125,000 local business units based within it in 2014, generating employment of over 1.8 million. The area produced output worth around £139 billion in 2012. The area saw its population increase by 21 per cent between 2001 and 2011 compared to an increase for London as a whole of 14 per cent.
- The northern part of the Isle of Dogs had over 4,000 local business units based within it in 2014, generating employment of over 110,000. The area produced output worth around £15 billion in 2012. The resident population of the area nearly doubled between 2001 and 2011.
- It is calculated that the output of the Central Activities Zone, northern part of the Isle of Dogs and a 1km fringe around them stood at just over £179 billion in 2012 accounting for nearly 55 per cent of London's output and just over 12 per cent of UK output.
- Employment in this combined area stood at 2.14 million in 2013 a rise of 14.3 per cent on 2009 and accounted for around 45 per cent of London's employment.
- The top five sectors of employment in this combined area in 2013 were Professional, scientific and technical; Financial & insurance; Information & communication; Business administration and support services; and Accommodation & food services.
- Employment is also expected to continue to grow in both the Central Activities Zone and northern part of the Isle of Dogs, with it projected to grow by 18 and 74 per cent respectively over the period to 2036.
- This geography is an important area for very large employers with the two combined areas accounting for around 64 per cent of London's business units with an employment size of over 1,000 in 2014.
- Distinct clusters of employment by sector type were also discovered across these areas with, for instance, employment in Retail being found to cluster in the centre of the northern part of the Isle of Dogs and generally the western parts of the Central Activities Zone. Further, although each sector had clusters in distinct geographies, when all sectors are examined distinct employment clusters were found across the entire geography. Thus for instance clustering of Financial and insurance employment was found around the City and Canary Wharf. While Health employment clustering was found around London Bridge, Chelsea, Westminster, Paddington and the Somers Town to Clerkenwell area. Information & communication employment clusters were found around Shoreditch, Wapping, Canary Wharf and also around King's Reach and into North Southwark and Borough and around Soho and into Tottenham Court Road and Charing Cross Road.
- The demography of the Central Activities Zone and the northern part of the Isle of Dogs shows differences to London, with, for instance, a greater percentage of their residents being aged between 20 and 40 than is seen in the capital as a whole.

Introduction

The Central Activities Zone (CAZ) contains a unique cluster of vitally important activities including central government offices, headquarters and embassies, and a large concentration of business activity, with many businesses clustering by industry sector. This clustering also occurs in the northern part of the Isle of Dogs¹ (NIOD) and may further bleed into a fringe surrounding the CAZ and the NIOD. Thus to better understand the economy of these areas the analysis in this paper will examine the value of output (as measured by Gross Value Added (GVA)) produced within the CAZ, NIOD and the areas respective fringes (as measured by a roughly 1km area encircling them). Firm size in the CAZ and NIOD will then be examined. Employment within the CAZ, NIOD and the approximately 1km fringe around them will also be looked at, with analysis of the highest employing industries and employment clustering within this area being performed as well. Further, the residence basis of people working in the CAZ, NIOD and their fringes will be examined, before the paper outlines projections for future employment in the CAZ and NIOD. Finally analysis of the demographics and employment of people living in the CAZ, the NIOD and these areas fringes will be given as well.

¹ An area that contains Canary Wharf.

Background notes

The CAZ and NIOD cover portions of the London boroughs of Camden, Hackney, Islington, Kensington and Chelsea, Lambeth, Southwark, Tower Hamlets, Wandsworth, and Westminster, as well as the total area of the City of London. Boroughs within a 1km fringe of the CAZ and NIOD include not only the above but also Greenwich² and Lewisham. More detail on the geography³ used in this analysis and maps of the CAZ and an approximately 1km encircling fringe of the CAZ along with maps of the NIOD and an approximately 1km fringe of the NIOD are provided in Appendix A.

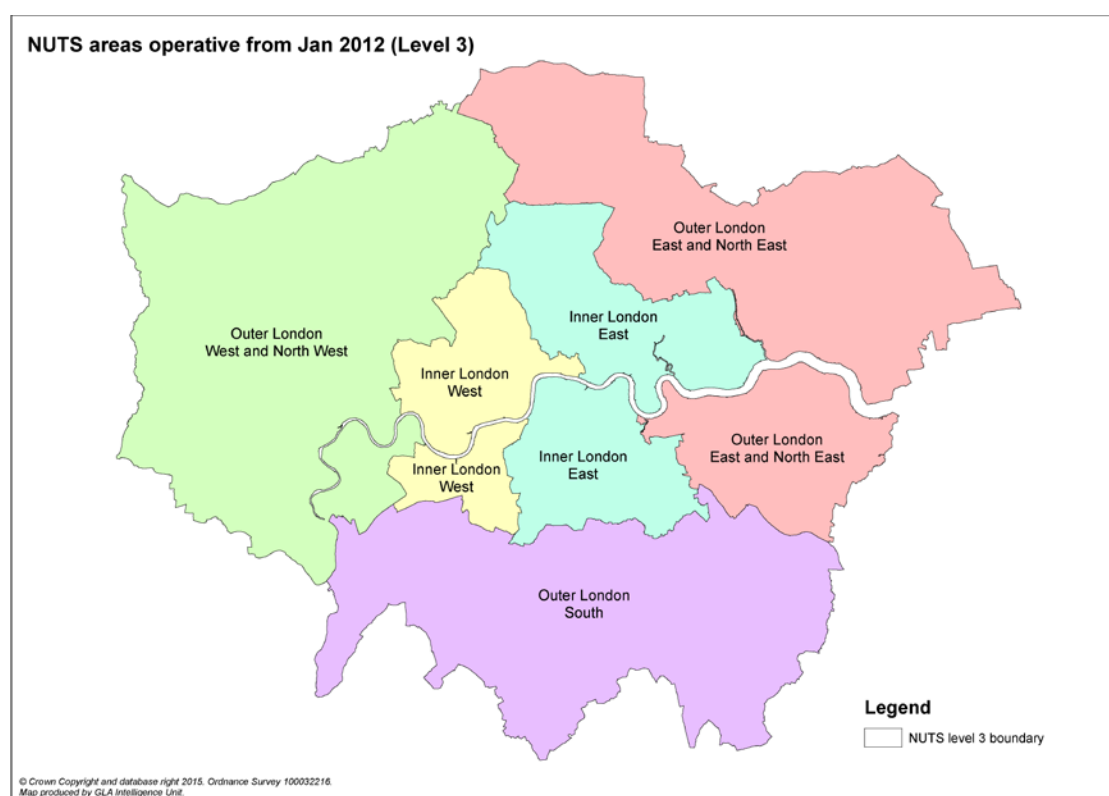
² Greenwich only appears in the NIOD fringe in analysis using the lower layer super output areas (LSOA) geography and not the output areas (OA) geography. It should be noted that both the LSOA and OA geographies provide rough approximations to the actual geography of the CAZ and NIOD.

³ The geography used in this analysis (unless stated otherwise) is either based on OA for the Census data or the larger LSOA for the Business Register and Employment Survey (BRES) data, estimates for output as measured by Gross Value Added (GVA) for the CAZ, NIOD and their fringes and for the long-run employment projections for the CAZ and NIOD. More detail on the reason for this is provided in Appendix A.

Output in the CAZ, NIOD and their fringes

Given the economic activity that is easily observable and concentrated in the CAZ, the NIOD and their fringes it is likely that these areas are responsible for a large proportion of London's output. However, official measures of output for the CAZ, its fringe, the NIOD and its fringe are not available from the Office for National Statistics (ONS). This data is also not available at the borough level with the lowest published official estimate of output (as measured by GVA) being at the NUTS3⁴ level geography that existed before January 2015⁵. Estimates of GVA at the NUTS3 level for the new post-January 2015 geography will not be published by the ONS until December 2015, but will still not include estimates for the size of output for the CAZ, NIOD and their fringes. Map 1 shows the pre-January 2015 NUTS3 geography in London.

Map 1: NUTS3 level geographies in London prior to January 2015



However, GLA Economics has published an estimate of the London boroughs GVA for 2012 using a methodology that used the published ONS estimates for GVA at the NUTS3 level and data downloaded from the Business Register and Employment Survey (BRES)⁶. The results for this analysis for the boroughs that contain elements of the CAZ, the NIOD and the fringes to

⁴ NUTS stands for Nomenclature of Units for Territorial Statistics. It is a European classification for areas based on their size to ensure data across countries at different geographical levels are comparable.

⁵ After January 2015 a more detailed NUTS3 geography for London was introduced; details of this change can be found at: [ONS, 'Bulletin 2014/11: Changes to Nomenclature of Territorial Units for Statistics \(NUTS\) areas in January 2015'](#).

⁶ In detail the methodology used calculated full time equivalent (FTE) employment from BRES data (FTE employment data is not directly available from BRES) for 2012 in both the NUTS3 level geography and its constituent boroughs for 10 broad sectors that cover the totality of the economy. This was used to calculate each borough's share of FTE employment for the NUTS3 level geography for each of the 10 broad sectors. This share was then multiplied by the sectors GVA at the NUTS3 level to give the borough's estimated GVA for that sector; this was repeated for all 10 broad sectors and summed to give the estimate of the borough's GVA. It should be noted that this methodology makes a number of simplifying assumptions such as productivity is constant in sectors across boroughs etc.

these two areas is given in Table 1; it should however be emphasised that these numbers are estimates based on GLA Economics' calculations and are not official ONS statistics.

Table 1⁷: Calculations of London local authorities GVA(I) in 2012⁸ (£ million rounded to the nearest £10 million) for those authorities that are within the CAZ, NIOD or an approximately 1km fringe of either area

Local authority	GVA (£ million)	Local authority	GVA (£ million)
Camden	21,920	Hackney	6,590
City of London	45,550	Islington	14,970
Kensington and Chelsea	9,050	Lambeth	8,340
Wandsworth	7,440	Lewisham	3,890
Westminster	55,120	Newham	5,470
Southwark	13,230	Greenwich	3,490
Tower Hamlets	24,240		

Source: ONS⁹, BRES¹⁰ and GLA Economics' calculations

This estimated GVA was then apportioned to the CAZ, NIOD and their respective fringes based on the percentage of that boroughs full time equivalent (FTE) employment in ten broad sectors (covering the total sectors of the economy) that were employed within the CAZ etc.¹¹ The results of this analysis are given in Table 2; again it should be emphasised that these numbers are estimates based on GLA Economics' calculations and are not official ONS statistics.

Table 2: Calculations of GVA(I) generated within the CAZ, NIOD, and their approximately 1km fringes in 2012 (£ million rounded to the nearest £10 million)

Area	GVA (£ million)
CAZ	139,840
CAZ 1km Fringe	22,340
NIOD	15,150
NIOD 1km Fringe	1,870
CAZ & NIOD	154,990
CAZ, NIOD & a 1km Fringe	179,200

Source: ONS, BRES and GLA Economics' calculations

Given that in 2012 London's GVA stood at £325,613 million, these estimates would suggest that the CAZ accounted for around 43 per cent of London's GVA. While they further suggest that the CAZ and NIOD accounted for around 48 per cent of London's GVA and the CAZ, NIOD and the 1 km fringe around these areas accounted for nearly 55 per cent of London's GVA. While UK GVA stood at £1,475,948 million in 2012 implying that the CAZ, NIOD and their fringes accounted for just over 12 per cent of UK GVA.

⁷ This table is an edited version of analysis published in [Keijonen, M., March 2015, 'Regional, sub-regional and local gross value added estimates for London, 1997-2013', GLA Economics.](#)

⁸ In order to establish Borough-level estimates calculations require industry level data and the latest data point at the time of publication for NUTS3 by industry refer to 2012.

⁹ [Regional Gross Value Added \(Income Approach\), December 2014](#)

¹⁰ Data downloaded from [NOMIS](#).

¹¹ In more detail this methodology uses the calculated borough GVA attributable to one of the 10 broad sectors and apportions it to the CAZ etc. dependent on the percentage of the boroughs FTE employment in that sector that is located in the CAZ etc. For instance if 50 per cent of Real estate activities FTE employment in the relevant borough is located in the CAZ then 50 per cent of that boroughs estimated GVA due to Real estate activities will be apportioned to the CAZ.

Large firms based in the CAZ, NIOD and their fringes

Given its economic importance, the CAZ is also home to a number of large firms be it in the form of branches of the firm and/or all the way up to their headquarters. However, it should be noted that it is not possible to derive information on business unit size at the output area (OA) geography or lower layer super output area (LSOA) geography¹² from publicly available data in order to undertake analysis of firm size in the CAZ, NIOD and their fringes. However, analysis based on ONS Business Count data at the local unit level which is based on the middle layer super output areas (MSOA) geography can be performed. More information on this geography and how it relates to a more detailed geography of the CAZ and NIOD is provided in Appendix A.

If we examine data on business units¹³ by employment size in the CAZ and NIOD over time we can see, as shown in Table 3, that the majority of business units in the CAZ, NIOD and London are micro¹⁴ in size with the percentage of units with an employment size of 0 to 4 having increased between 2010 and 2014. We can also see that as a percentage of total units in the area the CAZ and NIOD have a larger percentage of large units as measured by employment size compared to London as a whole. In fact of the units that have an employment size of over 1,000 in London in 2014 around 64 per cent were in the CAZ and NIOD combined, with the CAZ and NIOD accounting for over 50 per cent of the London total of units in the employment band 500 to 999, and over 40 per cent of the London total for units with employment between 100 to 499. This compares to the CAZ and NIOD combined accounting for only around 28 per cent of London's business units in total in 2014.

¹² Both geographies are used throughout most of this paper.

¹³ It should be noted that this analysis is being undertaken at the unit and not enterprise level and thus a number of the counted units in the CAZ, NIOD and London could be branches of one single firm. Therefore, for example, although a large supermarket chain may be a large employer in the CAZ and NIOD it may appear in this analysis as a number of small business units scattered across the CAZ and NIOD.

¹⁴ Defined as an employment size of 9 or below.

Table 3: Local units by employment size band in the CAZ, NIOD¹⁵ and London in 2010 and 2014

Year	CAZ				NIOD				London			
	2010		2014		2010		2014		2010		2014	
Size band	Number	As % of area Total	Number	As % of area Total	Number	As % of area Total	Number	As % of area Total	Number	As % of area Total	Number	As % of area Total
0 to 4	68,315	63.2	81,340	64.6	1,905	62.5	2,775	68.3	280,450	71.4	336,565	73.0
5 to 9	17,160	15.9	18,585	14.8	395	13.0	485	11.9	52,250	13.3	57,565	12.5
10 to 19	10,950	10.1	12,550	10.0	310	10.2	335	8.3	28,885	7.4	33,080	7.2
20 to 49	6,625	6.1	7,735	6.1	205	6.7	230	5.7	18,015	4.6	20,065	4.4
50 to 99	2,595	2.4	2,850	2.3	95	3.1	95	2.3	7,055	1.8	7,385	1.6
100 to 249	1,540	1.4	1,755	1.4	80	2.6	65	1.6	3,915	1.0	4,285	0.9
250 to 499	510	0.5	560	0.4	25	0.8	35	0.9	1,150	0.3	1,230	0.3
500 to 999	270	0.2	270	0.2	15	0.5	10	0.2	535	0.1	530	0.1
1000+	145	0.1	175	0.1	25	0.8	30	0.7	285	0.1	320	0.1
Total	108,105	100	125,820	100	3,050	100	4,060	100	392,540	100	461,025	100

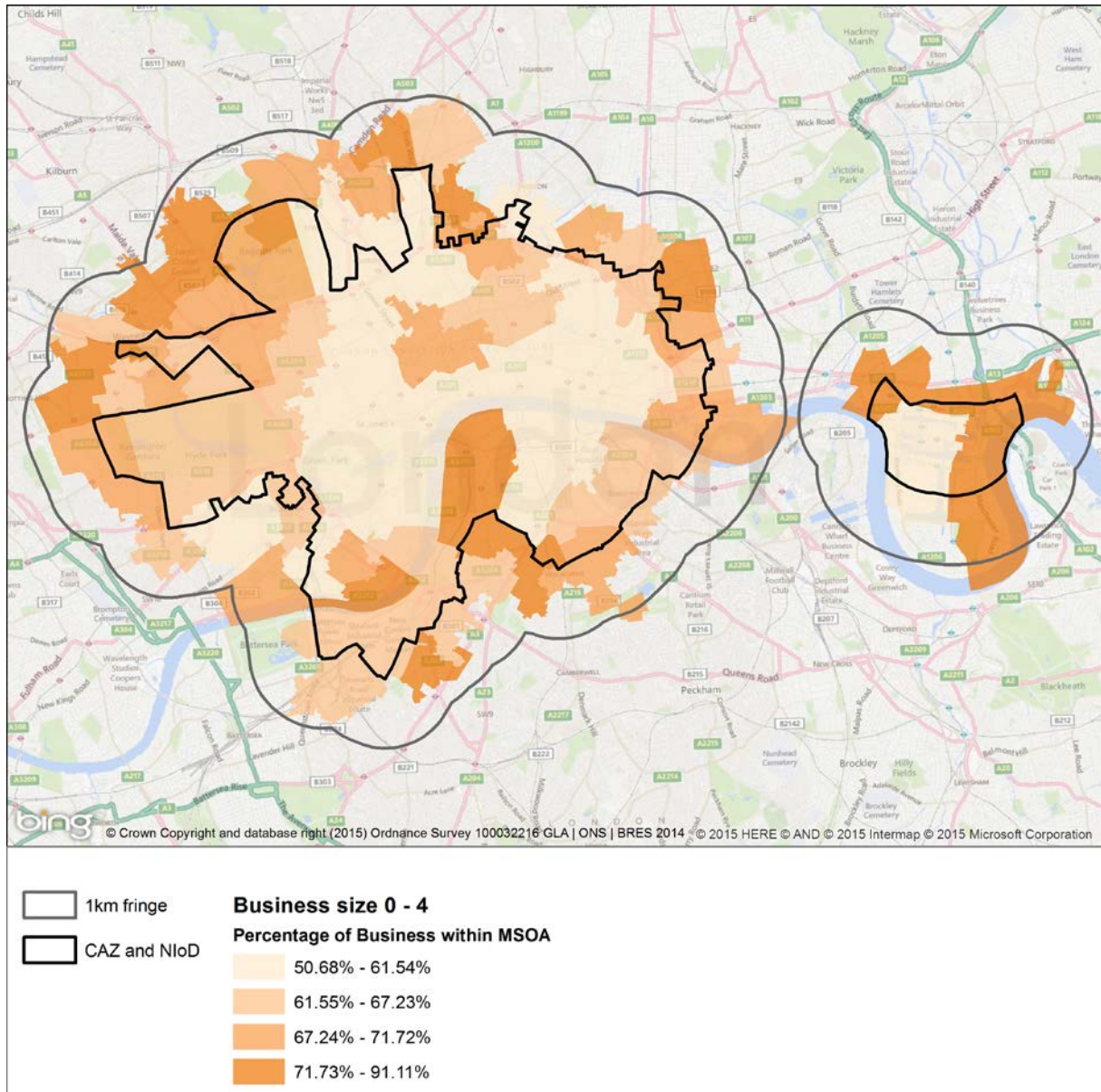
Source: ONS, Business Count¹⁶

Some clustering of different sizes of business units by employment size can be observed within the CAZ and NIOD, however given the nature of the data under analysis statistically significant business unit clustering could not be found for all business unit employment size groups. Maps on the discovered clustering by business unit employment size bands are provided in Appendix B. Maps 2 to 10 show the business units within an MSOA (that is at least partially within the CAZ and NIOD) that are in a certain business unit employment size band as a percentage of total business units in that MSOA. As can be observed, although they are a very small percentage of the total business units in any given MSOA, very large business units (by employment size) cluster around the heart of the CAZ in the City of London and in the NIOD around Canary Wharf. Conversely very small business units by employment size are more likely to be found concentrated around the edge of the CAZ and NIOD. Interesting aspects do emerge from these maps such as the somewhat high concentration of relatively small business units with an employment size band 5 to 9 that are based in the City.

¹⁵ Note as an MSOA geography is being used in this analysis the areas referred to as CAZ and NIOD in this table are an even looser description of the actual CAZ and NIOD than is used in the rest of this paper and contain significant portions of the surrounding geography of these two areas respectively.

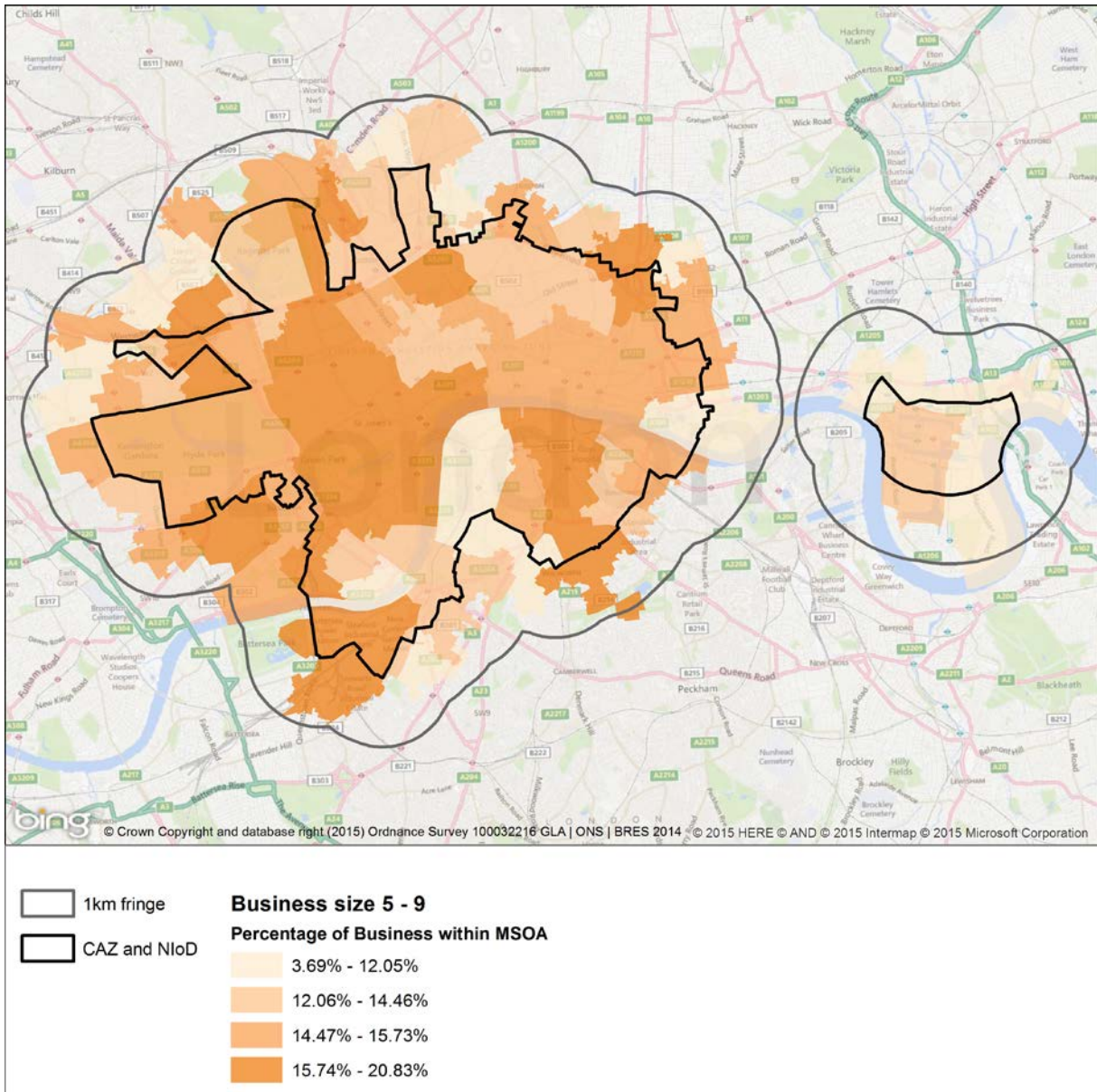
¹⁶ Data downloaded from NOMIS.

Map 2: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 0-4 (2014)

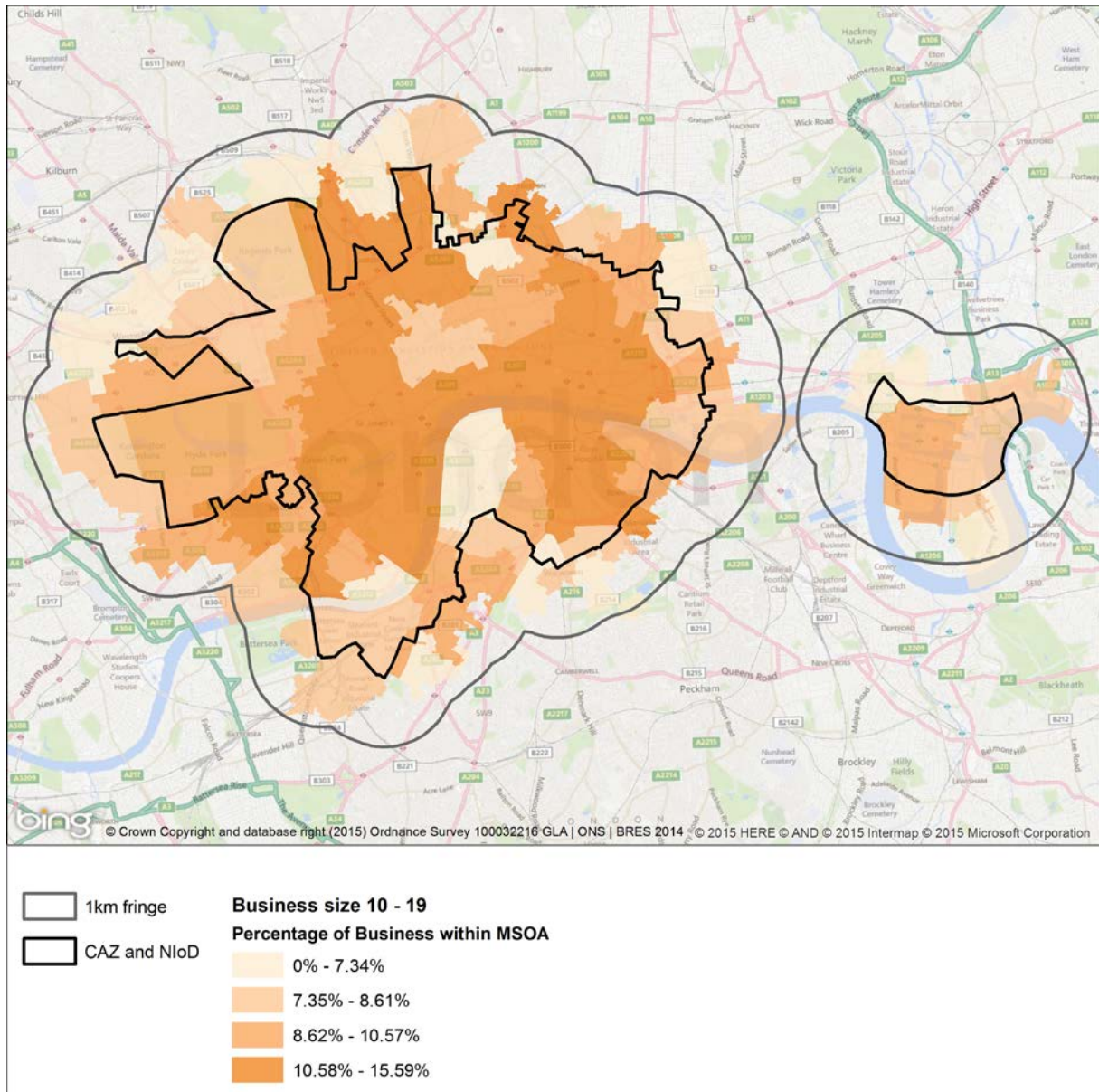


Source: ONS, Business Count

Map 3: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 5-9 (2014)

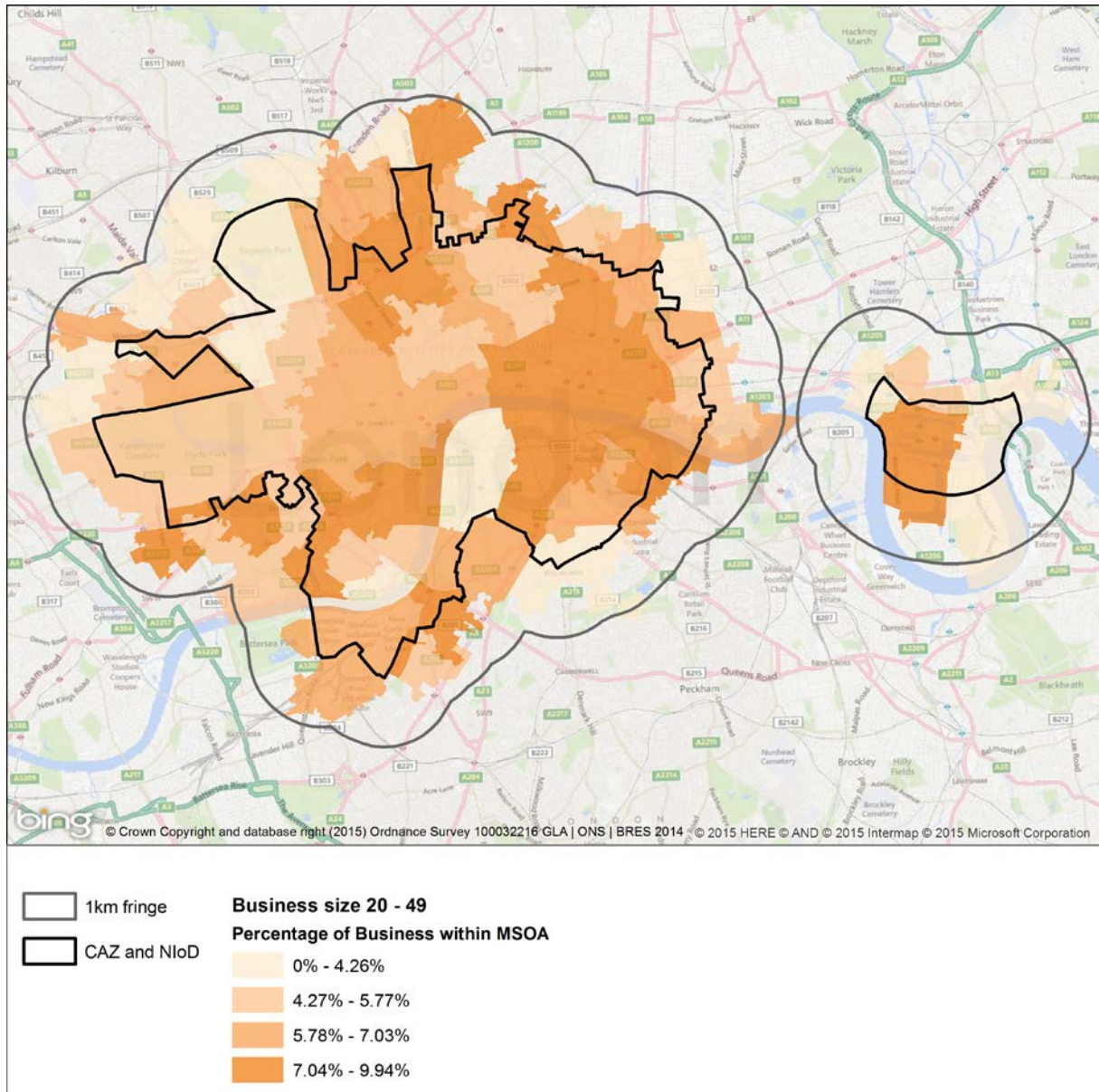


Map 4: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 10-19 (2014)



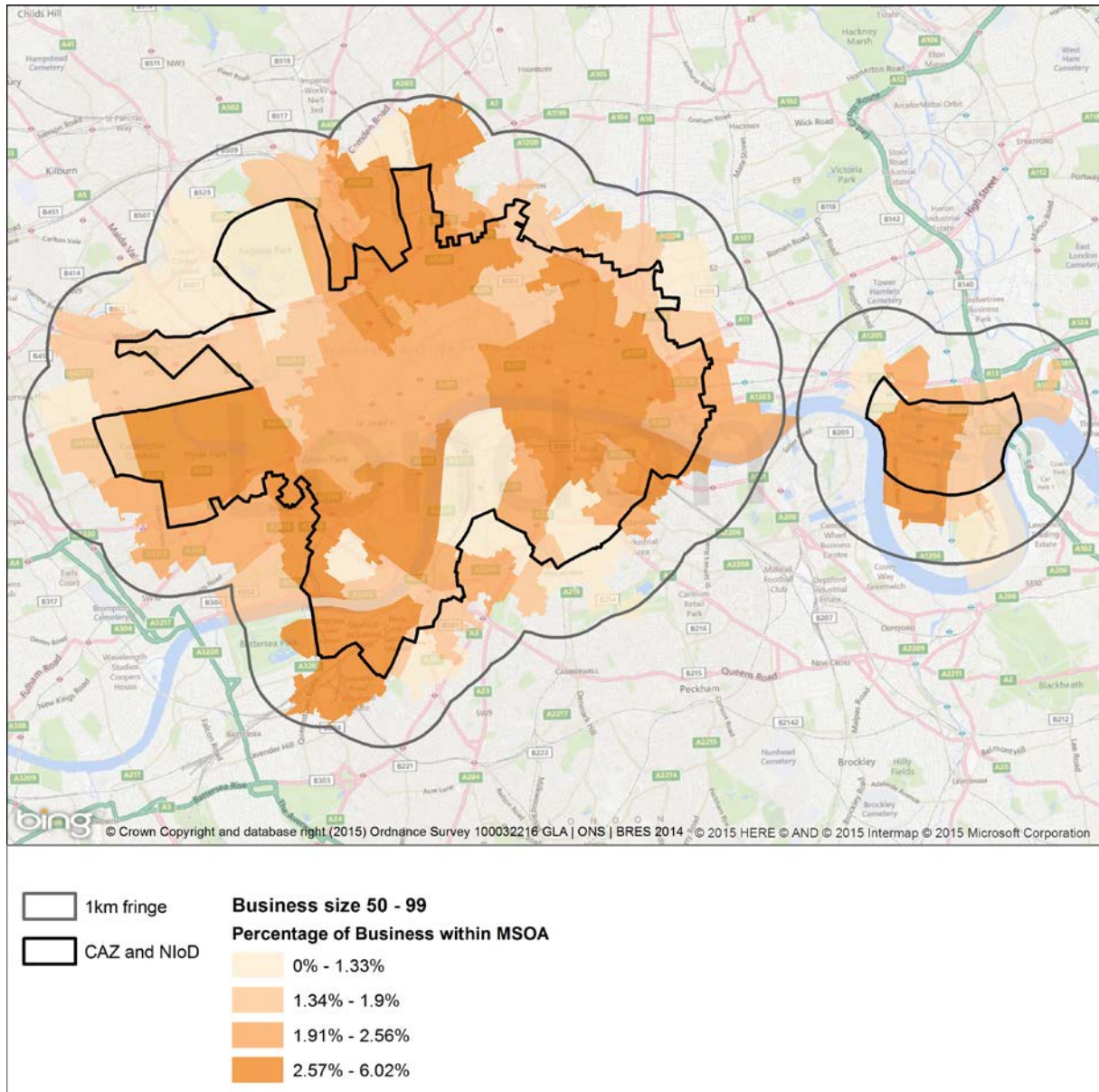
Source: ONS, Business Count

Map 5: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 20-49 (2014)



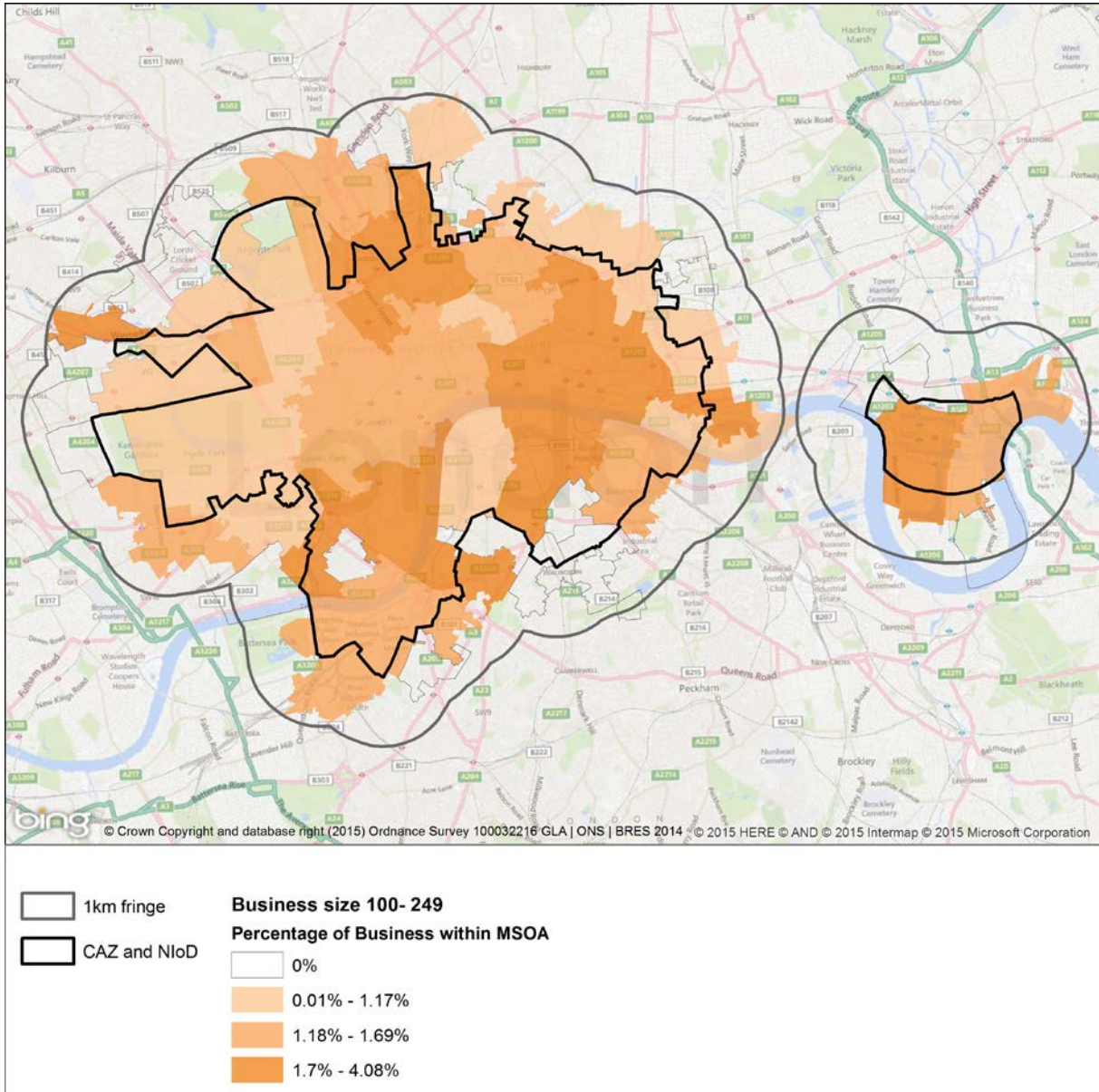
Source: ONS, Business Count

Map 6: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 50-99 (2014)

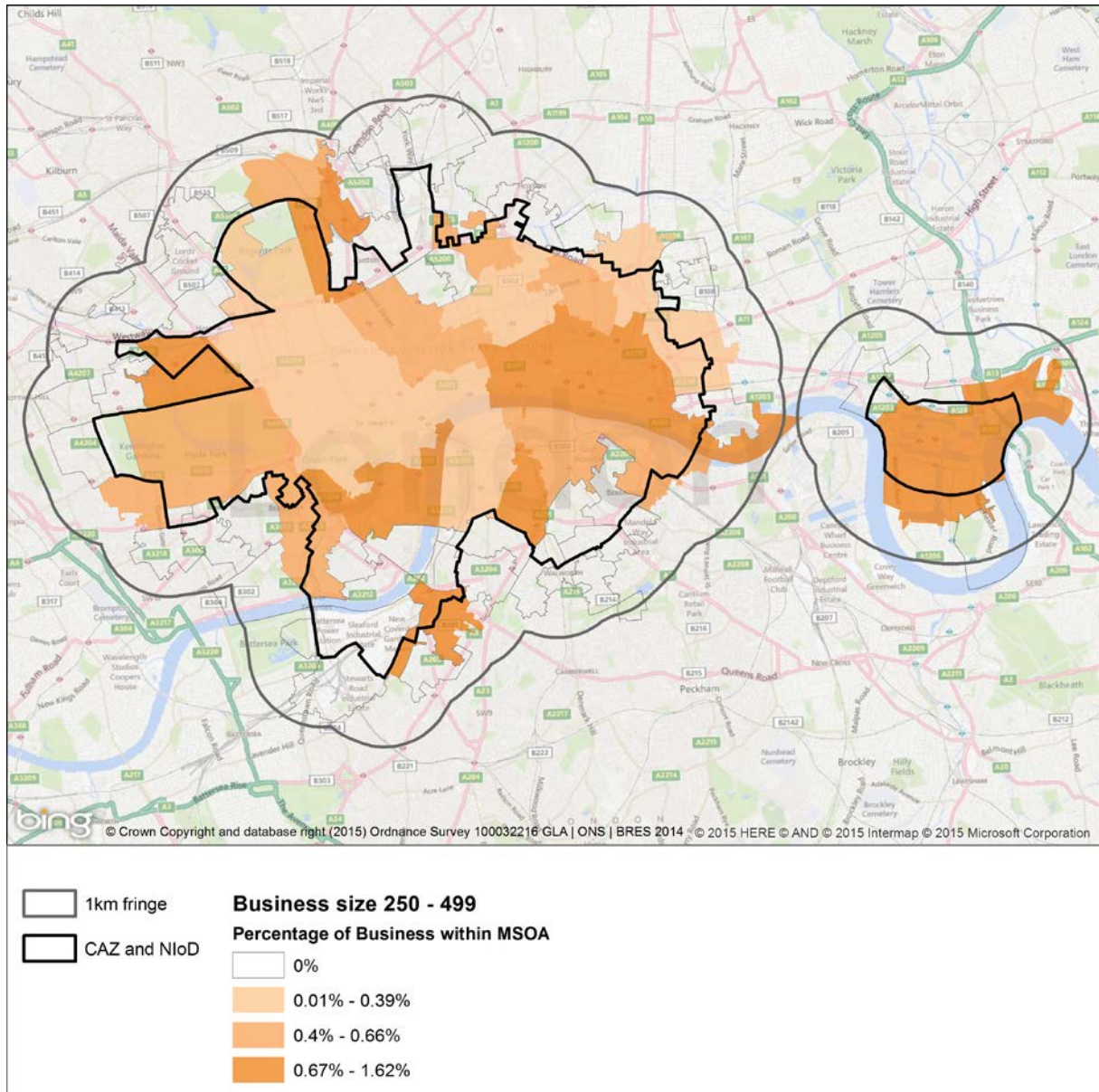


Source: ONS, Business Count

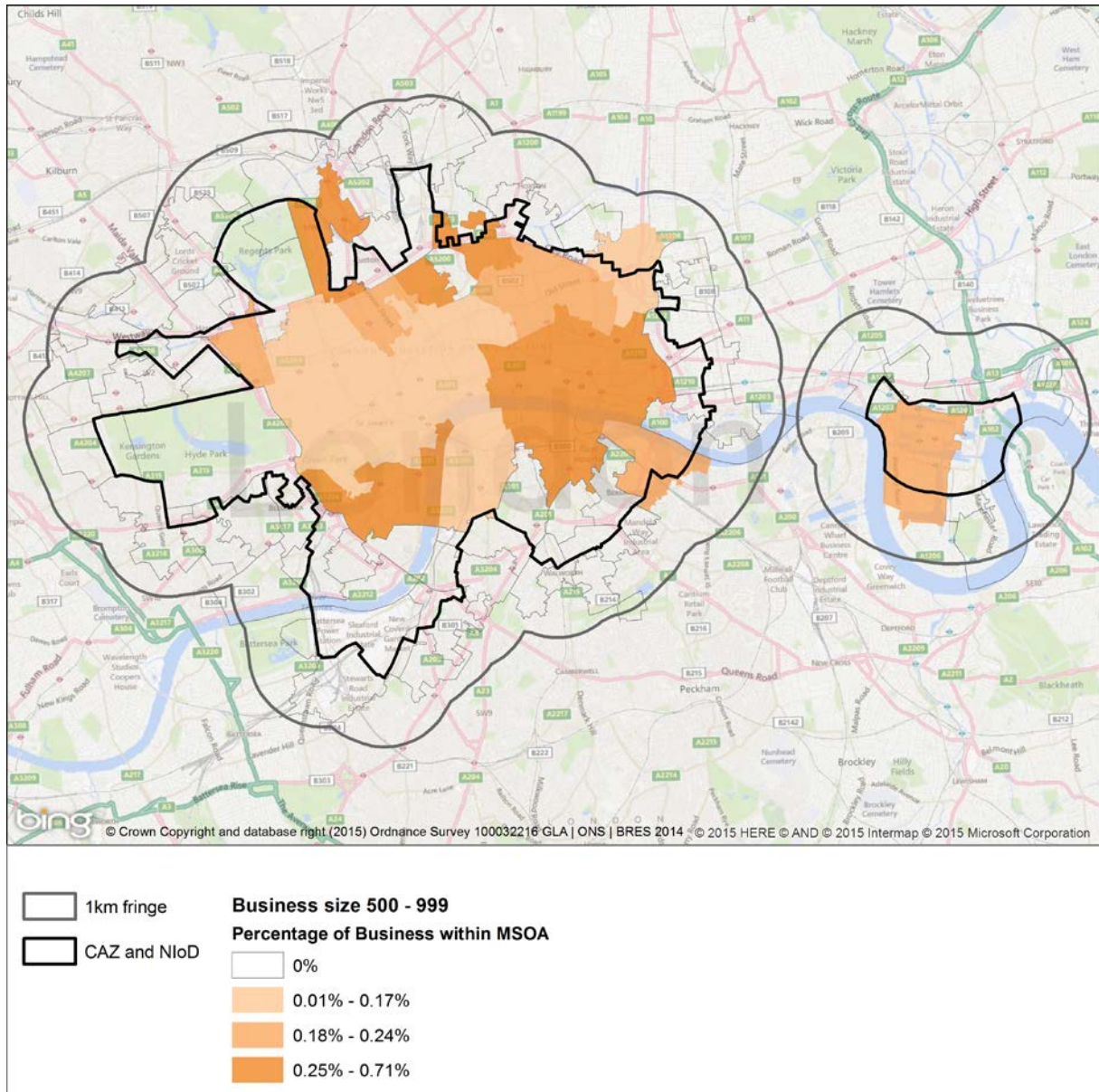
Map 7: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 100-249 (2014)



Map 8: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 250-499 (2014)

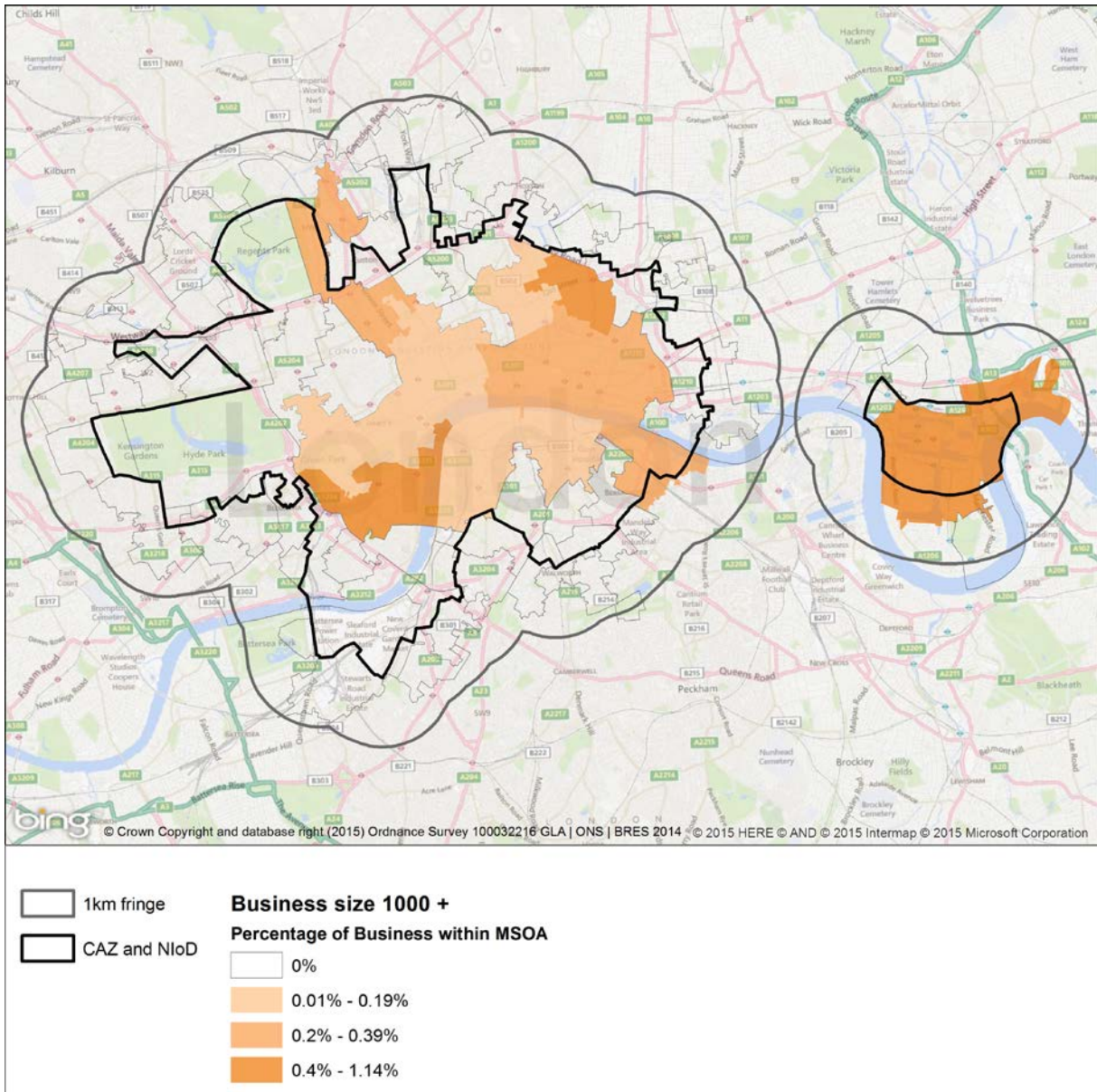


Map 9: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 500-999 (2014)



Source: ONS, Business Count

Map 10: Percentage of business units in the CAZ and NIOD MSOAs that were in the business unit, employment size band 1000+ (2014)



Employees and employment in the CAZ, NIOD and their fringes

The CAZ along with the NIOD and the immediate areas that border them are also home to a large number of jobs, as shown in Tables 4 and 5 which show the evolution of employees and employment¹⁷ in the CAZ, NIOD and their approximately 1 km fringes over the years 2009 to 2013. As can be observed there was a large increase in both employees and employment within this area over the five years under consideration with employees increasing by around 13 to 14 per cent in the CAZ, NIOD and their fringes compared to an increase in London as a whole of around 11 per cent. In employment terms the growth was slightly higher at around 14 to 15 per cent again compared to a growth in London of around 11 per cent. It should be noted that employment growth in the NIOD was particularly strong with it increasing from around 99,000 in 2009 to around 127,000 in 2013 an increase of around 29 per cent. In terms of the total number of employees and employment in London the CAZ accounts for around 35 per cent, with this increasing to 38 per cent when the NIOD is included and 45 per cent when their respective fringes are taken into account. However, given the calculation that the CAZ, NIOD and their fringes account for 55 per cent of London's output this employment figure would imply that employment in this area is generally more productive than the London average¹⁸.

Table 4: Employees in the CAZ, NIOD, and an approximately 1km fringe around them and London in 2009 to 2013 (million) and their growth over those years (% change)

	2009	2010	2011	2012	2013	Change from 2009 to 2013
CAZ	1.42	1.46	1.51	1.55	1.61	13.3%
CAZ 1km Fringe	0.27	0.28	0.29	0.30	0.30	11.9%
NIOD	0.10	0.10	0.12	0.12	0.13	29.5%
NIOD 1km Fringe	0.02	0.03	0.03	0.03	0.03	23.4%
CAZ & NIOD	1.52	1.55	1.63	1.67	1.74	14.3%
CAZ, NIOD & their 1km Fringes	1.82	1.86	1.95	2.00	2.07	14.1%
London	4.14	4.21	4.30	4.45	4.58	10.6%

Source: BRES

Table 5: Employment in the CAZ, NIOD, and an approximately 1km fringe around them and London in 2009 to 2013 (million) and their growth over those years (% change)

	2009	2010	2011	2012	2013	Change from 2009 to 2013
CAZ	1.47	1.50	1.57	1.62	1.67	13.6%
CAZ 1km Fringe	0.28	0.28	0.30	0.31	0.31	12.1%
NIOD	0.10	0.10	0.12	0.12	0.13	28.5%
NIOD 1km Fringe	0.02	0.03	0.03	0.03	0.03	23.6%
CAZ & NIOD	1.57	1.60	1.69	1.73	1.80	14.6%
CAZ, NIOD & their 1km Fringes	1.87	1.91	2.02	2.07	2.14	14.3%
London	4.27	4.32	4.50	4.59	4.73	10.7%

Source: BRES

¹⁷ The difference in BRES between 'employees' and 'employment' is 'working owners', defined as those self-employed who are registered for VAT or PAYE.

¹⁸ Note this is comparing employment in 2013 with GVA in 2012 and slight care should therefore be given when comparing the two numbers.

The nature of employment in the CAZ, NIOD and their fringes is, as would perhaps be expected, heavily concentrated in a few sectors as shown by Table 6, with Professional, scientific and technical being particularly important. The five sectors considered in Table 6 accounted for around 65 per cent of the total employment in the CAZ in 2013, 67 per cent of employment in the CAZ & NIOD, and 64 per cent of the employment in these two areas and their fringe. While, in the NIOD alone these five sectors accounted for 85 per cent of employment, this compares to London as a whole where these five sectors accounted for around 46 per cent of employment in 2013. Table C1 in Appendix C provides details of employment in this geography for 8 broad industrial sectors that cover the totality of the economy.

Table 6: Employment by sector in 2013 in the CAZ, NIOD, and an approximately 1 km fringe around them (top five sectors only)

	CAZ	CAZ as % of sector total for London	CAZ 1km Fringe	CAZ Fringe as % of sector total for London	NIOD	NIOD as % of sector total for London	NIOD 1km Fringe	NIOD Fringe as % of sector total for London	CAZ & NIOD	CAZ & NIOD as % of sector total for London	CAZ, NIOD & their Fringes	CAZ, NIOD & their Fringes as % of sector total for London
Professional, scientific and technical	394,000	60%	39,000	11%	12,000	2%	2,000	0%	406,000	61%	447,000	68%
Financial & insurance	226,000	66%	11,000	3%	61,000	18%	2,000	0%	286,000	83%	299,000	87%
Information & communication	172,000	48%	31,000	9%	14,000	4%	3,000	1%	185,000	52%	219,000	62%
Business administration and support services	167,000	35%	25,000	5%	17,000	4%	9,000	2%	184,000	38%	218,000	46%
Accommodation & food services	133,000	37%	38,000	11%	5,000	1%	2,000	1%	138,000	39%	178,000	50%

Source: BRES & GLA Economics calculations

Employment concentration in the CAZ, NIOD and their fringe

The large number of employees in the CAZ, NIOD and their bounding areas is further underlined by Maps 11 and 12¹⁹. These maps show employees per square kilometre, with the higher the bar illustrating a larger number of employees, and emphasises the concentration of employees in most areas of the CAZ and NIOD and some areas of their fringes and how this concentration has increased between 2003 and 2013. In particular they especially highlight the high concentration of employees in the centre of the CAZ and the NIOD and how this has become more marked over time.

Although a clear concentration of employees can be observed in this geography, this does not imply that there is a uniform dispersal of employment in the dominant sectors of the economy across the CAZ, NIOD and their fringes. In fact a geographic concentration of employment by industrial sector in certain areas of the CAZ etc. could well be expected from knowledge of industries clustering together whether it is, for example, insurance firms around Lloyds or tech firms around 'Silicon Roundabout'²⁰.

Map 13, which used statistical analysis²¹ of census employment data (and is for the year 2011), shows the effect of these economies of agglomeration²² to form employment clusters for a number of industries.

¹⁹ Note, both these maps are drawn from a north facing perspective and given the concentration of employees in the centre of the CAZ and NIOD may hide details to the north of these concentrations.

²⁰ The area around Old Street Roundabout where a number of tech firms have congregated.

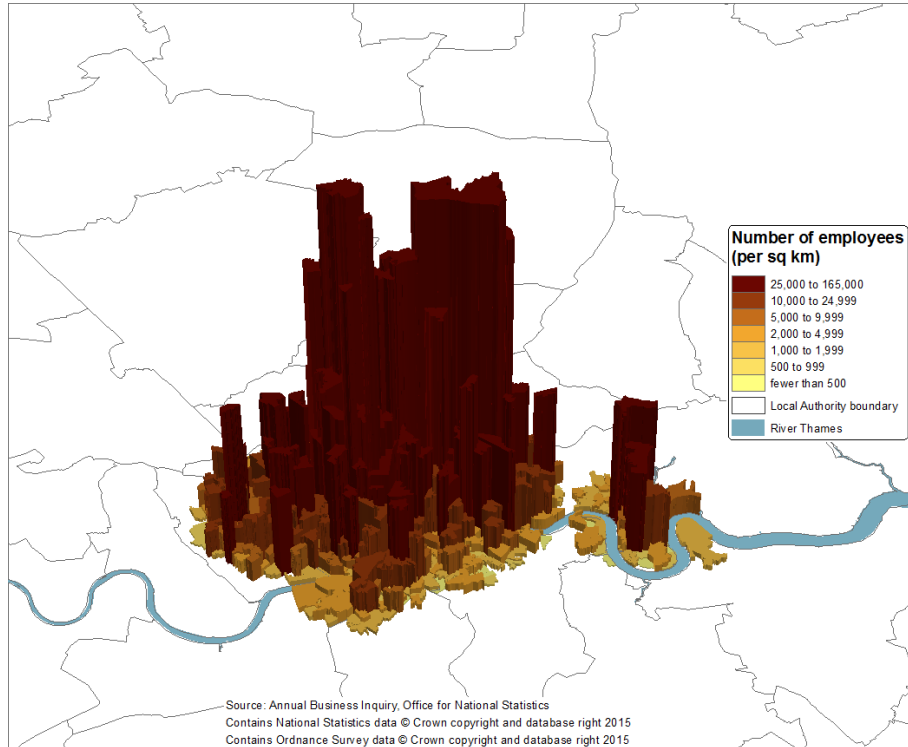
²¹ The clustering was carried out using GIS Hot Spot Analysis. Given a set of weighted features, it identifies statistically significant hot spots and cold spots using the Getis-Ord G_i^* statistic. This is based on the value of a cell and the value of the cells immediately around it. A high value cell with high value cells around it will get the highest score.

In detail the Getis-Ord G_i^* statistic is used to identify statistically significant hot spots and cold spots, with the 'Fixed Distance Band' parameter being used to reflect spatial relationships; the default distance calculated by the tool was used (2771m), which ensures each feature (geographical area) has at least one neighbour. [ArcGIS](#) describes this as:

"Each feature is analyzed within the context of neighbouring features. Neighbouring features inside the specified critical distance receive a weight of 1 and exert influence on computations for the target feature. Neighbouring features outside the critical distance receive a weight of zero and have no influence on a target feature's computations".

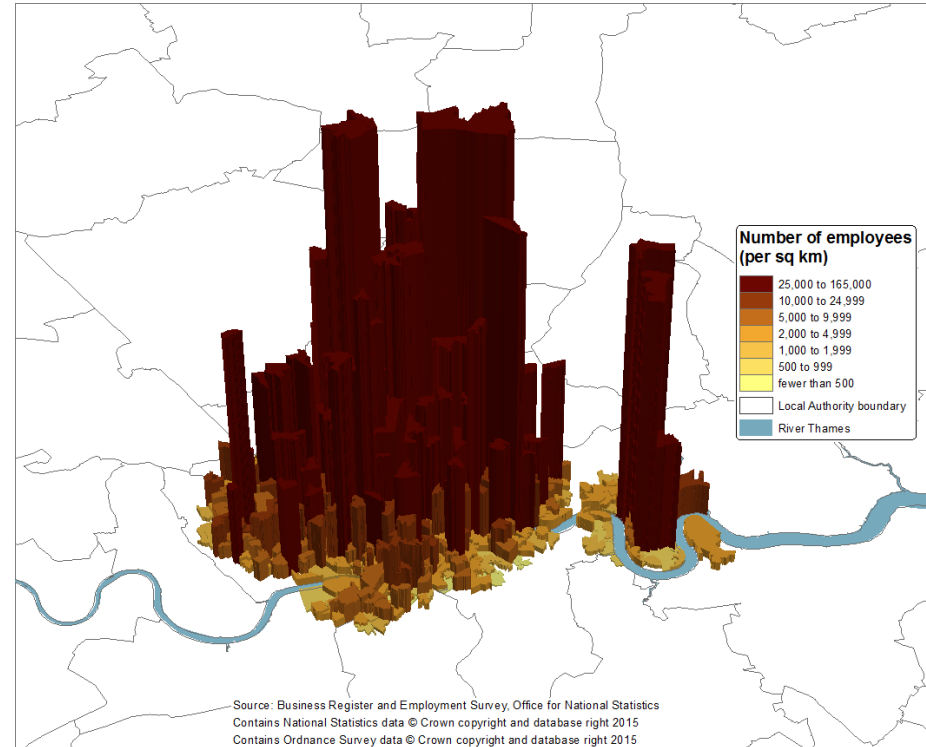
²² External benefits that arise when economic activity takes place in a concentrated space.

Map 11: Number of employees per square kilometre in 2003 in the CAZ, NIOD and an approximately 1km fringe around them



Source: Annual Business Inquiry (ABI)²³

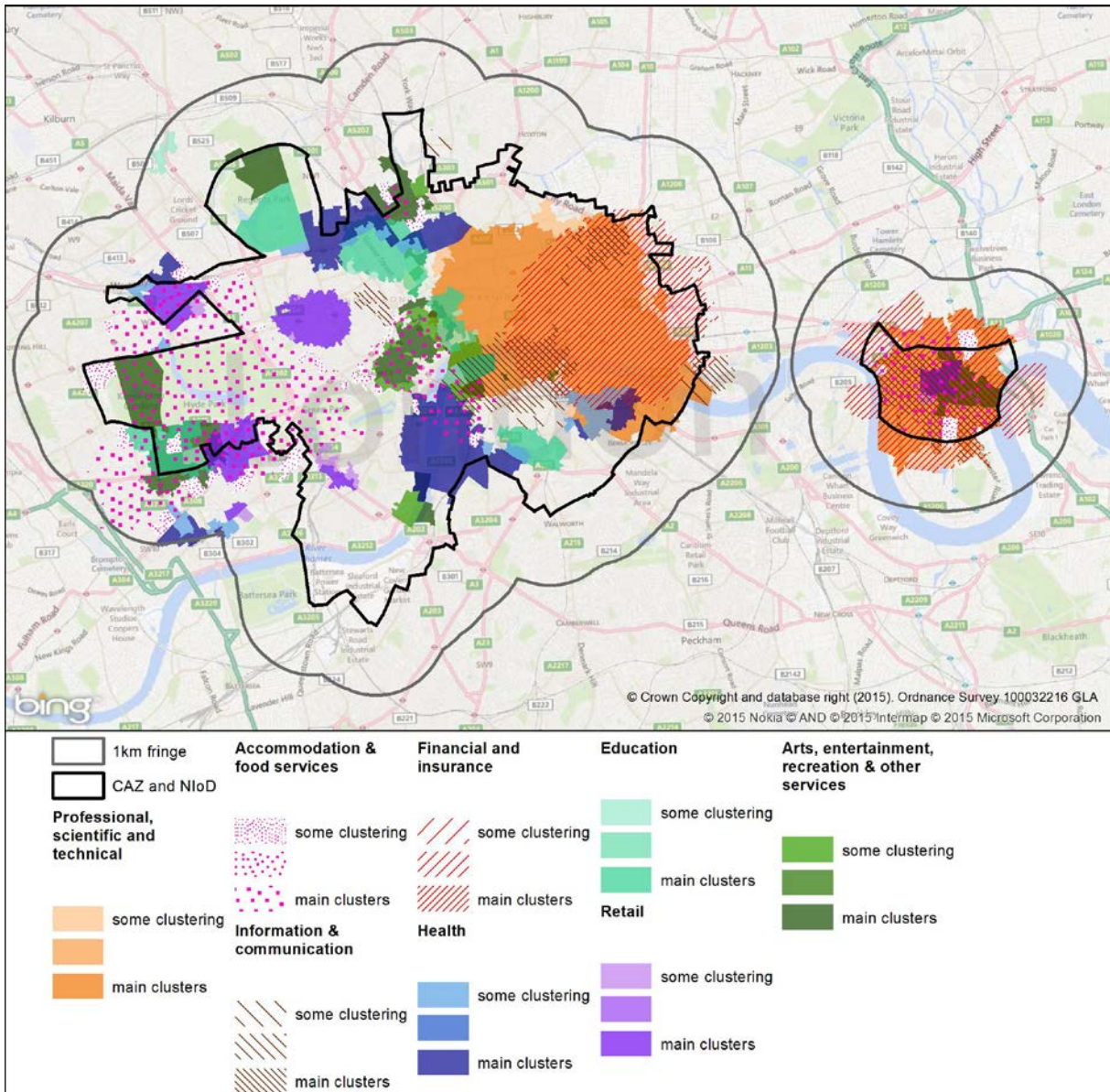
Map 12: Number of employees per square kilometre in 2013 in the CAZ, NIOD and an approximately 1km fringe around them



Source: BRES

²³ ABI data was used for this map as BRES data does not go back to 2003.

Map 13: Clustering by industry employment type in the CAZ, NIOD and an approximately 1km fringe around them

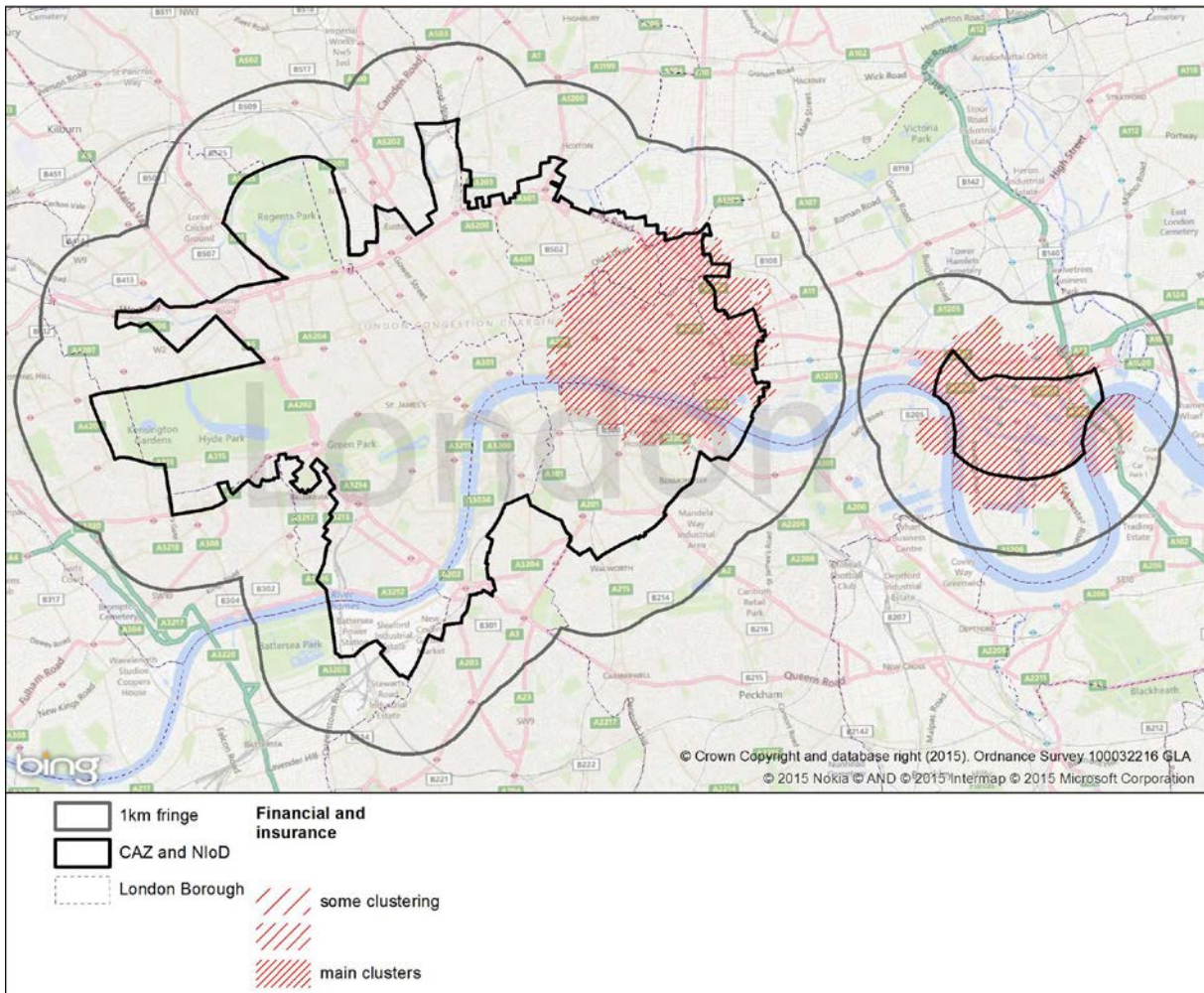


Source: Census²⁴ and GLA Intelligence Unit analysis

²⁴ Census data are adapted from data from the Office for National Statistics licenced under the Open Government Licence v.3.0.

Examining the clustering by industry in turn it is perhaps unsurprising to find a grouping of Financial and insurance employment around the City of London and spreading into northern Southwark with another grouping around Canary Wharf as shown in Map 14.

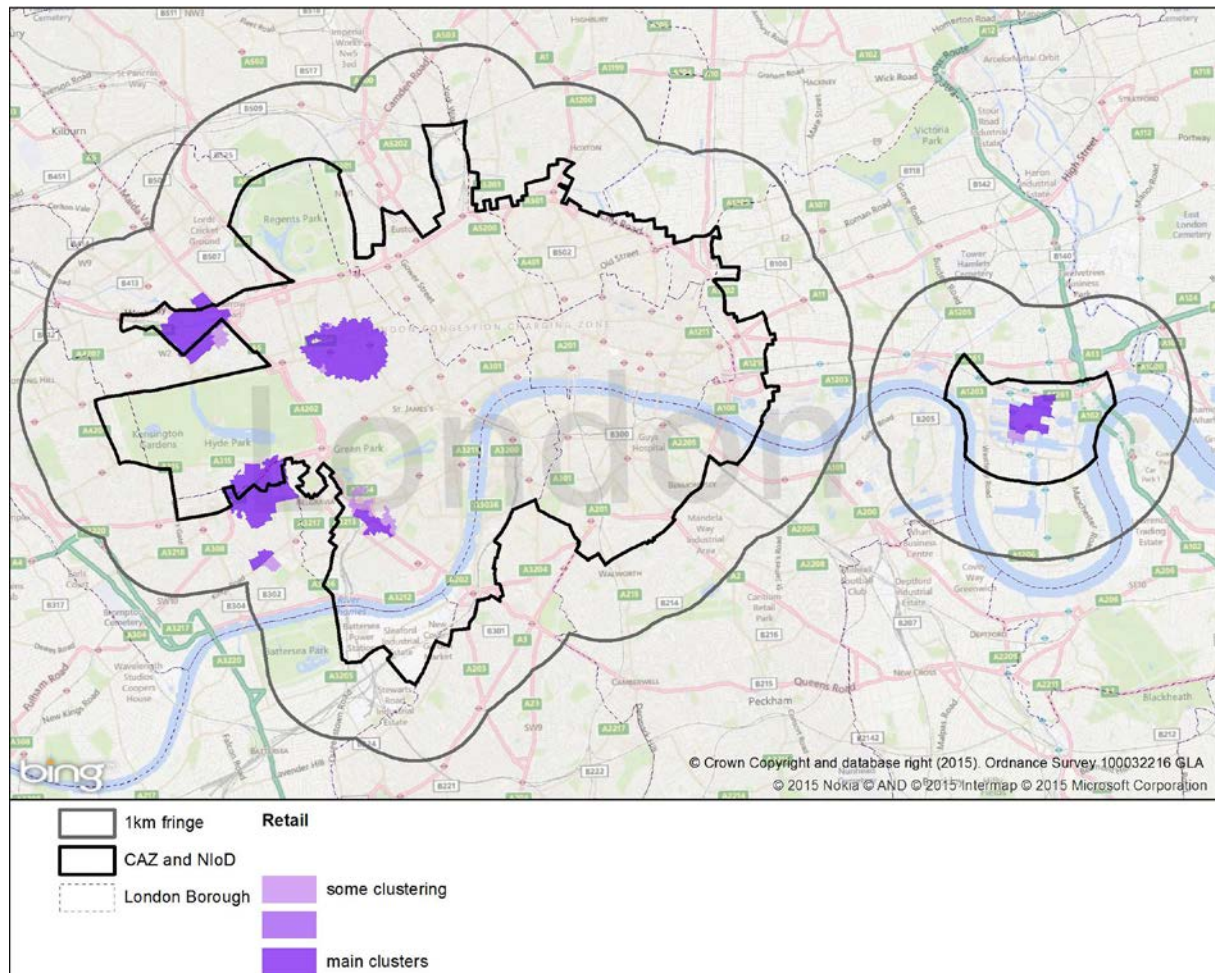
Map 14: Financial and insurance employment clustering in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

The clustering of employment in Retail around Oxford Street, Bond Street and Marylebone, along with Knightsbridge and the King’s Road and in the NIOD may well have been expected. However, as seen from Map 15 further clustering around Victoria and the Paddington and Royal Oak areas where also found²⁵.

Map 15: Retail employment clustering in the CAZ, NIOD and an approximately 1km fringe around them

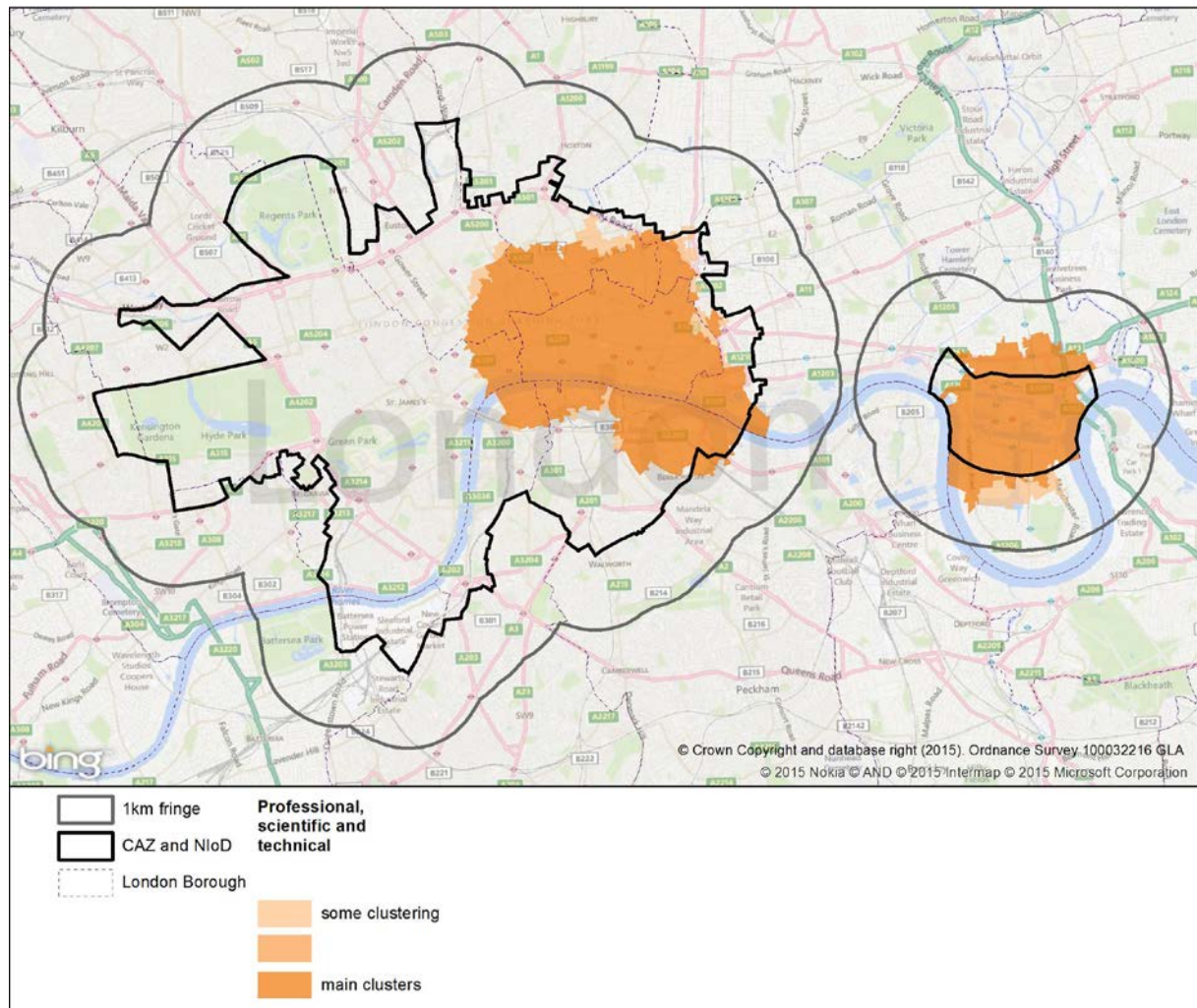


Source: Census and GLA Intelligence Unit analysis

²⁵ It should be noted that the Retail area around Covent Garden does not show up in Map 15, this is due to the setting of the distance band in the statistical analysis performed to generate these maps. Map C1 in Appendix C demonstrates the results for Retail clustering if the distance band is reduced in size and shows the Covent Garden shopping area; however it also downplays the importance of some of the Retail clustering shown in Map 15. It should be observed that the clustering shown in Maps 13 to 20 may ignore clustering in certain small areas, but should highlight particularly important clusters in more detail. Thus in order to further highlight areas in the CAZ, NIOD and their fringes of significance for employment in the different sectors of the economy Maps C2 to C9 in Appendix C replicate the clustering maps shown here but also highlight the LSOA's that had high employment concentration for any given sector.

Map 16 shows a large concentration of Professional, scientific and technical employment heading west from the City towards Holborn and up towards Clerkenwell and south into the northern part of Southwark and north eastern part of Lambeth, with another grouping in the NIOD area.

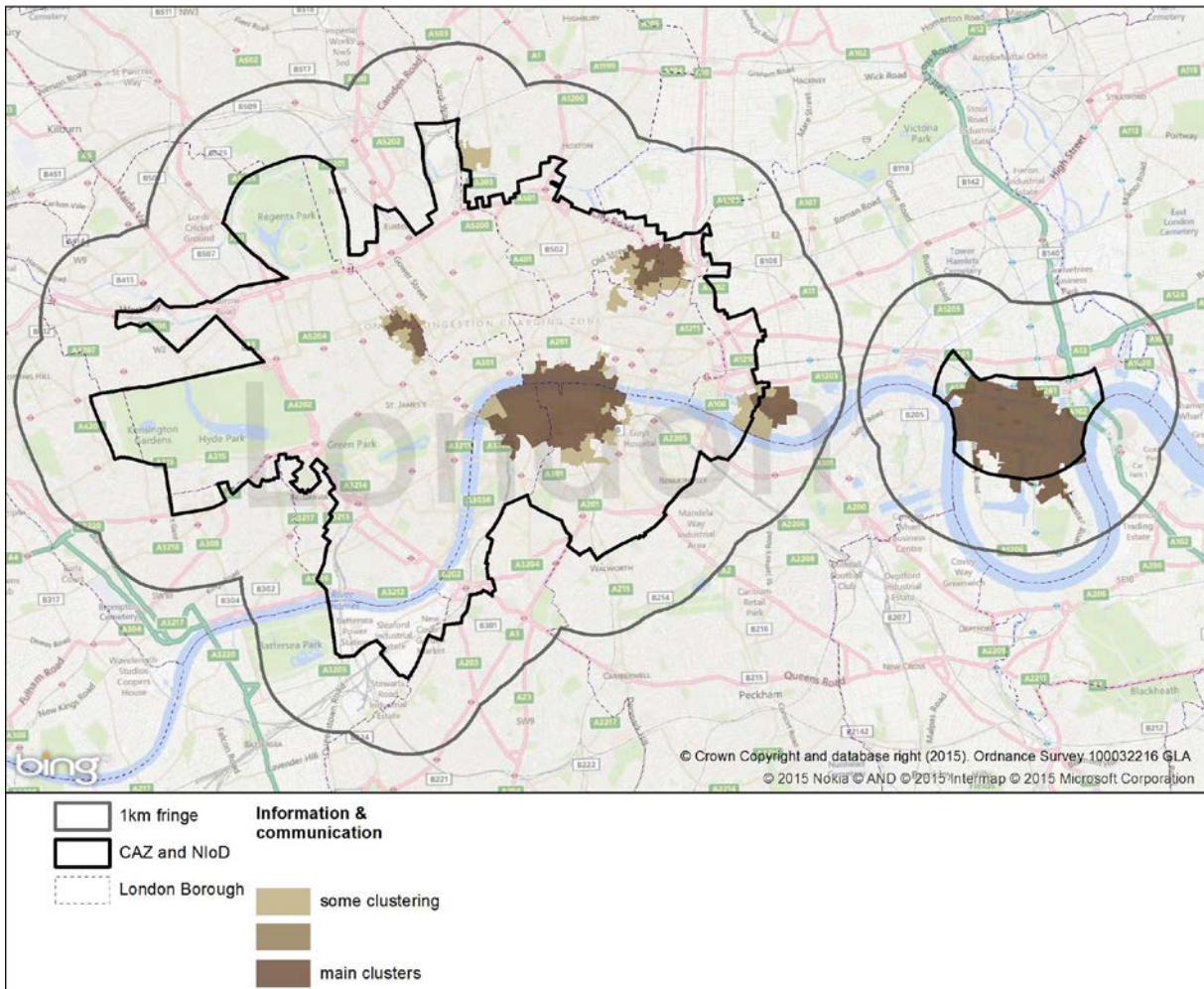
Map 16: Professional, scientific and technical employment clustering in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

Examining employment in Information and communication Map 17 shows clustering around Shoreditch, Wapping, Canary Wharf and also around King's Reach and into North Southwark and Borough and around Soho and into Tottenham Court Road and Charring Cross Road.

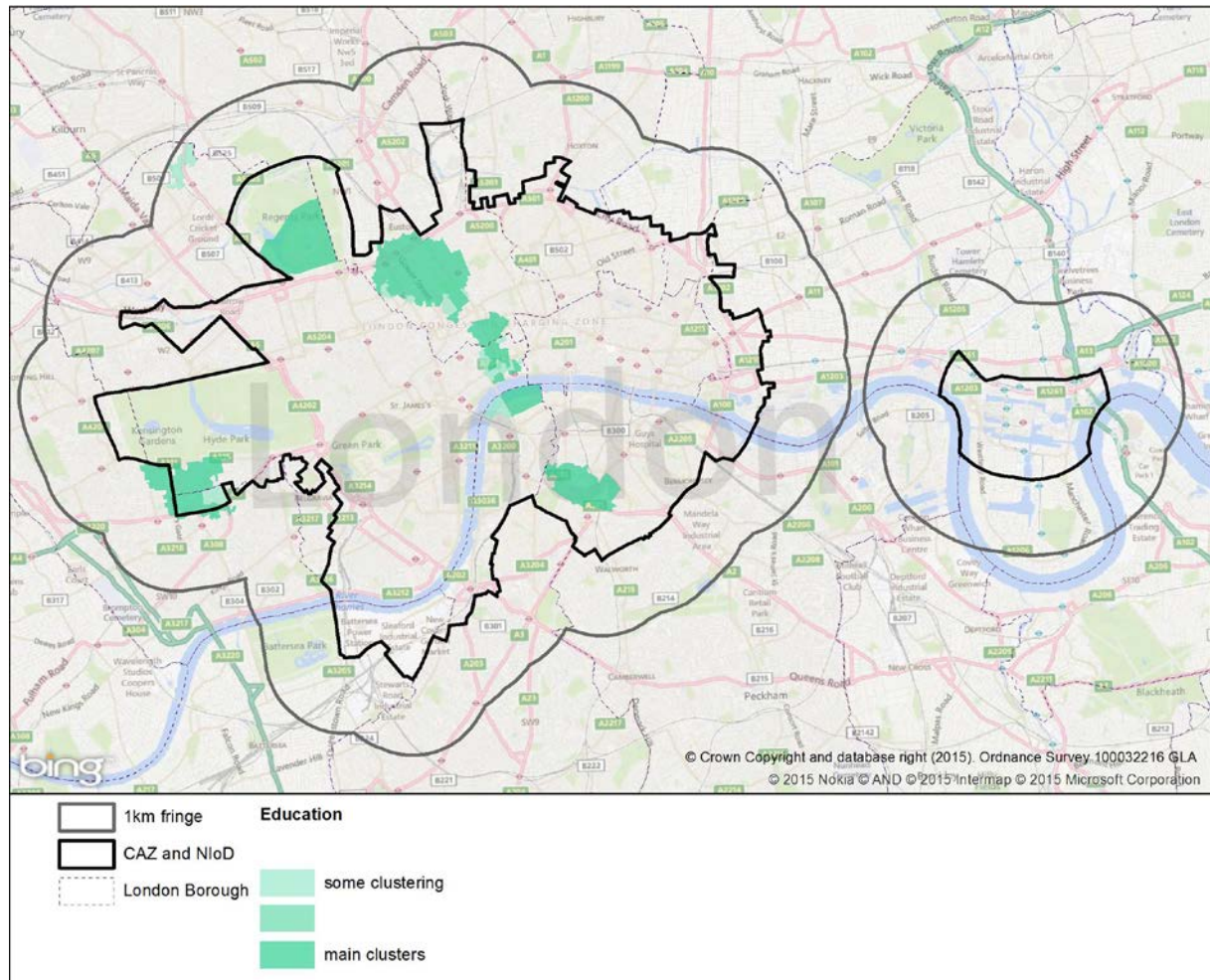
Map 17: Information and communication employment clustering in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

Map 18 shows clustering of employment in Education around the area south of the Albert Memorial, around the Holborn and Aldwych area, around Fitzrovia and Bloomsbury, near Waterloo Bridge, north of Elephant and Castle and also the Regents Park area²⁶. These locations correspond to the position of large educational institutions such as Imperial College, the LSE etc.

Map 18: Education employment clustering in the CAZ, NIOD and an approximately 1km fringe around them

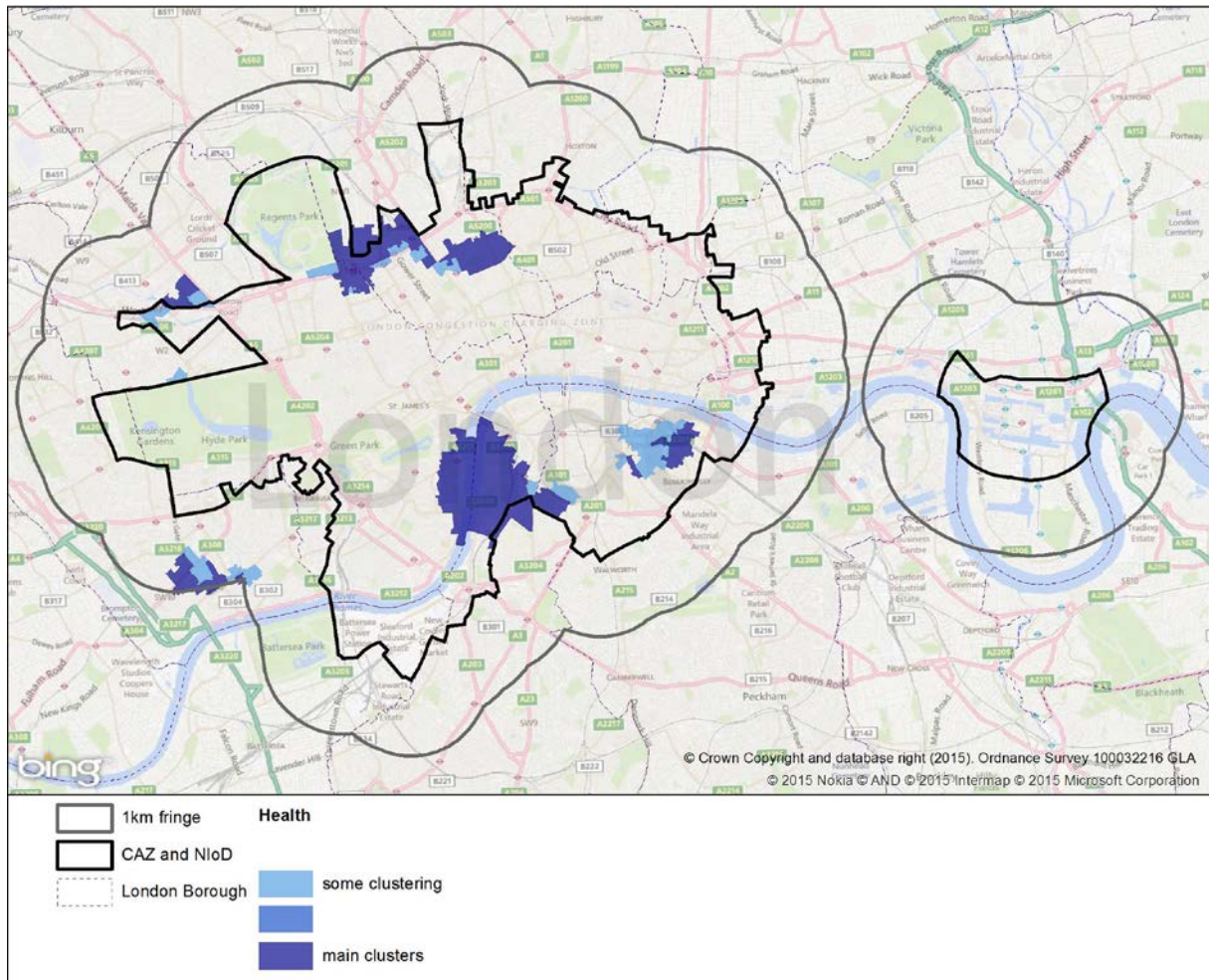


Source: Census and GLA Intelligence Unit analysis

²⁶ Note that when clustering is shown over a park area this is picking up employment clustering around the edge of the park.

Map 19 shows clustering in employment in Health around large hospitals such as Guy's Hospital in the London Bridge area, with other clustering around Chelsea, Westminster, Paddington and the Somers Town to Clerkenwell area.

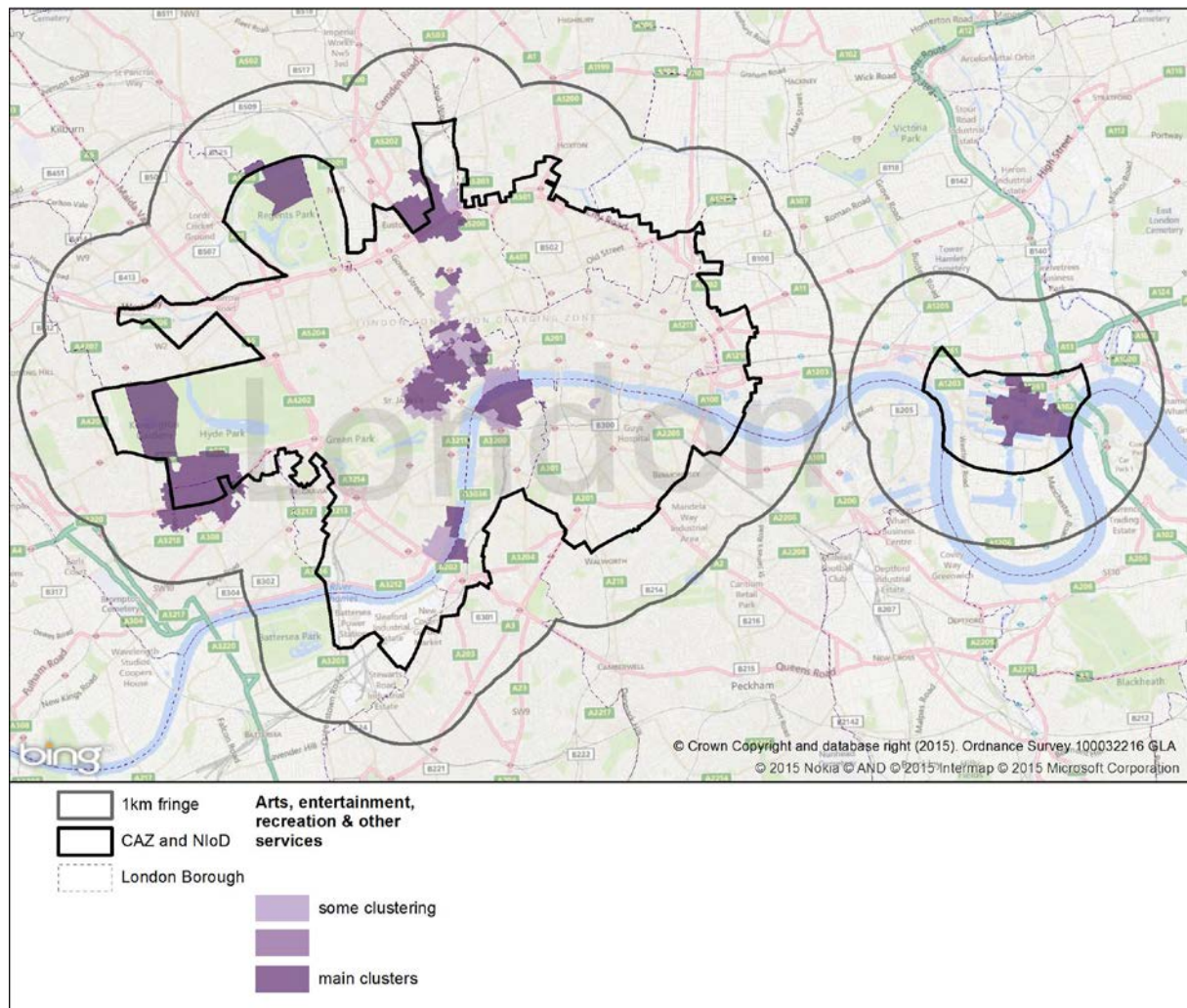
Map 19: Health employment clustering in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

Map 20 shows clustering in employment in the Arts, entertainment, recreation & other services sector in areas that would probably be expected such as in the West End around the Strand and up towards Holborn and west towards Whitehall, with another around Waterloo Bridge on the South Bank of the Thames. Further clusters are seen in Knightsbridge and up through Kensington Gardens, in the Regent's Park area, south of King's Cross and north of Vauxhall, and also around Canary Wharf.

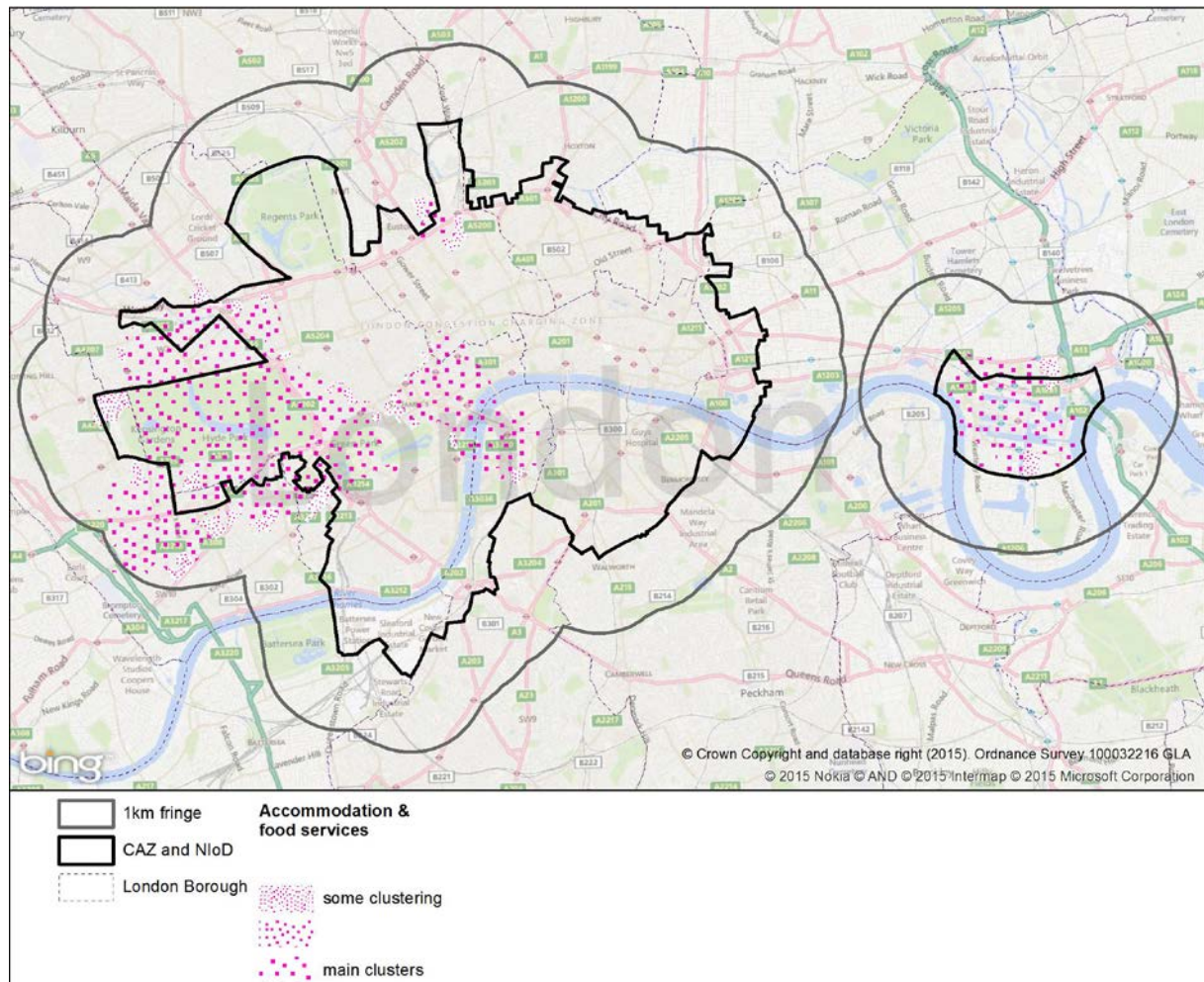
Map 20: Arts, entertainment, recreation & other services employment clustering in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

Map 21 shows a wide dispersion of employment in Accommodation & food services across the central and western portions of the CAZ with a further cluster south of St Pancras, a cluster across most of the NIOD with some dispersion into the western fringe of the CAZ and northern fringe of the NIOD as well.

Map 21: Accommodation & food services employment clustering in the CAZ, NIOD and an approximately 1km fringe around them

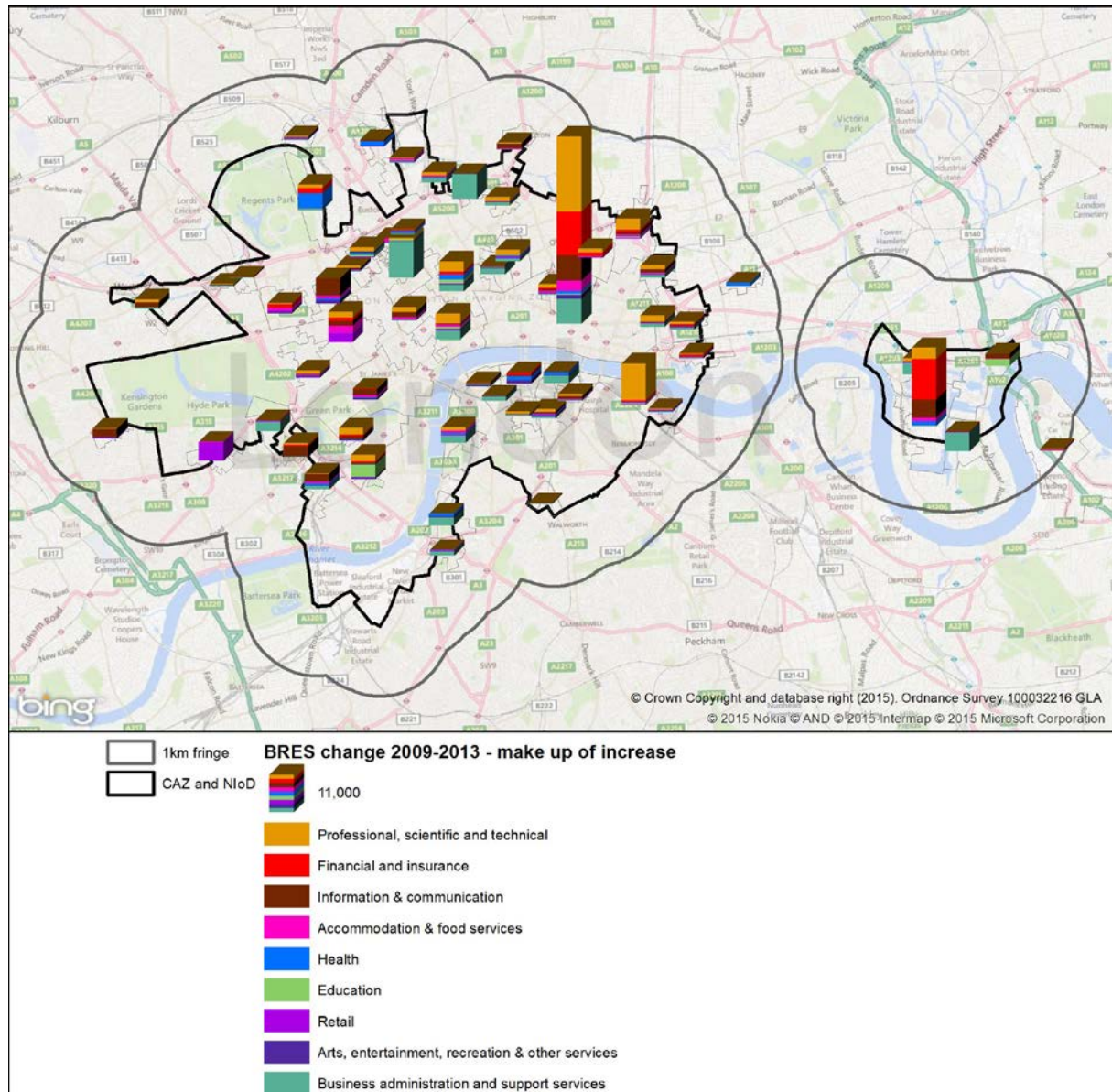


Source: Census and GLA Intelligence Unit analysis

Employment changes from 2009 to 2013

As shown previously employment in the CAZ, NIOD and their fringes has increased over recent years, and the sectors that have contributed to this employment growth are various and also vary over the area under consideration. Map 22 shows the sectors that contributed to employment growth over 2009 to 2013 in different parts of the CAZ, NIOD and their fringes with particularly strong growth in employment seen in the City and Canary Wharf.

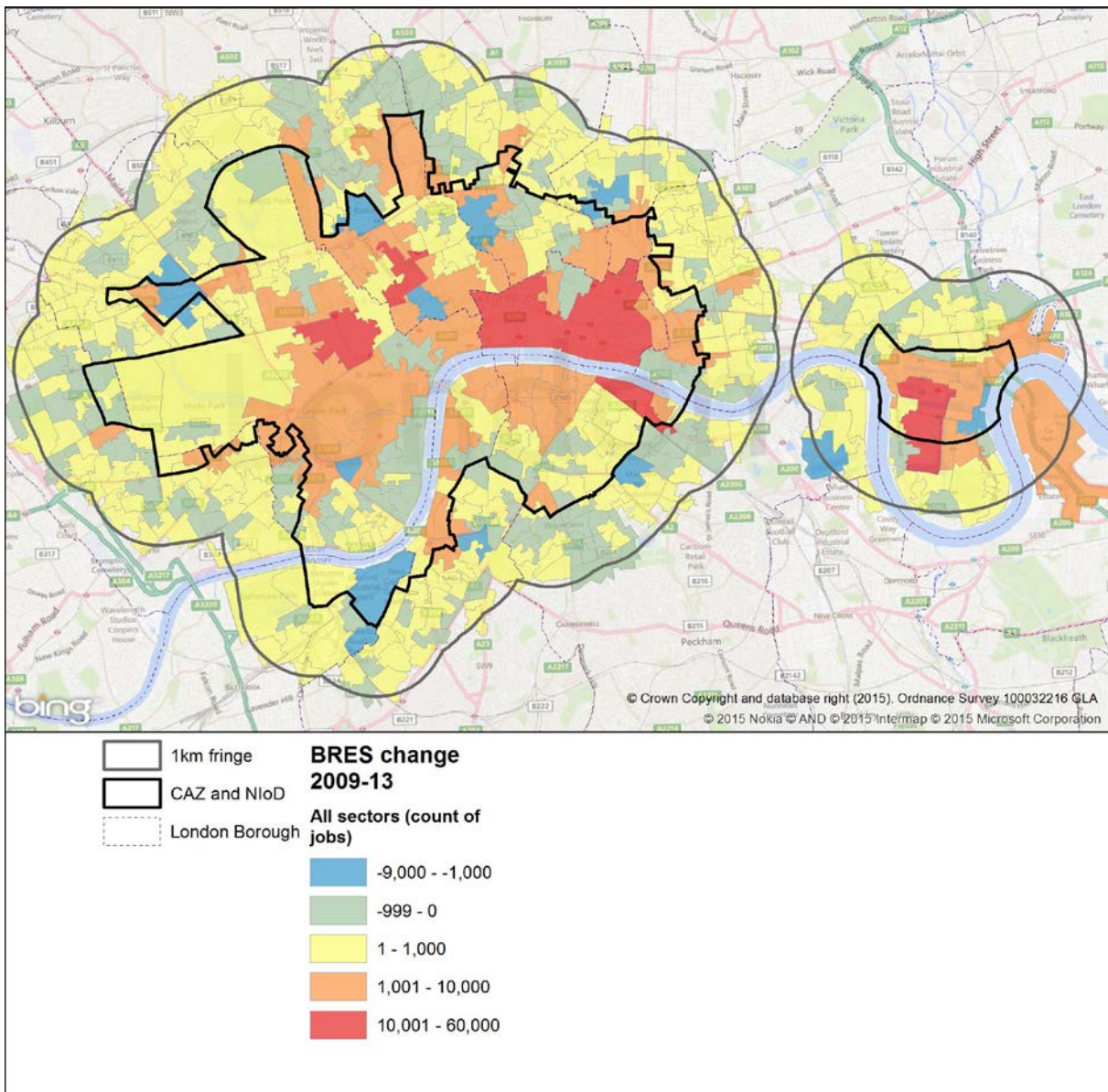
Map 22: Sectors contributing to employment increase over 2009 to 2013 in different parts of the CAZ, NIOD and an approximately 1km fringe around them



Source: BRES and GLA Intelligence Unit analysis

However, not all parts of the CAZ, NIOD and their respective fringes saw an increase in employment from 2009 to 2013; while the employment increase was also not of a uniform level in those areas that did see an increase. Map 23 shows a general increase in employment in most areas of the CAZ and NIOD, with particularly strong growth in parts of the City, Soho, Bloomsbury and parts of the NIOD. However, the fringes around the CAZ and NIOD saw a more mixed employment picture. While even areas in the CAZ and NIOD saw declines in employment such as in the Paddington and Somers Town areas, near Finsbury, St Giles and the Strand, along the river in Westminster and slightly east of Vauxhall.

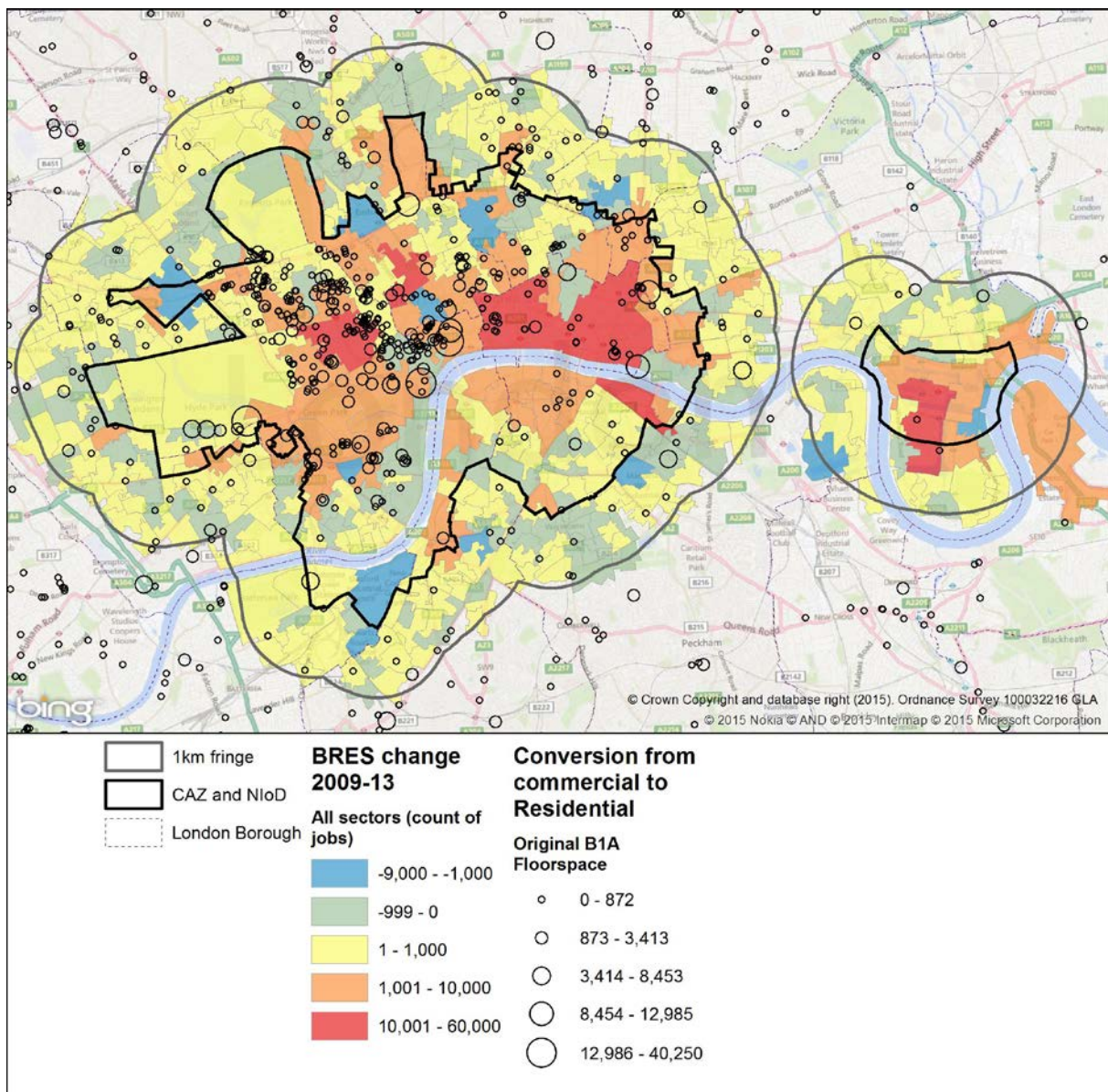
Map 23: The geography of employment changes over 2009 to 2013 in the CAZ, NIOD and an approximately 1km fringe around them



Source: BRES and GLA Intelligence Unit analysis

Appendix C provides maps C10 to C15 that examines the geography of changes in employment in the CAZ, NIOD and their fringes in selected sectors of the economy²⁷, which shows some interesting variations in the geography of these changes by sector. However, one potential contributory factor to some of the decline in employment seen in certain parts of the geography under consideration could have been due to a trend towards converting commercial property into residential use. Map 24, which plots the sites of commercial to residential property conversion that the GLA is aware of onto Map 23, sets out to examine this hypothesis, but as can be seen from the map it does not seem to support this idea to any great extent.

Map 24: The geography of employment changes over 2009 to 2013 and commercial to residential property conversion in the CAZ, NIOD and an approximately 1km fringe around them



Source: BRES, GLA data²⁸ and GLA Intelligence Unit analysis

²⁷ Not all sectors are examined due to the possibility of disclosure of confidential data.

²⁸ [London Development Database](#) data for completed conversions for the years 2010 to 2014.

Residential origin of workers in the CAZ, NIOD and their fringes

As is well known the CAZ and NIOD draw workers from across London and the wider UK (predominately from the Greater South East), however as would be expected a significant percentage of those who live in the CAZ and its fringe work in the CAZ, while the CAZ as an important workplace destination also holds for workers living in the rest of Inner London. The CAZ is also a workplace destination for a large number of workers from outer London and for a measurable percentage of the rest of the UK. Table 7 shows the number of workers in the CAZ by residence source, the percentage of workers in the CAZ that a residence source provides and the percentage of workers from that residence source that are working in the CAZ²⁹. Maps 25 and 27 show this worker residence data for the CAZ on a map of London and the Greater South East respectively at an MSOA³⁰ level and indicates the importance of certain areas for workers into the CAZ. In addition, Maps 26 and 28 shows the number of workers coming from different MSOAs as a percentage of the areas workforce and indicates the importance of the CAZ as an employment destination.

Table 7: Workers in CAZ-based workplaces by residence origin, 2011

Source of workers by residence area	Number of workers working in the CAZ	As percentage of total workers working in the CAZ	Workers working in the CAZ as a percentage of total workers from home residence area
CAZ ³¹	75,254	5.5%	59.3%
Works at home in the CAZ	15,624	1.1%	NA
CAZ 1km fringe	111,808	8.2%	42.4%
NIOD	4,476	0.3%	36.7%
NIOD 1km fringe	13,680	1.0%	35.2%
Rest of inner London ³²	390,791	28.7%	32.4%
Outer London	408,602	30.0%	17.2%
UK outside London	343,224	25.2%	1.5%
Total (identifiable workers)	1,363,459	100%	5.1%

Source: Census and GLA Intelligence Unit analysis

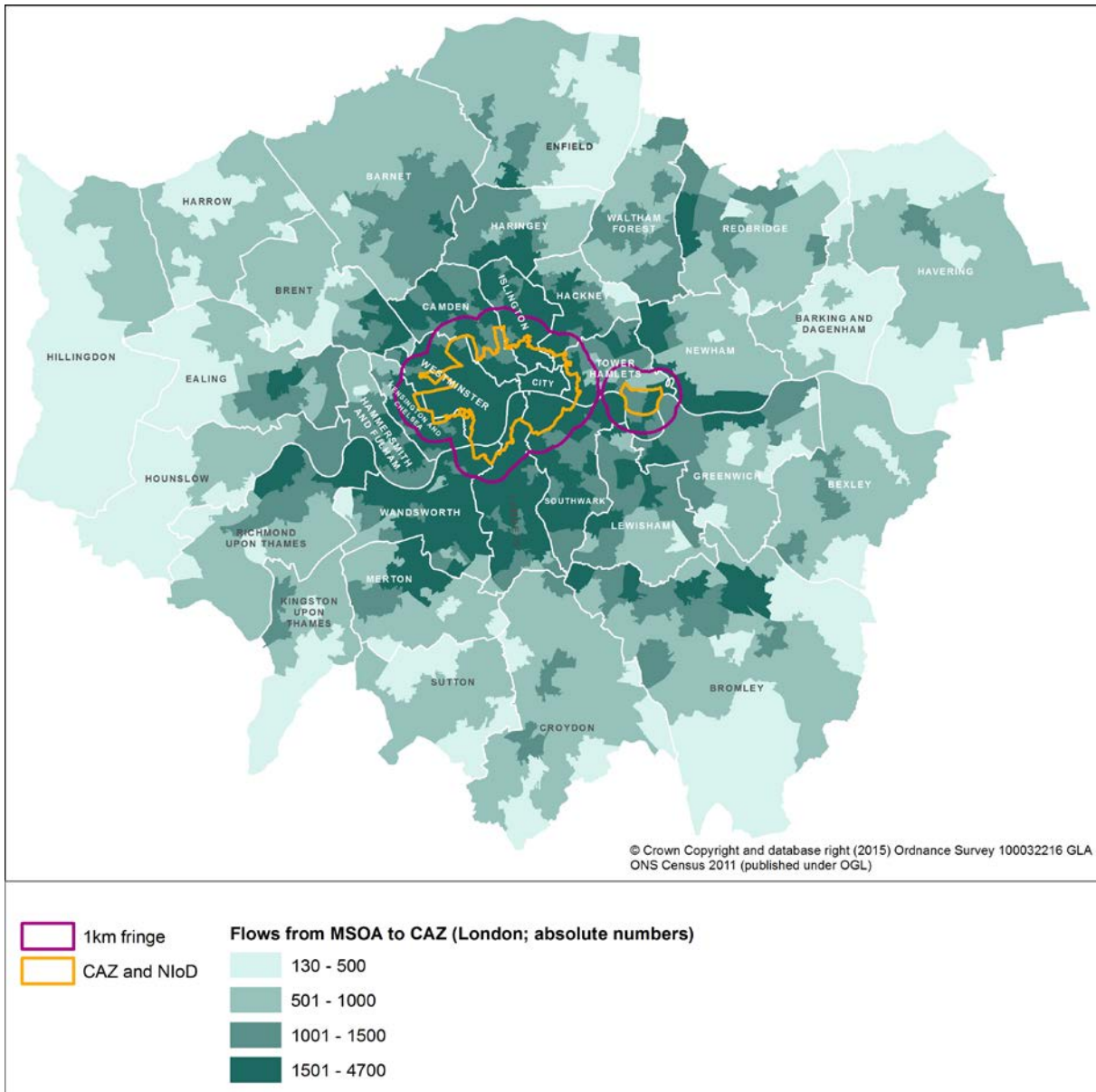
²⁹ Note that this data is based on Census data examining workplace destination; this data will differ from the BRES data for 2011 reported elsewhere in this paper.

³⁰ The MSOA geography is used in these maps to aid in the ease of visualisation of this data.

³¹ This number includes those workers who have no fixed place of work.

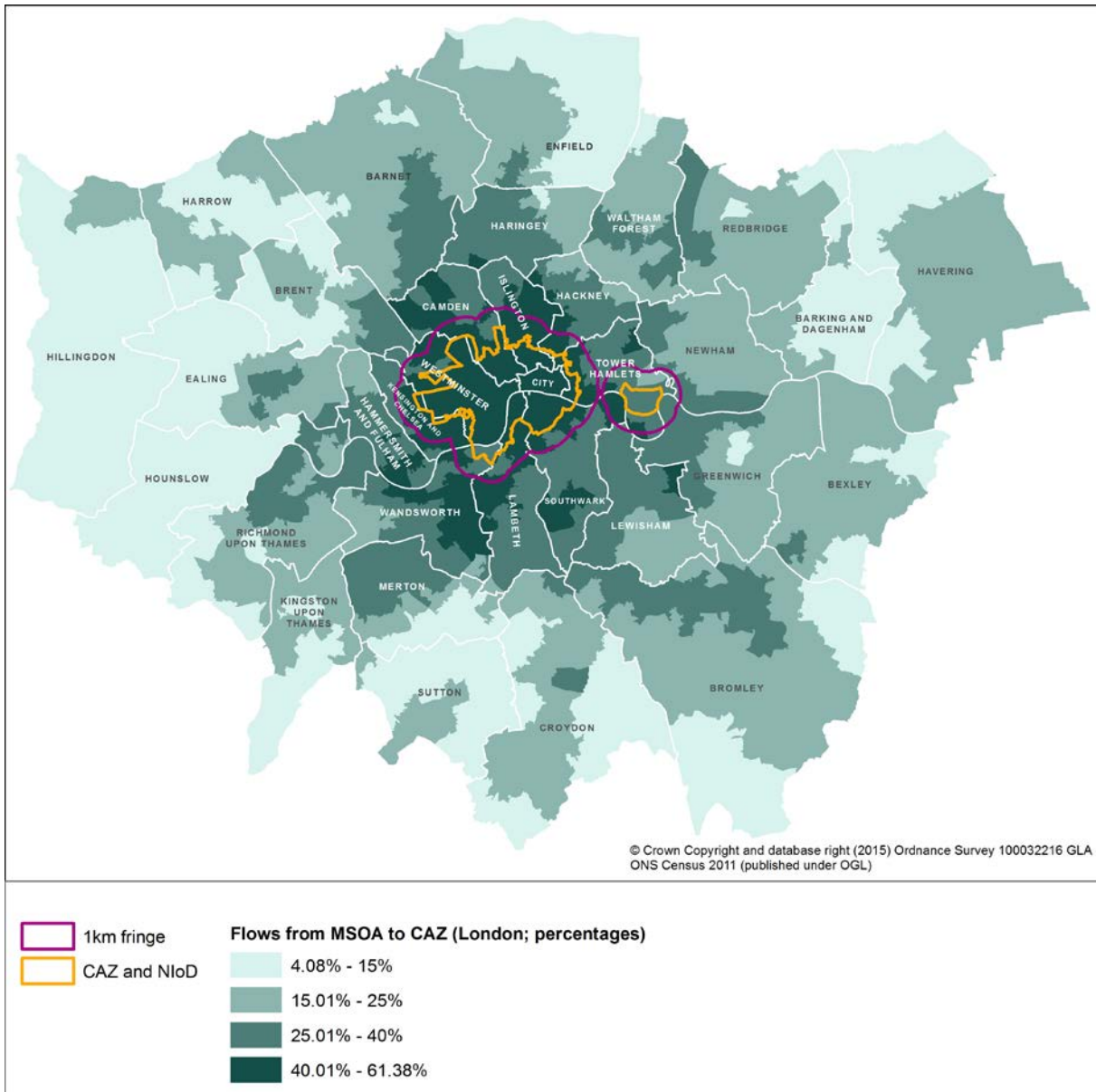
³² This covers the rest of inner London that is not in the CAZ, NIOD or their fringes.

Map 25: Workers in CAZ-based workplaces by residence origin in London, 2011, absolute numbers



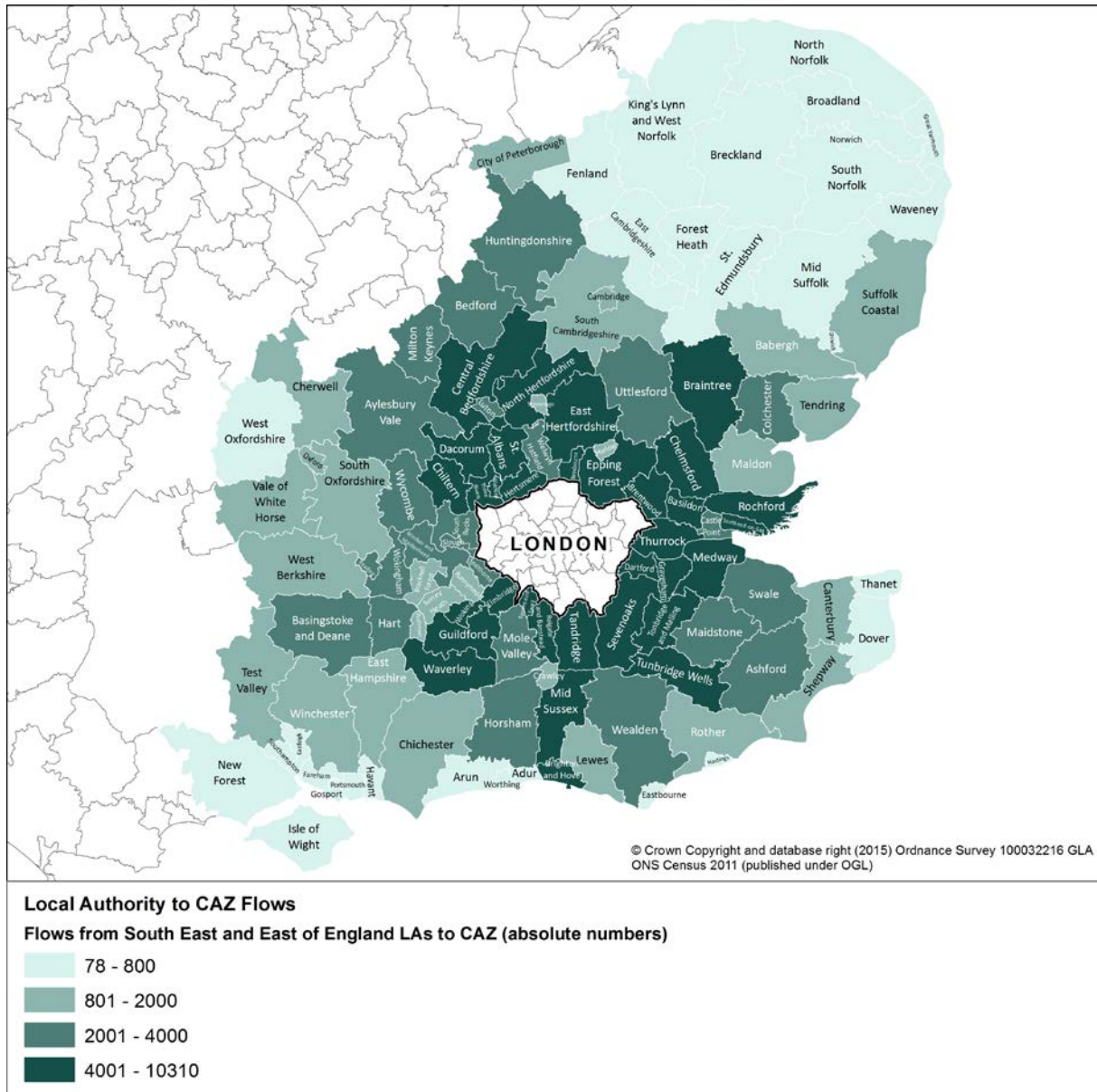
Source: Census and GLA Intelligence Unit analysis

Map 26: Workers in CAZ-based workplaces by residence origin in London, 2011, as percentage of an area's workforce



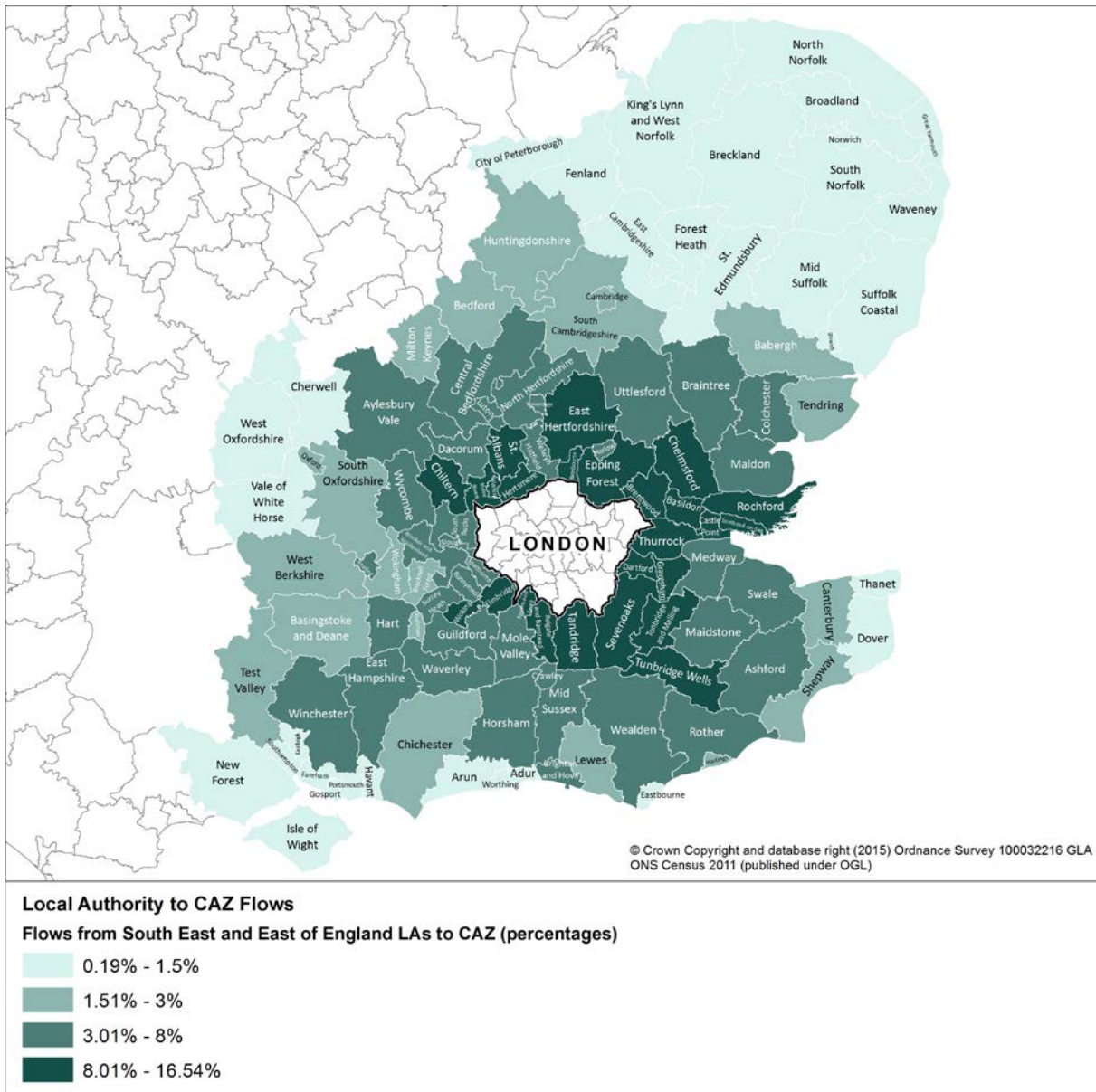
Source: Census and GLA Intelligence Unit analysis

Map 27: Workers in CAZ-based workplaces by residence origin in the Greater South East (excluding London), 2011, absolute numbers



Source: Census and GLA Intelligence Unit analysis

Map 28: Workers in CAZ-based workplaces by residence origin in the Greater South East (excluding London), 2011, as percentage of an area's workforce



Source: Census and GLA Intelligence Unit analysis

Examining the fringe of the CAZ we can see the source of workers in this area was again varied, as shown in Table 8. However, as can be seen from examining Tables 7 & 8, the source of workers in the fringe of the CAZ is somewhat different to the CAZ with less workers coming from outside of London (as a percentage of total workers working in the CAZ's fringe when compared to the CAZ).

Table 8: Workers in the CAZ (approximately) 1km fringe-based workplaces by residence origin, 2011

Source of workers by residence area	Number of workers working in the CAZ fringe	As percentage of total workers working in the CAZ fringe	Workers working in the CAZ fringe as a percentage of total workers from home residence area
CAZ	9,439	3.0%	7.4%
CAZ 1km fringe ³³	54,501	17.5%	20.7%
Works at home in CAZ 1km fringe	30,615	9.8%	NA
NIOD	584	0.2%	4.8%
NIOD 1km fringe	2,837	0.9%	7.3%
Rest of inner London	92,404	29.6%	7.7%
Outer London	80,080	25.7%	3.4%
UK outside London	41,559	13.3%	0.2%
Total (identifiable workers)	312,019	100%	1.2%

Source: Census and GLA Intelligence Unit analysis

As can be observed from Table 9, the number of workers from outside London working in the NIOD is relatively high at just over a quarter, which replicates the situation seen in the CAZ. This residence data is also shown in Map form in Maps 29 and 31 and as a percentage of an areas total workforce in Maps 30 and 32. As can be observed when comparing these maps to Maps 25 to 28, and although noting the difference in employment sizes in the two areas and differences of scale between the maps, it can be observed that the geography of the residence areas of workers for the CAZ and NIOD are somewhat different with the NIOD being more dependent on workers from the east of London for example.

Table 9: Workers in NIOD-based workplaces by residence origin, 2011

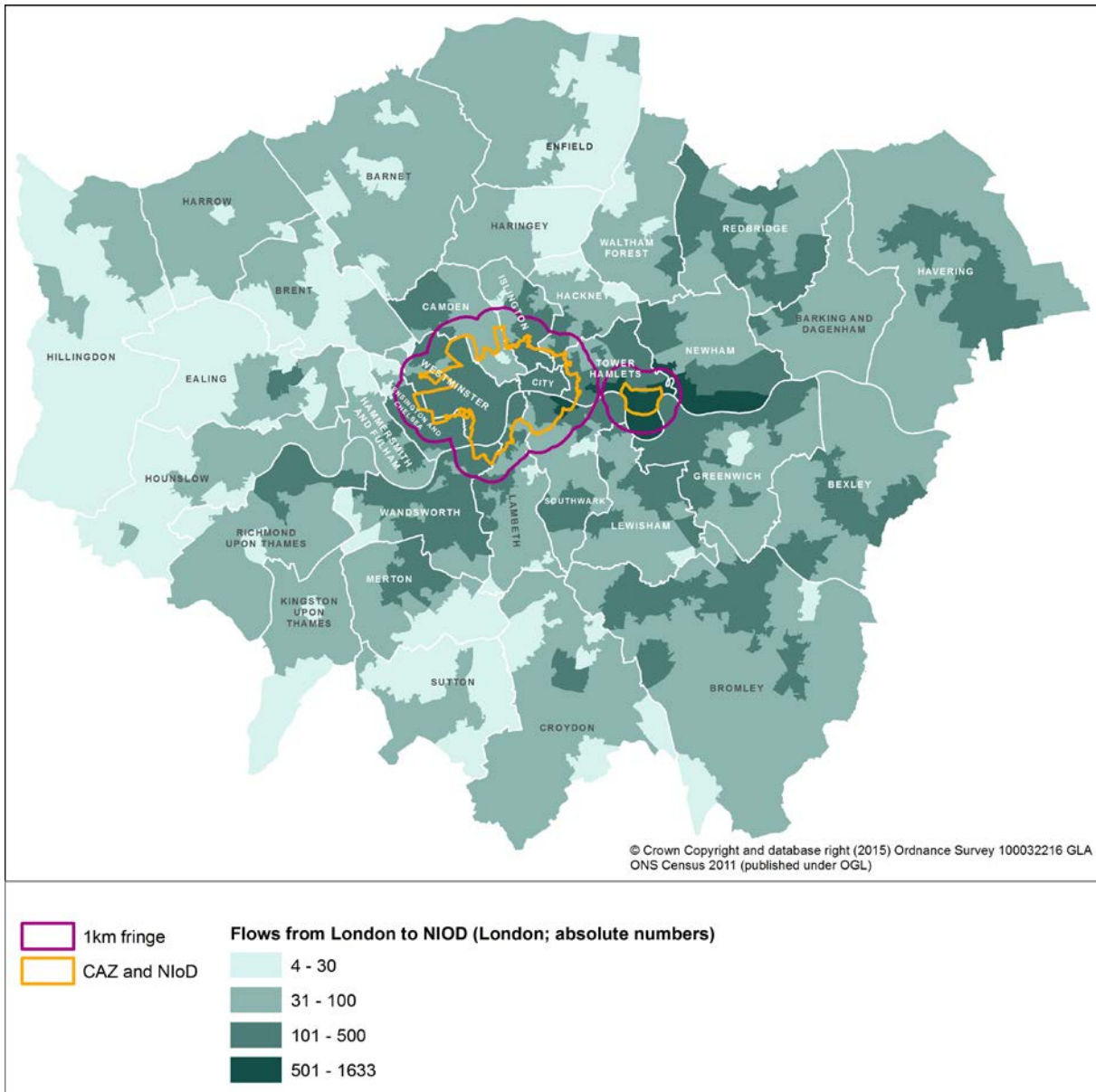
Source of workers by residence area	Number of workers working in the NIOD	As percentage of total workers working in the NIOD	Workers working in the NIOD as a percentage of total workers from home residence area
CAZ	4,997	4.5%	3.9%
CAZ 1km fringe	8,503	7.7%	3.2%
NIOD ³⁴	3,891	3.5%	31.9%
Works at home in the NIOD	878	0.8%	NA
NIOD 1km fringe	4,773	4.3%	12.3%
Rest of inner London	26,309	23.7%	2.2%
Outer London	32,915	29.7%	1.4%
UK outside London	28,545	25.8%	0.1%
Total identifiable workers	110,811	100%	0.4%

Source: Census and GLA Intelligence Unit analysis

³³ This number includes those workers who have no fixed place of work.

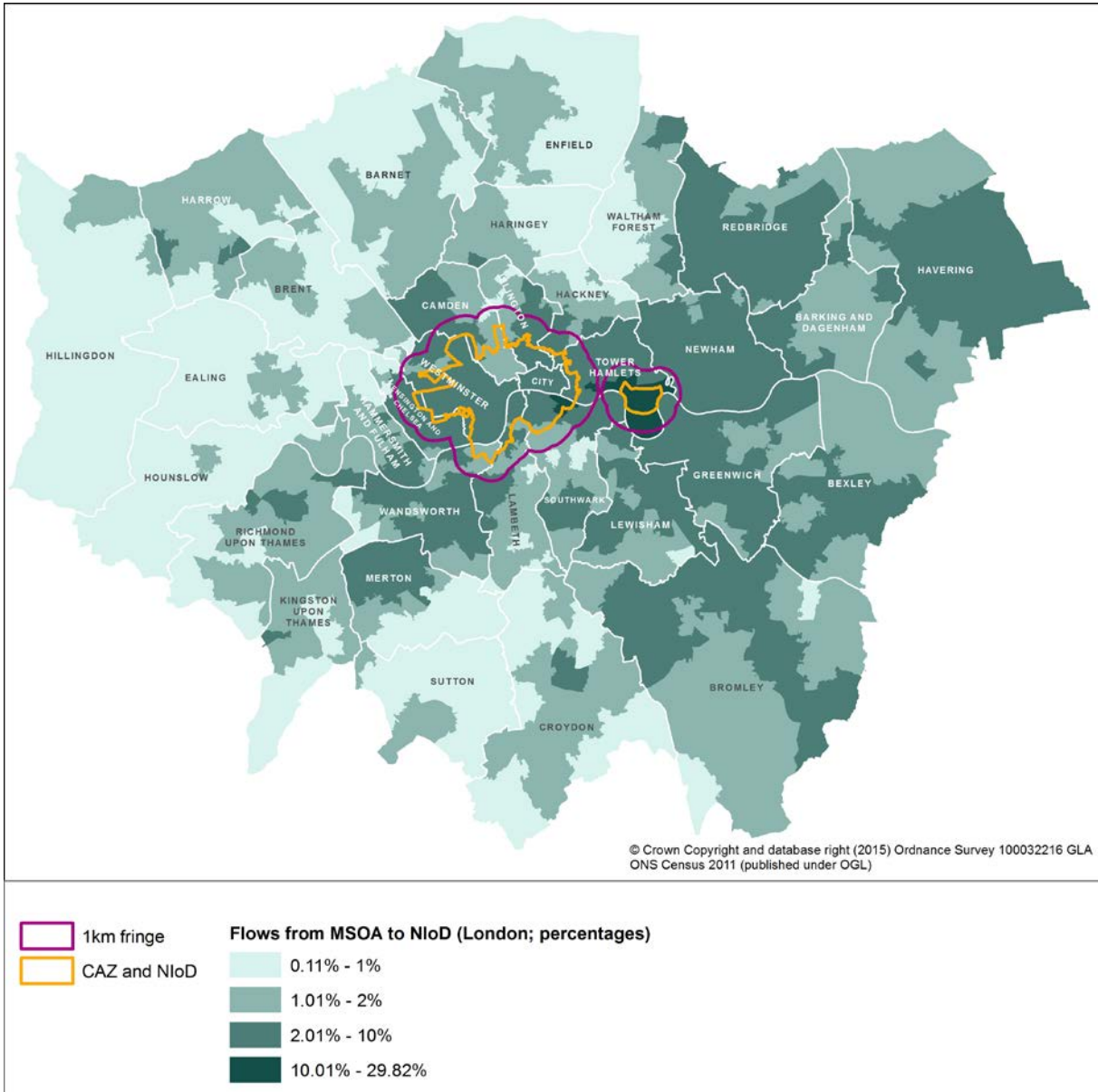
³⁴ This number includes those workers who have no fixed place of work.

Map 29: Workers in NIOD-based workplaces by residence origin in London, 2011, absolute numbers



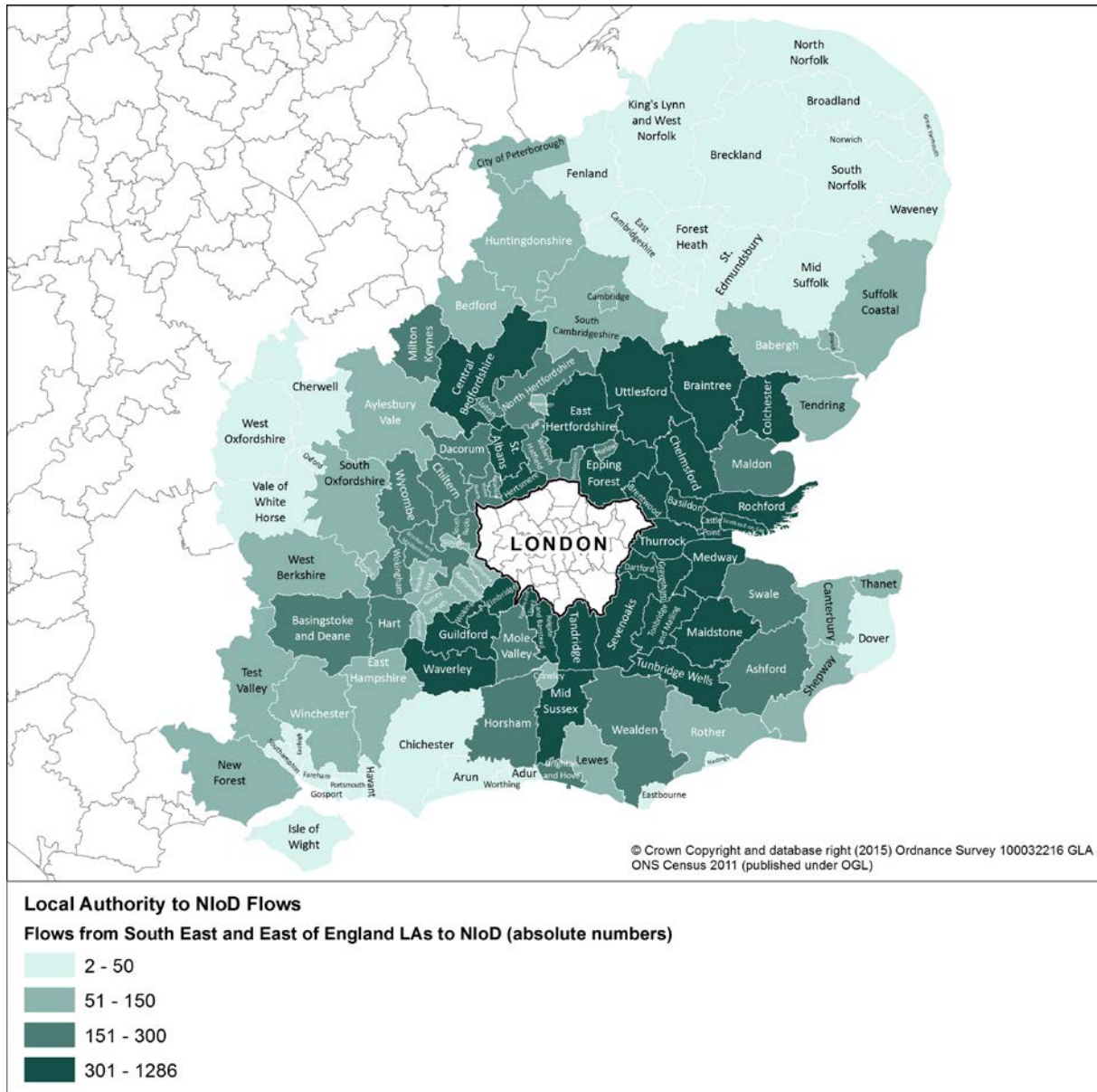
Source: Census and GLA Intelligence Unit analysis

Map 30: Workers in NIOD-based workplaces by residence origin in London, 2011, as percentage of an areas workforce



Source: Census and GLA Intelligence Unit analysis

Map 31: Workers in NIOD-based workplaces by residence origin in the Greater South East (excluding London), 2011, absolute numbers



Source: Census and GLA Intelligence Unit analysis

Map 32: Workers in NIOD-based workplaces by residence origin in the Greater South East (excluding London), 2011, as percentage of an areas workforce



Local Authority to NioD Flows

Flows from South East and East of England LAs to NioD (percentages)

Lightest Green	0% - 0.01%
Light Green	0.02% - 0.2%
Dark Green	0.21% - 0.5%
Darkest Green	0.51% - 2.32%

Source: Census and GLA Intelligence Unit analysis

Finally, Table 10 shows the source of workers in the fringe of the NIOD and again supports the assertion that the residence area of workers within the CAZ and NIOD is somewhat different than their immediate surrounding areas.

Table 10: Workers in the NIOD (approximately) 1km fringe-based workplaces by residence origin, 2011

Source of workers by residence area	Number of workers working in the NIOD fringe	As percentage of total workers working in the NIOD fringe	Workers working in the NIOD fringe as a percentage of total workers from home residence area
CAZ	279	1.0%	0.2%
CAZ 1km fringe	1,141	4.0%	0.4%
NIOD	401	1.4%	3.3%
NIOD 1km fringe ³⁵	5,774	20.5%	14.9%
Works at home in NIOD 1km fringe	2,720	9.6%	NA
Rest of inner London	6,160	21.8%	0.5%
Outer London	7,117	25.2%	0.3%
UK outside London	4,619	16.4%	0.0%
Total workers	28,211	100%	0.1%

Source: Census and GLA Intelligence Unit analysis

³⁵ This number includes those workers who have no fixed place of work.

Employment projections and long-run employee history for the CAZ and NIOD

As shown previously employment has been growing in the CAZ and NIOD and it is likely that employment will continue to grow. Employment projections for the area are set out in Table 11³⁶. It is important to note a couple of points in relation to these projections. First, these projections are based on land use, are trend based only and thus do not include accessibility or capacity constraints, and that these projections are not the ones that would be used for a replacement London Plan. Second, these projections have been produced on a finer detailed geography than the LSOA geography³⁷ used for employment and employee numbers provided elsewhere in this paper, and as also described by Maps A2 to A6 and Tables A1 to A4 in Appendix A. Thus although Table 12 sets out a longer-run employee jobs history for the CAZ and NIOD, these numbers along with the employment numbers for 2014 in Table 11 are not directly comparable with Tables 4 and 5 of this report.

Still, as can be observed from Table 11, these projections would suggest that the CAZ would see employment increase by nearly 18 per cent by the end of the projection period, a similar rate as seen in London as a whole, while the NIOD would see an around 75 per cent increase. Still it should be noted, that it is necessary to distinguish carefully between the GLA's long-term employment projections (on which these numbers are based) and an economic forecast (such as the GLA's medium-term planning projections that are published biannually³⁸). Trend projections, by definition, do not incorporate cyclical variations as a forecast would. The actual course of output and employment will vary around this trend. However, trend projections are essential for planning to provide capacity (such as office space, housing and transport) to accommodate the needs of the economy throughout and at the peak of the cycle, not just at its low points.

Table 11: Trend-based employment projections (2016 to 2036) for the CAZ, NIOD and London (thousand)

	2014	2016	2021	2026	2031	2036	Growth, 2014 to 2036	Percentage growth, 2014 to 2036	Annual average growth rate, 2014 to 2036
CAZ	1,886	1,915	1,989	2,064	2,141	2,218	332	17.6%	0.7%
NIOD	113	119	136	154	174	198	84	74.4%	2.6%
London	5,520	5,596	5,791	5,993	6,202	6,418	898	16.3%	0.7%

Source: GLA Economics using various ONS sources and modelling assumptions.

³⁶ For full details on the London and borough employment projections that these projections are based on see: Wickham, M., July 2015, '[Working Paper 67: Updated employment projections for London by sector and trend-based projections by borough](#)', GLA Economics.

³⁷ Depending on the year examined a number of different geography types were used in the analysis for Tables 11 and 12. In terms of the LSOA geography set out in Appendix A in Map A5 for the NIOD all or fractions of that geography was used in this analysis along with fractions of other LSOA's. The geography from the following LSOA's was thus used in whole or part in the analysis for Tables 11 & 12: E01004277, E01004221, E01004255, E01004279, E01004278, E01004256, E01004258, E01004220, E01004219, E01004215, E01004257, E01004214, E01004254, & E01004252.

³⁸ For the latest (at time of publication) GLA medium term forecast for London only covering the years 2015 to 2017 see: GLA Economics, May 2015, '[London's Economic Outlook: Spring 2015](#)'.

Table 12: Historic employee³⁹ only estimates (1981 to 2014) for the CAZ and NIOD (thousand)

	1981	1991	2001	2011	2012	2013	2014	Growth, 1981 to 2014	Percentage growth, 1981 to 2014	Annual average growth rate, 1981 to 2014
CAZ	1,287	1,141	1,306	1,505	1,551	1,608	1,662	375	29.2%	0.8%
NIOD	3.2	7.3	40.1	95.3	96.9	104.4	105.5	102	3185.6%	11.2%

Source: GLA Economics using various ONS sources and modelling assumptions.

³⁹ It should be noted that this historic data is for employee jobs only.

The Residents of the CAZ, NIOD and their fringes

Despite its importance as a centre of business activity the CAZ, NIOD and their fringes are also home to a significant number of people with this population increasing, between 2001 and 2011 (as was the case for London as a whole). Table 13 shows the population in the CAZ, NIOD, their fringes, the rest of inner London, outer London and London as a whole in 2001 and 2011. As can be seen although the CAZ and its fringe is home to a small proportion of London's population this population has increased at a faster rate than London as a whole for the CAZ but at a slightly slower rate than London as a whole for the fringe of the CAZ. While looking even further back the population of the CAZ has nearly doubled since 1981 when it stood at 141,128 with its fringe having a population then of 378,361. For the NIOD and its fringe the population growth is very noticeable in the decade between 2001 and 2011 (although from a small starting population) with the NIOD seeing a doubling of its population between 2001 and 2011, while its fringe saw its population go up by more than a third. This population growth is also evident when examining the situation in 1981 when the NIOD and its fringe contained populations of 5,683 and 36,959 respectively.

Table 13: Resident population in the CAZ, NIOD, their approximately 1km fringes, the rest of inner London, outer London and London, 2001 and 2011

	2001	2011	Change between 2001 & 2011
CAZ	196,012	237,534	21.2%
CAZ 1km fringe	459,701	517,564	12.6%
NIOD	10,029	20,163	101.0%
NIOD 1km fringe	59,269	79,607	34.3%
Rest of inner London	2,041,235	2,377,037	16.5%
Outer London	4,406,309	4,942,040	12.2%
London	7,172,091	8,173,941	14.0%

Source: Census

The 2013 round of GLA (trend-based) population projections⁴⁰ show that this fast population increase for the CAZ should continue, with the population of the CAZ projected to increase by around 36 per cent from 2011 to 2041, whereas London's population is projected to increase by 26 per cent and the rest of inner London excluding the CAZ⁴¹ by 23 per cent⁴².

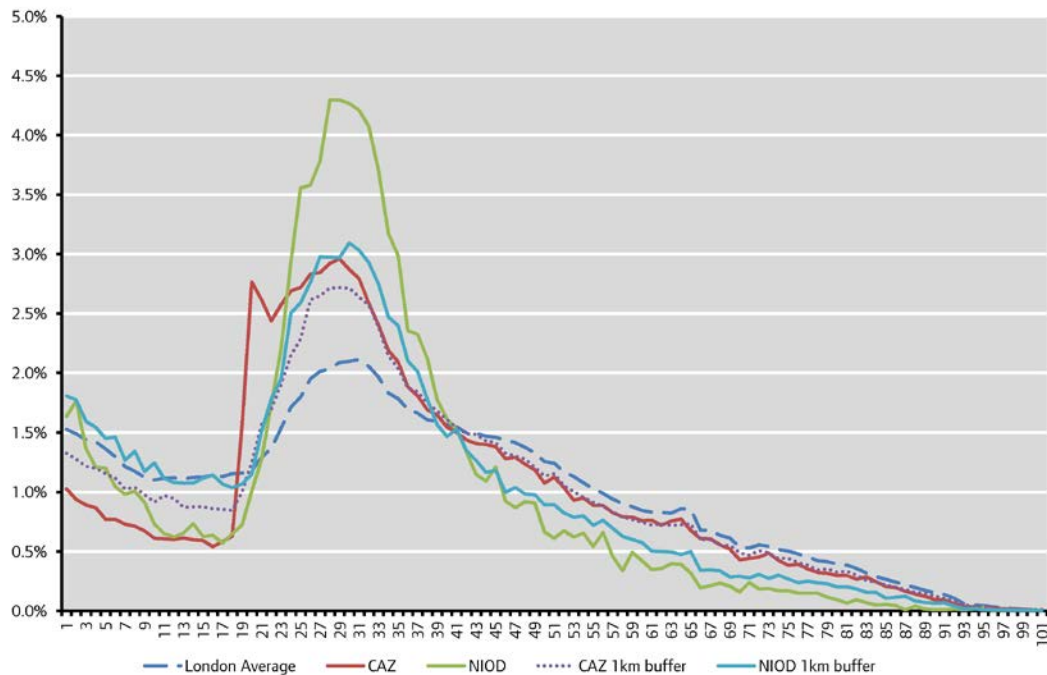
However, as shown by Chart 1, the population of the CAZ, NIOD and their fringes is generally more skewed to a population in their 20s and 30s than London as a whole; while London's population has more under-18s than the CAZ, its fringe and the NIOD but not the NIOD's fringe. London also has more over 40s as a percentage of the population than seen in the CAZ, NIOD and their fringes.

⁴⁰ This is the latest set of Further Alterations to the London Plan consistent with GLA trend-based population projections at the time of publication. Note that the starting population for 2011 is slightly different than the population figure derived from census data, the projected growth given from this data should therefore be used with some extra caution when combining it with population data given elsewhere in this paper.

⁴¹ This estimate for inner London also includes the CAZ's fringe and the NIOD and its fringe.

⁴² The ward based projections (rather than OA or LSOA analysis used in much of the rest of this paper) used to calculate these growth rates can be found here: <http://data.london.gov.uk/dataset/2013-round-population-projections/resource/bd47d9ac-032c-4419-ac56-f57d9d2e8225>. Note that these projections do not include a direct population projection for the CAZ, which instead was derived from the relevant projections for the constituent geography of the CAZ. Further note, that given the nature of these projections, projected growth rates for the NIOD and the fringes of the CAZ and NIOD could not be produced.

Chart 1: Age structure of the resident population in the CAZ, NIOD, their approximately 1km fringes and London (as a percent of the area’s population), 2011



Source: Census

The CAZ, NIOD and their fringes have a higher population density than London as a whole, with this density having increased over the ten years from 2001 to 2011, as shown by Table 14. The CAZ, though, has a lower population density than the rest of inner London, although its fringe has a higher density, and the rate of population density increase over the ten years to 2011 was faster in the CAZ than that seen in the rest of inner London. Examining the NIOD and its fringe it can be observed that in 2011 they both had higher population densities than the rest of inner London, which was also the case in 2001 for the fringe of the NIOD but not the NIOD itself which saw a more than doubling of its population density over the years 2001 to 2011.

Table 14: Resident population density (by population per hectare) in the CAZ, NIOD, their approximately 1km fringes, the rest of inner London, outer London and London, 2001 and 2011

	2001	2011	Change between 2001 & 2011
CAZ	66.1	80.1	21.2%
CAZ 1km fringe	125.0	140.7	12.6%
NIOD	49.6	99.7	101.0%
NIOD 1km fringe	88.2	118.5	34.3%
Rest of inner London	83.6	97.4	16.5%
Outer London	35.2	39.4	12.2%
London	45.6	52.0	14.0%

Source: Census

However, as shown by Table 15, average household sizes in the CAZ, its fringe and the NIOD are lower than in London as a whole, although the NIOD's fringe has an average household size relatively similar to London as a whole although slightly higher than that seen in the rest of inner London.

Table 16 shows the percentage of households that are deprived by different dimensions⁴³ in the CAZ, NIOD, their fringes, the rest of inner London, outer London and London as a whole and shows that the CAZ and NIOD suffer similar levels of deprivation to London as a whole.

Table 15: Households and average household size in the CAZ, NIOD, their approximately 1km fringes, the rest of inner London, outer London and London, 2001 and 2011

		2001	2011	Change between 2001 & 2011
CAZ	All Households	95,361	113,498	19.0%
	Average household size	1.89	1.94	2.6%
CAZ 1km fringe	All Households	4,512	9,765	116.4%
	Average household size	2.21	2.06	-6.7%
NIOD	All Households	213,728	233,670	9.3%
	Average household size	2.11	2.18	3.2%
NIOD 1km fringe	All Households	24,315	31,575	29.9%
	Average household size	2.42	2.51	3.9%
Rest of inner London	All Households	882,045	975,312	10.6%
	Average household size	2.29	2.41	5.4%
Outer London	All Households	1,796,276	1,902,356	5.9%
	Average household size	2.43	2.57	5.9%
London	All Households	3,015,997	3,266,173	8.3%
	Average household size	2.35	2.47	5.1%

Source: Census

⁴³ A household can be classified by one or more of the following dimensions of deprivation by the census: employment, education, health and disability, and housing.

Table 16: Percentage of households in different dimensions of deprivation in the CAZ, NIOD, their approximately 1km fringes, the rest of inner London, outer London and London, 2011

	CAZ	CAZ 1km fringe	NIOD	NIOD 1km fringe	Rest of inner London	Outer London	London
Household is not deprived in any dimension	38.5%	37.0%	40.4%	35.2%	37.9%	40.6%	39.4%
Household is deprived in 1 dimension	38.2%	35.3%	40.3%	34.3%	33.8%	34.0%	34.2%
Household is deprived in 2 dimensions	16.3%	18.7%	13.6%	20.3%	19.6%	19.2%	19.2%
Household is deprived in 3 dimensions	5.9%	7.6%	4.8%	8.8%	7.4%	5.5%	6.3%
Household is deprived in 4 dimensions	1.1%	1.3%	1.0%	1.3%	1.2%	0.7%	0.9%

Source: Census and GLA Intelligence Unit analysis

Looking at the workplace destination of residence of the CAZ, NIOD and their fringes we see from Table 17 (as was also shown above) that a number of residents in these areas either work in the CAZ or NIOD, however a number of other destination areas are also seen. While Table 18 looks at the occupation type of 16 to 74 year old residents of the CAZ, NIOD, their fringes, the rest of inner London, outer London and London as a whole. As can be observed the CAZ, NIOD and the fringe to the CAZ have more residents that are Managers and senior officers, that are in Professional occupations or are in Associate professional and technical occupations than London as a whole; whereas this is not as noticeable in the fringe to the NIOD.

The difference and similarities to the rest of London of the population of the CAZ, NIOD and their fringes can also be seen from maps showing the population density and the nature of owner occupancy in London which are provided in Appendix D.

Table 17: Work place destination of workers (in absolute terms and as a percentage of total source areas worker population) from the CAZ, NIOD and their approximately 1km fringes, 2011

	CAZ	As per cent of total CAZ resident workers	CAZ 1km fringe	As per cent of total CAZ 1km fringe resident workers	NIOD	As per cent of total NIOD resident workers	NIOD 1km fringe	As per cent of total NIOD 1km fringe resident workers
CAZ	66,212	52.2%	111,808	42.4%	4,476	36.7%	13,680	35.2%
CAZ 1km fringe	9,439	7.4%	33,086	12.5%	584	4.8%	2,837	7.3%
NIOD	4,997	3.9%	8,503	3.2%	3,076	25.2%	4,773	12.3%
NIOD 1km fringe	279	0.2%	1,141	0.4%	401	3.3%	2,290	5.9%
Inner London	9,918	7.8%	31,289	11.9%	937	7.7%	5,087	13.1%
Outer London	5,948	4.7%	15,122	5.7%	554	4.5%	2,322	6.0%
Outside London (within UK)	4,511	3.6%	9,205	3.5%	387	3.2%	1,481	3.8%
Mainly work at or from home	15,624	12.3%	30,615	11.6%	878	7.2%	2,720	7.0%
No fixed place	9,042	7.1%	21,415	8.1%	815	6.7%	3,484	9.0%
Offshore installation	453	0.4%	815	0.3%	47	0.4%	98	0.3%
Outside UK	418	0.3%	739	0.3%	34	0.3%	59	0.2%
Total	126,841	100%	263,738	100%	12,189	100%	38,831	100%

Source: Census and GLA Intelligence Unit analysis

Table 18: Residents aged 16 to 74 by occupation type in the CAZ, NIOD, their approximately 1km fringes, the rest of inner London, outer London and London, 2011

	CAZ	As per cent of total	CAZ 1km fringe	As per cent of total	NIOD	As per cent of total	NIOD 1km fringe	As per cent of total	Rest of inner London	As per cent of total	Outer London	As per cent of total	London	As per cent of total
Total	198,075	100%	404,723	100%	16,602	100%	59,769	100%	1,801,534	100%	3,569,961	100%	6,050,662	100.0%
Managers & Senior Officers	21,361	10.8%	40,264	9.9%	2,150	13.0%	4,373	7.3%	135,363	7.5%	260,761	7.3%	464,272	7.7%
Professional Occupations	38,079	19.2%	67,211	16.6%	3,795	22.9%	9,996	16.7%	299,908	16.6%	479,030	13.4%	898,018	14.8%
Associate Professional & Technical Occupations	28,384	14.3%	564,44	13.9%	2,822	17.0%	7,006	11.7%	227,284	12.6%	329,118	9.2%	651,058	10.8%
Administrative & Secretarial Occupations	10,920	5.5%	22,827	5.6%	1,079	6.5%	4,042	6.8%	119,451	6.6%	308,169	8.6%	466,488	7.7%
Skilled Trades Occupations	4,880	2.5%	12,698	3.1%	385	2.3%	2,503	4.2%	82,449	4.6%	229,759	6.4%	332,674	5.5%
Personal Service Occupations	6,278	3.2%	16,619	4.1%	444	2.7%	2,342	3.9%	90,156	5.0%	198,184	5.6%	314,023	5.2%
Sales & Customer Service Occupations	6,205	3.1%	15,564	3.8%	485	2.9%	2,738	4.6%	83,751	4.6%	190,479	5.3%	299,222	4.9%
Process, Plant & Machine Operatives	2,580	1.3%	6,940	1.7%	237	1.4%	1,575	2.6%	42,492	2.4%	135,300	3.8%	189,123	3.1%
Elementary Occupations	8,439	4.3%	21,950	5.4%	630	3.8%	3,569	6.0%	118,697	6.6%	230,735	6.5%	384,019	6.3%
Unemployed	8,506	4.3%	21,638	5.3%	878	5.3%	4,308	7.2%	105,761	5.9%	177,408	5.0%	318,500	5.3%
Retired	10,975	5.5%	25,929	6.4%	454	2.7%	2,857	4.8%	116,479	6.5%	355,363	10.0%	512,057	8.5%
Student	31,259	15.8%	40,710	10.1%	1,340	8.1%	4,952	8.3%	146,781	8.1%	252,502	7.1%	477,543	7.9%
Other Economic Inactive	20,209	10.2%	55,929	13.8%	1,903	11.5%	9,508	15.9%	232,962	12.9%	423,153	11.9%	743,665	12.3%

Source: Census and GLA Intelligence Unit analysis

Conclusion

This paper has looked at the economy of the CAZ, NIOD and their fringes in terms of output and employment. It showed that in terms of output this area was highly important to London's economy with it accounting for nearly 55 per cent of London's GVA in 2012 and just over 12 per cent of the UK's output. In terms of employment the area accounted for around 45 per cent of London's employment, while the CAZ alone accounted for around 5 per cent of UK employment implying the importance of these areas to London's economy. However, this higher output percentage to employment would also highlight that the CAZ, NIOD and their fringes are relatively more productive than London as a whole. Analysis was also undertaken to show the impact of agglomeration economies on the grouping of industries within this geography, while employment projections were given that project that employment will grow substantially in the CAZ and especially the NIOD by 2036. Finally, demographic data on this area again showed the generally different nature of the CAZ, its fringe and the NIOD to London as a whole. Thus, for instance, as a percentage of the resident population more people in the CAZ and NIOD classed their occupation as being Managers & senior officers, or in Professional occupations, or Associate professional & technical occupations, than in London as a whole. The analysis in this paper would therefore indicate that any complete picture of London and its economy cannot afford to ignore this relatively small but highly important geographic area.

Appendix A: The geography used in the analysis of the CAZ, NIOD and their approximately 1km fringes

The areas analysed in this paper constitute non-standard geographies and as such no official statistics are produced on their populations or characteristics. Data must therefore be created for the areas by aggregating from smaller geographies. In order to ensure the most accurate estimates are calculated the smallest available geography should be used. Census data are available at the smallest level statistical geography, OA. However, BRES data are available at the larger LSOA level⁴⁴. As a result there are two main aggregations used in this report: one based on OAs and one based on LSOAs.

Allocation of OA data

Census data, available at OA level, were allocated using a household-weighting methodology. For each OA a count of addresses was taken using Address Point data. The proportion of these addresses which fell within each area was used as a weighting to determine how much of the OA's population was allocated to each. This methodology provides the most accurate estimates of the CAZ, NIOD and associated areas.

Allocation of LSOA data

LSOA data were allocated using the best-fit method which distributes population using population-weighted centroids (PWC). PWCs are point-level data produced by the ONS and provide a centre point for each OA based on where the population of the area resides. This point data is overlaid onto the CAZ boundary and any point which falls inside is attributed to the CAZ.

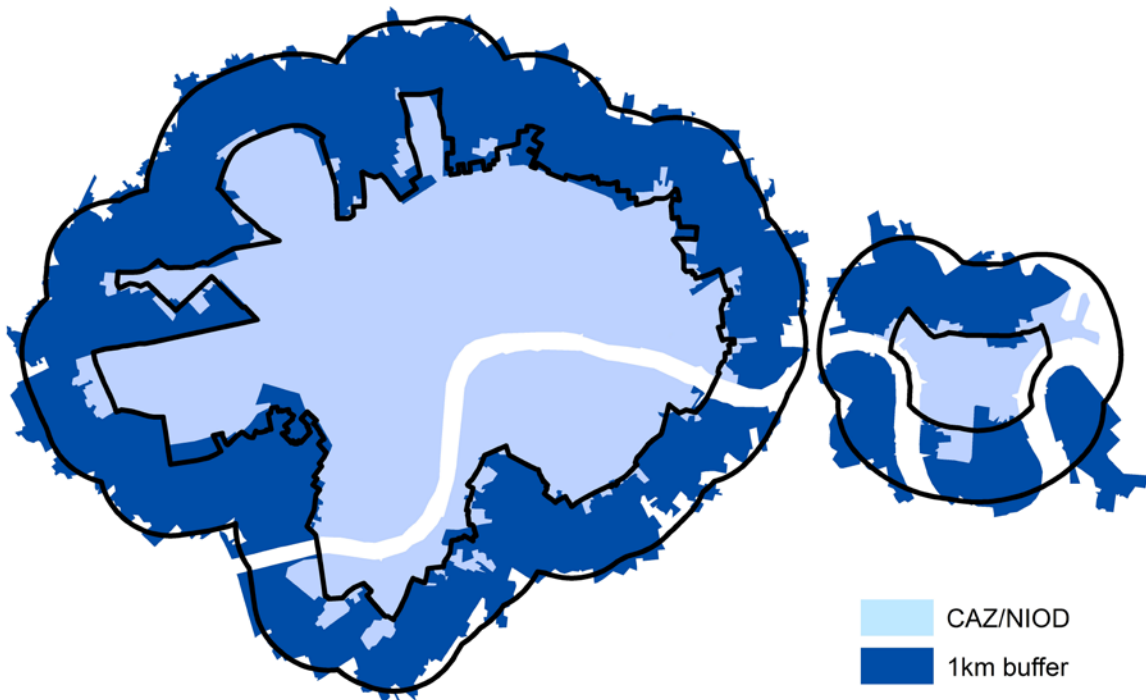
Map A1 provides a visual indication of the accuracy of the best fitting method. The line represents the real areas of the CAZ, NIOD and their fringes while the colour represents LSOAs used for aggregation.

Origin-Destination Data

OD data is a complex dataset which uses census outputs to provide details of commuter flows. At the time of writing the flow data were available at MSOA geography and were allocated to CAZ areas based on the best fit methodology. Future releases of data at lower geographies may make more accurate estimates possible.

⁴⁴ For further details see: [ONS, Super Output Area \(SOA\)](#).

Map A1: Accuracy of LSOA best fitting



The LSOA geography of the CAZ, NIOD and their approximately 1km fringes

The maps and tables below set out in more detail the LSOA geography that was used in the BRES analysis in this paper.

Map A2: The LSOA geography of the CAZ

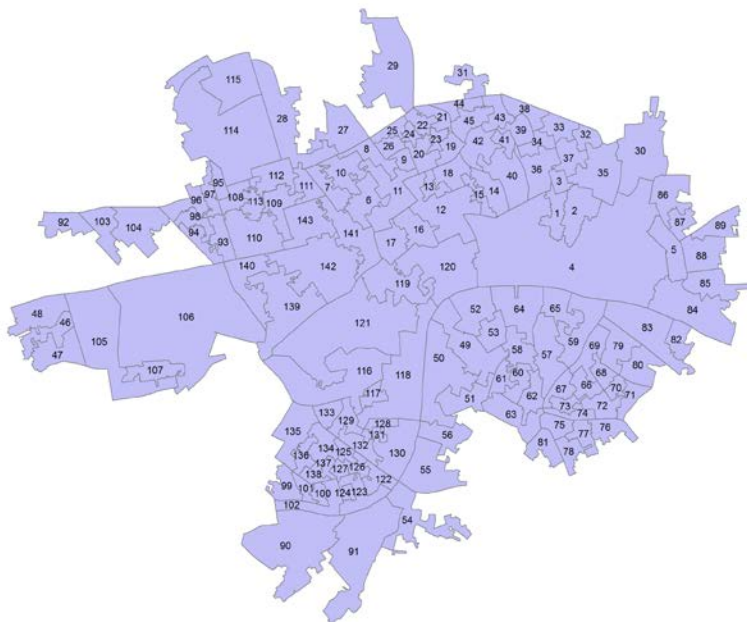


Table A1: The LSOA geography of the CAZ and legend to Map A2

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01000001	1	E01002706	37	E01003943	73	E01004713	109
E01000002	2	E01002707	38	E01003944	74	E01004714	110
E01000003	3	E01002723	39	E01003959	75	E01004715	111
E01000004	4	E01002724	40	E01003960	76	E01004716	112
E01000005	5	E01002725	41	E01003962	77	E01004717	113
E01000850	6	E01002726	42	E01003965	78	E01004727	114
E01000851	7	E01002727	43	E01003981	79	E01004730	115
E01000852	8	E01002728	44	E01003982	80	E01004731	116
E01000853	9	E01002729	45	E01003996	81	E01004732	117
E01000854	10	E01002824	46	E01004025	82	E01004733	118
E01000855	11	E01002826	47	E01004027	83	E01004734	119
E01000914	12	E01002827	48	E01004293	84	E01004735	120
E01000915	13	E01003012	49	E01004294	85	E01004736	121
E01000916	14	E01003013	50	E01004307	86	E01004737	122
E01000917	15	E01003014	51	E01004310	87	E01004738	123
E01000918	16	E01003016	52	E01004320	88	E01004739	124
E01000919	17	E01003017	53	E01004325	89	E01004740	125
E01000920	18	E01003103	54	E01004561	90	E01004741	126
E01000936	19	E01003109	55	E01004562	91	E01004742	127
E01000937	20	E01003112	56	E01004656	92	E01004743	128
E01000938	21	E01003927	57	E01004657	93	E01004744	129
E01000939	22	E01003928	58	E01004658	94	E01004745	130
E01000940	23	E01003929	59	E01004660	95	E01004746	131
E01000941	24	E01003930	60	E01004661	96	E01004747	132
E01000942	25	E01003931	61	E01004662	97	E01004748	133
E01000943	26	E01003932	62	E01004663	98	E01004749	134
E01000945	27	E01003933	63	E01004664	99	E01004750	135
E01000946	28	E01003934	64	E01004665	100	E01004751	136
E01000953	29	E01003935	65	E01004668	101	E01004752	137
E01001771	30	E01003936	66	E01004669	102	E01004753	138
E01002695	31	E01003937	67	E01004681	103	E01004761	139
E01002701	32	E01003938	68	E01004685	104	E01004762	140
E01002702	33	E01003939	69	E01004688	105	E01004763	141
E01002703	34	E01003940	70	E01004689	106	E01004764	142
E01002704	35	E01003941	71	E01004692	107	E01004765	143
E01002705	36	E01003942	72	E01004712	108		

Map A3: The LSOA geography of an approximately 1km fringe around the CAZ

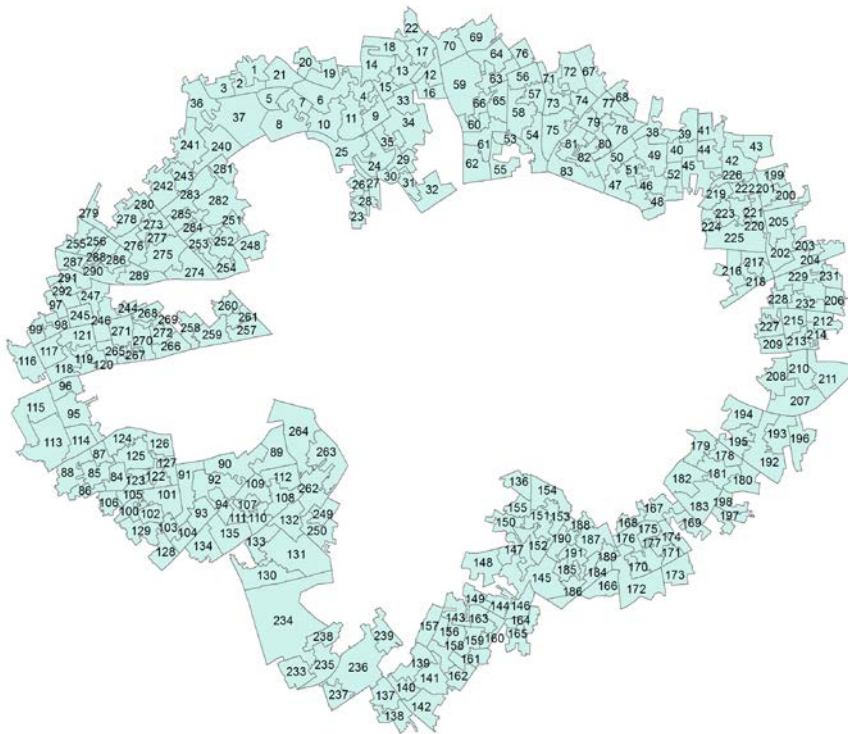


Table A2: The LSOA geography of an approximately 1km fringe around the CAZ and legend to Map A3

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01000845	1	E01002793	74	E01003101	147	E01004312	220
E01000846	2	E01002794	75	E01003102	148	E01004313	221
E01000847	3	E01002796	76	E01003104	149	E01004314	222
E01000856	4	E01002797	77	E01003105	150	E01004315	223
E01000857	5	E01002798	78	E01003106	151	E01004316	224
E01000858	6	E01002799	79	E01003107	152	E01004317	225
E01000859	7	E01002800	80	E01003108	153	E01004318	226
E01000860	8	E01002801	81	E01003110	154	E01004319	227
E01000861	9	E01002802	82	E01003111	155	E01004321	228
E01000862	10	E01002803	83	E01003121	156	E01004322	229
E01000863	11	E01002812	84	E01003122	157	E01004323	230
E01000864	12	E01002813	85	E01003123	158	E01004324	231
E01000865	13	E01002815	86	E01003124	159	E01004326	232
E01000866	14	E01002816	87	E01003125	160	E01004539	233
E01000867	15	E01002817	88	E01003126	161	E01004560	234
E01000868	16	E01002818	89	E01003128	162	E01004563	235
E01000869	17	E01002819	90	E01003129	163	E01004564	236
E01000870	18	E01002820	91	E01003181	164	E01004565	237
E01000904	19	E01002821	92	E01003185	165	E01004566	238
E01000905	20	E01002822	93	E01003923	166	E01004567	239

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01000906	21	E01002823	94	E01003961	167	E01004647	240
E01000926	22	E01002825	95	E01003963	168	E01004649	241
E01000944	23	E01002828	96	E01003966	169	E01004650	242
E01000947	24	E01002829	97	E01003967	170	E01004651	243
E01000948	25	E01002832	98	E01003968	171	E01004652	244
E01000949	26	E01002833	99	E01003969	172	E01004653	245
E01000950	27	E01002834	100	E01003970	173	E01004654	246
E01000951	28	E01002835	101	E01003971	174	E01004655	247
E01000952	29	E01002836	102	E01003972	175	E01004659	248
E01000954	30	E01002837	103	E01003973	176	E01004666	249
E01000955	31	E01002838	104	E01003974	177	E01004667	250
E01000956	32	E01002839	105	E01003975	178	E01004670	251
E01000957	33	E01002850	106	E01003976	179	E01004671	252
E01000958	34	E01002858	107	E01003977	180	E01004672	253
E01000959	35	E01002859	108	E01003978	181	E01004673	254
E01000963	36	E01002860	109	E01003979	182	E01004675	255
E01000967	37	E01002861	110	E01003980	183	E01004676	256
E01001752	38	E01002862	111	E01003991	184	E01004680	257
E01001754	39	E01002863	112	E01003992	185	E01004682	258
E01001755	40	E01002864	113	E01003993	186	E01004683	259
E01001773	41	E01002865	114	E01003994	187	E01004684	260
E01001774	42	E01002868	115	E01003995	188	E01004686	261
E01001775	43	E01002875	116	E01003997	189	E01004687	262
E01001776	44	E01002882	117	E01003998	190	E01004690	263
E01001777	45	E01002883	118	E01003999	191	E01004691	264
E01001778	46	E01002884	119	E01004022	192	E01004693	265
E01001779	47	E01002885	120	E01004023	193	E01004694	266
E01001780	48	E01002886	121	E01004026	194	E01004695	267
E01001781	49	E01002887	122	E01004028	195	E01004696	268
E01001782	50	E01002888	123	E01004034	196	E01004697	269
E01001783	51	E01002889	124	E01004039	197	E01004698	270
E01001784	52	E01002890	125	E01004044	198	E01004699	271
E01002694	53	E01002891	126	E01004200	199	E01004700	272
E01002696	54	E01002892	127	E01004203	200	E01004701	273
E01002697	55	E01002895	128	E01004204	201	E01004702	274
E01002698	56	E01002898	129	E01004205	202	E01004703	275
E01002699	57	E01002900	130	E01004206	203	E01004704	276
E01002700	58	E01002901	131	E01004208	204	E01004705	277
E01002708	59	E01002902	132	E01004211	205	E01004707	278
E01002709	60	E01002903	133	E01004287	206	E01004708	279
E01002710	61	E01002910	134	E01004291	207	E01004709	280
E01002711	62	E01002914	135	E01004292	208	E01004724	281
E01002712	63	E01003015	136	E01004295	209	E01004725	282
E01002713	64	E01003034	137	E01004296	210	E01004726	283
E01002714	65	E01003036	138	E01004297	211	E01004728	284
E01002715	66	E01003089	139	E01004298	212	E01004729	285
E01002719	67	E01003091	140	E01004301	213	E01004754	286
E01002722	68	E01003092	141	E01004302	214	E01004755	287

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01002765	69	E01003095	142	E01004304	215	E01004756	288
E01002766	70	E01003097	143	E01004306	216	E01004757	289
E01002790	71	E01003098	144	E01004308	217	E01004758	290
E01002791	72	E01003099	145	E01004309	218	E01004759	291
E01002792	73	E01003100	146	E01004311	219	E01004760	292

Map A4: The LSOA geography of the NIOD

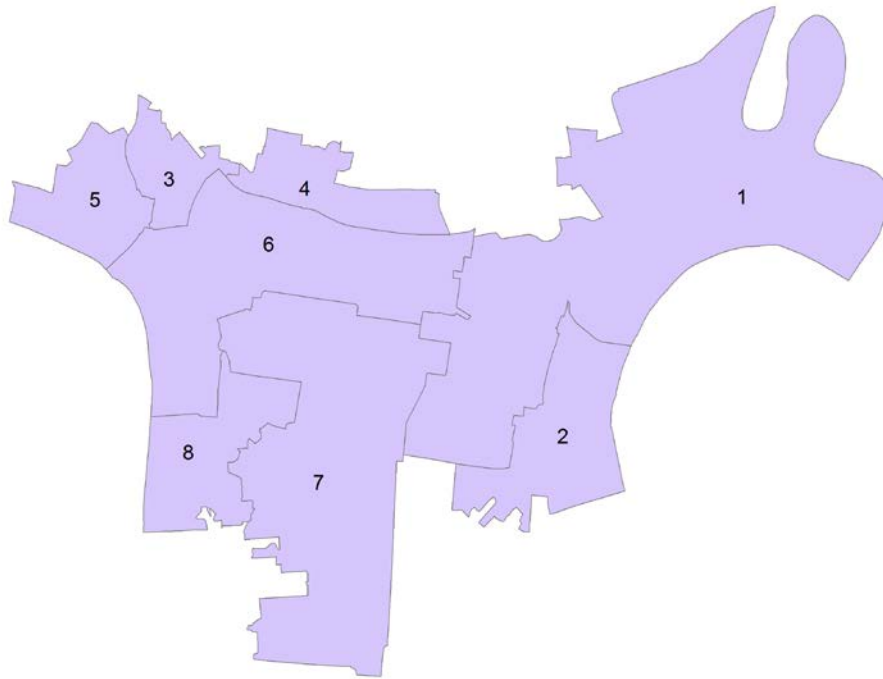


Table A3: The LSOA geography of the NIOD and legend to Map A4

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01004220	1	E01004255	3	E01004258	5	E01004278	7
E01004221	2	E01004256	4	E01004277	6	E01004279	8

Map A5: The LSOA geography of an approximately 1km fringe around the NIOD⁴⁵

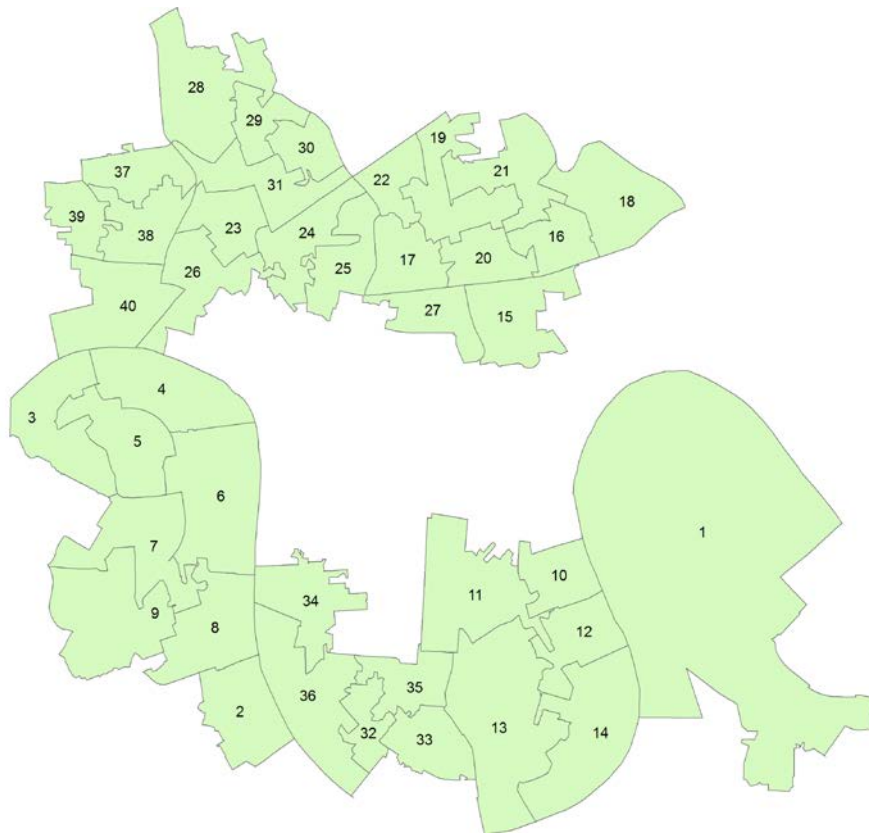


Table A4: The LSOA geography of an approximately 1km fringe around the NIOD and legend to Map A5

LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.	LSOA Geography	Map Ref.
E01001667	1	E01004215	11	E01004249	21	E01004273	31
E01003249	2	E01004216	12	E01004250	22	E01004274	32
E01004053	3	E01004217	13	E01004251	23	E01004275	33
E01004054	4	E01004218	14	E01004252	24	E01004280	34
E01004055	5	E01004219	15	E01004253	25	E01004281	35
E01004056	6	E01004243	16	E01004254	26	E01004282	36
E01004057	7	E01004244	17	E01004257	27	E01004285	37
E01004058	8	E01004245	18	E01004270	28	E01004286	38
E01004059	9	E01004246	19	E01004271	29	E01004288	39
E01004214	10	E01004247	20	E01004272	30	E01004299	40

⁴⁵ The gap in the map of this fringe is due to how the zones were identified for inclusion in the relevant geographies. Essentially each area polygon is represented by a single point and the position of that point determines whether the whole area is in the NIOD, in the fringe or outside both. The gap in the NIOD fringe is due to the fact that this area's point is actually within the NIOD itself and the next area beyond the gap is too far away to be considered the fringe (i.e. more than 1km).

The relationship of the MSOA geography of the CAZ and NIOD to the LSOA geography of the CAZ and NIOD

In order to perform analysis of unit business counts in the CAZ and NIOD a larger geography than the LSOA geography had to be used. This was the MSOA geography. As can be seen from Map A6 below the MSOA geography used covered all of the CAZ and NIOD and significant portions of their fringes. Tables A5 and A6 sets out the MSOA geography used for the CAZ and NIOD respectively in this analysis.

Map A6: The relationship between the MSOA geography and the CAZ and NIOD

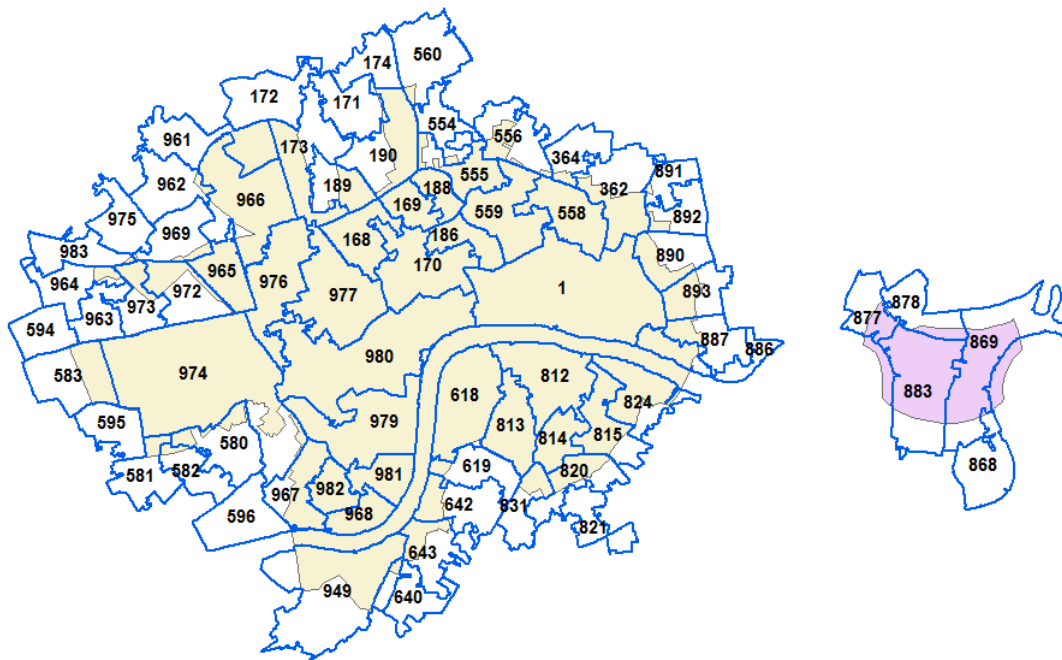


Table A5: The MSOA geography of the CAZ and part legend to Map A6

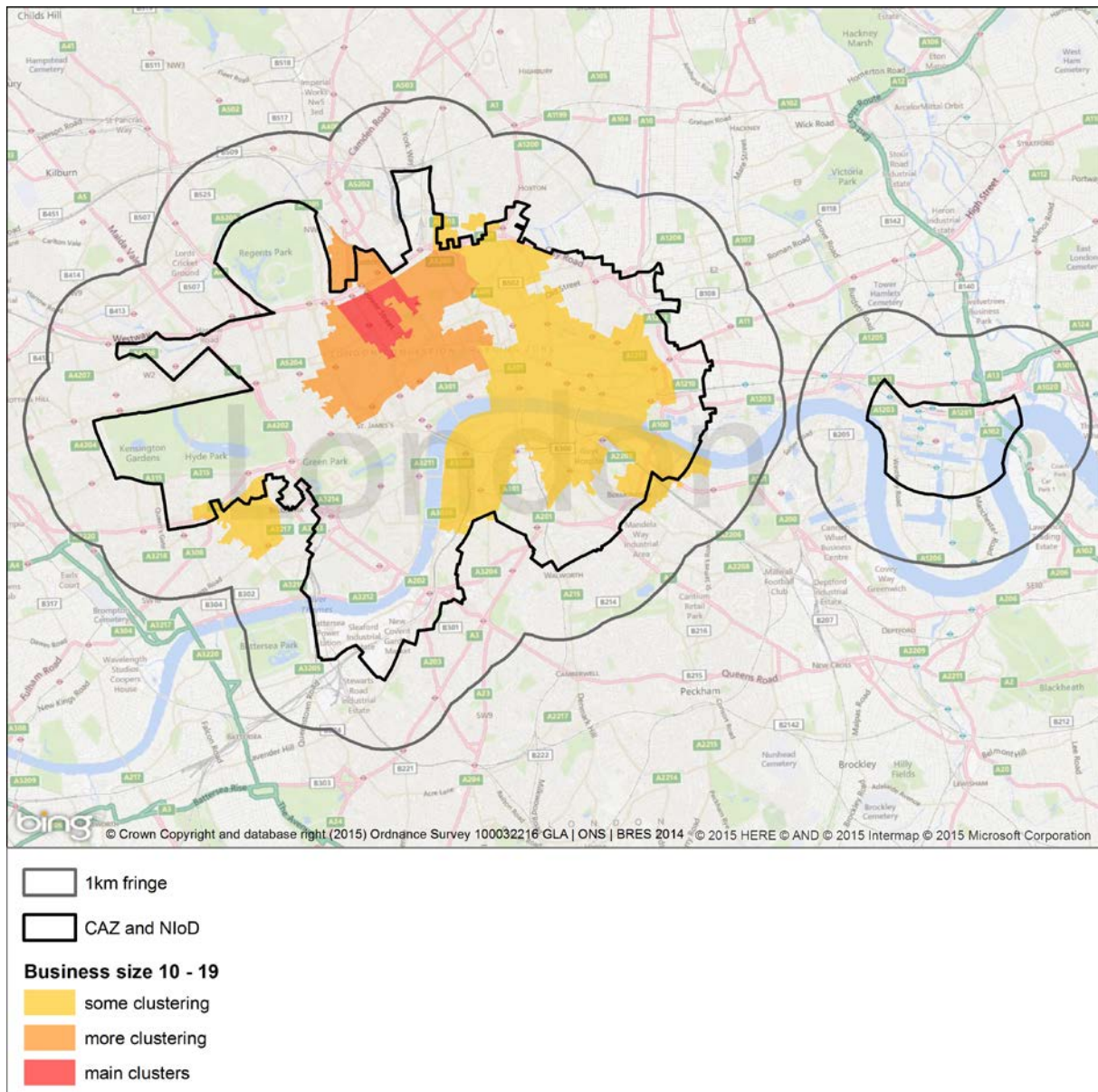
MSOA Geography	Map Ref.	MSOA Geography	Map Ref.	MSOA Geography	Map Ref.	MSOA Geography	Map Ref.
E02000001	1	E02000574	555	E02000811	813	E02000968	969
E02000180	174	E02000575	559	E02000812	815	E02000969	983
E02000183	172	E02000576	558	E02000815	814	E02000970	976
E02000184	171	E02000582	594	E02000818	820	E02000971	965
E02000186	173	E02000584	583	E02000820	831	E02000972	977
E02000187	190	E02000586	595	E02000822	821	E02000973	964
E02000188	189	E02000588	580	E02000869	891	E02000974	972
E02000189	188	E02000590	582	E02000872	892	E02000975	973
E02000190	169	E02000592	581	E02000878	890	E02000976	963
E02000191	168	E02000594	596	E02000884	893	E02000977	980
E02000192	186	E02000618	618	E02000889	887	E02000978	974
E02000193	170	E02000619	619	E02000890	886	E02000979	979
E02000370	364	E02000620	642	E02000924	949	E02000980	981
E02000371	362	E02000621	643	E02000960	961	E02000981	982
E02000568	560	E02000623	640	E02000962	962	E02000982	967
E02000572	554	E02000808	812	E02000966	975	E02000983	968
E02000573	556	E02000809	824	E02000967	966		

Table A6: The MSOA geography of the NIOD and part legend to Map A6

MSOA Geography	Map Ref.	MSOA Geography	Map Ref.	MSOA Geography	Map Ref.	MSOA Geography	Map Ref.
E02000886	877	E02000891	869	E02000892	883	E02000893	868
E02000887	878						

Appendix B: Clustering⁴⁶ by firms size in the CAZ and NIOD

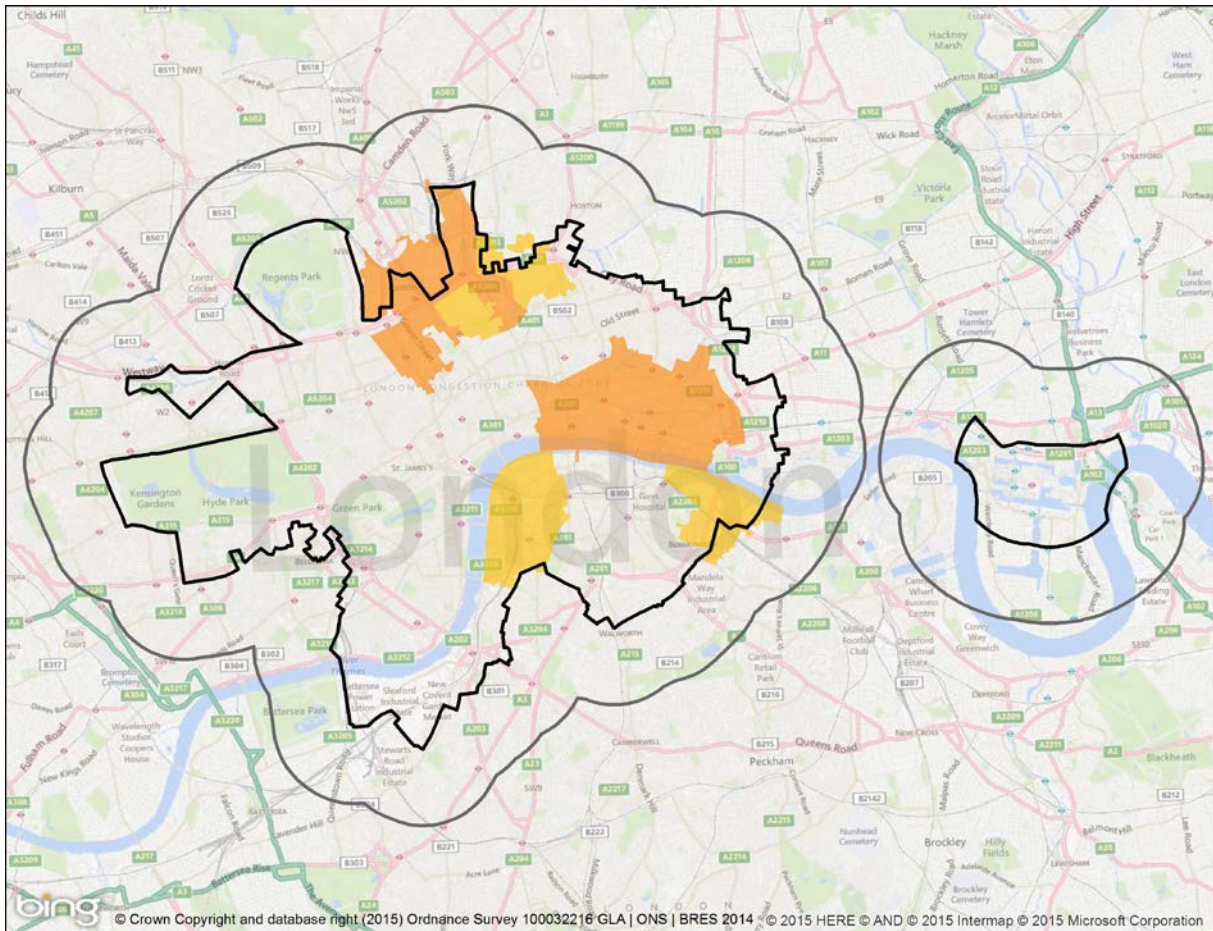
Map B1: Clustering of business units in the employment size band 10-19 in the CAZ and NIOD MSOAs (2014)







Source: ONS, Business Count and GLA Intelligence Unit analysis

⁴⁶ This clustering analysis, as was the case in the main text, was carried out using GIS Hot Spot Analysis.

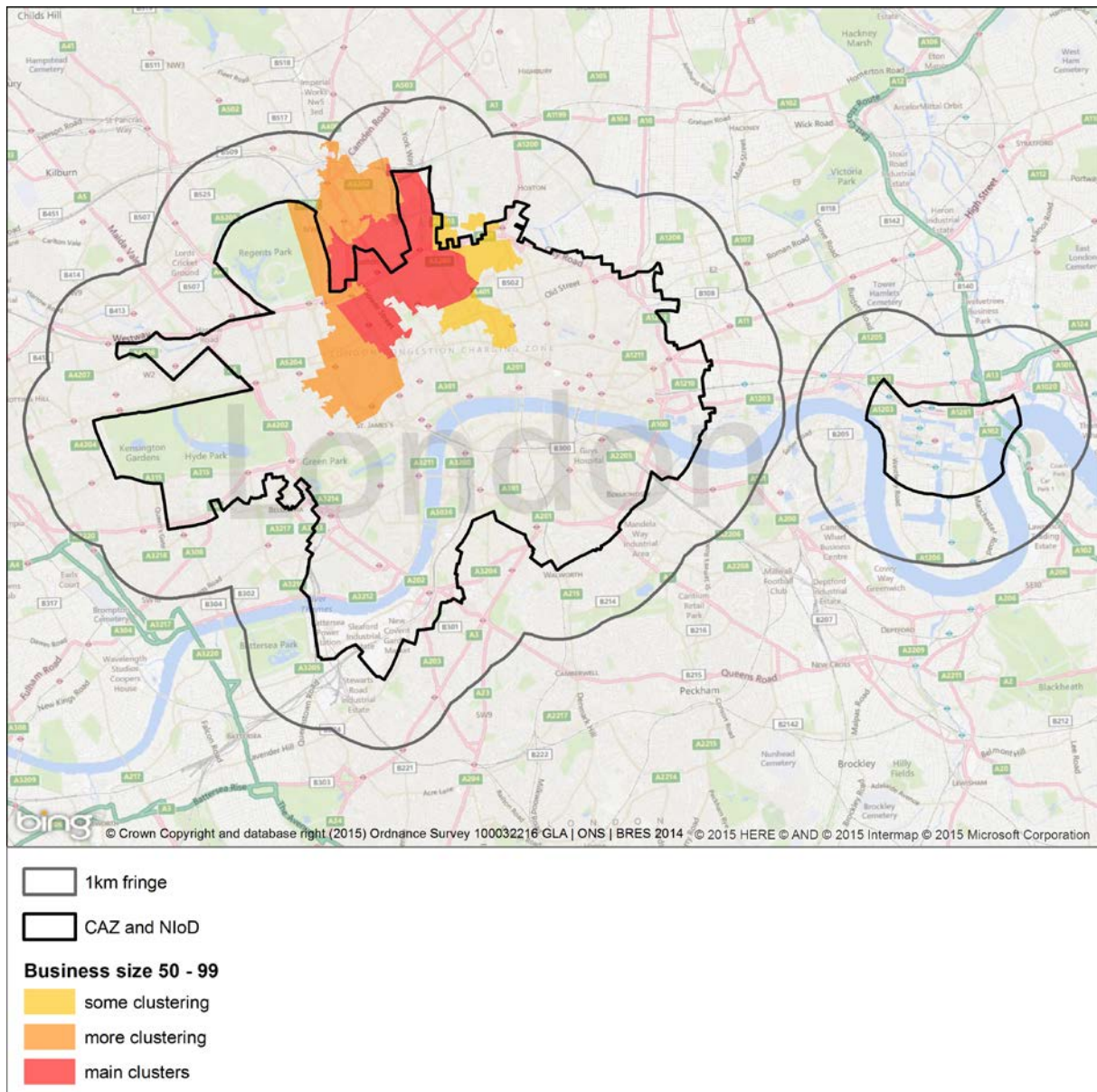
Map B2: Clustering of business units in the employment size band 20-49 in the CAZ and NIOD MSOAs (2014)



-  1km fringe
-  CAZ and NIOD
- Business size 20 - 49**
-  some clustering
-  more clustering

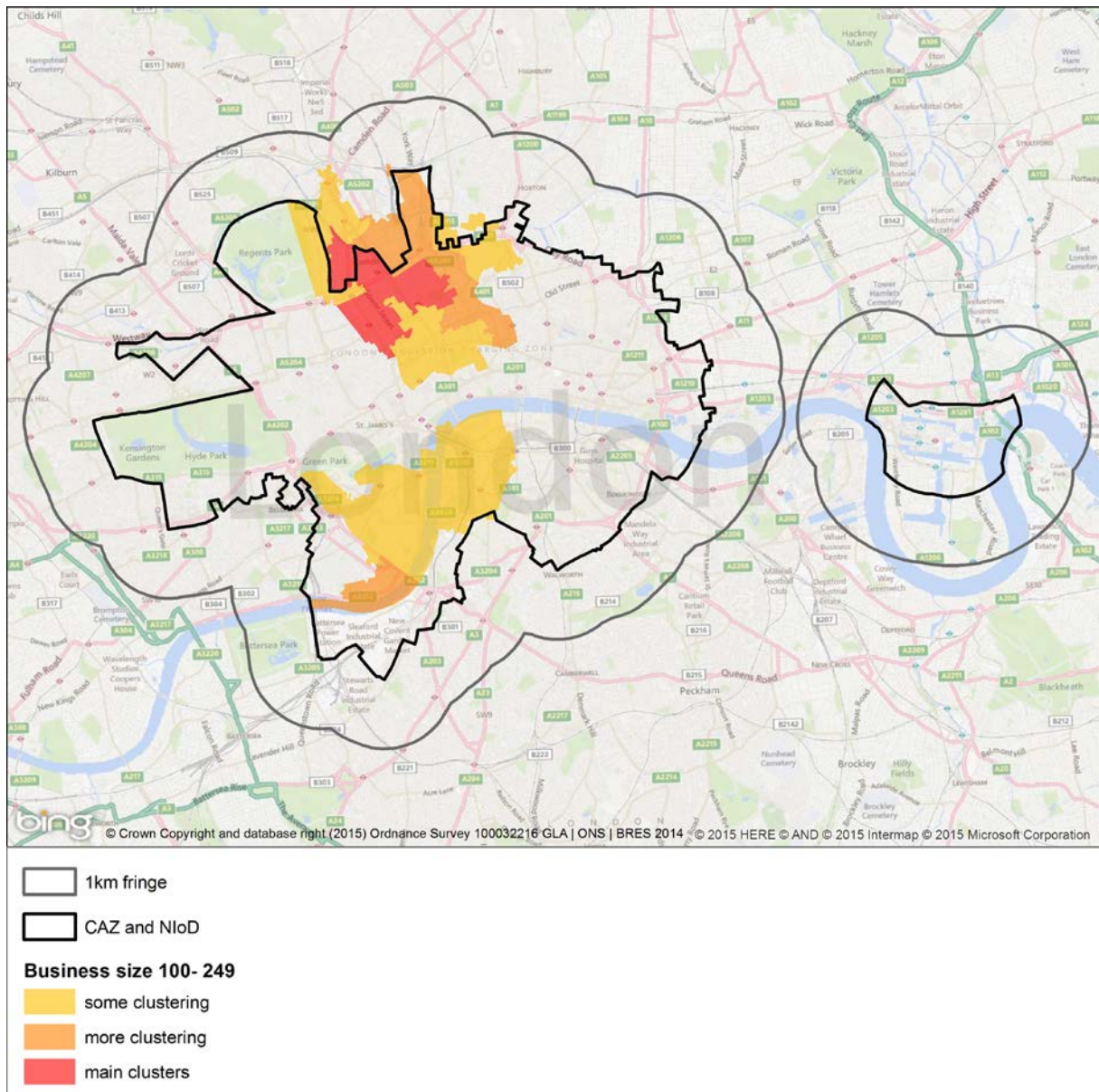
Source: ONS, Business Count and GLA Intelligence Unit analysis

Map B3: Clustering of business units in the employment size band 50-99 in the CAZ and NIOD MSOAs (2014)



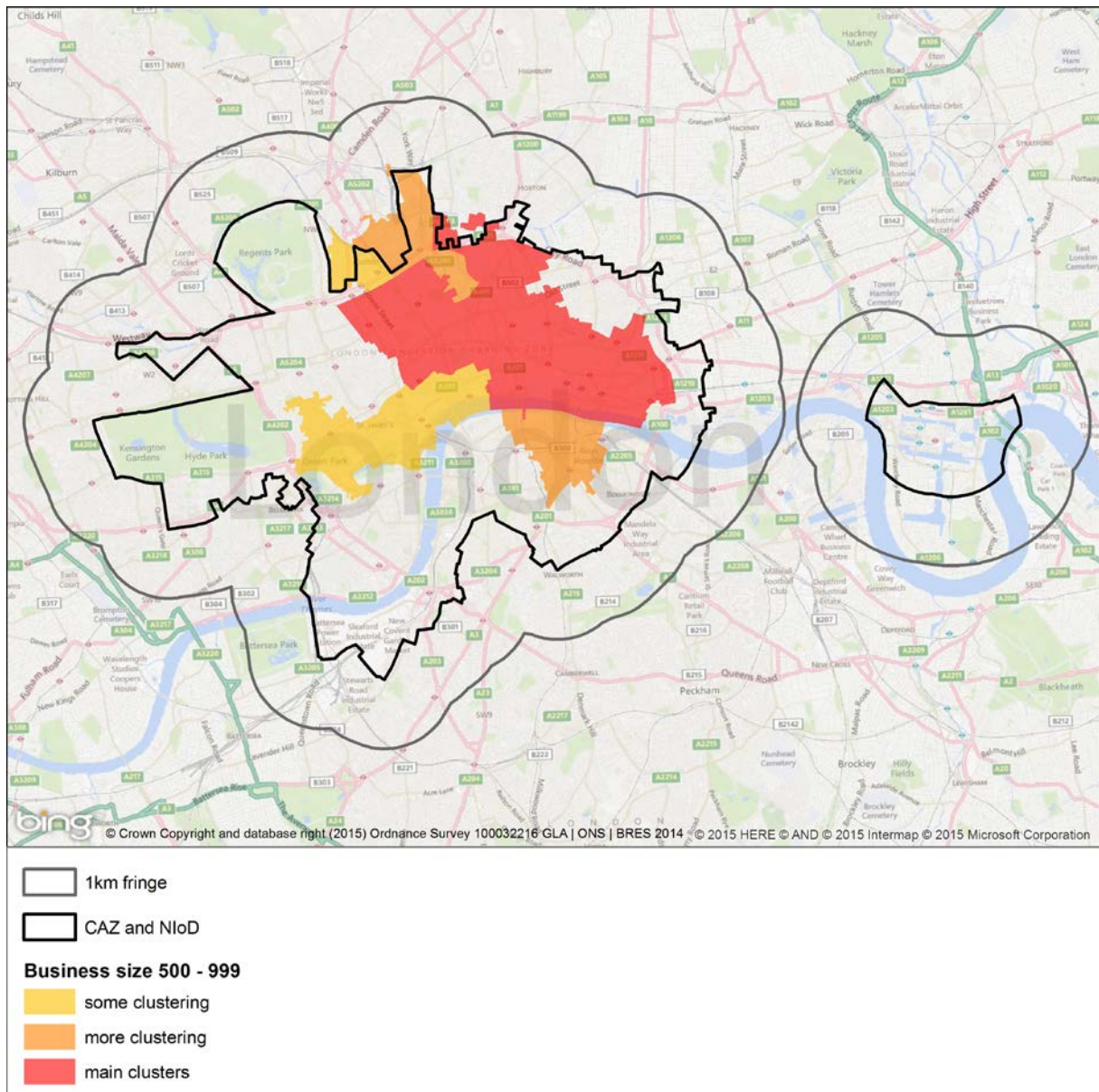
Source: ONS, Business Count and GLA Intelligence Unit analysis

Map B4: Clustering of business units in the employment size band 100-249 in the CAZ and NIOD MSOAs (2014)



Source: ONS, Business Count and GLA Intelligence Unit analysis

Map B5: Clustering of business units in the employment size band 500-999 in the CAZ and NIOD MSOAs (2014)



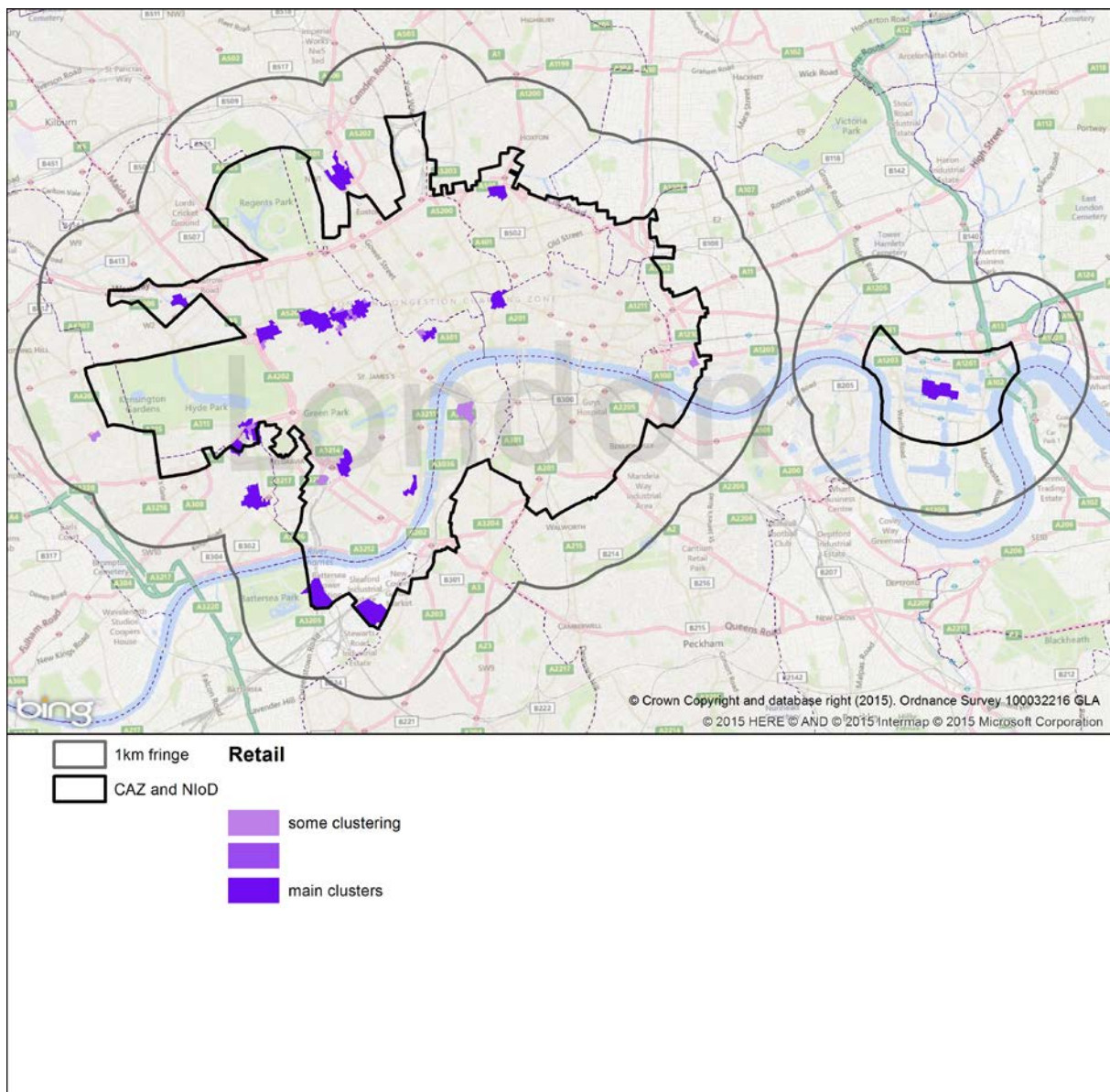
Source: ONS, Business Count and GLA Intelligence Unit analysis

Appendix C: Further maps and data on employment in the CAZ, NIOD and their fringes

Examining the impact of different distance parameters on the employment clustering analysis performed for Maps 13 to 20 and maps showing employment clustering by sector and areas with high concentrations of employment in given sectors

Whether employment clustering is discovered in an area is in part dependent on the number of workplace zone (WPZ) considered by the statistical software. Map C1 shows that by reducing the fixed distance band to 125m (so essentially fewer other WPZs will be considered for every WPZ, in terms of cluster analysis) more clusters are discovered. Thus it can be seen that more clusters are discovered but the size of significant clusters eg around Oxford Street, are down played. For reference, the fixed distance band for Maps 13 to 20 in this report was set at 426m.

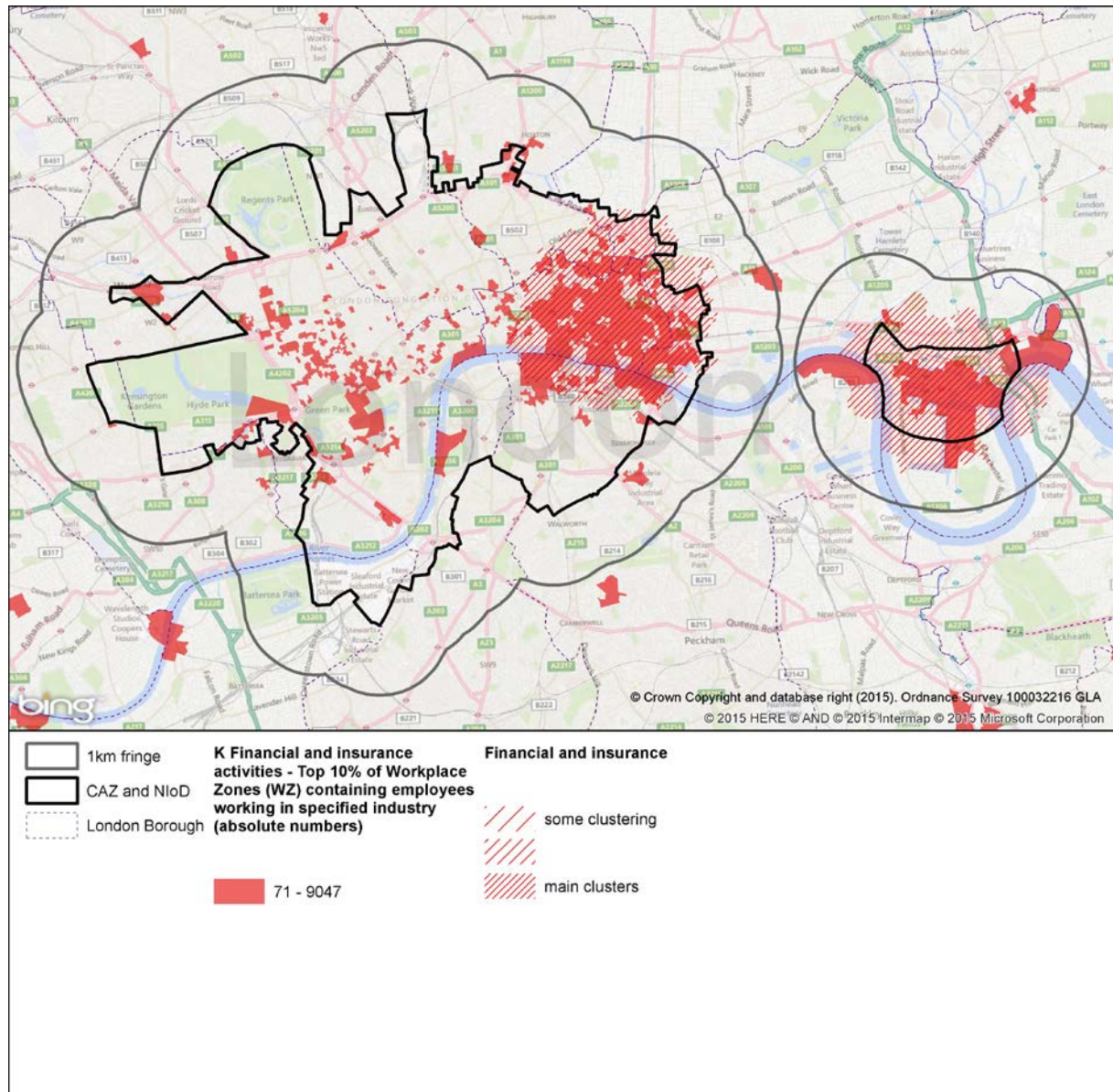
Map C1 Discovered Retail employment clustering in the CAZ, NIOD and an approximately 1km fringe around them using a smaller distance band



Source: Census and GLA Intelligence Unit analysis

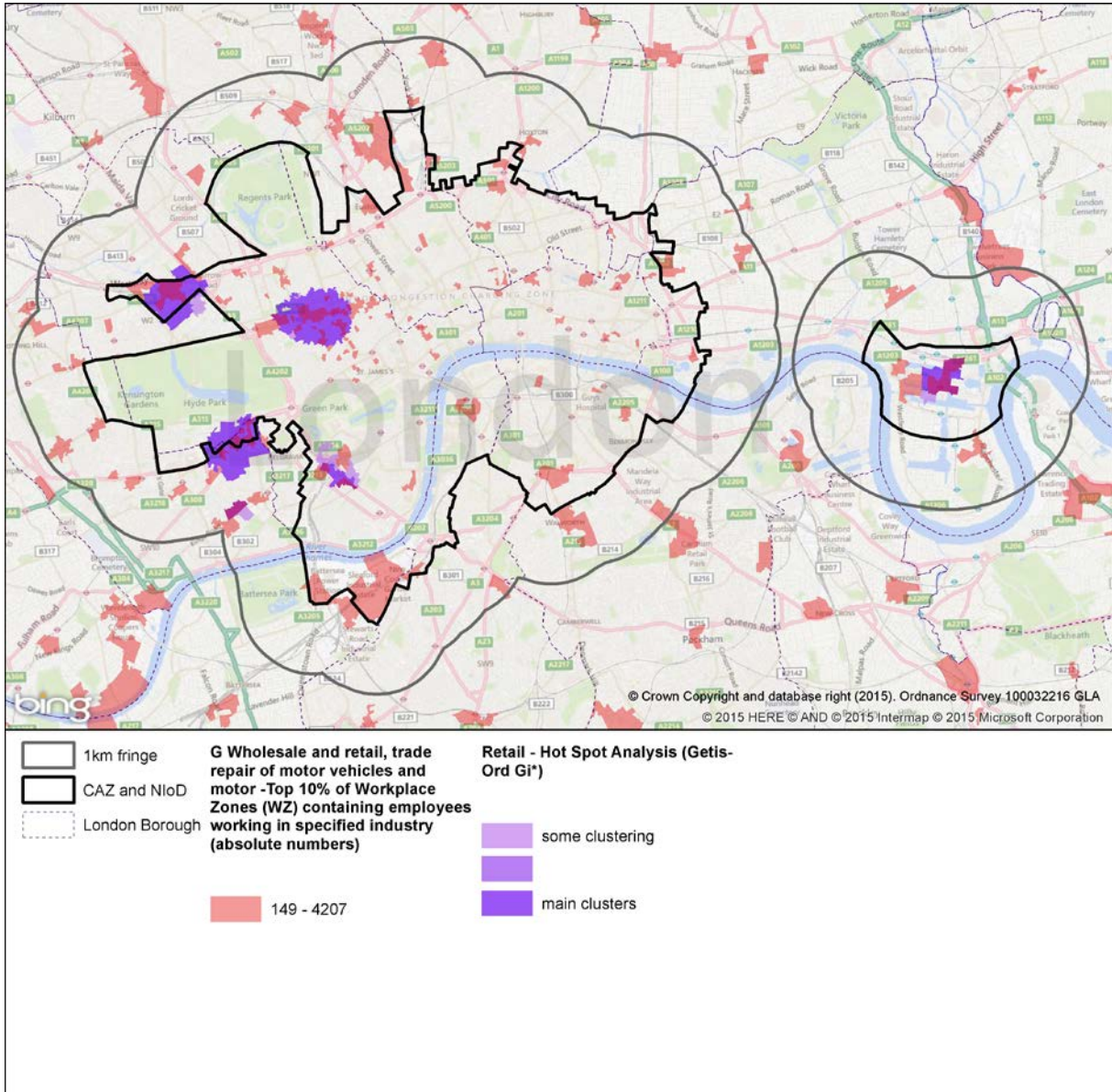
Maps C2 to C9 replicate the clustering maps provided in the main text but also emphasises areas of high employment for a given sector of the economy, in order to better highlight important areas for given sectors that may have been missed due to their relatively concentrated geography.

Map C2: Financial and insurance employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



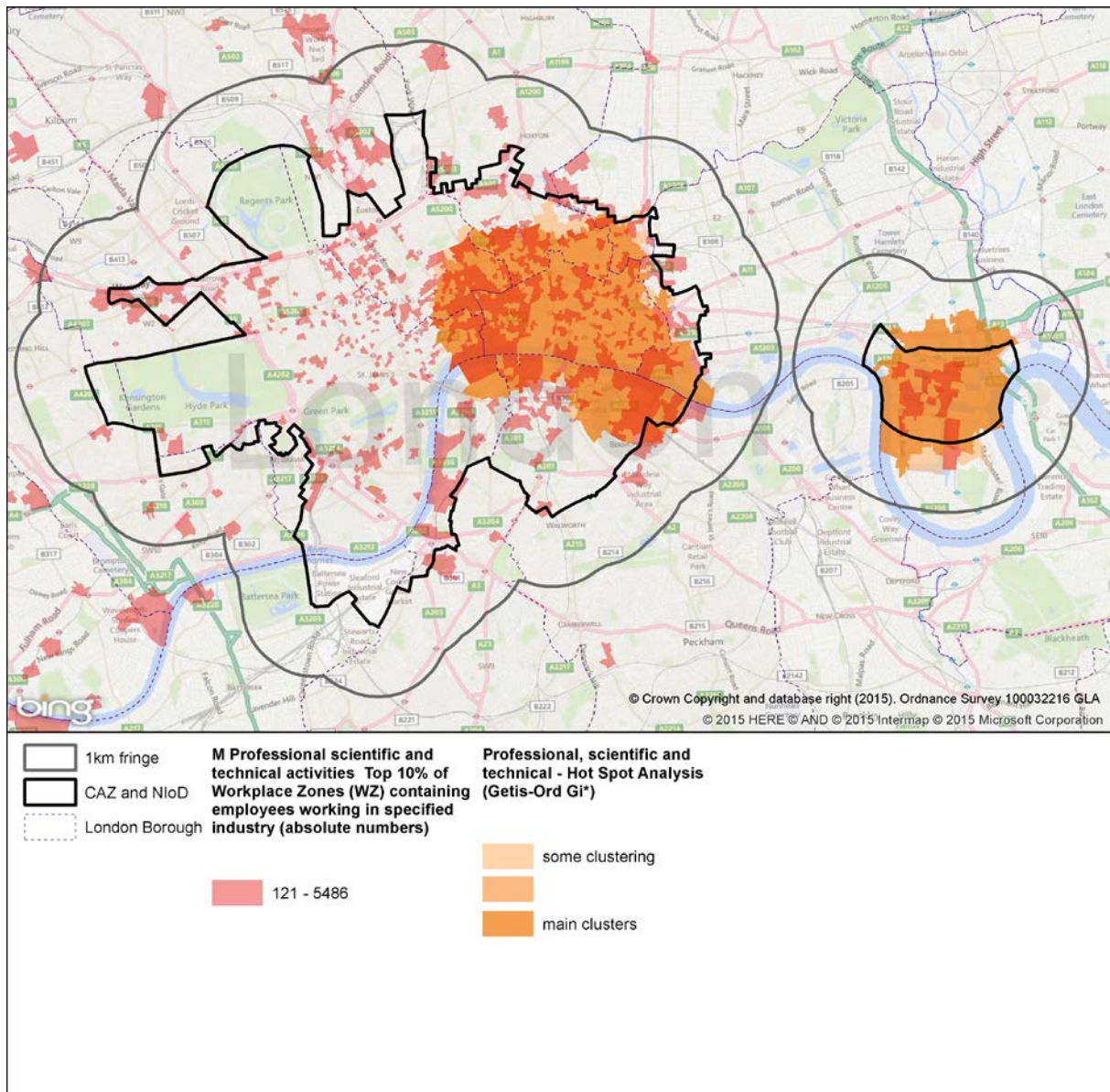
Source: Census and GLA Intelligence Unit analysis

Map C3: Retail employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



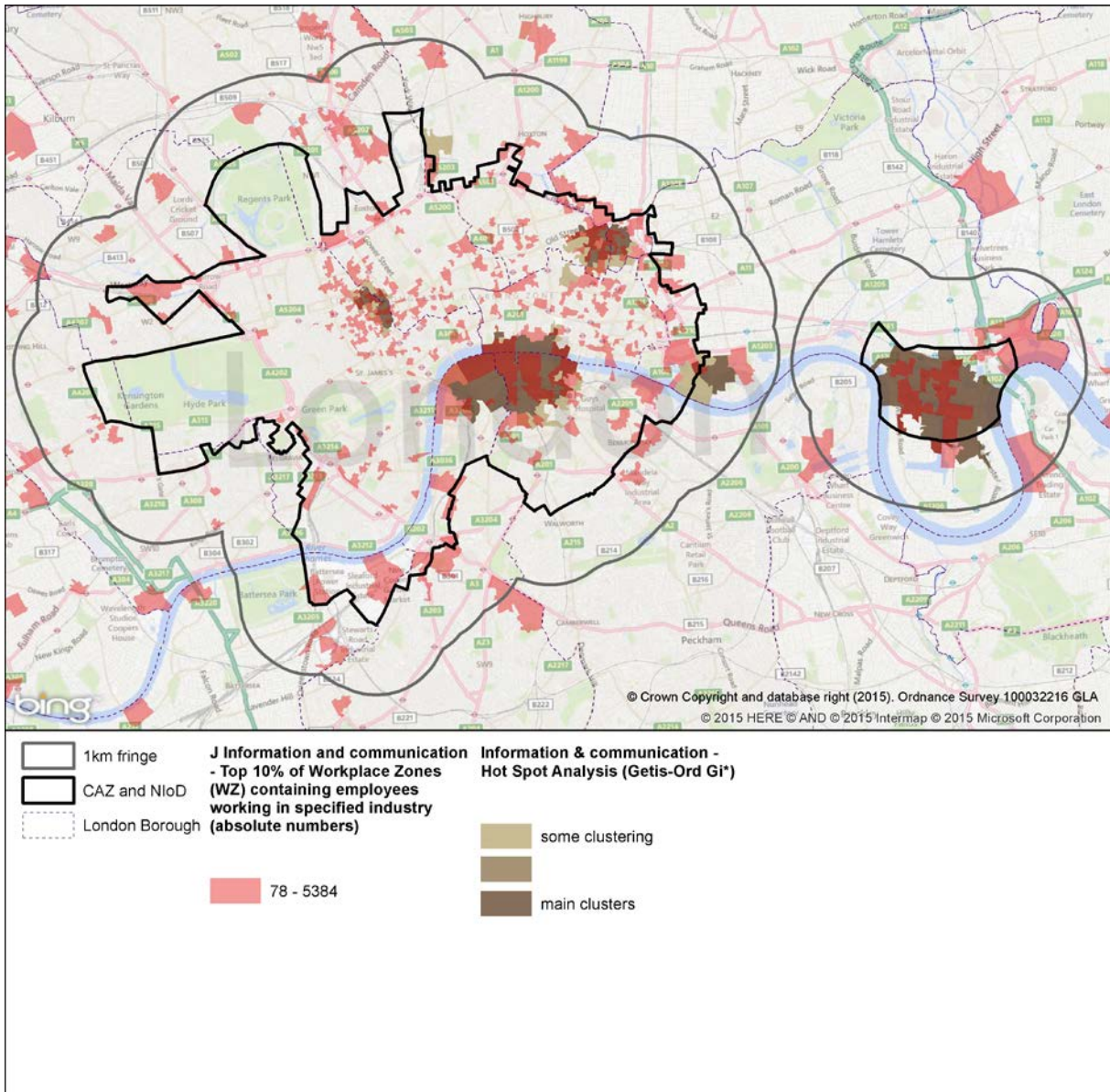
Source: Census and GLA Intelligence Unit analysis

Map C4: Professional, scientific and technical employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



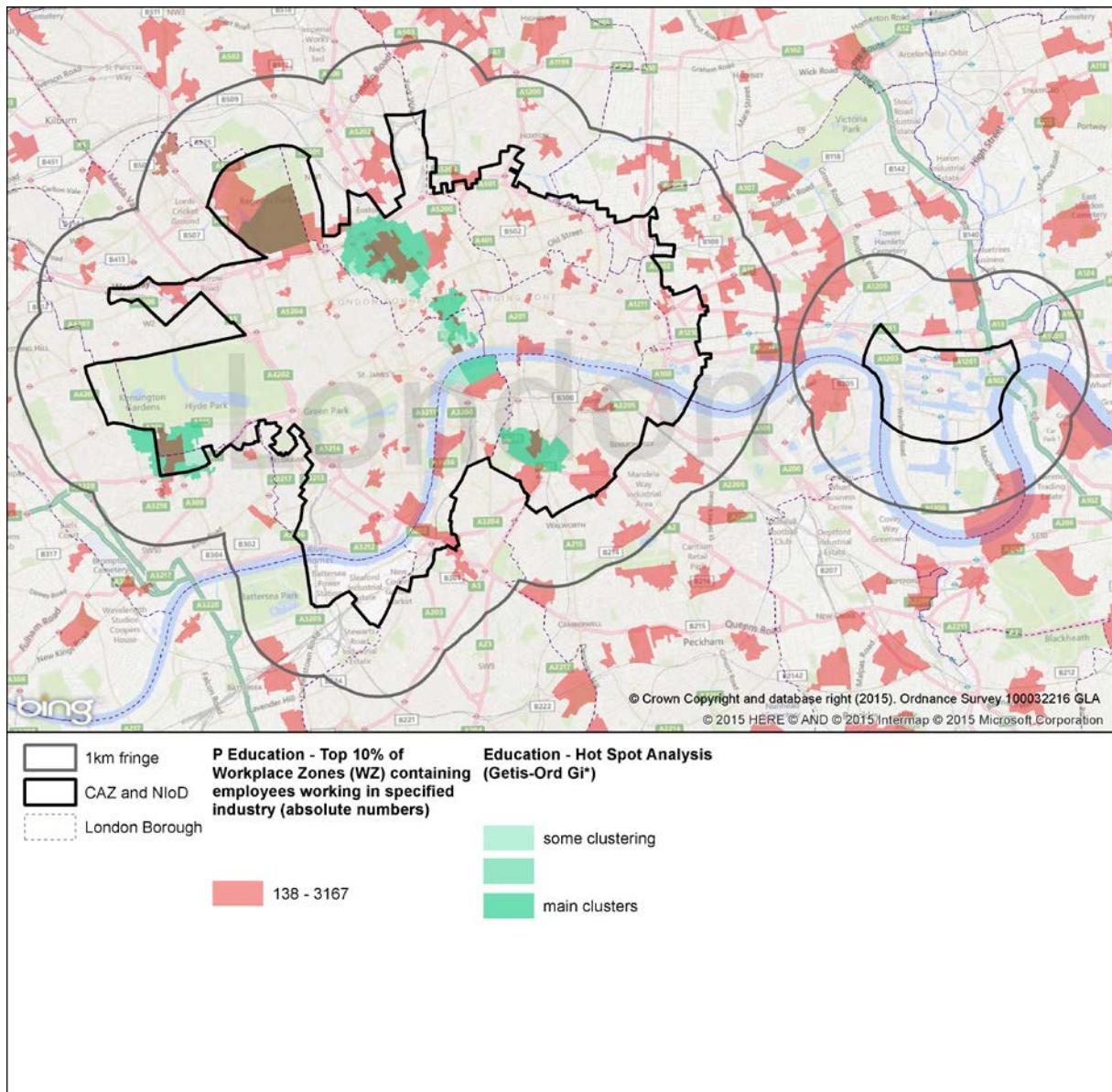
Source: Census and GLA Intelligence Unit analysis

Map C5: Information and communication employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



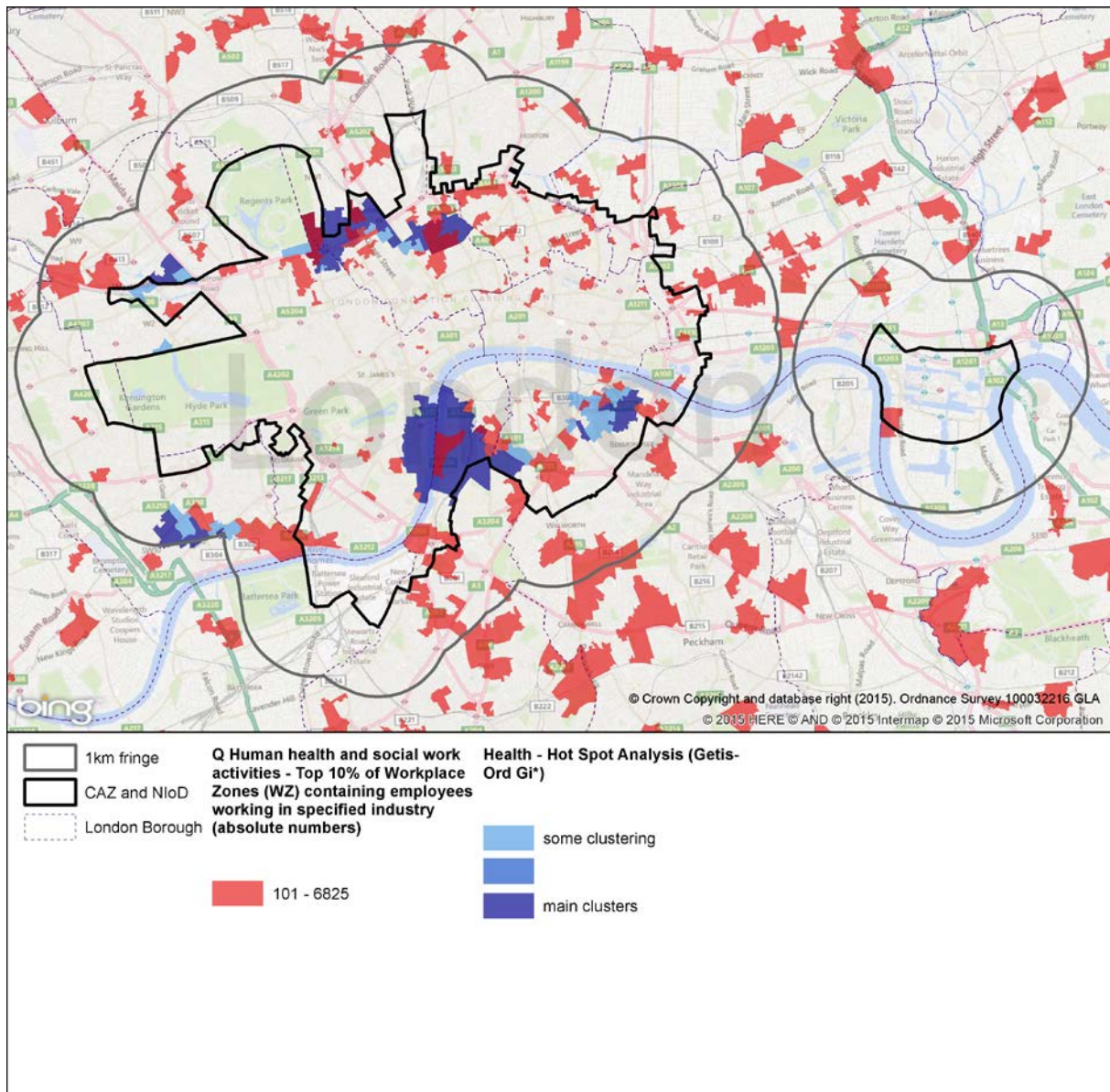
Source: Census and GLA Intelligence Unit analysis

Map C6: Education employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



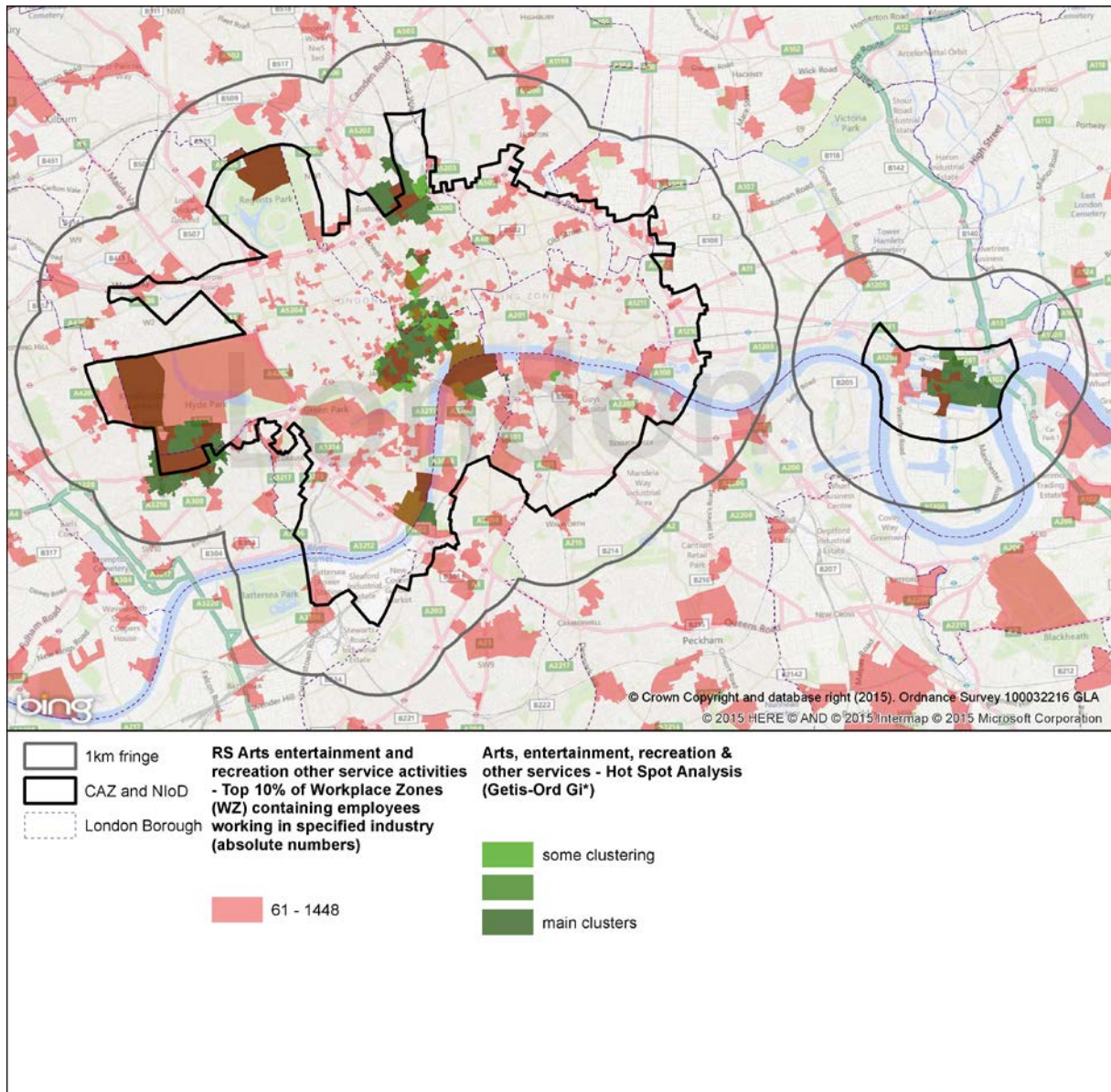
Source: Census and GLA Intelligence Unit analysis

Map C7: Health employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



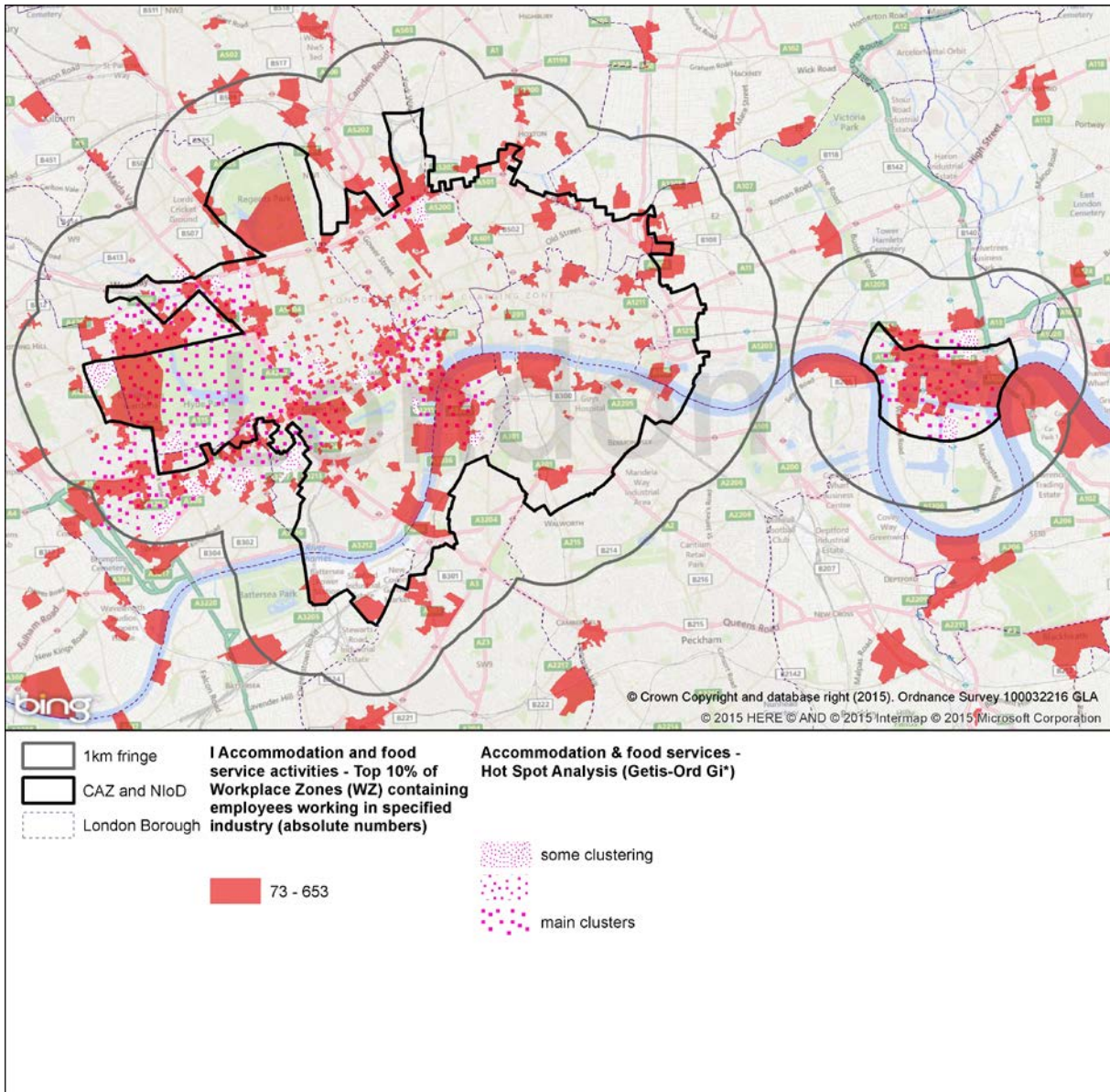
Source: Census and GLA Intelligence Unit analysis

Map C8: Arts, entertainment, recreation & other services employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

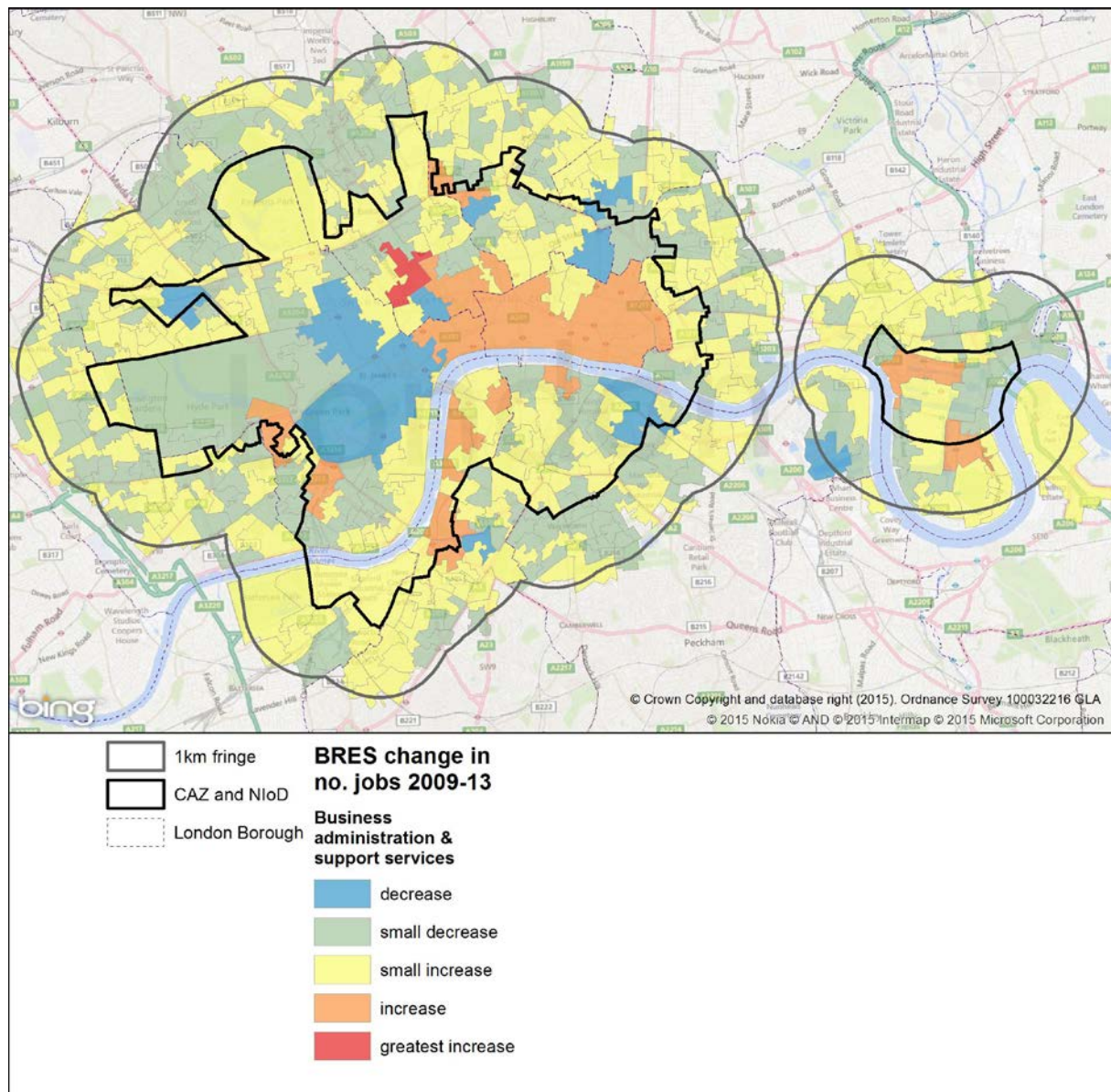
Map C9: Accommodation & food services employment clustering and areas of high employment in the CAZ, NIOD and an approximately 1km fringe around them



Source: Census and GLA Intelligence Unit analysis

Employment changes⁴⁷ in selected industrial sectors in different areas of the CAZ, NIOD and their fringes over 2009 to 2013; along with employment by broad industrial sector in 2013 in the CAZ, NIOD and their fringes

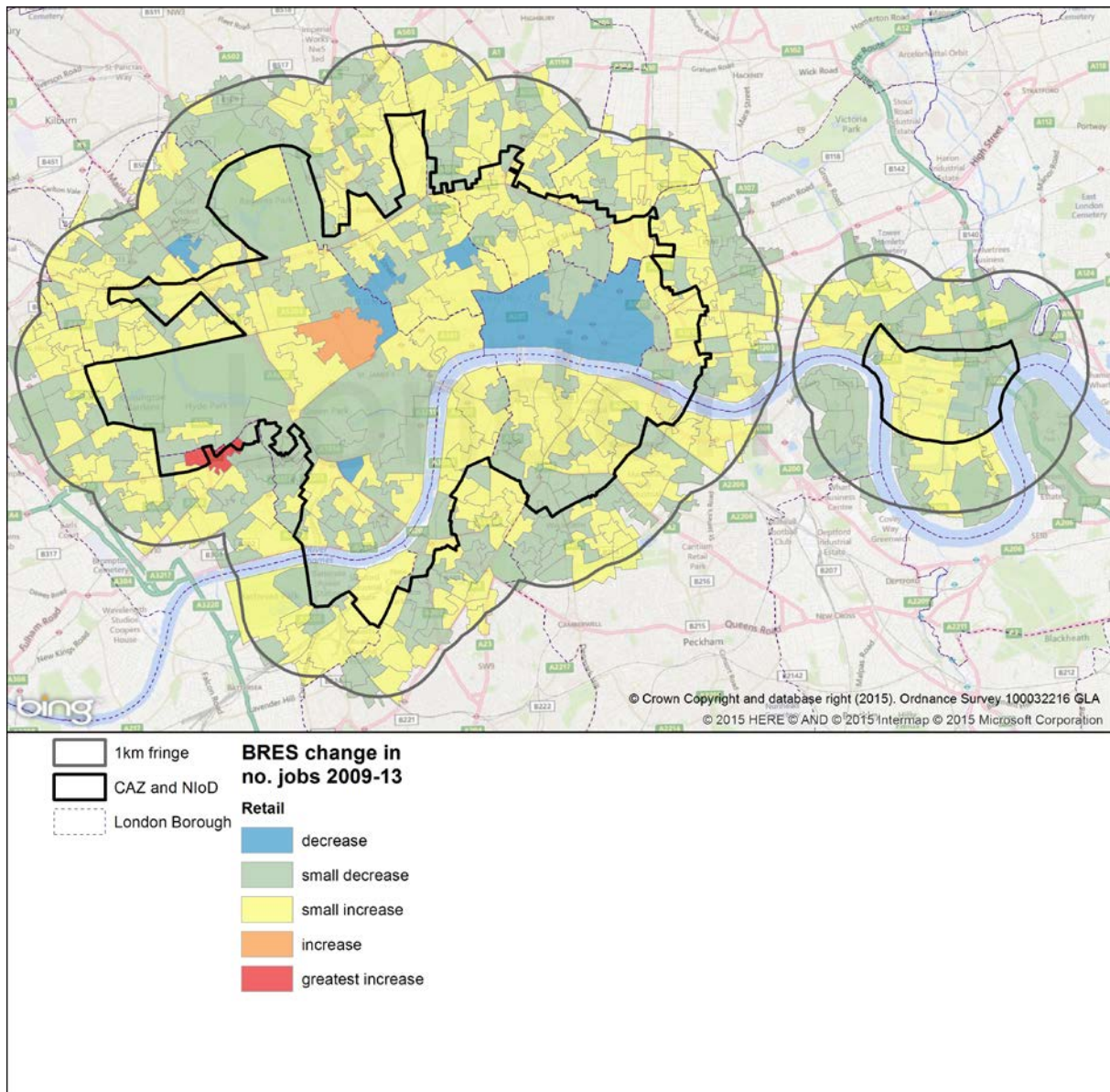
Map C10: Change in Business administration & support services employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



Source: BRES and GLA Intelligence Unit analysis

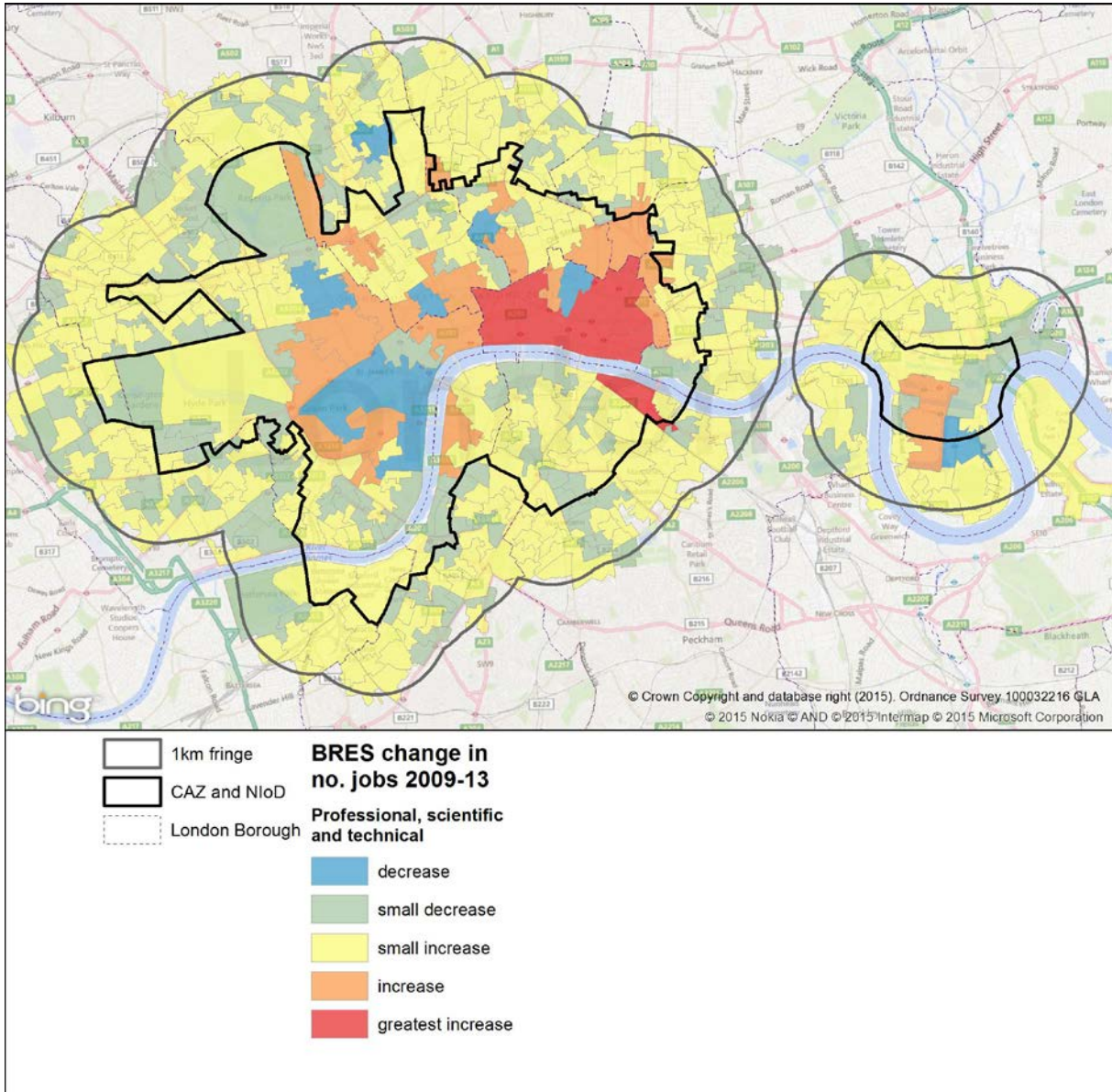
⁴⁷ Note: To ensure non-disclosure of confidential data these maps are drawn to show decrease, small decrease, small increase, increase and greatest increase in employment only. These categories were defined by the magnitude of the employment change in each industry. Thus for example the size of a large employment change will vary from industry to industry depending in part on the size of the industry and how dynamic employment changes have been in the industry amongst other factors.

Map C11: Change in Retail employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



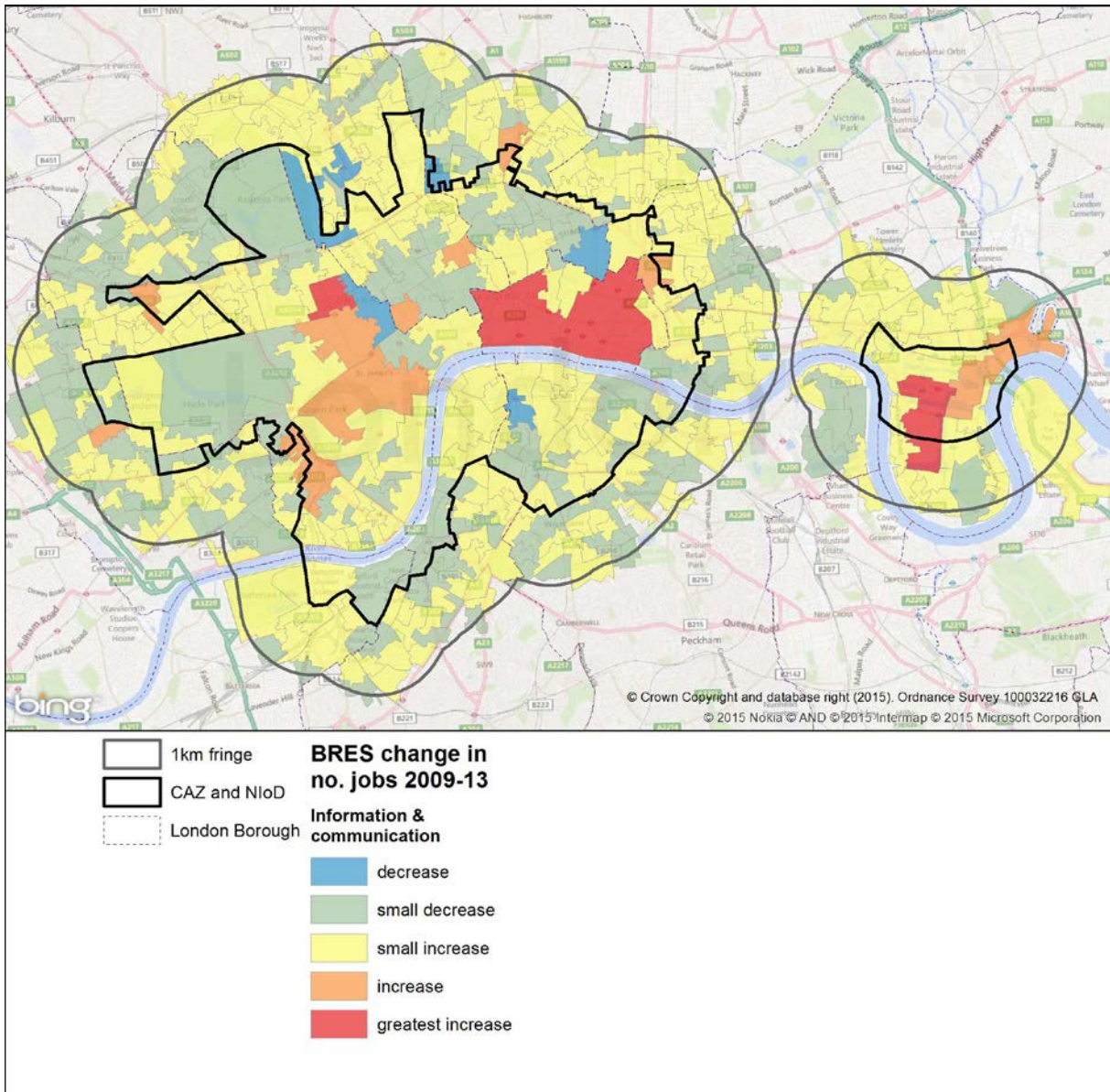
Source: BRES and GLA Intelligence Unit analysis

Map C12: Change in Professional, scientific and technical employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



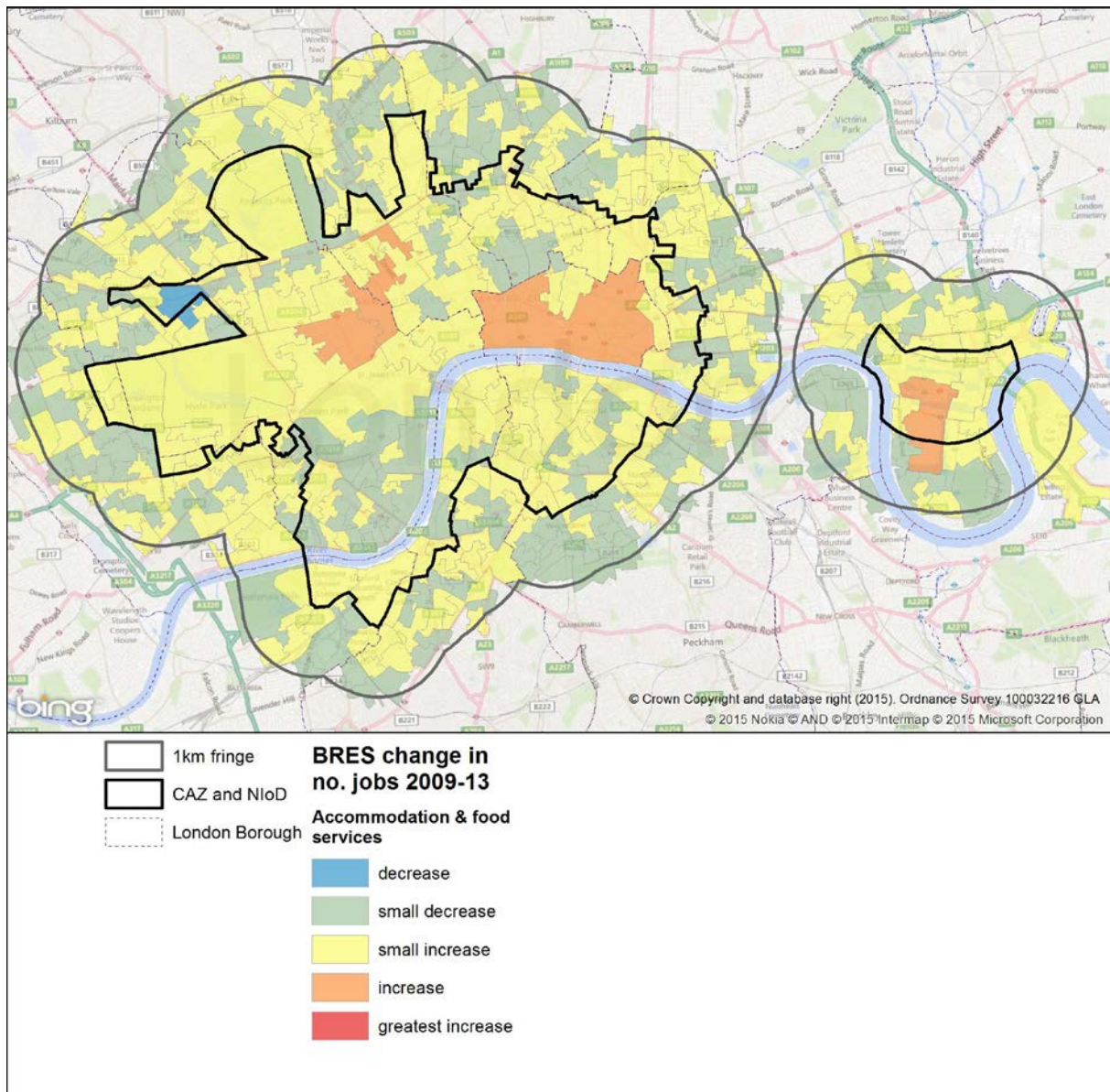
Source: BRES and GLA Intelligence Unit analysis

Map C13: Changes in Information & communication employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



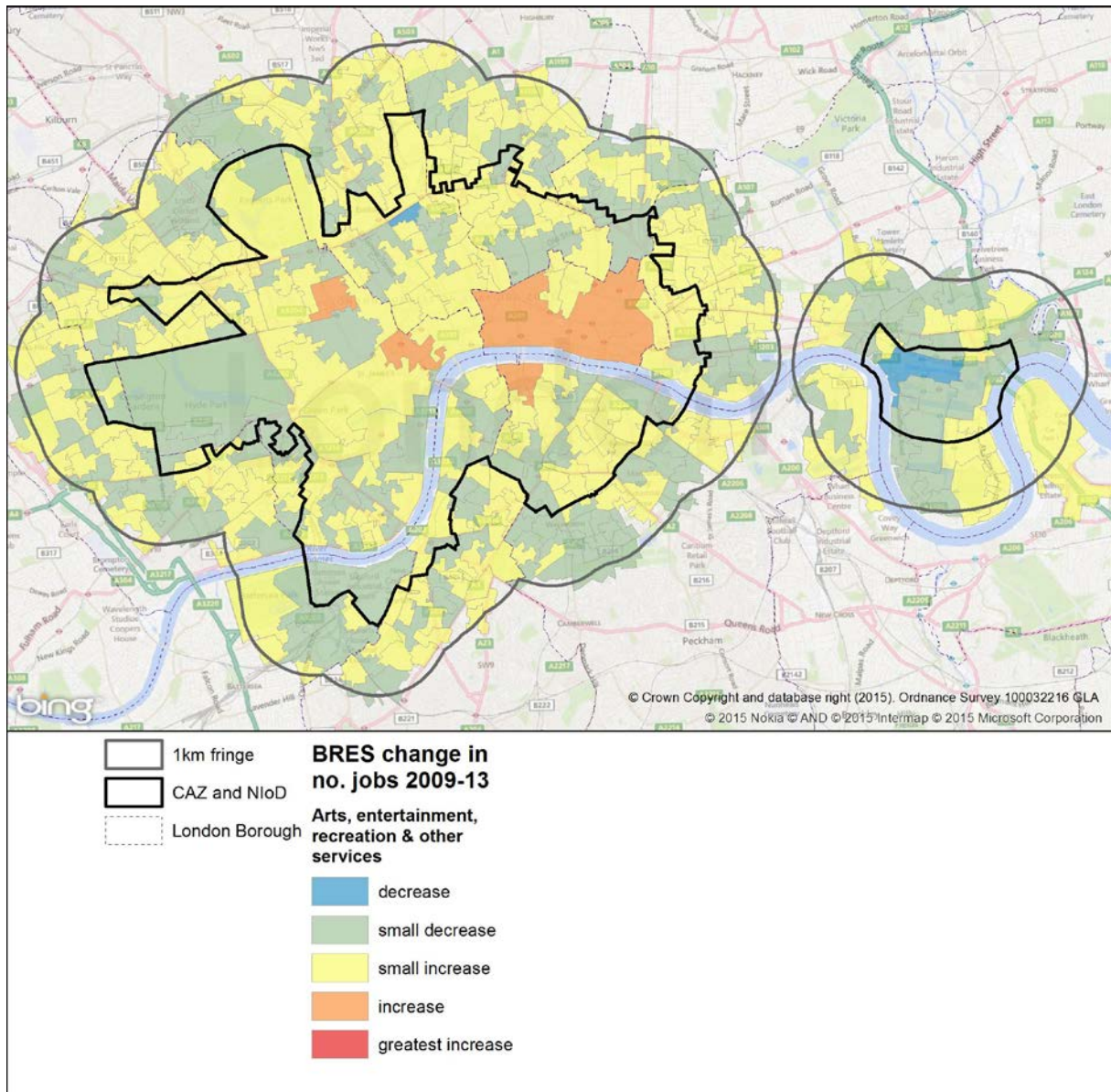
Source: BRES and GLA Intelligence Unit analysis

Map C14: Changes in Accommodation & food services employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



Source: BRES and GLA Intelligence Unit analysis

Map C15: Changes in Arts, entertainment, recreation & other services employment in different areas of the CAZ, NIOD and their approximately 1km fringes over 2009 to 2013



Source: BRES and GLA Intelligence Unit analysis

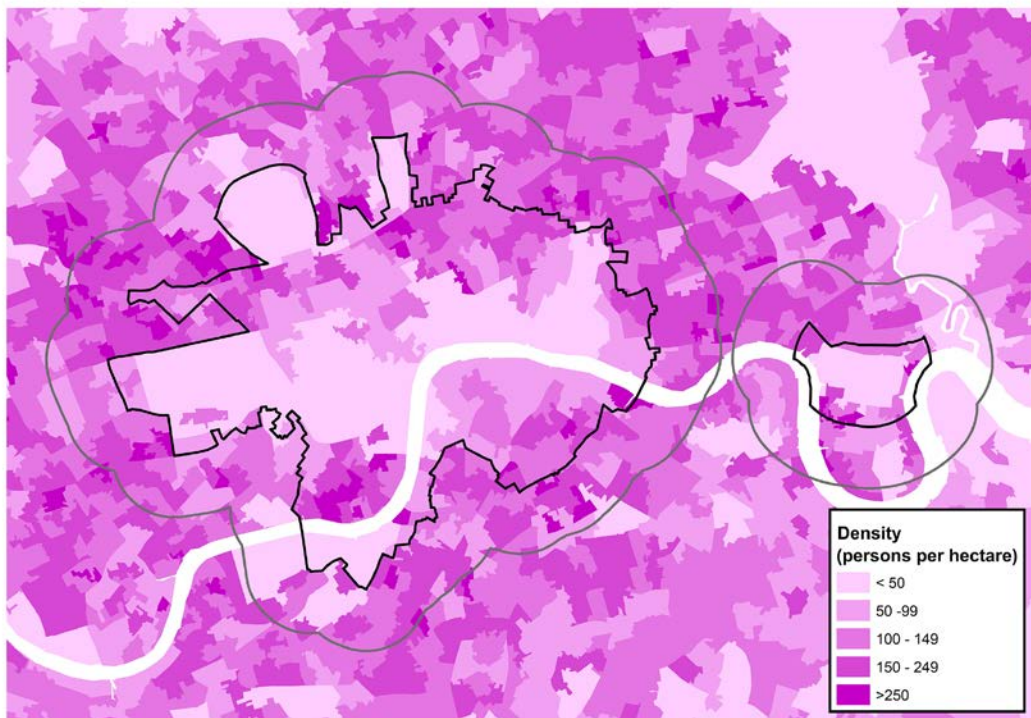
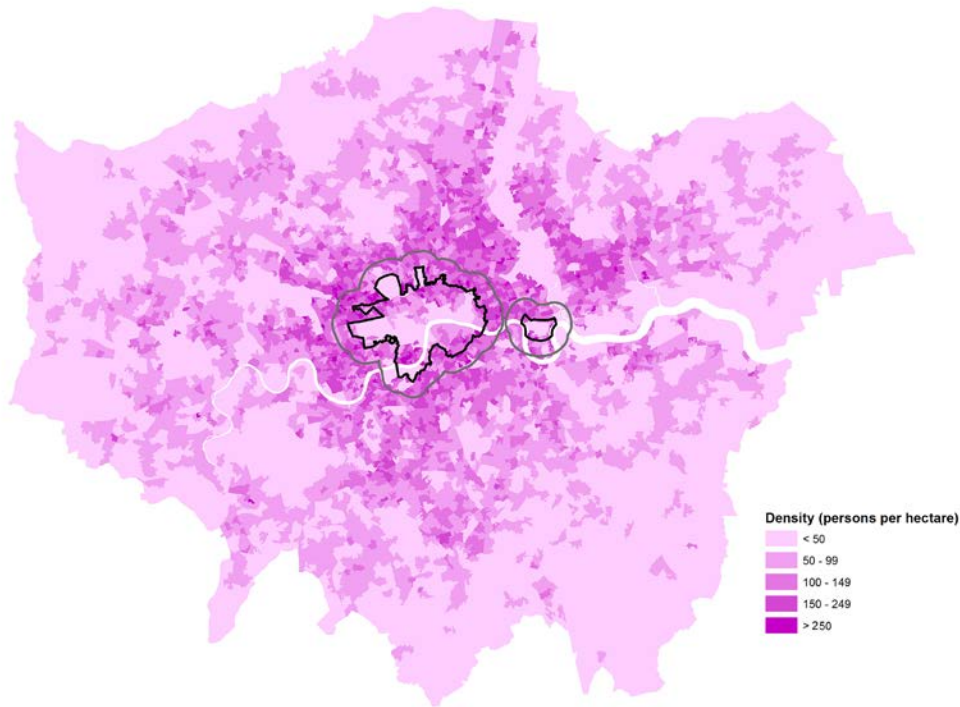
Table C1: Employment by broad industrial sector in 2013 in the CAZ, CAZ & NIOD, and CAZ, NIOD & an approximately 1 km fringe around them (top five sectors only)

	CAZ	CAZ as % of sector total for London	CAZ 1km Fringe	CAZ Fringe as % of sector total for London	NIOD	NIOD as % of sector total for London	NIOD 1km Fringe	NIOD Fringe as % of sector total for London	CAZ & NIOD	CAZ & NIOD as % of sector total for London	CAZ, NIOD & their Fringes	CAZ, NIOD & their Fringes as % of sector total for London
Primary & utilities	6,000	22%	1,000	5%	-	0%	-	0%	6,000	22%	8,000	27%
Manufacturing	9,000	8%	5,000	5%	-	0%	1,000	1%	9,000	8%	15,000	13%
Construction	29,000	19%	6,000	4%	1,000	1%	1,000	1%	30,000	20%	38,000	25%
Distribution, accommodation and food service activities	248,000	26%	84,000	9%	9,000	1%	5,000	1%	256,000	27%	345,000	36%
Financial services	226,000	66%	11,000	3%	61,000	18%	2,000	0%	286,000	83%	299,000	87%
Business services	782,000	48%	108,000	7%	45,000	3%	14,000	1%	827,000	51%	949,000	58%
Transportation and storage	36,000	16%	12,000	5%	2,000	1%	2,000	1%	38,000	17%	51,000	23%
Other (public & private) services	336,000	26%	87,000	7%	9,000	1%	6,000	0%	344,000	27%	437,000	34%

Source: BRES & GLA Economics calculations

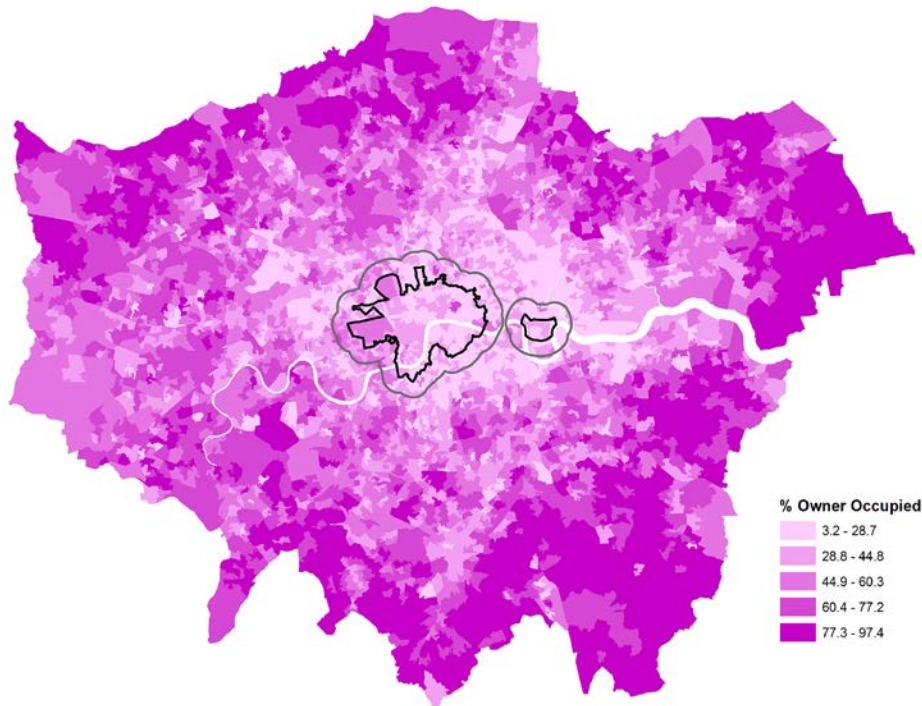
Appendix D: Various demographic maps of London, which also highlight the CAZ, NIOD and their approximately 1 km fringes

Maps D1 a & b: The population density of London in 2011, highlighting the CAZ, NIOD and their approximately 1km fringes



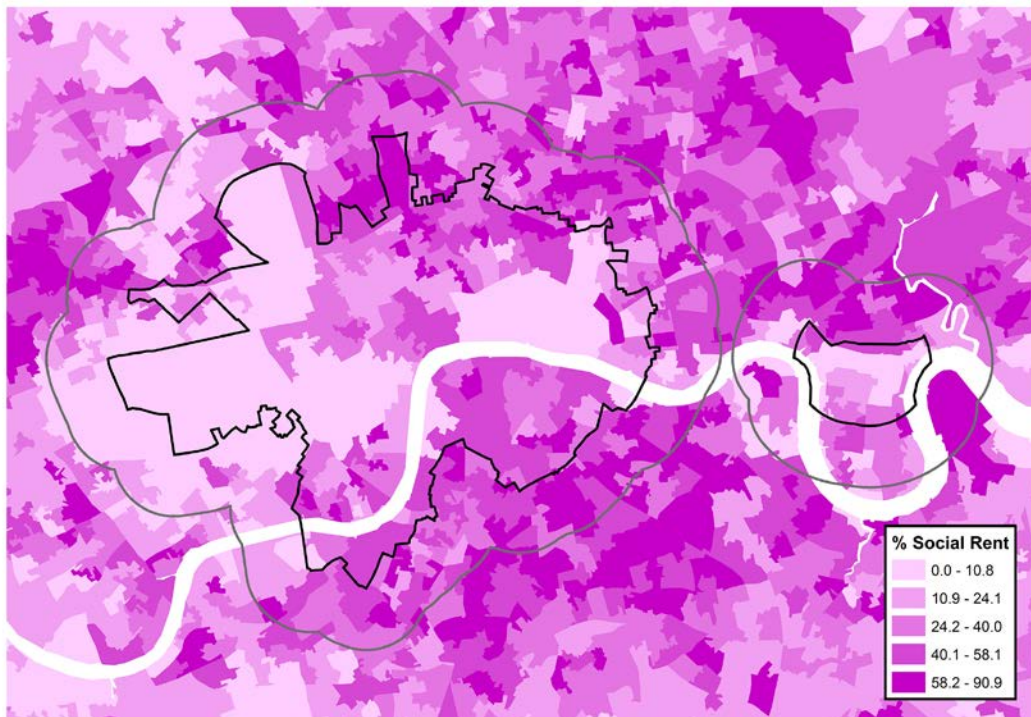
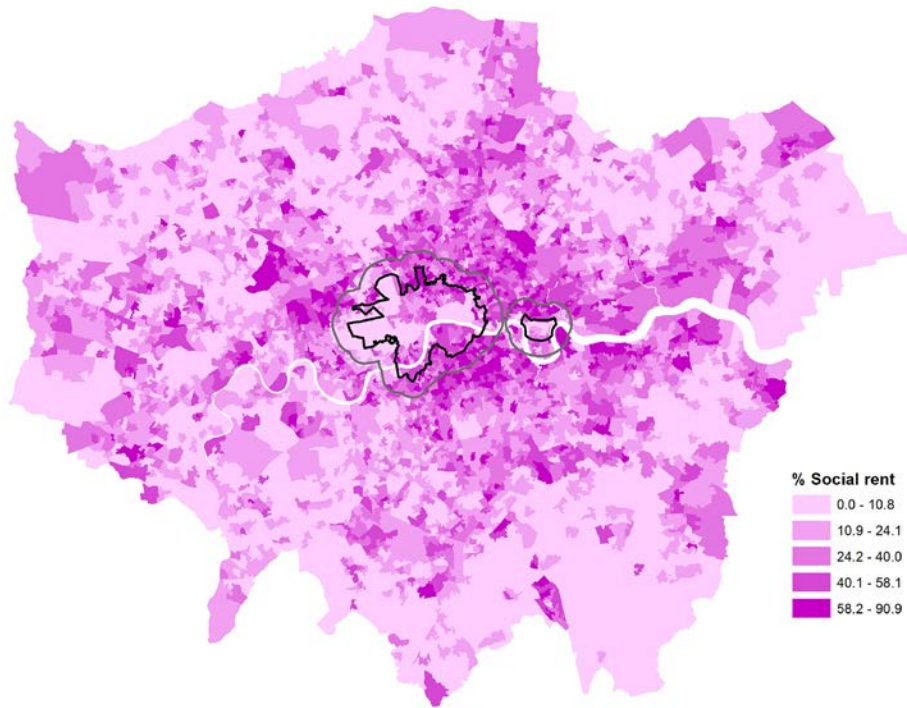
Source: Census and GLA Intelligence Unit analysis

Maps D2 a & b: Owner occupied housing as per cent of sub area total in London in 2011, highlighting the CAZ, NIOD and their approximately 1km fringes



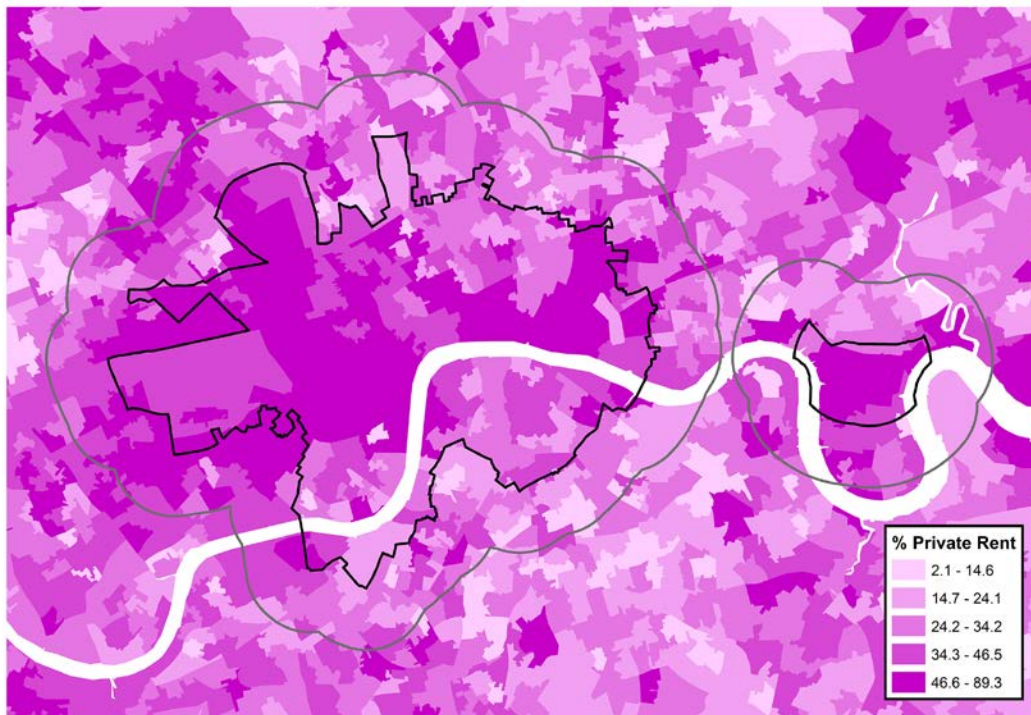
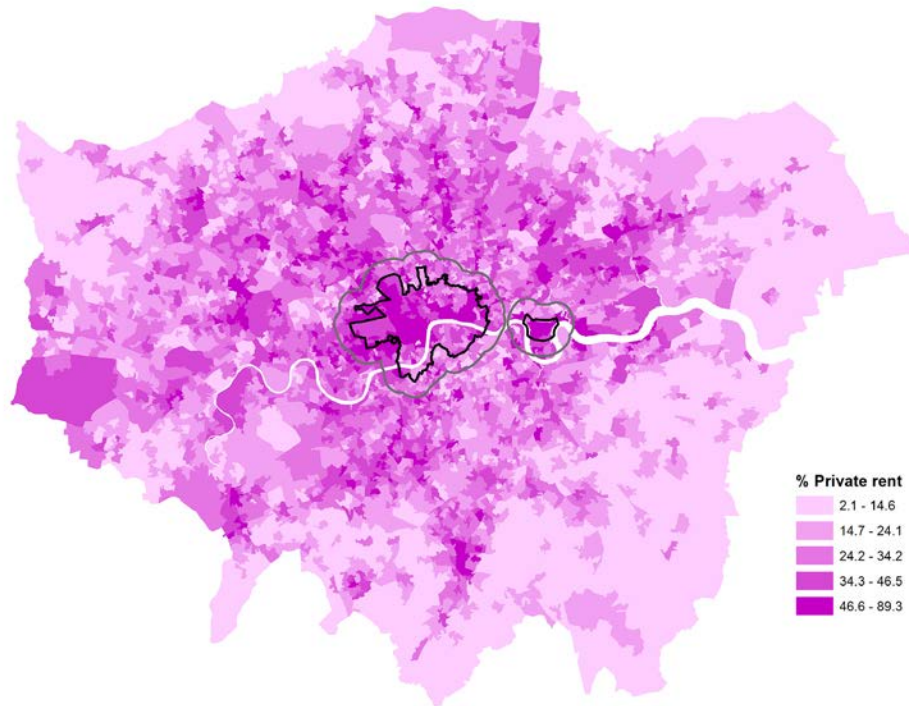
Source: Census and GLA Intelligence Unit analysis

Maps D3 a & b: Social rented housing as per cent of sub area total in London in 2011, highlighting the CAZ, NIOD and their approximately 1km fringes



Source: Census and GLA Intelligence Unit analysis

Maps D4 a & b: Private rented housing as per cent of sub area total in London in 2011, highlighting the CAZ, NIOD and their approximately 1km fringes



Source: Census and GLA Intelligence Unit analysis

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