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The new Business Register Employment Survey: Changes in London's jobs, 2008 and 2009 compared

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Executive summary

BRES is regarded as the definitive source of official Government employee statistics by industry. It is based on a survey of approximately 80,000 businesses/reporting units. This provides us with data on employee jobs and employment in London for 2009. As part of this release the ONS issued, for comparison purposes, figures for 2008 which are consistent with BRES 2009 data. However, given that this is the first year of the BRES survey ONS urges some caution when comparing the two years of data.

Prior to the publication of the BRES 2009 employment estimates, certain economic indicators pointed to London having been more resilient during the recent recession than Great Britain as a whole. However, BRES estimates that jobs in London fell by 192,000 or 4.5 per cent between 2008 and 2009, compared to a fall of 2.9 per cent in Great Britain. If London had faired better than Britain we might have expected the fall in London's jobs to have been less than 123,000 (or 2.9 per cent). The Workforce Jobs series, the closest comparator to BRES, shows a fall of 176,000 (-4.1 per cent) in London's jobs in the last quarter of 2009 which is also a bigger percentage fall than in Great Britain (-2.8 per cent). However if you consider the entire recession period the 2.5 per cent fall in jobs in Britain is much closer to the contraction in London of 2.8 per cent.

Comparing the BRES data with other estimates of employees and employment we find a lot of variance between 2008 and 2009. London ranges from a contraction of over 4 per cent in BRES and the Workforce Jobs Series to growth in employment of 0.8 per cent according to the Annual Population Survey (APS). Estimates for Great Britain are more comparable across datasets. Other indicators of the London economy are in contrast to BRES with the claimant count having risen less quickly, and GVA having contracted by a smaller percentage in London than in Britain.

Clearly there are fundamental differences in terms of coverage and timing of the different datasets. We cannot rule out the possibility that the discontinuity created by the change in survey from the Annual Business Inquiry (ABI) to BRES has not been fully accounted for, and job losses in London are in fact smaller than they appear when comparing 2008 and 2009. Nonetheless, it may be the case that London's employment has been less resilient to the recent recession than previously thought. We may have to wait for revisions to the data to clarify this.

Introduction

In December 2010 the ONS released its first publication of the Business Register and Employment Survey (BRES). This replaces the Annual Business Inquiry part 1 (ABI/1). A main aim of the new survey is to improve the quality of regional estimates. BRES collects information from business at the local unit level rather than at the reporting unit level. A local unit could be a factory, office, warehouse or workshop; a reporting unit may report for a number of local units in its business structure. The advantage of BRES is that it takes a bottom-up approach unlike the ABI which required some top-down apportionment to the regional level.[1]

In the first section of this Current Issues Note we present the London picture according to BRES 2009. We compare with BRES 2008 at the borough and the sector level, as well as with other regions and Great Britain as a whole. This includes a look at the sectors in which London's jobs are specialised according to the most recent standard industrial classification (SIC 2007). Hence when comparing with previous years of data we have two sets of changes to take account of - the survey change and the change in industrial classification. We also look specifically at the changes introduced by SIC 2007. We examine the problems of moving from SIC 2003 to SIC 2007 and how we might overcome these.

The change of survey from ABI to BRES creates a discontinuity in the data. The ONS estimates that BRES yields an estimate of employment for Great Britain in 2008 that is 317,000 (and 84,000 for London) higher than obtained from ABI/1 for the same year. In the second section of this note we discuss the discontinuity created by the survey change and look at what this means for London and its sectors.

In the third section we look at other available data sources which can usefully be compared with BRES. These include the Workforce Jobs series, the Labour Force Survey, the Annual Population Survey, claimant count, redundancies, GVA, productivity and transport data (tube and bus journeys) to see how the changes reported by BRES compare with the changes highlighted by other surveys/data.

[1]Though it should be noted that since 2006 the ABI estimates became a hybrid of estimated local unit employment and real local unit data.

1: Setting the London picture according to BRES 2009

BRES is an annual survey which collects information at the local unit (LU) level for the total number of employees on a specific date in September. A local unit could be, for example, a factory, office, warehouse or workshop.[2]

London picture compared to GB and regions

Table 1: Employees and employment by region (thousands)

	Employees				Employment			
	2008 Total	2009 Total	Change 2008-2009	%	2008 Total	2009 Total	Change 2008-2009	%
North East	1,057	1,007	-50	-4.8	1,104	1,056	-48	-4.3
North West	3,009	2,963	-46	-1.5	3,175	3,132	-43	-1.3
Yorkshire and The Humber	2,246	2,199	-46	-2.1	2,365	2,338	-27	-1.1
East Midlands	1,915	1,870	-45	-2.3	2,049	1,998	-51	-2.5
West Midlands	2,387	2,264	-124	-5.2	2,521	2,411	-110	-4.3
East of England	2,433	2,380	-53	-2.2	2,589	2,557	-32	-1.2
London	4,253	4,060	**-192**	**-4.5**	4,473	4,286	**-187**	**-4.2**
South East	3,767	3,653	-114	-3.0	3,998	3,913	-85	-2.1
South West	2,265	2,270	4	0.2	2,446	2,479	33	1.3
							0	..
Wales	1,196	1,158	-38	-3.2	1,300	1,271	-28	-2.2
Scotland	2,463	2,383	-80	-3.3	2,605	2,529	-76	-2.9
Northern Ireland	..	709	..	..	..	773	..	..
Great Britain	**26,990**	**26,206**	**-783**	**-2.9**	28,624	**27,971**	**-653**	**-2.3**
UK	**..**	**26,915**	..	..	**..**	**28,744**	..	

Source: ONS, Business Register Employment Survey

.. 2008 figures are not available for Northern Ireland.

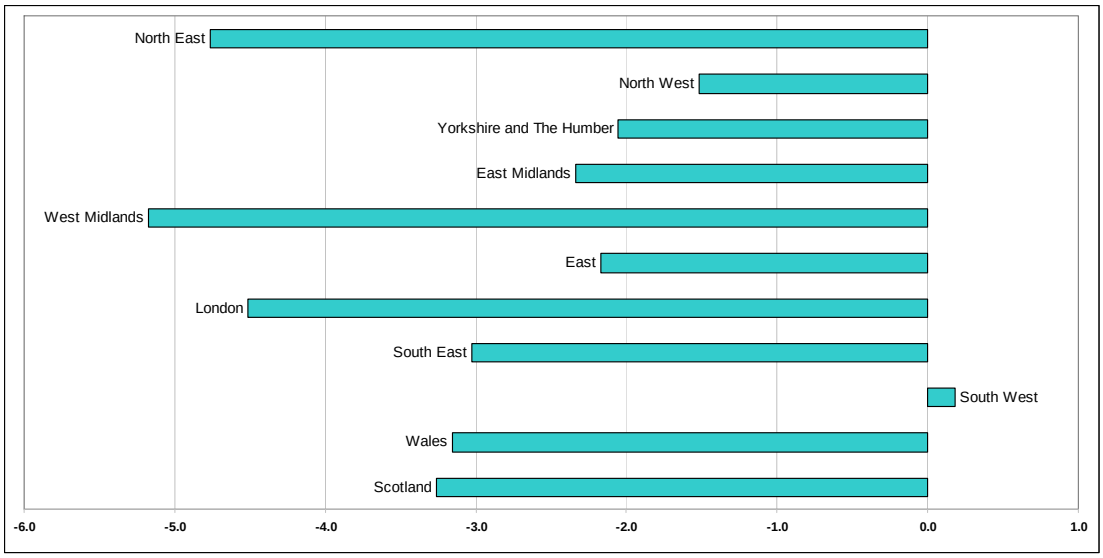
Employees - all aged 16+ paid directly by an organisation. Includes full-time and part-time or those on a training scheme. Excludes voluntary workers, self-employed, working owners.

Employment = employees + working proprietors

In terms of employee jobs, London is the largest of the government office regions with 4.1 million employees in September 2009 (and 4.3 million in employment). This accounts for 15.1 per cent of UK employees. According to BRES between 2008 and 2009 London saw a decrease in the number or employees of 192,000 (-4.5 per cent). This is the largest absolute decrease of all the countries and regions of the UK, although the West Midlands (-5.2 per cent) and the North East (-4.8 per cent) saw larger falls in percentage terms.

[2] http://www.statistics.gov.uk/downloads/theme_labour/bres/bres-sqr.pdf

Chart 1: Percentage change in employees between 2008 and 2009, by region



Source: ONS, Business Register Employment Survey

London by borough

Westminster is the largest borough in terms of employee jobs (14.6 per cent of London employees), followed by City. Westminster saw the largest absolute decrease in employees with a fall of 23,000 (-3.8 per cent) between 2008 and 2009.[3] In percentage terms Sutton showed the greatest decrease in employees between 2008 and 2009 with a fall of 9.6 per cent (7,000 employees), followed by Richmond Upon Thames (-9.3 per cent), Croydon (-9.1 per cent) and Ealing (-8.5 per cent).

These are very large year-on-year changes for the boroughs. If we compare the year-on-year changes at borough level for ABI data between 2007 and 2008 the average change was just 1.3 per cent, with the largest decline in Bromley of 5.7 per cent. Interestingly Sutton, which saw the largest fall between BRES 2008 and 2009, increased by 13.5 per cent between ABI 2007 and 2008. Confidence intervals are not available for ABI data but for BRES they can be calculated using the standard error. For example, Sutton had 62,000 jobs in BRES 2009 which was a fall from 2008 of 7,000 where total jobs could vary by +/- 3,000 (using the 95 per cent confidence interval). This may suggest borough level employment is quite changeable from year to year as a result of sampling variability.

Looking back to London's last recession in 2002, which was not as deep as the recent downturn (in terms of falls in output), the average change at borough level was much smaller than that recorded between 2008 and 2009. According to ABI data, the average change between 2001 and 2002 was -2.0 per cent and between 2002 and 2003 it was growth of 0.1 per cent. However the largest changes in any one borough were -11.4 per cent and -9.5 per

[3] The industrial sectors that contributed the most to the fall in Westminster were 'Administrative and support service activities' (8,000 or -12.5 per cent year-on-year fall) and 'Wholesale and retail trade' (6,000, or -7.2 per cent year-on-year fall).

cent in 2002 and 2003 respectively. This is similar in magnitude to the largest changes we see at borough level between 2008 and 2009.

Table 2: Employees, employment and confidence intervals[4], by borough, 2009

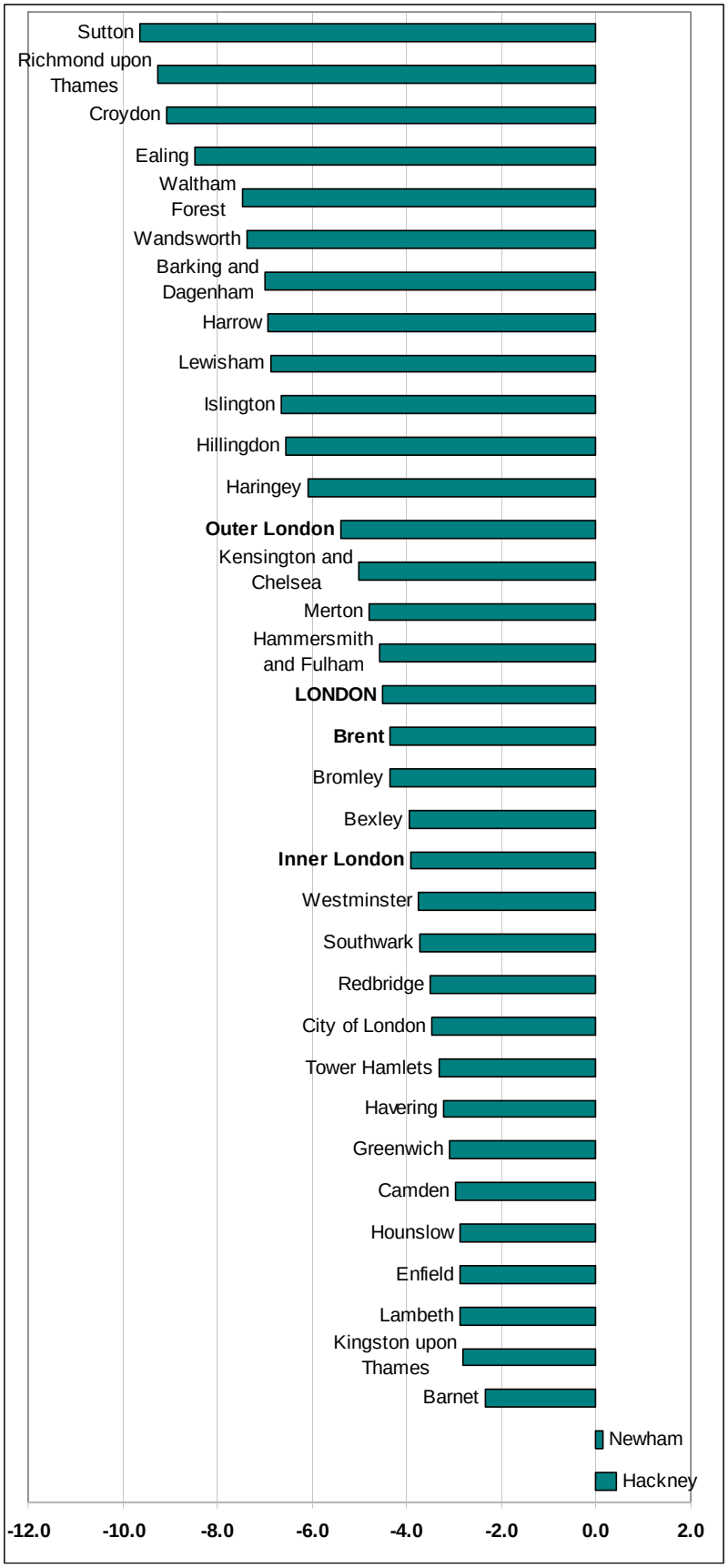
London borough	Total Employees	Public Sector Number	Public Sector Per cent	Total Employment	CI Range at 95% +/-
Barking and Dagenham	43,000	9,000	21.6	44,000	3,000
Barnet	110,000	26,000	23.5	118,000	6,000
Bexley	63,000	13,000	20.4	66,000	4,000
Brent	91,000	18,000	19.7	96,000	9,000
Bromley	101,000	21,000	20.3	107,000	7,000
Camden	275,000	39,000	14.0	292,000	12,000
City of London	317,000	18,000	5.8	336,000	17,000
Croydon	119,000	28,000	23.5	125,000	6,000
Ealing	104,000	18,000	17.0	110,000	5,000
Enfield	91,000	23,000	25.4	95,000	4,000
Greenwich	66,000	21,000	31.2	69,000	6,000
Hackney	84,000	18,000	21.1	89,000	4,000
Hammersmith and Fulham	115,000	28,000	24.2	122,000	6,000
Haringey	58,000	15,000	25.5	62,000	3,000
Harrow	63,000	12,000	19.1	67,000	3,000
Havering	70,000	17,000	23.5	74,000	7,000
Hillingdon	177,000	21,000	11.7	183,000	9,000
Hounslow	120,000	18,000	14.6	125,000	7,000
Islington	179,000	34,000	18.8	189,000	7,000
Kensington and Chelsea	108,000	21,000	19.6	115,000	7,000
Kingston upon Thames	75,000	15,000	20.4	78,000	5,000
Lambeth	125,000	35,000	27.7	130,000	30,000
Lewisham	58,000	18,000	30.7	60,000	4,000
Merton	64,000	10,000	16.2	68,000	3,000
Newham	72,000	24,000	33.6	75,000	3,000
Redbridge	64,000	18,000	28.4	67,000	3,000
Richmond upon Thames	67,000	11,000	15.9	71,000	3,000
Southwark	171,000	32,000	18.5	179,000	11,000
Sutton	62,000	15,000	24.2	65,000	3,000
Tower Hamlets	201,000	38,000	19.1	210,000	10,000
Waltham Forest	53,000	14,000	26.6	56,000	5,000
Wandsworth	101,000	25,000	25.0	107,000	5,000
Westminster	594,000	91,000	15.3	634,000	40,000
London	**4,060,000**	**761,000**	**18.7**	**4,285,000**	**150,000**

Data are rounded to nearest thousand and exclude farm agriculture (SIC subclass 01000)
Private sector employees includes those in Non Profit Bodies
Public sector employees are those in Public Corporations / Nationalised Bodies, Central Government and Local Authorities
Definitive figures of public sector employment are available from ONS' Public Sector Employment series
These figures are available from http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=13615
Confidence intervals relate to employees rather than employment

Source: ONS, Business Register Employment Survey

[4] Confidence intervals relate to employees (not employment).

Chart 2: Percentage change in employees between 2008-2009, London by borough



Source: ONS, Business Register Employment Survey

Looking at Inner and Outer[5] London separately shows that Outer London has fared less well than Inner London in terms of percentage of employee jobs lost between 2008 and 2009.

Table 3: BRES employee jobs, 2008-2009, Inner and Outer London

	2008	2009		Change 2008-09	% Change 2008-09
Inner London	2,557,000	2,457,000	-	100,000	-3.9%
Outer London	1,696,000	1,603,000	-	93,000	-5.4%

London by industrial sector

Table 4 below shows the activities in which London's employee jobs are specialised (using SIC 2007). These include financial and insurance activities, information and communication, and professional, scientific and technical activities. Looking at a more disaggregated level it can be seen that London specialises in such things as programming and broadcasting, publishing activities, advertising and market research, financial service activities (and those auxiliary to these) and activities of head offices and management consultancy, legal and accounting activities.

Table 4: London's employment by sector, 2009 (SIC 2007)

Sector	London employee jobs	Share of Total London Employee Jobs	London Share of GB Employee Jobs	Index of specialisation [6]
A : Agriculture, forestry and fishing	**1,000**	**0%**	**1%**	**0.03**
B : Mining and quarrying	**2,000**	**0%**	**4%**	**0.22**
C : Manufacturing	**110,000**	**3%**	**5%**	**0.27**
D : Electricity, gas, steam and air conditioning supply	**6,000**	**0%**	**5%**	**0.27**
E : Water supply; sewerage, waste management and remediation activities	**14,000**	**0%**	**10%**	**0.58**
F : Construction	**127,000**	**3%**	**10%**	**0.61**
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	**537,000**	**13%**	**13%**	**0.79**
H : Transportation and storage	**213,000**	**5%**	**18%**	**1.16**
I : Accommodation and food service activities	**292,000**	**7%**	**17%**	**1.08**
J : Information and communication	**280,000**	**7%**	**29%**	**2.20**
Publishing activities	60,000	1%	39%	3.51

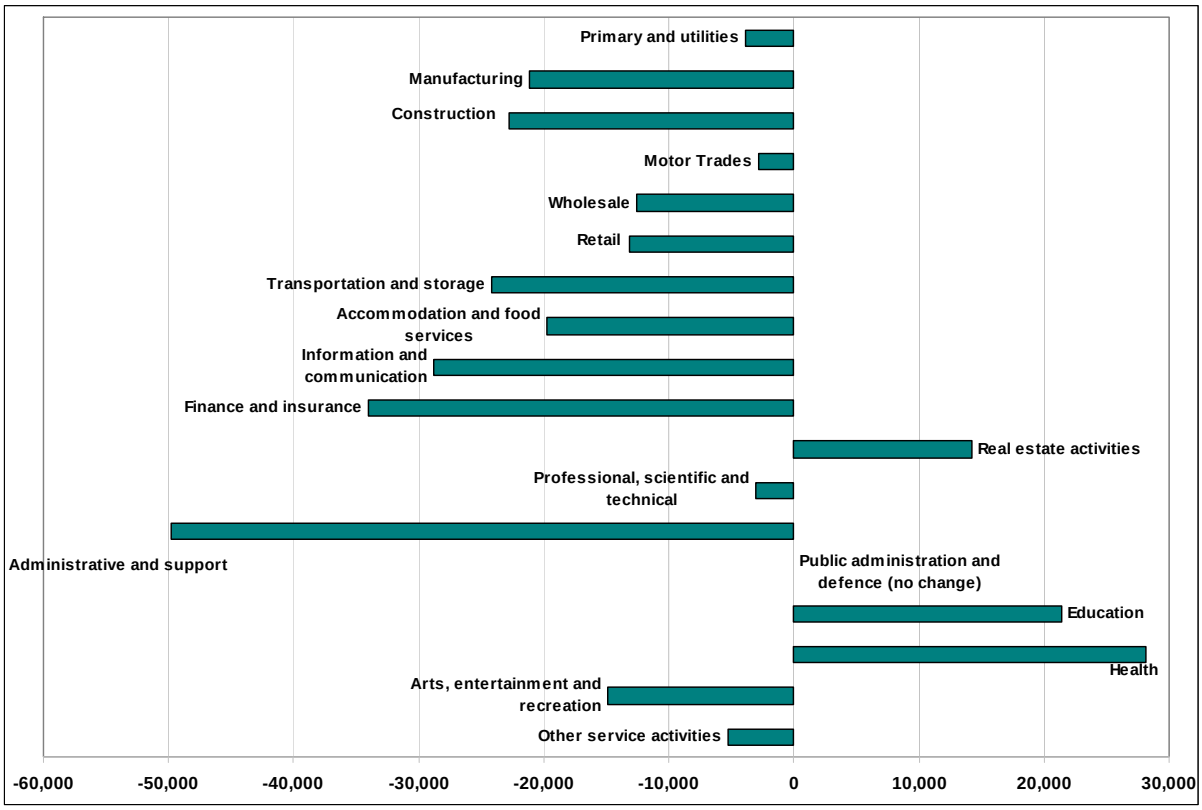
[5] Using EU NUTS definition of Inner and Outer London generally used by ONS.
[6] Index of specialisation is calculated as: (London employment in sector/London total employment)/ Rest of GB in sector/Rest of GB total employment)

Motion picture, video and television programme production, sound recording and music publishing activities	43,000	1%	51%	5.75
Programming and broadcasting activities	16,000	0%	74%	15.60
Telecommunications	38,000	1%	18%	1.23
Computer programming, consultancy and related activities	109,000	3%	24%	1.75
Information service activities	13,000	0%	23%	1.61
K : Financial and insurance activities	**315,000**	**8%**	**30%**	**2.39**
Financial service activities, except insurance and pension funding	158,000	4%	29%	2.27
Insurance, reinsurance and pension funding, except compulsory social security	20,000	0%	19%	1.26
Activities auxiliary to financial services and insurance activities	137,000	3%	35%	2.95
L : Real estate activities	**90,000**	**2%**	**23%**	**1.59**
M : Professional, scientific and technical activities	**493,000**	**12%**	**27%**	**2.02**
Legal and accounting activities	163,000	4%	32%	2.56
Activities of head offices; management consultancy activities	158,000	4%	32%	2.61
Architectural and engineering activities; technical testing and analysis	61,000	2%	15%	0.97
Scientific research and development	21,000	1%	18%	1.21
Advertising and market research	52,000	1%	38%	3.28
Other professional, scientific and technical activities	34,000	1%	27%	2.01
Veterinary activities	3,000	0%	8%	0.44
N : Administrative and support service activities	**402,000**	**10%**	**20%**	**1.35**
Rental and leasing activities	15,000	0%	11%	0.71
Employment activities	139,000	3%	19%	1.27
Travel agency, tour operator and other reservation service and related activities	19,000	0%	22%	1.57
Security and investigation activities	51,000	1%	29%	2.20
Services to buildings and landscape activities	125,000	3%	21%	1.44
O : Public administration and defence; compulsory social security	**223,000**	**5%**	**15%**	**0.96**
P : Education	**335,000**	**8%**	**13%**	**0.85**
Q : Human health and social work activities	**416,000**	**10%**	**12%**	**0.75**
R : Arts, entertainment and recreation	**103,000**	**3%**	**16%**	**1.04**
S : Other service activities	**103,000**	**3%**	**19%**	**1.26**
Activities of membership organisations	57,000	1%	26%	1.90
Repair of computers and personal and household goods	4,000	0%	9%	0.57
Other personal service activities	42,000	1%	15%	0.93
Total London Economy	**4,060,000**	**100%**	**15%**	**1.00**

Source: ONS, Business Register Employment Survey

The sector with the largest decrease in employees between 2008 and 2009 was 'Administrative and support service activities' which saw a fall of 49,800 (-11.0 per cent) employees. This sector includes rental and leasing activities, employment agencies, travel agencies and tour operator activities, security and investigation activities, services to buildings, office administration and other business support activities. This was followed by the 'Finance and insurance' sector which saw a decrease of 34,000 (-9.7 per cent) which would seem unsurprising given the recent recession had its origins in the banking sector, and administrative and support service activities would be closely linked to this. The only sectors to see an increase in employees were 'Health and social work activities', 'Education' and 'Real estate activities'.

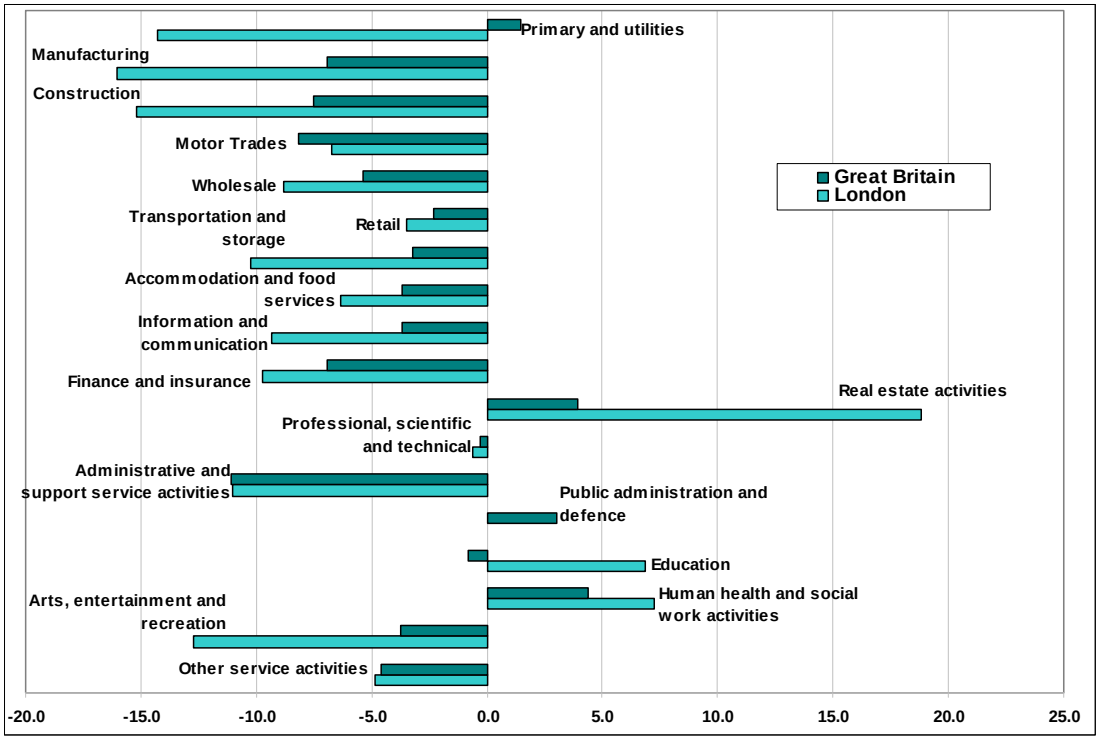
Chart 3: Change in employees between 2008-2009 by sector, London



Source: ONS, Business Register Employment Survey

In percentage terms, manufacturing (-16 per cent), construction (-15.2 per cent), arts, entertainment and recreation (-12.7 per cent), and transportation and storage (-10.2 per cent) saw the largest declines in employee jobs in London between 2008 and 2009, and were markedly different from the declines at the GB level. Administrative and support service activities also saw a relatively large decline of –11 per cent both in London and Great Britain. Real Estate activities in London stand out with considerable growth of 19 per cent compared to 3.9 per cent in Great Britain.

Chart 4: Percentage change in employees between 2008-2009 by sector, GB and London



Source: ONS, Business Register Employment Survey

The new Standard Industrial Classification 2007

Last revised in 2003, the Standard Industrial Classification (SIC) method of classifying business by their types of economic activity has now been superseded by SIC 2007. SIC 2007 is the first major revision since SIC 1992. The ABI figures for 2008 were based on SIC 2007 as is BRES. National Accounts are due to move to SIC 2007 in September 2011.[7]

Most of the new categories introduced by SIC 2007 relate to service activities. This is significant for London as many of its jobs are service sector based. For example Real Estate and Professional and administrative service activities have almost three times as many divisions under SIC 2007. Business activities (Section K under SIC 2003), which make up a large proportion of London's employee jobs, has moved to several areas in SIC 2007 including Sections L (Real Estate Activities), M (Professional, Scientific and Technical Activities) and N (Administration and Support Services). Section M includes legal and accounting activities, head office activities, management consultancy, architectural and engineering activities, scientific research and development, advertising and market research, other professional, scientific and technical activities and vetinary activities.

Some of the business activities from Section K SIC 2003 have also moved to Sections S (Other service activities) and J (Information and communication) in SIC 2007. Section J in SIC 2007 also includes publishing, film, broadcasting and news agencies in addition to

[7] Economic and Labour Market Review, Vol 3, No 12, December 2009 "Implementation of Standard Industrial Classification 2007: December 2009 update.

telecoms and computer related activities. The sale of fuel is now considered a retail activity (in SIC 2003 it was part of motor trade), and recycling has moved from manufacturing to water supply and sewerage and waste management.

Table 5: SIC 2007 and SIC 2003, broad correspondence at section level using ABI data (2008)

SIC 2007 - Sections			SIC 2003 - Sections		
A	Agriculture, forestry and fishing	1,500	A B	Agriculture, hunting and forestry Fishing	4,500
B	Mining and quarrying	3,300	C	Mining and quarrying	3,300
C	Manufacturing	122,400	D	Manufacturing	178,200
D	Electricity, gas, steam and air conditioning supply	6,900	E	Electricity, gas and water supply	6,900
E	Water supply; sewerage, waste management and remediation activities	16,300	(new) Combines activities from SIC (2003) sanitation activities (division 90), water collection and distribution (division 41) and materials recovery activities (division 37)		
F	Construction	140,500	F	Construction	122,500
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	565,500	G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	570,900
H	Transportation and storage	236,900	I	Transport, storage and communication	307,400
I	Accommodation and food service activities	302,900	H	Hotels and restaurants	303,000
J	Information and communication	295,100	(new) Combines activities from SIC (2003): sections D (manufacturing), I (Transport, storage and communications), K (Real estate, renting and business activities) and O (Other services activities)		
K	Financial and insurance activities	333,200	J	Financial intermediation	331,900
L M N	Real estate, renting and business activities (new) Professional, scientific and technical activities (new) Administrative and support service activities (new)	79,200 473,000 451,400 **1,003,600**	K	Real estate, renting and business activities	1,116,200
O	Public administration and defence; compulsory social security	223,500	L	Public administration and defence; compulsory social security	223,500
P	Education	313,200	M	Education	309,600
Q	Human health and social work activities	387,700	N	Health and social work	390,400
R S	Arts, entertainment and recreation (new) Other service activities (new)	114,300 102,100 **216,400**	O	Other community, social and personal service activities	300,300
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use Private households with employed persons	-	P	Private households with employed persons	-
U	Activities of extraterritorial organisations and bodies	-	Q	Extra-territorial organisation and bodies	-
	Total	**4,168,500**		**Total**	**4,168,500**

Obviously the change to SIC 2007 creates a problem for the historic data as it is a break in the series. For a consistent employment series (back to 1996) using SIC 2007 - Workforce Jobs should be used (this was introduced recently). This allows a London industry breakdown to sector level in SIC 2007 (see http://www.statistics.gov.uk/elmr/downloads/Table6-06.xls), see Appendix A for London charts.

However where we use detail below section level e.g. for monitoring and forecasting employment in London, we would need to 'back cast' BRES data. The ONS methodology directorate has been investigating methods of converting historical survey estimates based on SIC 2003.[8] Conversion matrices are the best option for converting historical series when dual-coded (i.e. coded with SIC 2003 and SIC 2007) business-level data is not available for the whole series. In the case of the ABI we have two link years (2007 and 2008) on which the data is dual-coded, which means a conversion matrix can be created using one of these link years. One problem with this method is that the proportions are calculated at a point in time (i.e. 2008 to use the most recent year) and we have to assume that these proportions apply back in time, though we have no way of checking their validity back in time.

One method for back-casting the BRES data is outlined here and some examples at the 2-digit level are shown in the chart A1 (see appendix A). Further investigation by ONS into the feasibility of producing a back series may show an alternative approach is preferable.

When back-casting the data we need to take account of three issues:

- the 2006 discontinuity in ABI/1,
- the conversion from SIC 2003 and SIC 2007 and
- the change in survey from ABI/1 to BRES.

Simple factors can be used to account for the 2006 discontinuity (provided by ONS) and to account for the later discontinuity in the change from ABI/1 to BRES. Factors for the ABI/1 to BRES discontinuity can be calculated by the user, comparing the difference between ABI/1 for 2008 and BRES 2008.

There is no direct 1-1 mapping between SIC 2003 and SIC 2007 - even at 5 digit SIC level, individual codes are split out or combined. Therefore a conversion matrix is needed to take account of the mappings. A matrix is available at 2, 3, 4 and 5 digit SIC level (provided by ONS). For this conversion 4 digit SIC data were used (the lowest level of aggregation available under ABI/1 although BRES now provides data at 5 digit SIC). It should be noted that direct comparison of employment in the old and new equivalent SIC 2003 and SIC 2007 codes provides a broad idea of the change but cannot be used for conversion as it does not provide a full mapping.

The tools that are currently available to help are:

- Conversion factors for 2006 discontinuity
  http://www.nomisweb.co.uk/articles/news/files/ABI2006discontinuities.doc

[8] Our Changing Economy: backcasting the new industrial classifications, Louisa Nolan, ONS

- Correlation tables (conversion matrix) for SIC2003 to SIC2007 containing percentage distributions for employment
  http://www.statistics.gov.uk/statbase/product.asp?vlnk=14012
- A BRES 2008 consistent with the earlier ABI/1 2008 series (generated by processing ABI/1 2008 results through the BRES system)

Chart A1 at Appendix A shows a time series on a consistent SIC 2007 basis for a selection of industries at the 2 digit level for London. As can be seen from this chart while jobs in financial service activities saw a relatively sharp decline between 2008 and 2009, jobs in activities auxiliary to financial services have held up according to BRES. The Real estate sector has fared well between 2008 and 2009; this is mainly due to increases in jobs relating to renting and management of real estate.

2: Moving from ABI to BRES

There are several areas where the improvements to the new survey lead to a discontinuity when comparing with previous years of ABI data. These include the questionnaire design, the sample design, validation and quality assurance, and the estimation methodology.[9] The discontinuity in the time series has been investigated by the ONS and it estimates that the overall discontinuity for Great Britain is 317,000 employees in an upward direction.[10] That means that, BRES yields an estimate of employment in 2008 that is 317,000 higher than obtained from ABI/1 for the same year. It may be worth noting that in assessing the questionnaire effect the ONS discontinuity analysis was limited to large businesses.[11]

The BRES 2008 data (which is essentially ABI/1 data that has been processed using the BRES methodology) was considered by ONS as the best option for removing the discontinuity. Table 6 compares ABI/1 2008 results with BRES 2008 to illustrate where the discontinuity lies.

Impact of the discontinuity at Government Office Region Level (thousands)

Table 6: Discontinuity in BRES Employee Estimates for Great Britain

	ABI 2008	BRES 2008	Discontinuity	Percentage
North East	1,027,700	1,054,100	26,400	2.6
North West	2,991,600	2,996,800	5,200	0.2
Yorkshire and The Humber	2,219,400	2,233,100	13,700	0.6
East Midlands	1,874,800	1,899,200	24,400	1.3
West Midlands	2,336,400	2,368,400	32,000	1.4
East	2,368,200	2,409,200	41,000	1.7
London	4,167,900	4,251,900	84,000	2.0
South East	3,727,700	3,737,600	9,900	0.3
South West	2,216,100	2,241,900	25,800	1.2
Wales	1,169,100	1,181,300	12,300	1.1
Scotland	2,394,700	2,436,700	42,000	1.8
Great Britain	26,493,600	26,810,200	316,600	1.2

These figures exclude farm agriculture (SIC subclass 01000). [12]

Of all the regions London has the largest discontinuity of 84,000 in absolute terms, i.e. BRES yields an estimate of employment in 2008 that is 84,000 higher than that obtained from ABI/1 for the same year. The North East has the largest discontinuity in percentage terms at 2.6 per cent compared to 2.0 per cent in London.

Breaking down the London employee jobs estimates by industry sector shows where this discontinuity lies. The majority of the discontinuity is concentrated across the three sectors:

[9] For further details see: http://www.statistics.gov.uk/downloads/theme_labour/bres/discontinuity-article.doc
[10] http://www.statistics.gov.uk/downloads/theme_labour/bres/discontinuity-article.doc
[11] For further details see http://www.statistics.gov.uk/downloads/theme_labour/bres/discontinuity-article.doc
[12] BRES 2009 also includes a change to the farm agriculture estimates which are collected by DEFRA. The figures now only include commercial holdings as opposed to 'all' holdings previously. This accounts for a change of -6,500.

professional, scientific and technical, financial and insurance activities and information and communications. These sectors have also changed significantly under SIC 2007. Manufacturing and construction also see relatively large increases (8,800 each).

One of the reasons why BRES was introduced was to improve regional employee estimates. The ABI took data at 'Reporting Unit Level' (can be thought of as a head office) and apportioned employee jobs to the regions, whereas BRES collects data at the 'Local Unit' (site) level. The 'bottom-up' approach used by BRES should remove the potential source of inaccuracies that might arise from apportioning out from Reporting Units. It should also reduce the possibility for discrepancies with other sources (such as the LFS- this is discussed in more detail at Appendix B). ONS estimates that BRES introduces a positive discontinuity for London since BRES picks up more smaller businesses across the board (indeed the discontinuity is positive for all regions).

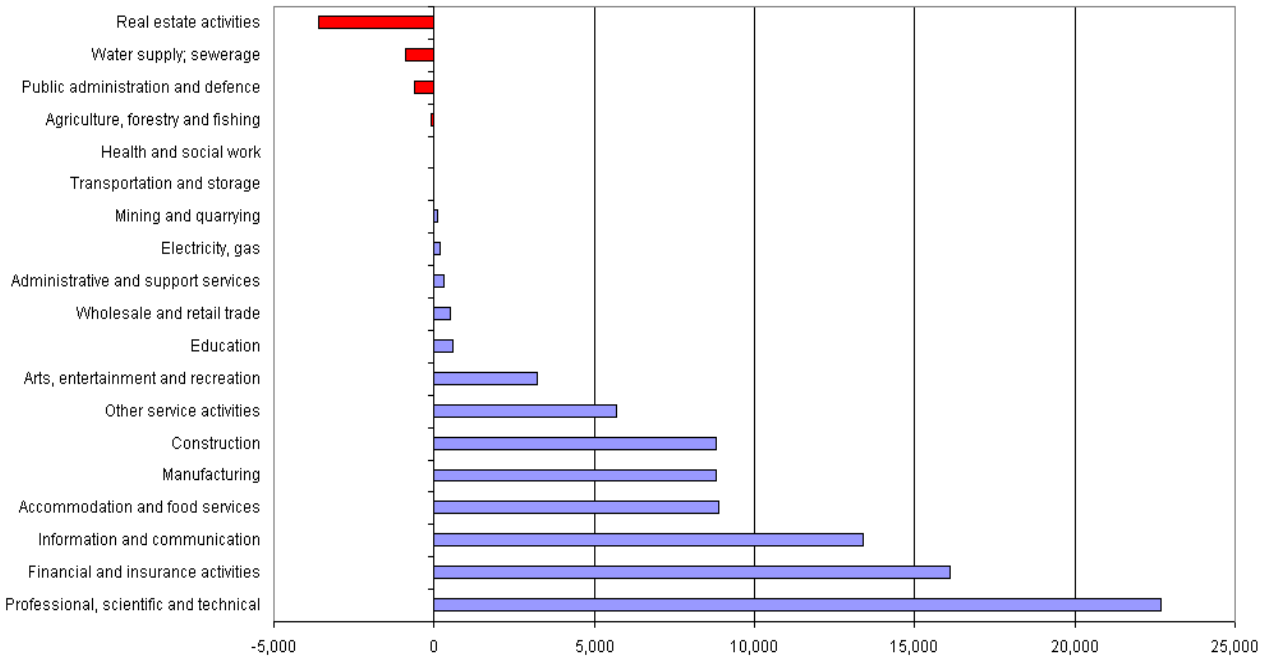
Discontinuity at the London level:

Table 7: Discontinuity in BRES Employee Estimates for London by industry

	ABI 2008	BRES 2008	Discontinuity	Percentage
A : Agriculture, forestry and fishing	900	800	-100	-14.4
B : Mining and quarrying	3,300	3,300	100	2.2
C : Manufacturing	122,400	131,200	8,800	7.1
D : Electricity, gas	6,600	6,800	200	3.5
E : Water supply; sewerage	16,300	15,400	-900	-5.4
F : Construction	140,500	149,400	8,800	6.3
G : Wholesale and retail trade	565,500	566,000	500	0.1
H : Transportation and storage	236,900	236,900	0	0.0
I : Accommodation and food services	302,900	311,900	8,900	2.9
J : Information and communication	295,100	308,400	13,400	4.5
K : Financial and insurance activities	333,200	349,200	16,100	4.8
L : Real estate activities	79,200	75,600	-3,600	-4.6
M : Professional, scientific and technical	473,000	495,700	22,700	4.8
N : Administrative and support services	451,400	451,700	300	0.1
O : Public administration and defence	223,500	222,900	-600	-0.3
P : Education	313,200	313,700	600	0.2
Q : Health and social work	387,700	387,700	0	0.0
R : Arts, entertainment and recreation	114,300	117,500	3,200	2.8
S : Other service activities	102,100	107,800	5,700	5.5
Total	4,167,900	4,251,900	84,000	2.0

These figures exclude farm agriculture (SIC subclass 01000).

Chart 5: Discontinuity in BRES employee jobs estimates for London by industry



Source: ONS, Annual Business Inquiry, Business Register Employment Survey

The industry breakdown points to size of business as a factor in the discontinuity. According to the ONS there is more of an effect for the smaller businesses when identifying the discontinuity because for many of the larger businesses the ABI/1 was already using data from BRES forms. Also there is the possibility that better wording in the BRES survey has resulted in businesses completing the questionnaire in a slightly different way. This would impact across the board but may have been more pronounced in smaller businesses due to the weighting during estimation.

3: Comparison with other data sources

In this section we compare the BRES estimates of employee jobs (and employment) with other data sources to see how they correspond. We compare GB and London data and also look at the industrial breakdown of London across data sources.

Other sources for estimates of employment include the Workforce Job series, the Labour Force Survey and the Annual Population Survey. We also look at Claimant Count data which indicates how unemployment is moving as another means of comparison. Obviously we do not expect the different data sources to match exactly as each survey is different. For example the Labour Force Survey is a survey of households and will include proxy responses, whereas BRES is answered directly by employers. BRES should give us the most accurate representation of jobs in London, and the Workforce Jobs Series is the closest comparator.

Finally we compare with other indicators of economic well-being including redundancies, output (GVA), productivity and tube and bus usage data.

Workforce Job series (including employee jobs)

The Workforce Jobs Series (WFJ) is a quarterly measure of the total number of jobs in the UK, constructed by ONS using the following estimates[13]:

- Data on employees jobs taken from employer surveys
- Estimates of self employment jobs taken from the LFS
- Data on HM Forces gained from Ministry of Defence records
- Estimates of Government-supported trainees, obtained from Department for Education administrative records

WFJ series is benchmarked annually on the BRES estimate (formerly it was benchmarked on the ABI estimate). The ONS published revisions to the WFJ series in March,[14] which includes the revisions due to benchmarking on BRES. However the WFJ series used in this report is prior to these revisions, and therefore is not benchmarked on BRES. Benchmarking is usually done by December of the following year.[15] The WFJ series provides a more reliable industry breakdown than the Labour Force Survey.

Employee jobs are by far the biggest component of WFJ. Most of the data for employee jobs comes from the Short-Term Employment Surveys (STES), a group of surveys that collect employment and output data from businesses.[16]

Unlike BRES, which is sampled annually in September, the Workforce Jobs series is provided quarterly. When comparing BRES with the WFJ, it will be important which quarter of WFJ

[13] http://www.london.gov.uk/mayor/economic_unit/docs/london_workforce_employment_series.pdf see Appendix 1
[14] http://www.statistics.gov.uk/downloads/theme_labour/revisions-to-workforce-jobs-mar-11.pdf
[15] http://www.statistics.gov.uk/downloads/theme_labour/bres/bres-sqr.pdf
[16] http://www.statistics.gov.uk/downloads/theme_labour/Revisions-to-Workforce-Jobs-July2010.pdf

data we look at. Therefore we have compared BRES with both Q3 (July-September) and Q4 (October to December) WFJ data.

Table 8: Employee jobs and employment (workplace based), 2008 and 2009, thousands

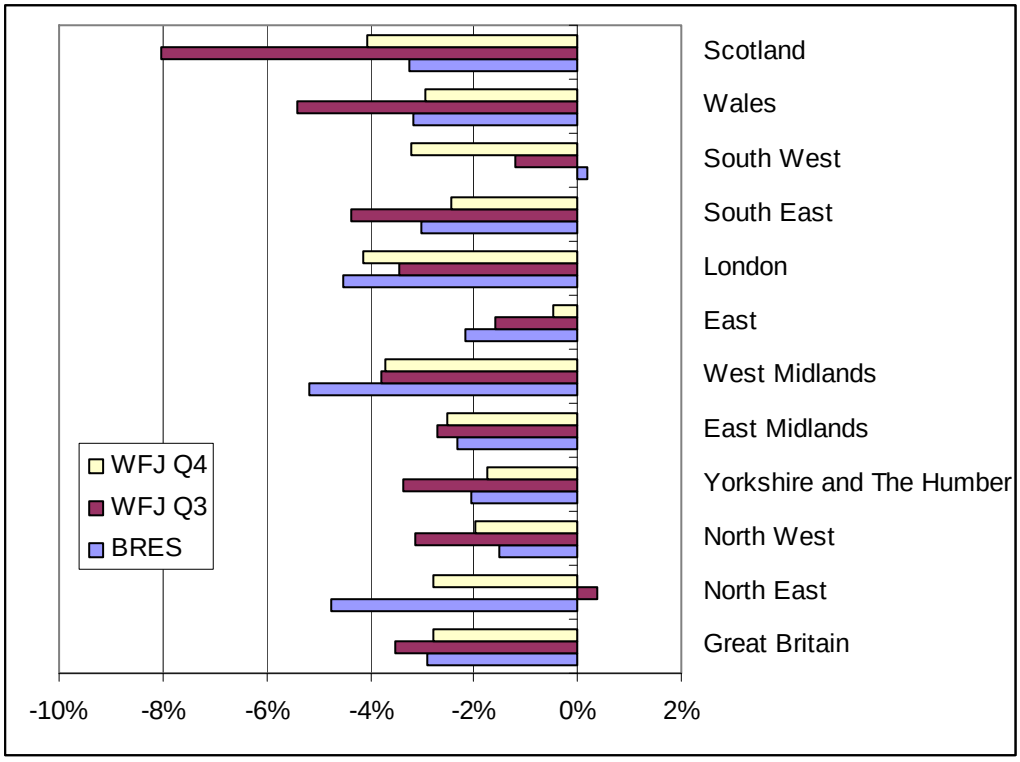
		2008	2009	Change 2008-2009	% Change 2008-09
Employees jobs:					
LONDON	BRES	4,253	4,060	-192	-4.5%
	WFJ (Q3)	4,166	4,023	-143	-3.4%
	WFJ Q4	4,245	4,069	-176	-4.1%
Employment:					
LONDON	BRES	4,473	4,286	-187	-4.2%
	WFJ (Q3)	4,835	4,697	-138	-2.9%
	WFJ (Q4)	4,928	4,709	-219	-4.5%
Employees jobs:					
GB	BRES	26,990	26,206	-783	-2.9%
	WFJ (Q3)	26,638	25,699	-940	-3.5%
	WFJ (Q4)	26,312	25,584	-728	-2.8%
Employment:					
GB	BRES	28,624	27,971	-653	-2.3%
	WFJ (Q3)	30,862	30,039	-824	-2.7%
	WFJ (Q4)	30,718	30,023	-695	-2.3%

Source: ONS

Comparing these two data sources shows that timing is quite significant because the differences between BRES and WFJ are not that large if we look at WFJ Q4, but the difference is larger if we take Q3 of WFJs. The fall for London of 192,000 employee jobs (4.5 per cent) in BRES, compares to a fall of 176,000 in Q4 (4.1 per cent) and a fall of 143,000 in Q3 (3.4 per cent) in WFJ.

At the GB level BRES shows a smaller fall in employee jobs and employment in percentage terms to the WFJ series in Q3. In Q4 the fall is very close in both surveys.

Chart 6: Percentage change in employee jobs 2008-2009, by region

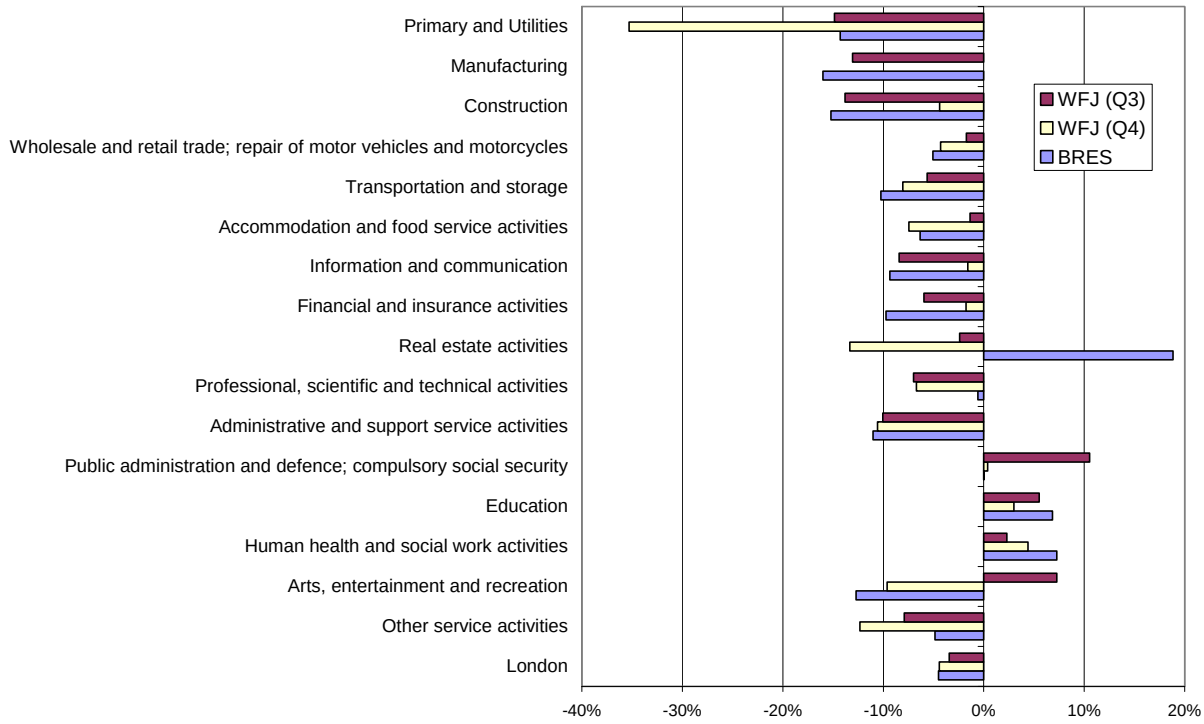


Source: ONS, Business Register Employment Survey

Looking at the regional picture, WFJ and BRES show a broadly similar picture except for Scotland, the North East and the West Midlands. The South West shows slight growth in jobs in BRES, but losses in WFJ series.

For most of the sectors there are not big differences between the two data sources. In the case of real estate activities, WFJ employee jobs move in a different direction to BRES. This looks like a large difference in percentage terms, in actual numbers this is growth of 14,000 jobs in BRES compared to a contraction of 2,000 jobs in WFJ Q3 and 12,000 in Q4. There is also a much smaller fall in Professional, scientific and technical activities in BRES (3,000) than in WFJs (33,000 in Q3 and 39,000 in Q4). These sectors have all changed significantly between SIC 2003 and SIC 2007 although this should not matter since both BRES 2008 and BRES 2009 are on SIC 2007.

Chart 7: Percentage change in employee jobs, London 2008-2009, BRES and WFJ compared, by sector



Source: ONS, Business Register Employment Survey

Labour Force Survey

The Labour Force Survey (LFS) is a quarterly survey of employment which collects information from residents of private households. It is the preferred source of statistics on employment (not jobs). The concept of employment measured by the LFS is the number of people working at least one hour during the survey week and differs from the concept of jobs, since a person can have more than one job and some jobs may be shared by more than one person.

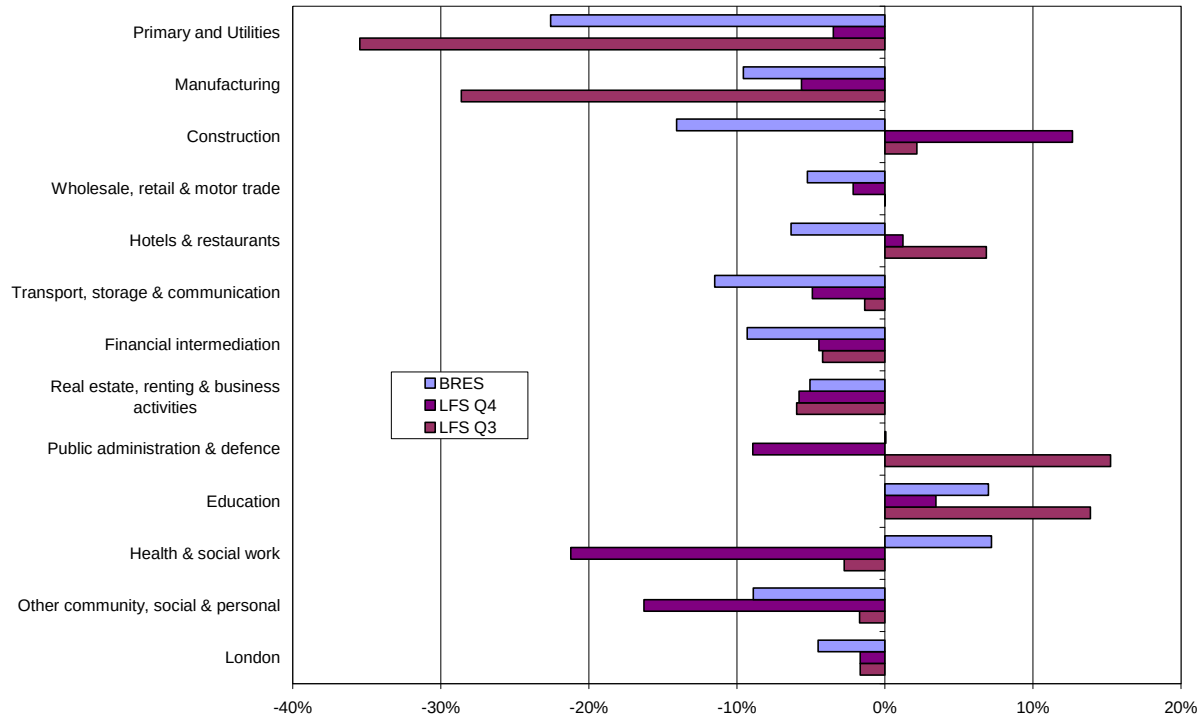
Therefore when comparing LFS data with BRES and WFJ the closest comparison we can draw is using LFS workplace based jobs plus second jobs and excluding sectors P (households that employ people) and Q (extra territorial organisations)[17], as well as the armed forces working at home. This is explained in more detail in Appendix A of "The GLA's London Workforce Employment Series", GLA Economics, September 2003.[18]

Taking workplace based jobs plus second jobs in both Q3 and Q4 shows workplace based jobs in London between 2008 and 2009 fell by 53,500 in Q3 and 102,800 in Q4. In percentage terms this is a 1.5 or 2.8 per cent fall in jobs for London which are much smaller than the 4.5 per cent reported by BRES.

[17] Neither of which would be picked up by BRES estimates the survey is completed by businesses not households.
[18] http://www.london.gov.uk/mayor/economic_unit/docs/london_workforce_employment_series.pdf

At the GB level LFS and BRES are closer, though still quite a big difference remains. LFS jobs fell by 529,000 (523,000 in Q4) or 2.1 per cent which compares to 783,000 or 2.9 per cent in BRES. The difference between the LFS and WFJs/ABI has been a long standing issue. Appendix B looks at the difference between the LFS, WFJ and BRES in more detail.

Chart 8: LFS workplace based jobs plus second jobs and BRES employees (SIC 2003), percentage change 2008-2009



Source: ONS

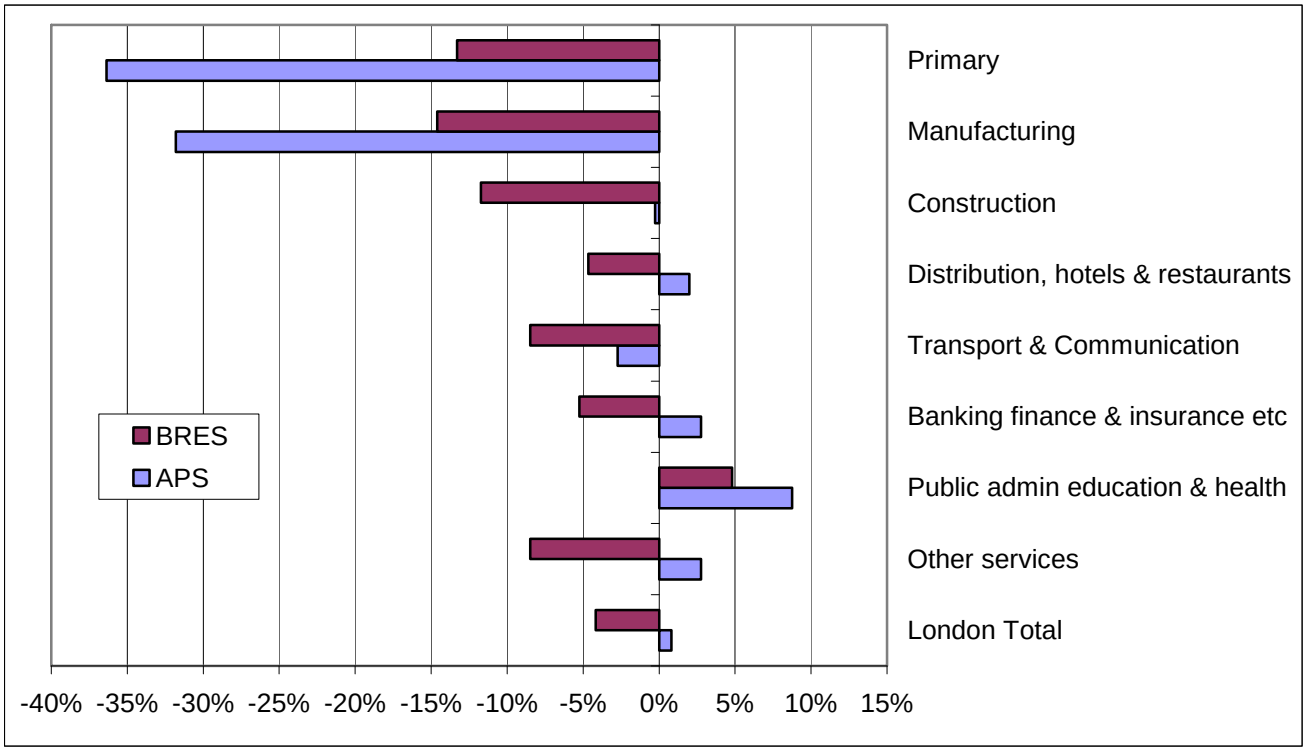
Comparing BRES and LFS there are some quite large differences in the percentage changes between 2008 and 2009 at the sector level. In construction, hotels and restaurants and health and social work, BRES and LFS (Q3 and Q4) move in different directions. However we should bear in mind that sector level data in the LFS is likely to be less reliable than in BRES because the survey is completed by households (who self-define their industry) whereas BRES is completed directly by employers with the industry coded according to the Inter-Departmental Business Register (IDBR). The LFS will also include some proxy responses (i.e. one person in the household responds for all in a household).Traditionally the public sector is over-stated in the LFS.

Annual Population Survey

The Annual Population Survey combines results from the Labour Force Survey. The APS is produced quarterly with each quarter containing 12 months of data, hence it is also worth comparing with BRES. There are approximately 170,000 households and 360,000 persons per dataset each year. APS shows London's jobs ***growing*** by 33,000 or 0.8 per cent between 2008 and 2009 if you take the full year of data (January to December). At the GB level the APS shows a contraction in jobs of 441,000 or -1.6 per cent. So this shows London

performing far better than Britain as a whole in terms of jobs, a very different picture to BRES.

Chart 9: Employment by workplace SIC 2003, percentage change 2008-2009, London



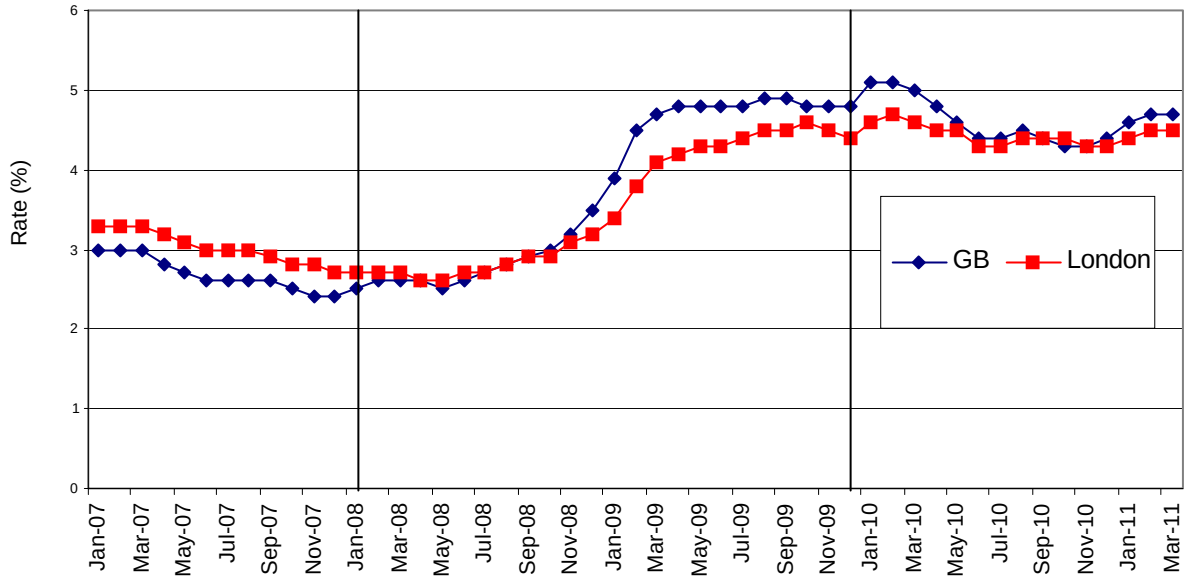
Source: ONS, Business Register Employment Survey and GLA Economics calculations
Uses BRES Employment, not employee jobs

Breaking the APS down by industry we can see very big differences with BRES. For example, according to APS there were large falls in manufacturing jobs (72,000 or 32 per cent). Such a large contraction in a sector in a year seems extreme. A number of the sectors move in different directions.

Claimant count

The claimant count represents the number of people claiming unemployment benefit i.e. Job Seeker's Allowance (JSA) on a particular day of the month. Not every person losing their job will claim JSA and the proportion of those who claim may vary across occupations, but it is a useful and timely measure. The number of unemployed people in London will be substantially higher than the claimant count. Nonetheless it is helpful to compare this measure of unemployment in London between 2008 and 2009 with the BRES employment data.

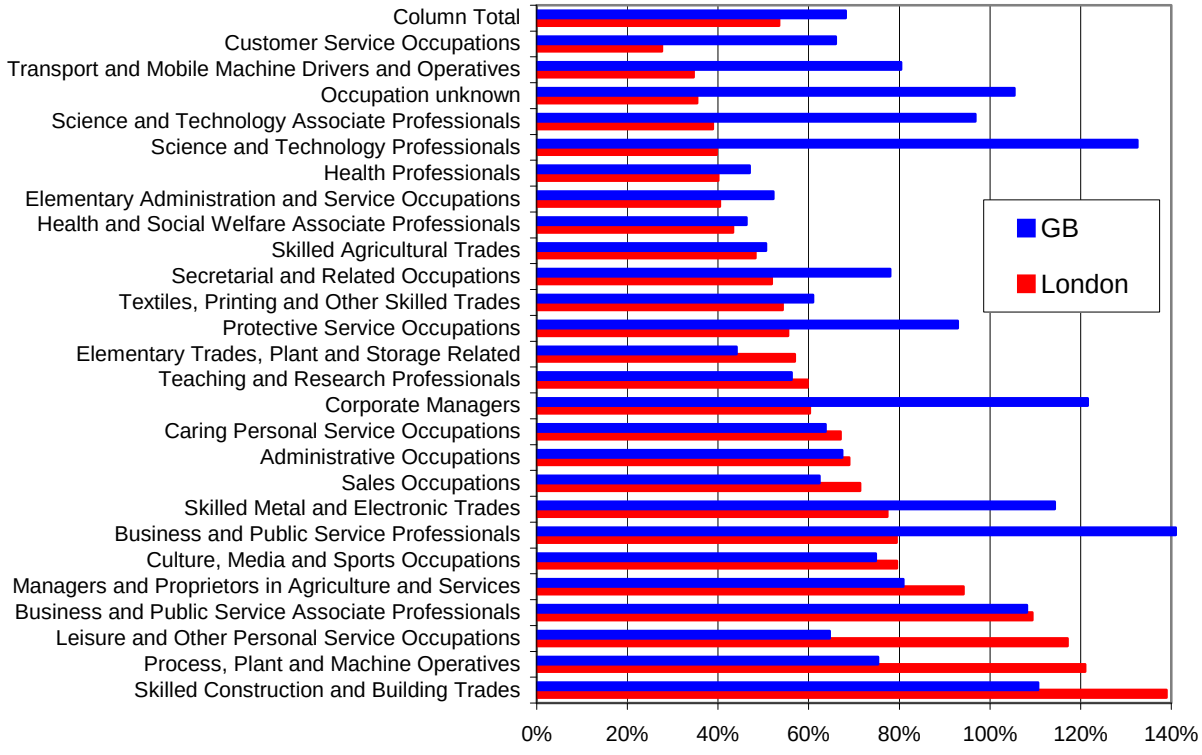
Chart 10: Claimant count rate (%) , GB and London



Source: ONS

During 2008 and 2009 the claimant count rate rose more slowly in London than in Britain as a whole.

Chart 11: Claimant Count percentage change 08-09, by occupation, GB and London



Source: ONS

London's percentage increase in the claimant count between 2008 and 2009 was less than in Great Britain as a whole at 53 per cent versus 68 per cent, or 74,000 in London and 601,000 in Great Britain. For the majority of occupations the percentage increase in the claimant count was smaller in London than in Britain. The overall unemployment rate in Britain rose from 2.8 per cent to 4.7 per cent (annual averages) between 2008 and 2009, in London the corresponding rise was smaller in London, from 2.8 to 4.3 per cent.

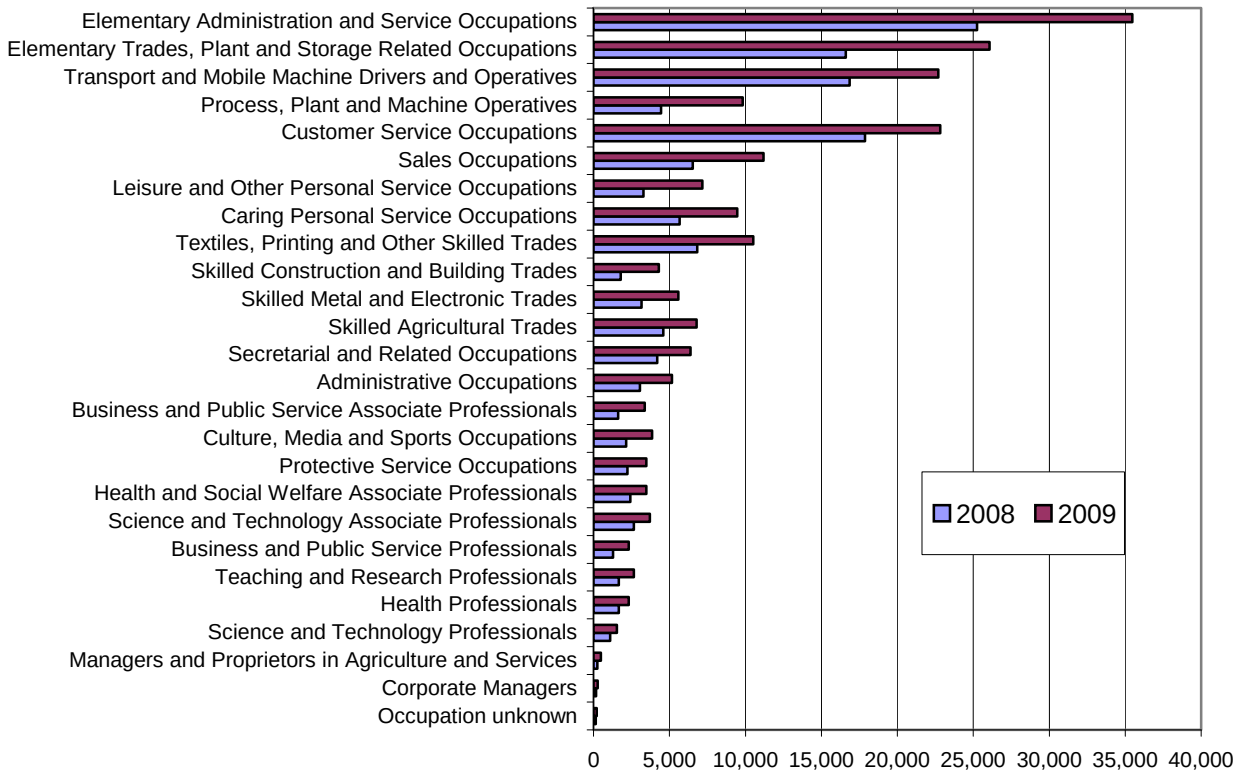
Great Britain saw much bigger rises in the claimant count in percentage terms than London in a number of occupations including Business and Public Service Professionals, Corporate Managers, Science and Technology Professionals and Associates, Business and Public Service Professionals, Skilled Metal and Electronic Trades, and Customer Service Occupations. This suggests that London performed better in terms of employment (or proportionately smaller increases in unemployment) between 2008 and 2009 than Great Britain, in contrast to BRES data. However given that coverage of some of the higher occupations is very low we need to be cautious about these results.

Table 9: Claimant count, Change 08-09, by occupation, London and GB

	London		London	GB	London	GB
	2008	2009	Change 2008-2009		Change (%) 2008-2009	
Occupation unknown	158	214	56	2,184	35%	105%
Corporate Managers	174	279	105	33,775	60%	122%
Managers and Proprietors in Agriculture and Services	250	485	235	6,038	94%	81%
Science and Technology Professionals	1,101	1,539	438	13,448	40%	133%
Health Professionals	1,662	2,328	666	258	40%	47%
Teaching and Research Professionals	1,669	2,666	997	4,411	60%	56%
Business and Public Service Professionals	1,293	2,320	1,027	8,643	79%	141%
Science and Technology Associate Professionals	2,666	3,702	1,036	11,019	39%	97%
Health and Social Welfare Associate Professionals	2,422	3,471	1,049	3,031	43%	46%
Protective Service Occupations	2,232	3,469	1,237	826	55%	93%
Culture, Media and Sports Occupations	2,150	3,858	1,708	13,094	79%	75%
Business and Public Service Associate Professionals	1,615	3,382	1,767	16,335	109%	108%
Administrative Occupations	3,058	5,166	2,108	53,815	69%	67%
Secretarial and Related Occupations	4,202	6,380	2,178	8,639	52%	78%
Skilled Agricultural Trades	4,584	6,795	2,211	7,344	48%	51%
Skilled Metal and Electronic Trades	3,153	5,592	2,439	29,193	77%	114%
Skilled Construction and Building Trades	1,797	4,295	2,498	50,041	139%	111%
Textiles, Printing and Other Skilled Trades	6,820	10,518	3,698	8,320	54%	61%
Caring Personal Service Occupations	5,662	9,459	3,797	20,138	67%	64%
Leisure and Other Personal Service Occupations	3,298	7,160	3,862	7,445	117%	65%
Sales Occupations	6,535	11,196	4,661	76,429	71%	62%
Customer Service Occupations	17,879	22,815	4,935	12,920	28%	66%
Process, Plant and Machine Operatives	4,440	9,813	5,373	30,367	121%	75%
Transport and Mobile Machine Drivers and Operatives	16,865	22,705	5,841	44,690	35%	80%
Elementary Trades, Plant and Storage Related Occupations	16,617	26,071	9,455	90,649	57%	44%
Elementary Administration and Service Occupations	25,257	35,469	10,212	47,590	40%	52%
Total	**137,558**	**211,143**	**73,586**	**600,636**	**53%**	**68%**

Source: ONS

Chart 12: Claimant Count by occupation (2 digit), 08-09, London

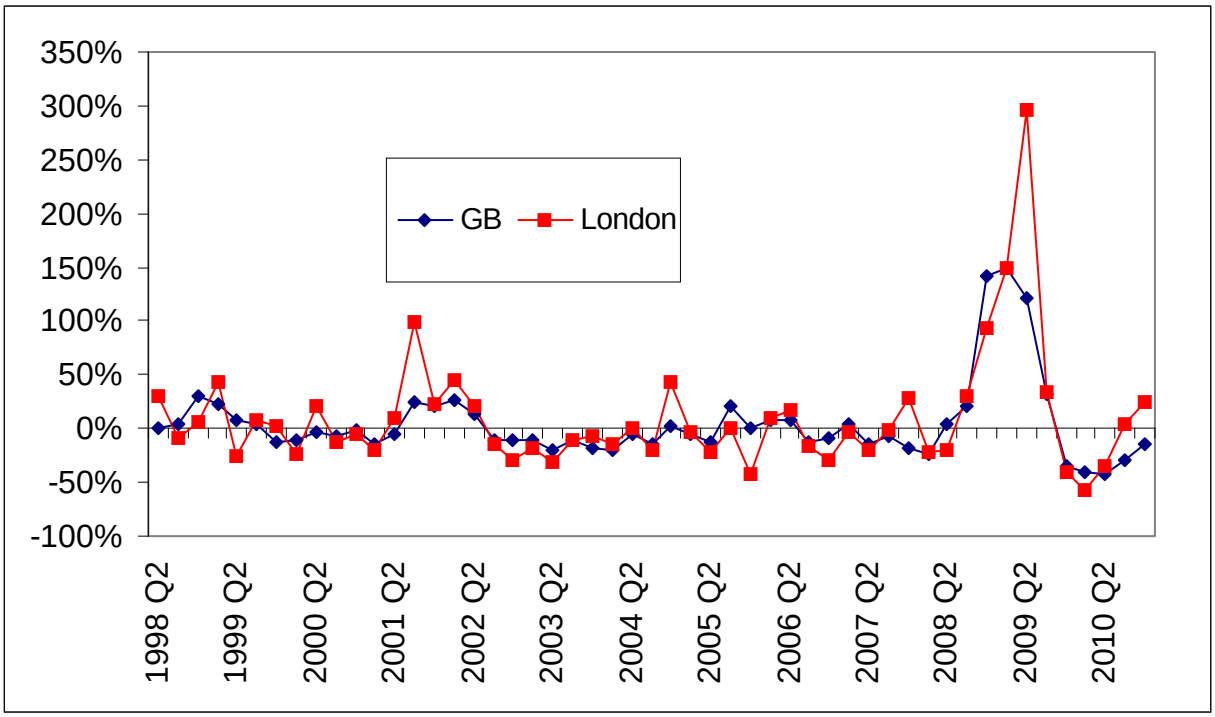


Source: ONS

In London the largest increases in the claimant count between 2008 and 2009 were in Elementary Administration and Service Occupations and Elementary Trades, Plant and Storage Related Occupations which both grew by around 10,000. Other big increases were seen in Transport and Mobile Machine Drivers and Operatives, Process, Plant and machine Operatives, Customers Service Occupations and Sales Occupations which all increased by around 5,000 claimants. It may be the case that employees in these occupations are more likely to claim JSA when losing their jobs than in other occupations.

Redundancy data

Chart 13: Redundancies, GB and London, year on year change



Source: ONS

Apart from a sharp jump in Q2 2009, London's redundancies throughout 2008 and 2009 grew at a very similar rate to those in Britain as a whole.

Comparison with GVA data

GVA in London fell by 1.5 per cent between 2008 and 2009 compared to a fall of 3.1 per cent in Great Britain. GVA per head fell by 2.6 per cent in London compared to a fall of 3.5 per cent in the UK as a whole. The smaller fall in London's GVA tells a very different story to the employment estimates from BRES. One factor that could be at play here is redundancy payments, because job losses with healthy redundancy payments boost GVA in the short term, however these are one-off payments.

Table 10: GVA (£ million) and employment 2008 and 2009

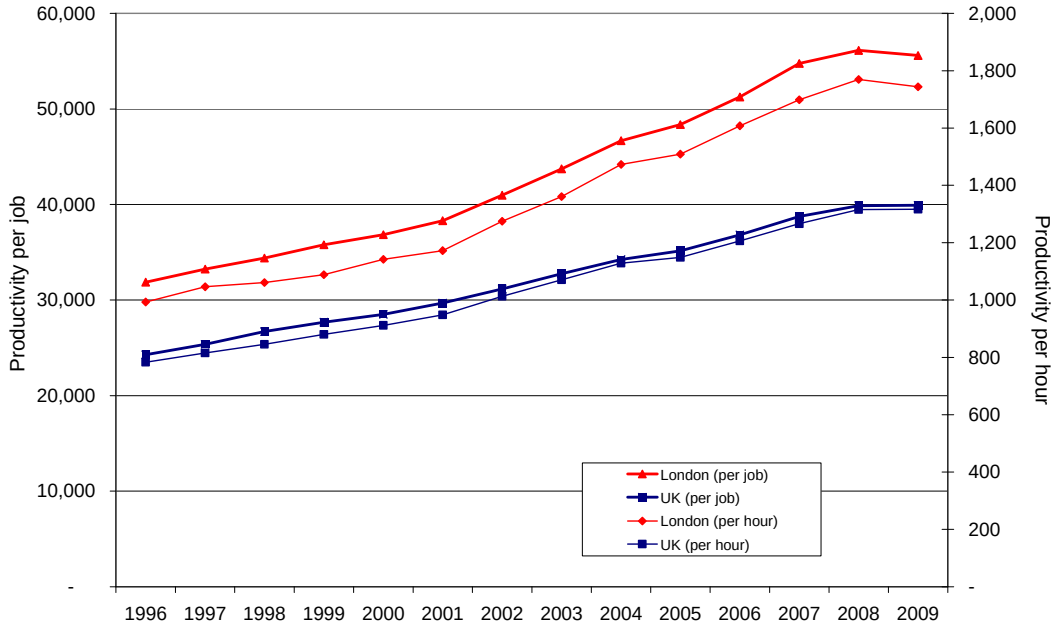
	2008	2009	Change 2008-09	% change GVA	% change GVA per head	% change Employment (BRES)
North East	40,988	40,369	- 619	-1.5%	-2.0%	-4.3%
North West	121,015	119,079	- 1,936	-1.6%	-1.9%	-1.3%
Yorkshire and The Humber	89,475	87,123	- 2,352	-2.6%	-3.4%	-1.1%
East Midlands	79,349	77,223	- 2,126	-2.7%	-3.2%	-2.5%
West Midlands	93,755	91,178	- 2,577	-2.7%	-3.2%	-4.3%
East of England	110,774	107,209	- 3,565	-3.2%	-4.0%	-2.5%
London	269,156	265,171	- 3,985	-1.5%	-2.6%	-4.2%
South East	181,435	176,500	- 4,935	-2.7%	-3.5%	-2.1%
South West	97,342	95,268	- 2,074	-2.1%	-2.5%	1.3%
England	1,083,289	1,059,120	- 24,169	-2.2%	-2.9%	-2.2%
Wales	45,514	44,517	- 997	-2.2%	-2.5%	-2.2%
Scotland	103,532	102,552	- 980	-0.9%	-1.4%	-2.9%
GB	**1,266,836**	**1,227,468**	**- 39,368**	**-3.1%**	**-3.5%**[19]	**-2.3%**

Source: ONS

Productivity data

London outperforms the UK on both productivity per job and per hour. However London shows a small dip between 2008 and 2009 while the UK held constant. The denominator used is Workforce jobs so revisions are likely in December 2011 when WFJs will be benchmarked to BRES. If BRES jobs were used as the denominator we would see a rise in London's productivity per job between 2008 and 2009.

Chart 14: Productivity, per job (RHS) and per hour (LHS), London and UK



Source: ONS and GLA Calculations. Uses GVA at current prices so includes the effects of inflation

[19] This is the figure for the UK as a whole, not GB.

TFL data

Another data source we often look at as an indicator of economic activity in London is tube and bus journeys. Between 2008 and 2009 tube journeys did fall by 1.3 per cent, but bus journeys rose by 2.5 per cent, hence combining all trips overall growth of 1.3 per cent, which looks healthier than the fall in London's jobs estimated by BRES.[20]

Summary of comparison with other data sources

Of the data sets we have compared with BRES, only the Workforce Jobs Series tells a broadly similar story for London i.e. a decline in employment that is bigger in percentage terms than that of Britain as a whole. In WFJ Q3 however the gap between London and Britain (in terms of percentage change) is much smaller, indeed if we take employee jobs (rather than total employment), jobs in Britain fell by more than London. In terms of what both surveys measure we would expect WFJ to be the closest to BRES out of all the labour market data we looked at. Nonetheless BRES shows larger falls than WFJ in the arts, entertainment and recreation sector and in professional, scientific and technical activities. These are new sectors under SIC 2007 and ones in which there are relatively large discontinuities as a result of the change of survey from ABI to BRES, although this should not matter since both surveys are on a SIC 2007 basis.

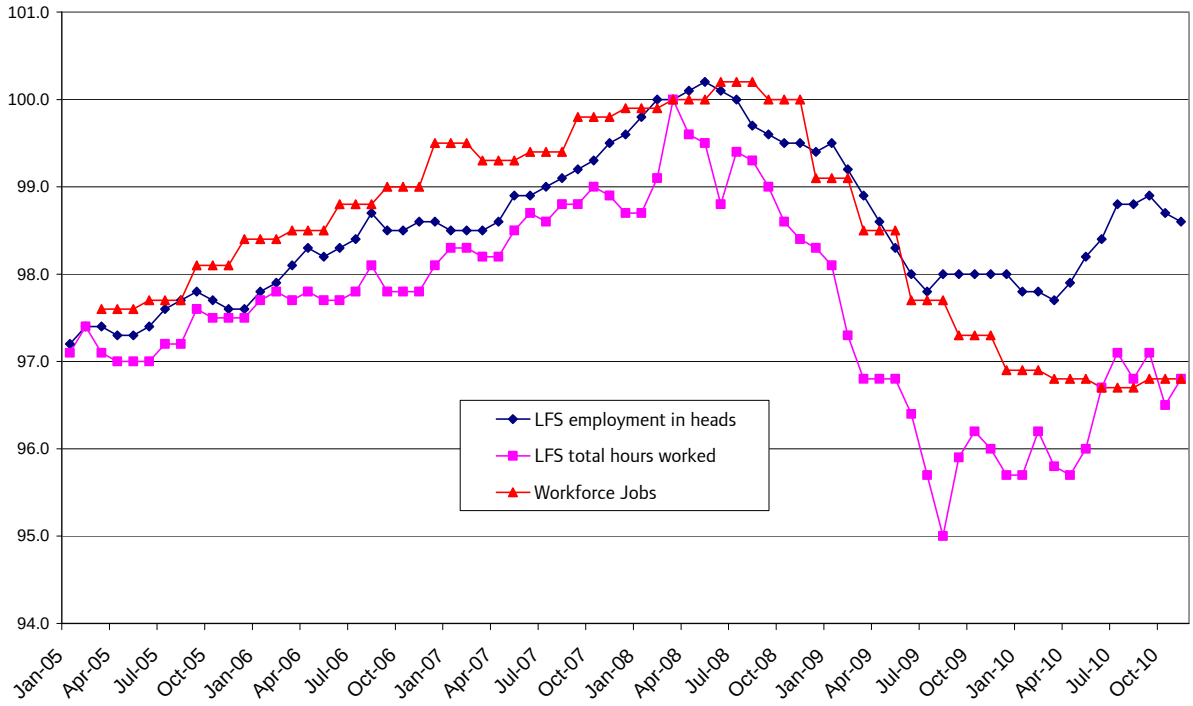
The LFS shows a much smaller percentage fall in London's jobs, but it is closer to BRES at the GB level. In terms of number of jobs lost between 2008 and 2009 the LFS (in Q4) estimates 103,000 compared to almost double that in BRES (192,000).The APS by contrast records growth of 0.8 per cent in London's jobs over the same period with a corresponding contraction of 1.6 per cent in Britain overall. When we disaggregate to sector level both the LFS and APS look very different to BRES with many sectors moving in different directions.

In its February 2011 Inflation Report the Bank of England comments on the considerable uncertainty about the level of employment in the UK. Since the middle of 2009 LFS employment at the UK level has risen 250,000, while Workforce jobs have fallen by about 300,000 (a difference of almost 2 per cent of employment). Although WFJs and the LFS are different measures of the labour market (as discussed earlier), the Bank of England points out that the factors that tend to lead to differences between the LFS employment and WFJ do not appear to be sufficient to explain the recent divergence.[21] Further work to re-visit the longstanding divergence between WFJ and LFS, and how BRES may affect this reconciliation, may be worthwhile. This is discussed in more detail in Appendix A.

Chart 15, taken from the Bank of England Inflation report (February 2011), shows increasing divergence between LFS employment in heads, LFS total hours worked and Workforce jobs since 2008 (Q1).

[20] Transport for London
[21] http://www.bankofengland.co.uk/publications/inflationreport/ir11feb.pdf

Chart 15: Total hours worked and employment



Indices 2008 Q1=100
Workforce jobs data are quarterly
Source: ONS and Bank of England

Claimant count data shows London's unemployment rising less in percentage terms than in Britain over the same period. Interestingly, Britain saw bigger percentage rises in claimants in the science and technology associate professionals and skilled construction occupations than London. This is in contrast to BRES.

GVA data also indicates that London fared much better than Britain, falling by just 1.5 per cent between 2008 and 2009, compared to -3.1 per cent in Great Britain. Tube and bus travel also grew overall during the same period.

Conclusion

Much of the data preceding BRES, apart from the Workforce Jobs Series, had suggested that London had shown resilience through the financial crisis and outperformed the UK/Britain as a whole. The 2009 BRES employment estimates are in contrast to this. Hence in this paper we have attempted to compare the BRES data with other data sources, and the picture is far from clear. The closest comparator we have is the Workforce Jobs Series and although this also shows a contraction in London's jobs in the second half of 2009, this is still between 20,000 and 50,000 smaller than the fall in BRES jobs.

The replacement of the ABI with BRES has introduced a number of methodological changes and created a discontinuity in the data. Although the ONS has attempted to remove the discontinuity from 2008 data they do note that some caution should be taken in comparing 2008 and 2009 results. It may be that the discontinuity has not been fully accounted for and that as a result the job losses in London are in fact smaller than they appear when comparing 2008 and 2009, or there may be reasons why different sources of employment data are showing different patterns due to differences in coverage for example. Alternatively it may be the case that London's employment has been less resilient to the recent recession than previously thought. The ABI/BRES are always provisional in the first year, so we can expect some revisions. We may have to wait for more data and revisions to the data to clarify the picture.

Appendix A - Comparison between LFS and BRES statistics on jobs; the London difference

Background

The difference between employment estimates taken from the two different perspectives of household and business surveys is usually reported in terms of the difference between the Labour Force Survey (LFS) and Workforce Jobs (WFJ) employment estimates. Where the LFS (a household survey) is the lead measure on employment and WFJ (primarily business survey data) is the principle measure of jobs by industry.

ONS' annual business survey – ABI/1 now replaced by BRES – is the main employee jobs component to which WFJ is benchmarked so the difference between LFS and BRES jobs estimates is the main cause of the difference and the focus for this analysis.

Workforce jobs = employee jobs + self-employment jobs + HM Forces + Government-supported trainees.

With a greater focus on surveying local units, BRES has captured more employment than ABI/1. Hence the difference between LFS and business survey estimates will be increased between 2008 and 2009 by the discontinuity from the introduction of the BRES new survey (estimated at 84, 000 for London). However, regional and industry accuracy should be improved under BRES.

London context

The focus on the difference between WFJ and LFS estimates is usually at the overall UK level. However, Peter Urwin noted in a study in 2003,[22] that before any adjustment for factors which may account for reconciliation, the difference between ABI/1 and LFS workplace based estimates is disproportionally high for London. In 2001 the unadjusted difference between LFS and ABI/1 was -570,000.

This analysis considers the London difference in 2009 and updates Peter Urwin's analysis; BRES has now replaced ABI/1 and a number of additional factors are now available from ONS to reconcile BRES and LFS estimates.

Differences between types of employment estimates

The difference between employment estimates from the household and business perspective has been a very long standing issue. Business surveys ask businesses directly how many jobs a firm has, whereas household surveys ask people (interviewed in selected households) if they are employed and who they work for.

[22] Appendix A in The GLA's London Workforce Employment Series September 2003
http://www.london.gov.uk/mayor/economic_unit/docs/london_workforce_employment_series.pdf

The Review of Employment and Jobs Statistics in 2006[23] identified about 30 reasons for the differences between the LFS and WFJ estimates of total UK jobs. These include coverage differences between Business Surveys and the LFS and a number of survey response issues which relate to the LFS.

After the Employment and Jobs Review, ONS implemented a number of changes and undertook studies to quantify some of these differences; these are set out in a series of articles.[24]

In addition, the difference at the UK level is now monitored quarterly in a reconciliation table in annex 1 of the ONS Labour Market Overview:[25]The reconciliation table covers the main factors at a UK level which can be measured and account for the difference; a number of the factors have been derived from 'one-off' studies.

Comparative analysis LFS-BRES

The concept of employment differs from the concept of jobs, since a person can have more than one job and some jobs may be shared by more than one person. LFS employment estimates are usually presented on a residence basis but can also provide workplace based estimates, with some adjustments so that survey coverage is closer to BRES.

Data specification used in this comparison:

The LFS July-September 2009 dataset is used as it is closest to the BRES survey date (September).

Business survey data estimates of jobs:

- BRES Employee estimates with no adjustment.

LFS estimates of total jobs:

- LFS employee jobs on a workplace basis excluding SIC 2007 Sections T and U as well as armed services living at home.
- LFS employee second jobs on a workplace basis excluding SIC 2007 Sections T and U.

The following SIC 2007 sections are not covered by business surveys:

- T Activities of households as employers (for example, maids or butlers directly employed by the household).
- U Activities of extraterritorial organisations (for example UN regional bodies).

This follows the approach of Peter Urwin's unadjusted analysis[26].

[23] http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/nat-stats-qual-revs/qual-revs-by-theme/labour-market/index.html

[24] see: http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14358

[25] http://www.statistics.gov.uk/downloads/theme_labour/LMS_Q&A.pdf

[26]http://www.london.gov.uk/mayor/economic_unit/docs/london_workforce_employment_series.pdf

2009 LFS-BRES comparison results

This basic unadjusted analysis shows the following LFS-BRES difference in 2009:

- London difference (unadjusted) -520,000 jobs (-12.6 per cent of BRES jobs)
- UK difference (unadjusted) of -1,265,000 jobs for the UK (-4.7per cent)

Clearly in 2009 London remains responsible for much of the difference between the LFS and BRES on an unadjusted basis.

Additional reconciliation factors at UK level

The LFS does not cover temporary foreign workers or communal establishments, nor does it ask respondents whether they have more than two jobs. BRES should capture jobs in all of these categories.

The LFS relies on proxy response i.e. one member of the household answers on behalf of others, which introduces error. A bias in under-recording jobs also exists in the LFS as workless households are more likely to respond to the survey. Employment is self-defined in the LFS which results in no clearly defined boundary between employees and self employment; self-employment tends to be over-estimated as respondents who work for employment agencies or are working company directors often count themselves as self-employed where a business survey would count them as employees.

The following estimates are taken from the reconciliation table in annex 1 of the ONS Labour Market Overview:[27]

Jobs not covered by the LFS (UK estimates in thousands):

- Temporary foreign workers: 80
- Workers living in communal establishments: 80
- 3rd and subsequent employee jobs: 100

LFS Survey response issues, UK estimates:

- LFS non-response bias: 230
- LFS proxy response error (main jobs): 150
- LFS proxy response error (2nd jobs): 130

- LFS over-reporting of self-employment: 480

2009 LFS-BRES results taking additional factors into account

If we now take account of the additional factors above, which total 1,250,000 for the UK and apportion these to London using London's share of UK employment, the LFS-BRES 2009 difference reduces.

- UK difference (adjusted) of -15,000 jobs for the UK (-0.1 per cent)
- London difference (adjusted) -340,000 jobs (-8.4 per cent)

[27] http://www.statistics.gov.uk/downloads/theme_labour/LMS_Q&A.pdf

It seems likely that using London's share of UK employment to apportion reconciliation factors to London may be too conservative; for example, the proportion of temporary foreign workers and those living in communal establishments may well be higher in London than the rest of the UK. Further work is recommended to more accurately estimate what proportion of UK reconciliation factors should be applied to London.

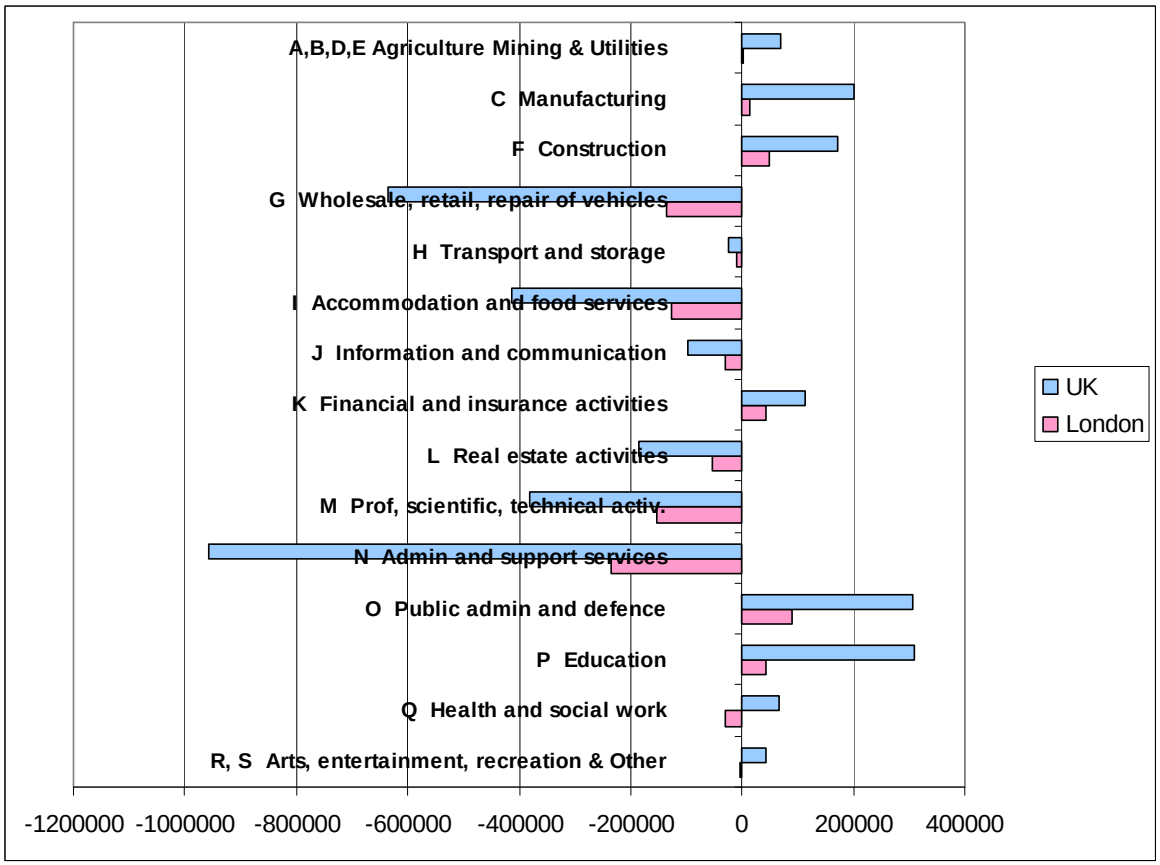
Employment differences by industry between the LFS and BRES

The main issue considered in this analysis is the overall difference in jobs estimates between LFS and BRES. However, an additional issue is the way employment estimates by industry differ. As a business survey, BRES should provide better industry estimates as industry classification is provided by the business itself rather than by a household respondent in the LFS (proxy response is likely to increase error further in the LFS). The perception of what industry an individual works in, when asked directly in the LFS is different to how a business classifies the industry of its workers recorded under BRES.

Compared with BRES, the LFS provides lower estimates of the proportion of employees in SIC 2007 sections Wholesale & Retail (G), Real Estate (L), Professional, Scientific & Technical (M) and Business Services (N) and higher estimates in Construction (F) and Public Admin (O).

Chart A1 shows where the unadjusted London -520,000 and -1,265,000 UK difference falls by industry.

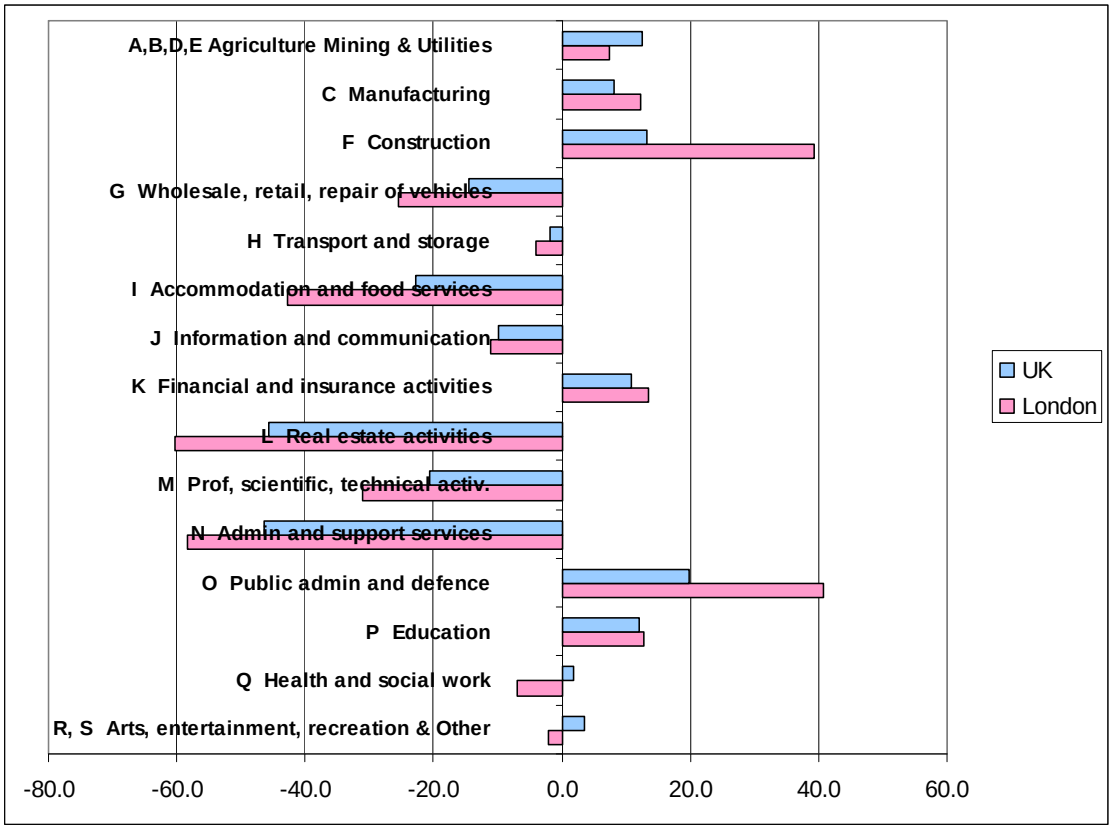
Chart A1: LFS-BRES difference by industry (SIC 2007)



Source: ONS

Chart A2 shows the difference between LFS and BRES as a proportion of industry totals for London and the UK.

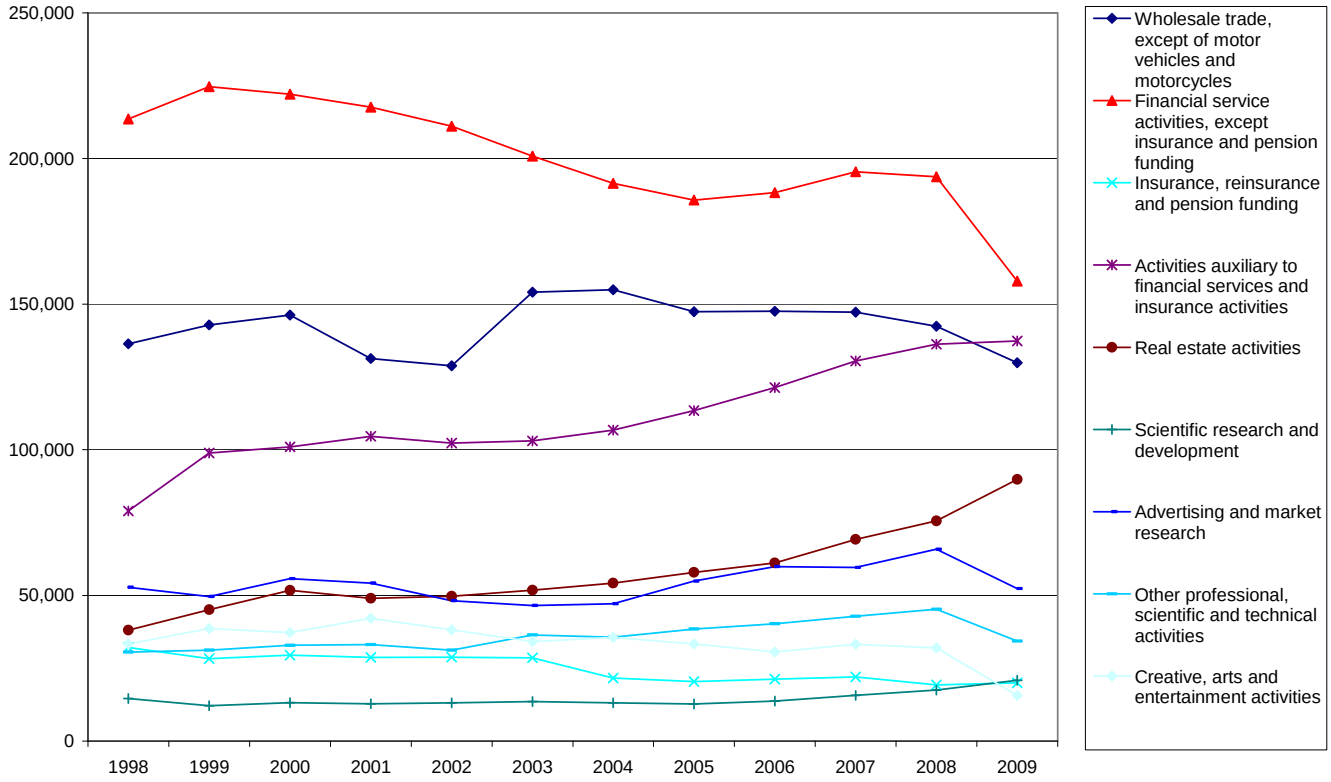
Chart A2: LFS-BRES difference as a proportion of BRES industry totals



Source: ONS

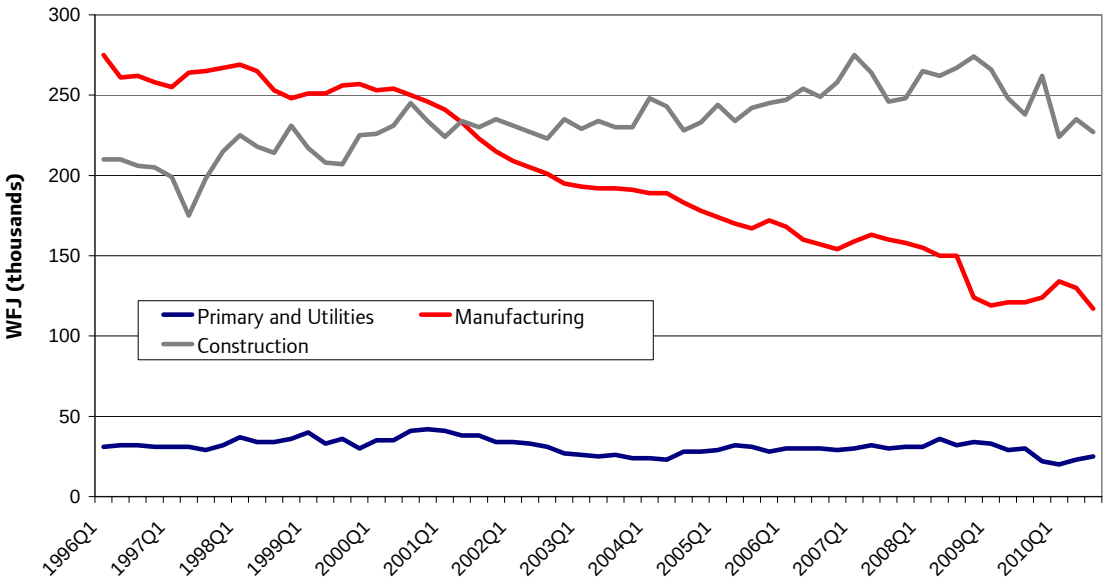
Appendix B: Workforce Jobs, London

Chart B1: BRES data back-cast to 1998, selected 2 digit SIC 2007 codes, London



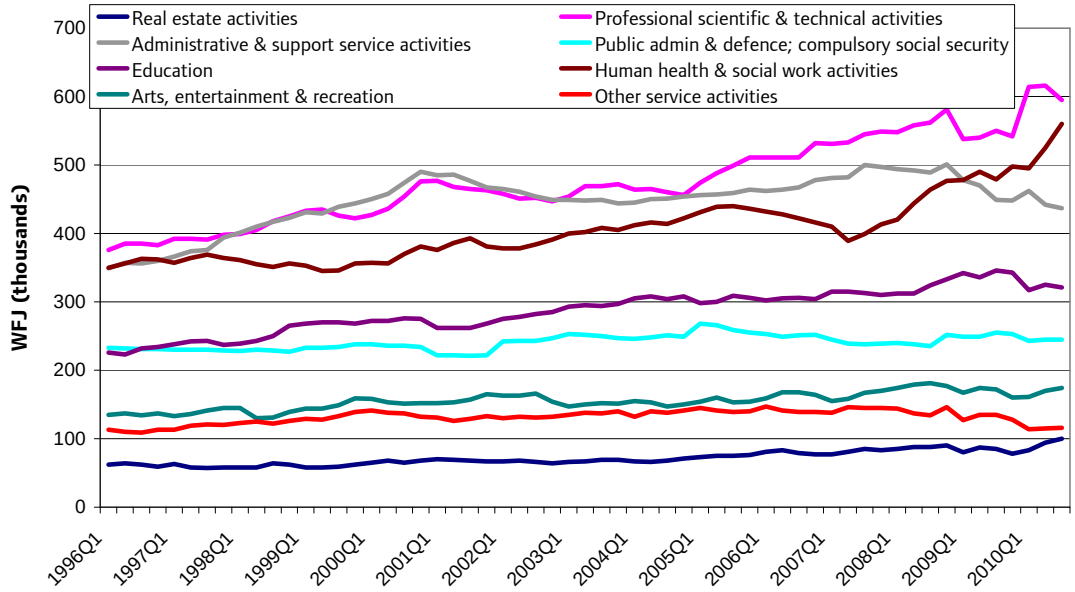
Source: ONS and GLA Economics calculations

Chart B2: Workforce jobs all industries (excluding services)



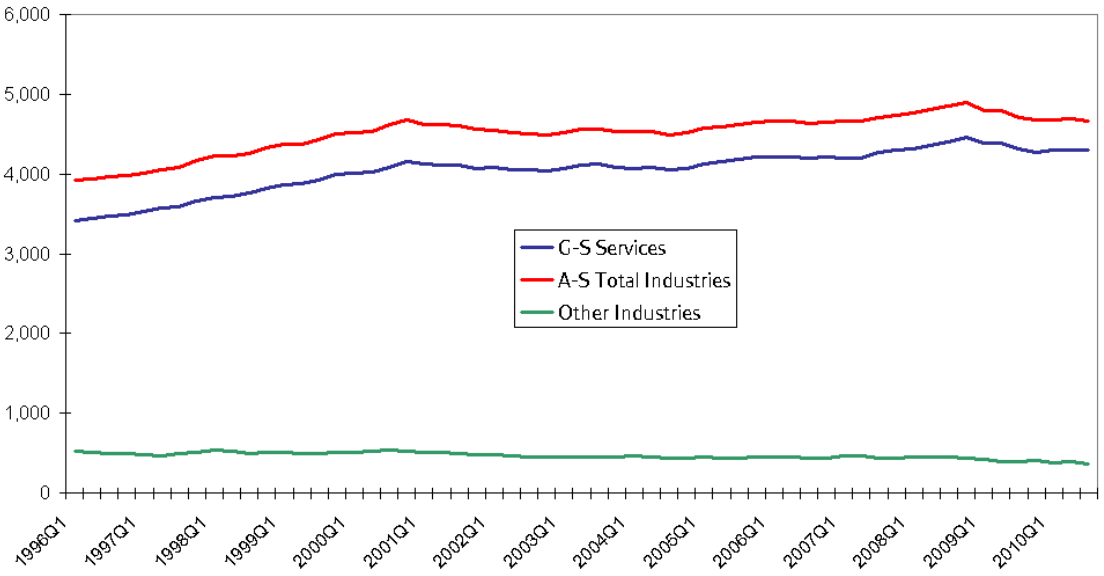
Source: ONS

Chart B3: Workforce jobs (services)



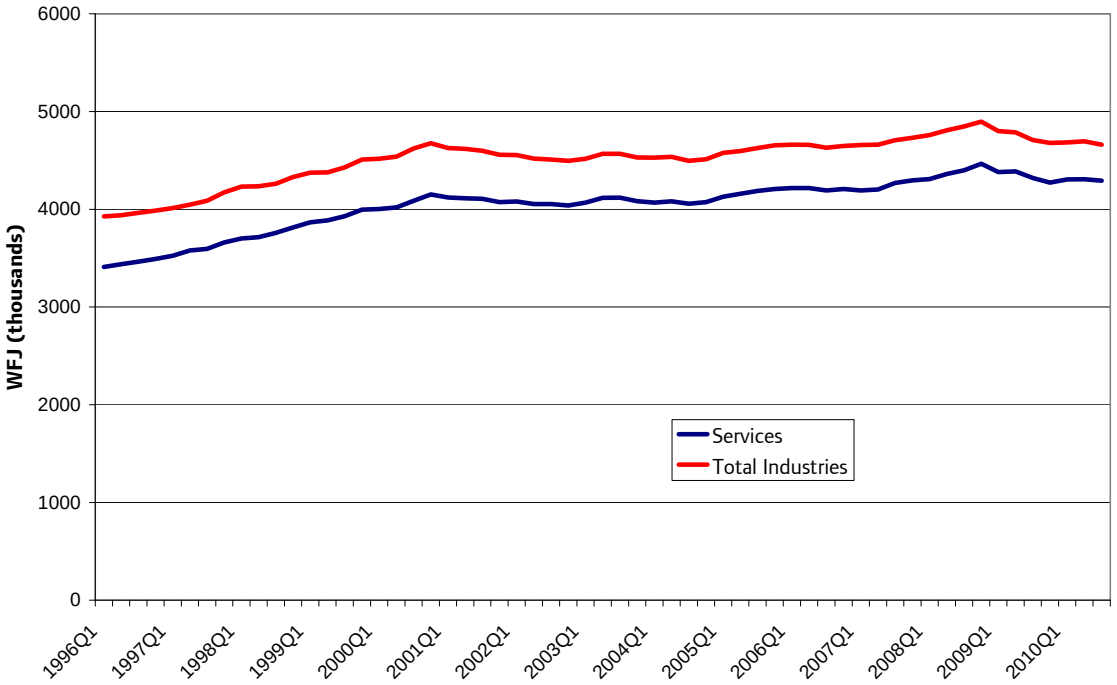
Source: ONS

Chart B4: Workforce jobs, services, total industries, other industries



Source: ONS

Chart B5: Services and Total Industries



Source: ONS

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