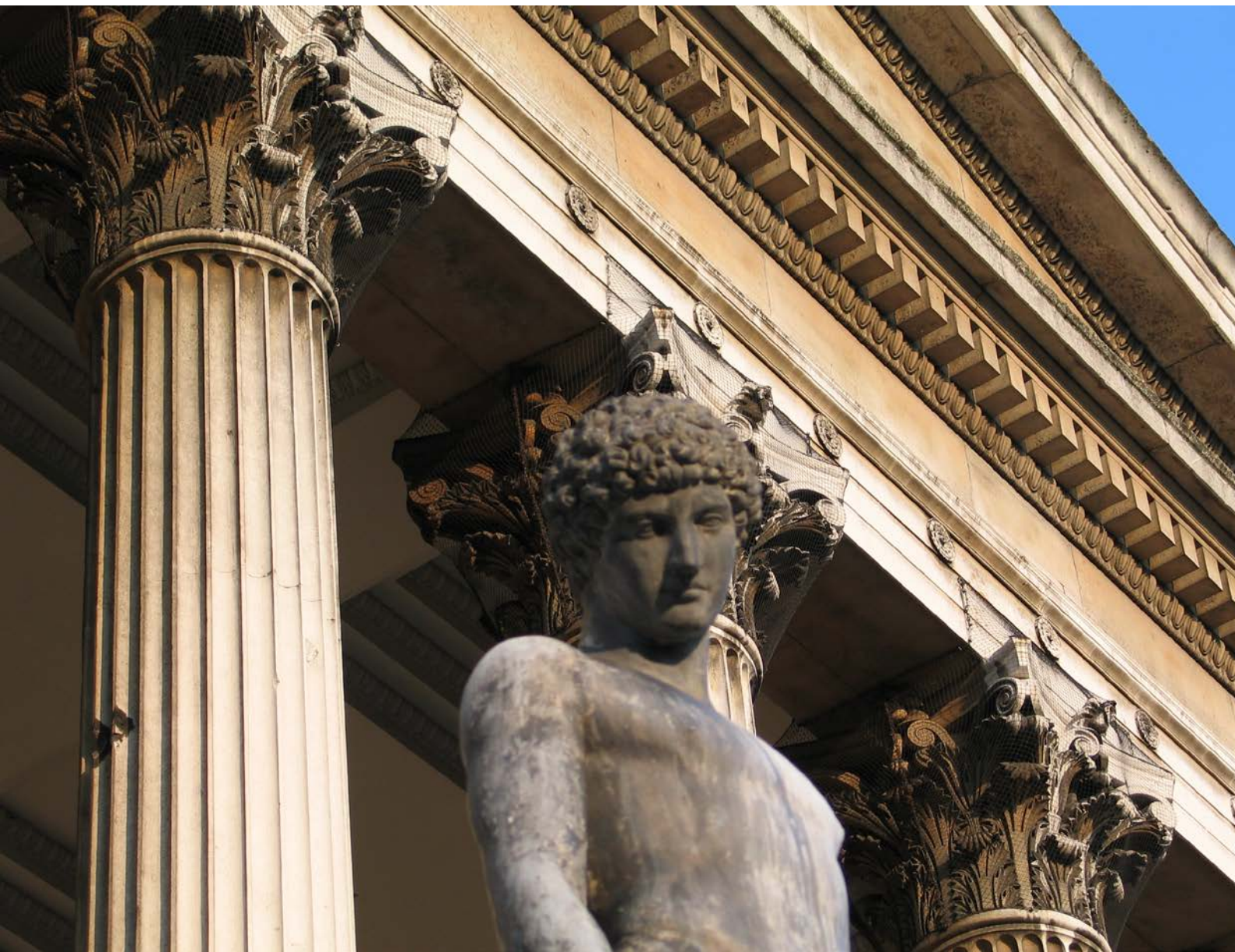


Working Paper 86

London's Architectural Sector

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Executive summary

The creative industries are an important component of London's economy as illustrated by previous GLA Economics analysis¹. This paper builds on previous analysis by showing the economic contribution and characteristics of London's architecture sector specifically. It does so in terms of jobs, value added, education and international competitiveness. To be consistent with other pieces of work, the main definition of the architecture sector and architecture occupations used in this paper is the same as that used for DCMS Creative Industries. In some cases, other definitions have been used when working with specific datasets, such as those for higher education.

Overall, some of the key points from this analysis include:

Businesses

- There were approximately 4,240 workplaces (i.e. the place of work like an individual office) in the capital's architecture sector in 2016.
- Nine out of ten workplaces had parent enterprises (i.e. the business in its entirety which may include one or more workplaces not necessarily in London) that were micro businesses employing less than ten people and having annual turnover of less than £1 million in 2016.
- London's architecture sector produced £1.7 billion in gross value added (GVA) – a measure of the value of goods and services produced – in 2015. That was broadly on par with the GVA of the capital's Civil Engineering and Postal & Courier Activities industries.
- After accounting for inflation, the compound annual rate of growth in the GVA of London's architecture sector since 2009 was 7.6 per cent. That was faster than the creative industries and the London economy as a whole.

Employment

- There were approximately 22,800 jobs in London's architecture sector in 2015. Meanwhile, London had around 24,300 architect occupations regardless of sector. One-in-four architect occupations in the UK were based in London.
- Around half of all London-based architects were aged 35-54 and approximately 40 per cent were female in 2015.
- The gross median hourly wage for architects in London was £17.88 in 2016. That is higher than the average for London as a whole.

Education

- Of those studying Architecture, around one-in-five undergraduates and two-in-five postgraduates chose to do so in London during the 2014-15 academic year.

¹ See for instance GLA Economics Current Issues Note 33 and Working Papers 22, 40 and 70.

- More than half of the Architecture, Built Environment & Planning research conducted by London-based universities is considered as being world-leading or internationally excellent.

Tourism

- Approximately 2.8 per cent of domestic overnight and 4.2 per cent of domestic day visitors to London undertook activities related to architecture.
- In total, between £382.5 million and £453.9 million of London's GVA could be attributed to architecture-related tourism.

International competitiveness

- The UK as a whole is a net exporter of architectural services, exporting £437 million more than it imported in 2015.
- Around one-third of the jobs in London's architecture sector were taken by non-UK nationals in 2015. Of this, the majority (73.3 per cent) were EU27 (excluding the UK) citizens.
- At the UK level, 28.3 per cent of undergraduates and 36.7 per cent of postgraduates studying Architecture were previously domiciled in other countries other than the UK.

1 Introduction

GLA Economics has published a number of reports looking at the creative industries in London, the most recent being Working Paper 70 published in October 2015². These reports illustrate that the creative industries are an important component of London's economy in terms of jobs and output, as well as help contribute to its international competitiveness. The definition of creative industries was purposefully large ranging from computer programming to museums and libraries, but one aspect of it was the architectural sector and is the focus of this paper. Specifically, this paper will look at the characteristics of London's architecture sector and its economic contribution.

As with previous GLA Economics work, the definition of the architecture sector was developed by the Department for Culture, Media & Sport (DCMS)³. In addition, it used various official statistics produced by the Office for National Statistics (ONS). In some cases, other closely related definitions have been used when working with other datasets, such as those produced by the Higher Education Statistics Agency (HESA). These definitions and data sources are outlined in the next chapter.

Following this, Chapters 3 to 7 characterise London's architectural sector in terms of its businesses and the output they produce, employment, the number of people studying architecture and the tourism that London's architecture attracts, and how the sector supports London's international competitiveness. The final chapter summarises the main findings in this report.

² Togni, L (2015). The creative industries in London, GLA Economics Working Paper 70, October 2015.

³ DCMS (2016). Creative industries economic estimates methodology, June 2016.

2 Definitions

This chapter sets out the various definitions used within this paper.

DCMS definition

The main definition used in this paper was developed by DCMS for the creative industries. This enables comparison with other pieces of work – including previous GLA Economics analysis. At its core, the DCMS definition of creative industries is based on the definition set out in the Government's 2001 Creative Industries Mapping document⁴. This stated that creative industries are those...

"...which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property."

From this, DCMS developed a statistical definition of creative industries which reflects the above statement⁵. Their methodology can be thought of in two steps. The first was to identify the occupations typically associated with being creative using Standard Occupation Classifications (SOC). Then the 'creative intensity' – that is, the number of creative jobs (using the creative occupation definition) divided by the total number of jobs – is calculated for every industry using Standard Industry Classifications (SIC). If industries have more than 6,000 jobs and have a creative intensity of more than 30 per cent (with a small number of exceptions), then they are considered to be creative industries.

The full creative industries definition is shown in Appendix 1, though the relevant definitions relating to architecture are shown below.

Table 1: Architecture industry definition

Creative industries group	SIC 07	Description
Architecture	71.11	Architectural activities
	<i>which consists of:</i>	
	71.11/1	Architectural activities
	71.11/2	Urban planning and landscape architectural activities

Source: DCMS Creative Industries

Table 2: Architectural occupations definition

Creative occupations group	SOC 10	Description
Architecture	2431	Architects
	2432	Town planning officers
	2435	Chartered architectural technologists
	3121	Architectural and town planning technicians

Source: DCMS Creative Industries

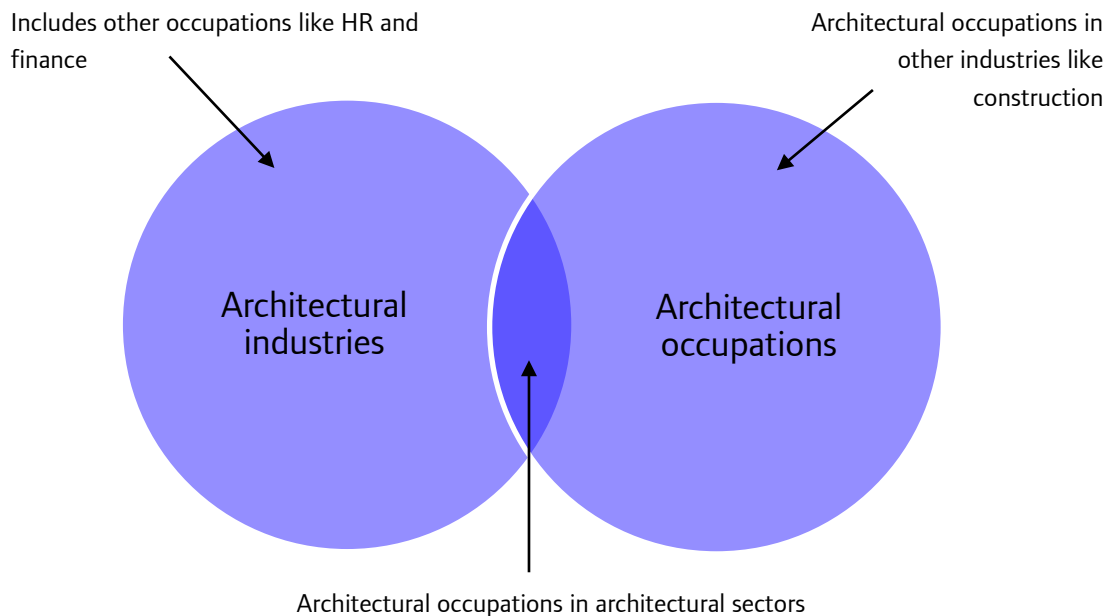
Ultimately, by using these definitions together or separately, the architecture sector can be characterised in several ways. For example and as shown in Figure 1:

⁴ DCMS (2001). Creative industries mapping documents 2001, 9 April 2001, pg.5.

⁵ DCMS (2016). Creative industries economic estimates methodology, 10 February 2016.

- Architectural occupations: architectural jobs in London regardless of whether they are in the architecture industry or not (i.e. they could be in other industries like construction and public administration).
- Architectural industries: all jobs within the architecture industries, so this can include architects, HR and finance occupations.
- Architectural occupations in the architectural industries.

Figure 1: The architectural sector



This differentiation will be important when looking at the statistics and, as such, particular attention should be paid to the definitions associated with the figures.

HESA definition

Another definition of architecture comes from the Higher Education Statistics Agency (HESA). They collect information about the higher education sector and, as such, the definition is based on the subject area of the courses undertaken by undergraduates and postgraduates⁶. Specifically, it uses the Joint Academic Coding System (JACS) which categorises subjects in a hierarchy up to four digits. Higher education institutions (HEIs) self-report the subject areas, but there is no requirement for further education providers to provide this information.

The relevant definitions for architecture courses are shown below⁷. In this paper, the subject area – Architecture, Building & Planning – has been used as this is the most commonly available breakdown within the various HESA datasets. That said, where possible, this is disaggregated into the principle subjects (i.e. Architecture). It is not possible to go further down to the specific subjects.

⁶ <https://www.hesa.ac.uk/collection/c16051/a/sbjca/>

⁷ While 'K200 Building' may not initially look like it would be classified as architecture, it refers to the study of building materials and techniques. This is similarly the case using the industry definition.

Table 3: Architecture related higher education courses definition

JACS 3 subject area	JACS 3 principle subject	JACS 3 subject
K100 Architecture, building and planning	K100 Architecture	K110 Architecture design theory
		K120 Interior architecture
		K130 Architectural technology
		K190 Architecture not elsewhere classified
	K200 Building	K210 Building technology
		K220 Construction management
		K230 Building surveying
		K240 Quantity surveying
		K250 Conservation of buildings
		K290 Building not elsewhere classified
	K300 Landscape and garden design	K310 Landscape architecture
		K320 Landscape studies
		K330 Landscape design
		K340 Garden design
		K390 Landscape and garden design not elsewhere classified
	K400 Planning	K410 Regional planning
K420 Urban and rural planning		
K430 Planning studies		
K440 Urban studies		
K450 Housing		
K460 Transport planning		
K490 Planning not elsewhere classified		
K900 Others in architecture, building and planning	K990 Architecture, building and planning not elsewhere classified	

Source: HESA

This paper also uses information from the Research Excellence Framework (REF) to show the quality of and funding amounts for research. This information is broken down by 36 subject areas⁸ with the one relating to architecture the most and therefore used in this paper being Architecture, Built Environment & Planning. No further breakdowns are available.

ONS international trade definition

While the majority of ONS datasets use the SIC and SOC classifications meaning the DCMS definition of architecture can be used, a different product classification is used for the international trade in services statistics. The ONS produces the International Trade In Services (ITIS) data in accordance with the International Monetary Fund's Balance of Payments manual⁹ which sets out the classification of 52 service products that are traded¹⁰. One of these service products is Architectural Activities which will be used as the principle definition in this paper. While surveying could also be counted in this definition, following a reclassification of products in 2012, it is now included in the Scientific and Other Technical Services (including Surveying) which is too broad for inclusion.

⁸ <http://www.ref.ac.uk/panels/unitsofassessment/>

⁹ ONS (2015). International trade in services: quality and methodology information, 30 January 2015.

¹⁰ See Table 5 of the ONS International trade in services release for a list of all 52 service product areas (<https://www.ons.gov.uk/businessindustryandtrade/internationaltrade/bulletins/internationaltradeinservices/2014>).

3 Businesses

Key points

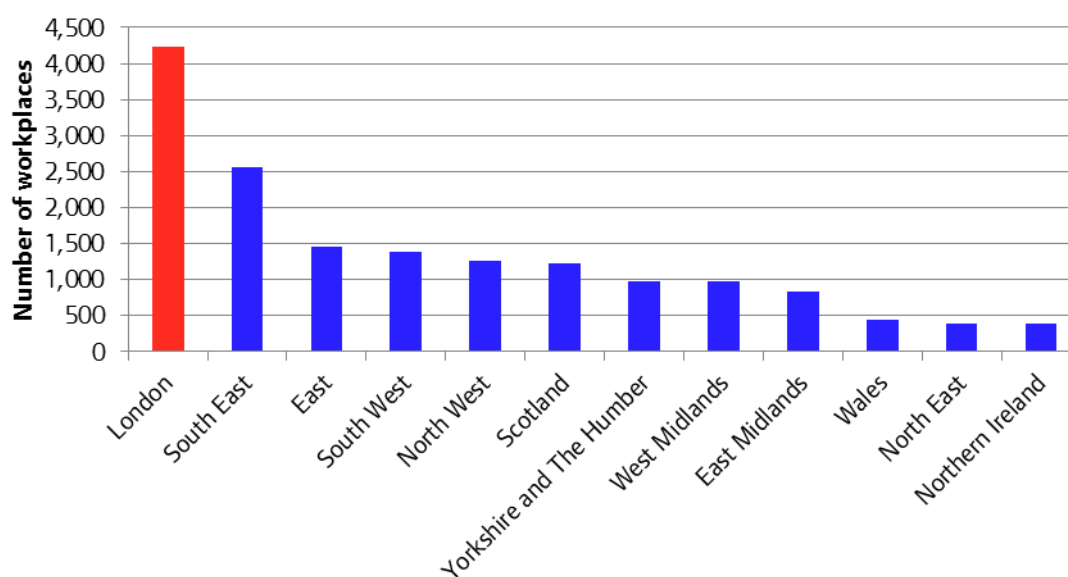
- There were approximately 4,240 workplaces (i.e. the place of work like an individual office) in the capital's architecture sector in 2016.
- Nine in every ten workplaces had parent enterprises (i.e. the business in its entirety which may include one or more workplaces not necessarily in London) that were micro businesses employing less than ten employees in 2016 and had annual turnover of £1 million or less.
- Over a quarter of architectural workplaces in the UK were based in London in 2016. This share has been increasing since 2001 as London has seen the fastest average annual rate of growth in workplaces among the UK regions.
- London's architecture sector produced £1.7 billion in gross value added (GVA) – a measure of the value of goods and services produced – in 2015. That was broadly on par with the GVA of London's Civil Engineering and Postal & Courier Activities industries.
- London's architecture GVA has grown on average by 7.6 per cent per annum, adjusted for inflation, between 2009 and 2015. That was stronger than the rate of real growth for the creative industries and the London economy as a whole.
- London contributed approximately 42.4 per cent to the total GVA of the UK's architecture sector in 2015 and this share has generally been rising over the past six years.

This chapter looks at the number and location of architectural practices in London. An aspect of the economic contribution of these businesses is the output that they produce which is linked to the fee income or revenue. Subsequently, this economic impact is also discussed in this chapter.

Number of businesses

There were approximately 4,240 workplaces in London's architectural sector in 2016. More than a quarter (26.3 per cent) of architectural workplaces across the UK were based in London. That is by far the highest share for any UK region, with the next largest being the South East with 15.9 per cent.

Figure 2: Number of workplaces in the architecture sector by UK region in 2016



Source: ONS Inter-Departmental Business Register

The number of workplaces in London has been increasing steadily over time. In fact, it has more than trebled since 2001 and even almost doubled since 2007. On average, the compound annual rate of growth in London architectural workplaces was 8.2 per cent between 2001 and 2016¹¹. That was the fastest rate of expansion among the UK regions, outpacing the UK average of 6.9 per cent. Consequently, London accounted for almost 30 per cent of the change in architectural workplaces across the UK during this period.

Table 4: Number of workplaces in the architecture sector by UK region in 2001, 2006, 2011 and 2016

Region	2001	2006	2011	2016	CAGR (01-16)
North East	145	180	270	395	6.9%
North West	470	660	955	1,255	6.8%
Yorkshire and The Humber	325	540	665	975	7.6%
East Midlands	275	445	595	835	7.7%
West Midlands	405	585	750	975	6.0%
East	530	750	1,025	1,455	7.0%
London	1,295	1,980	2,695	4,240	8.2%
South East	915	1,355	1,765	2,565	7.1%
South West	515	755	1,005	1,385	6.8%
Wales	185	300	365	440	5.9%
Scotland	540	750	1,060	1,220	5.6%
Northern Ireland	295	385	425	380	1.7%
UK Total	5,895	8,685	11,575	16,120	6.9%
London's share of UK	22.0%	22.8%	23.3%	26.3%	n/a

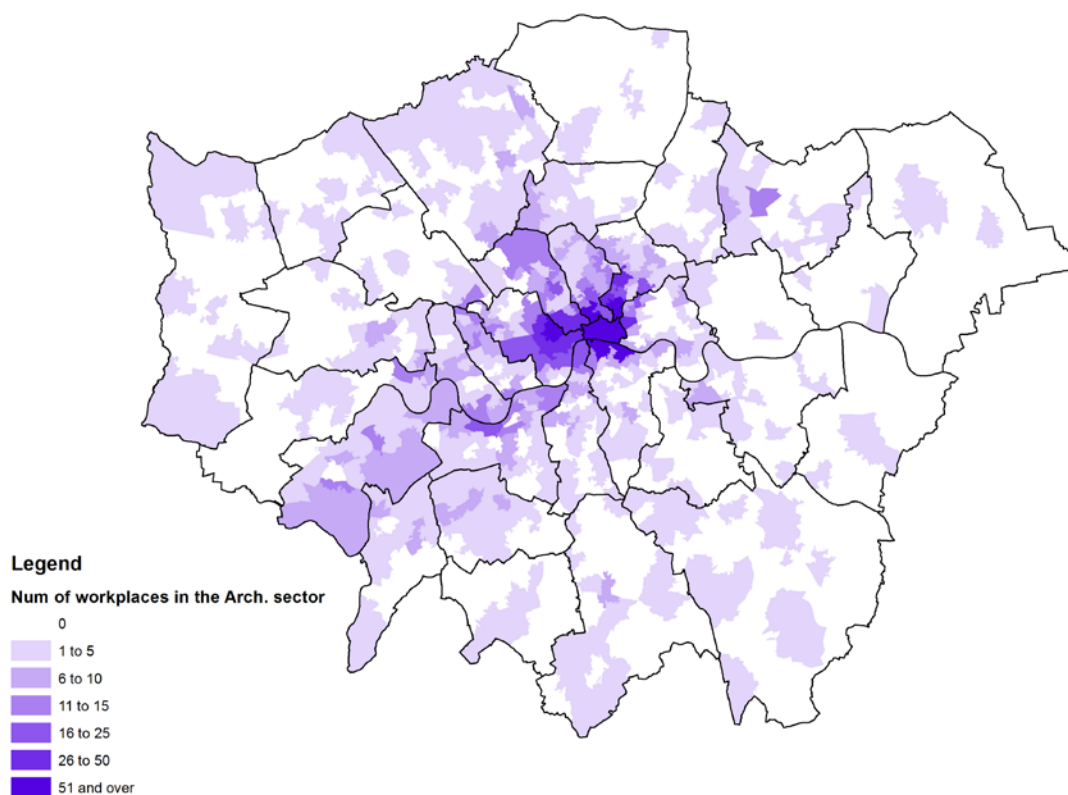
¹¹ The compound annual growth rate (CAGR) shows the average annual rate of growth required to get from the first to the last figure of a defined time period. The CAGR has been used throughout this paper when discussing average growth rates over time.

Note: some of the increase in the number of workplaces between 2011 and 2012 could be a result of a classification change. Source: ONS Inter-Departmental Business Register

Despite this, architecture only accounted for 0.8 per cent of all workplaces in London during 2016 (up from 0.35 per cent in 2001).

While architectural workplaces can be found across London, a larger proportion of them can be found in inner London (Map 1)¹². In particular, the southern parts of Camden, Islington, Hackney and Westminster, as well as the City of London. This is largely consistent with the spatial distribution of the creative industries as a whole which is presented in GLA Economics Working Paper 70.

Map 1: Number of workplaces in the Architecture sector by London MSOA in 2016



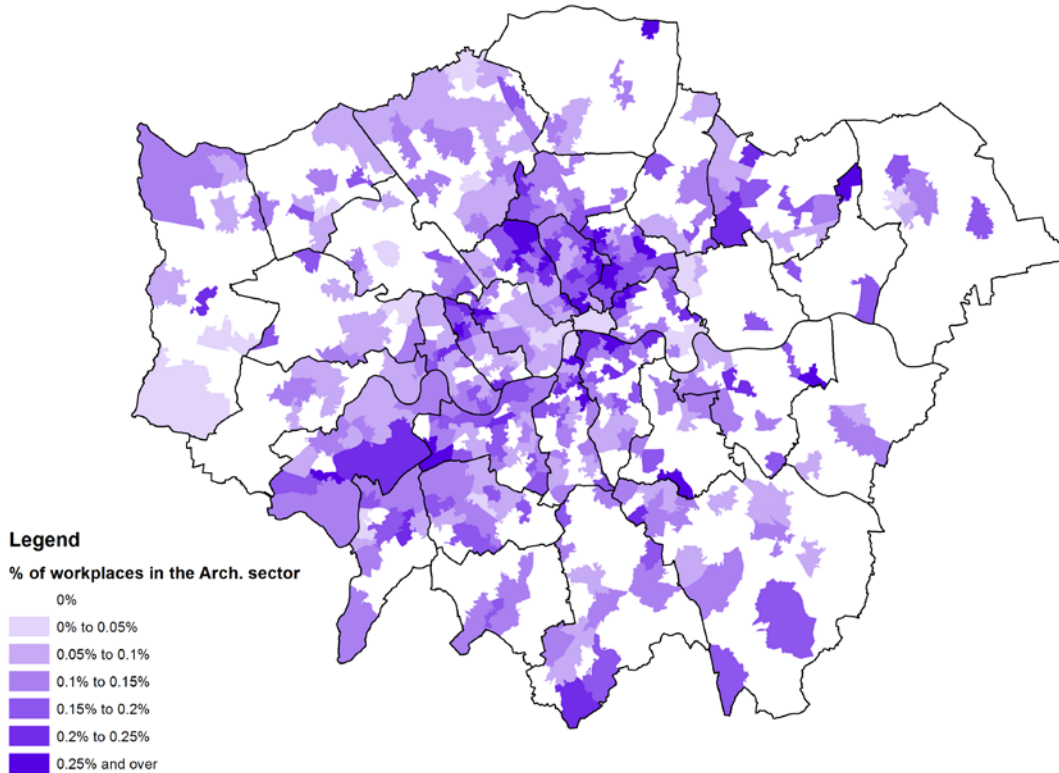
Note: figures have been rounded to the nearest five. That means that some MSOAs that reportedly have no workplaces in the architecture sector may be untrue. Source: ONS Inter-Departmental Business Register

The concentration of architectural workplaces in inner London could be reflective of the fact that there tends to be a larger number of businesses in inner rather than outer London. Subsequently, looking at workplaces in the architecture sector as a percentage of total workplaces may give a better representation of the spatial distribution. Map 2 shows that there is a much wider distribution of architectural workplaces across London on this basis. While

¹² The information shown in Maps 1-3 are based on middle layer super output areas (MSOAs). This is a standard definition of geographical areas and allows for the reporting of small area statistics. As such, MSOAs provide more granular information than simply the borough totals. Primarily MSOAs are based on information from the ONS 2011 Census and consists of a combination of lower layer super output areas which itself consists of a combination of output areas.

Camden, Islington and Hackney had a relatively high percentage of workplaces in the architecture sector (like above), there were additional 'hot spots' in outer London boroughs such as Richmond-upon-Thames and Redbridge.

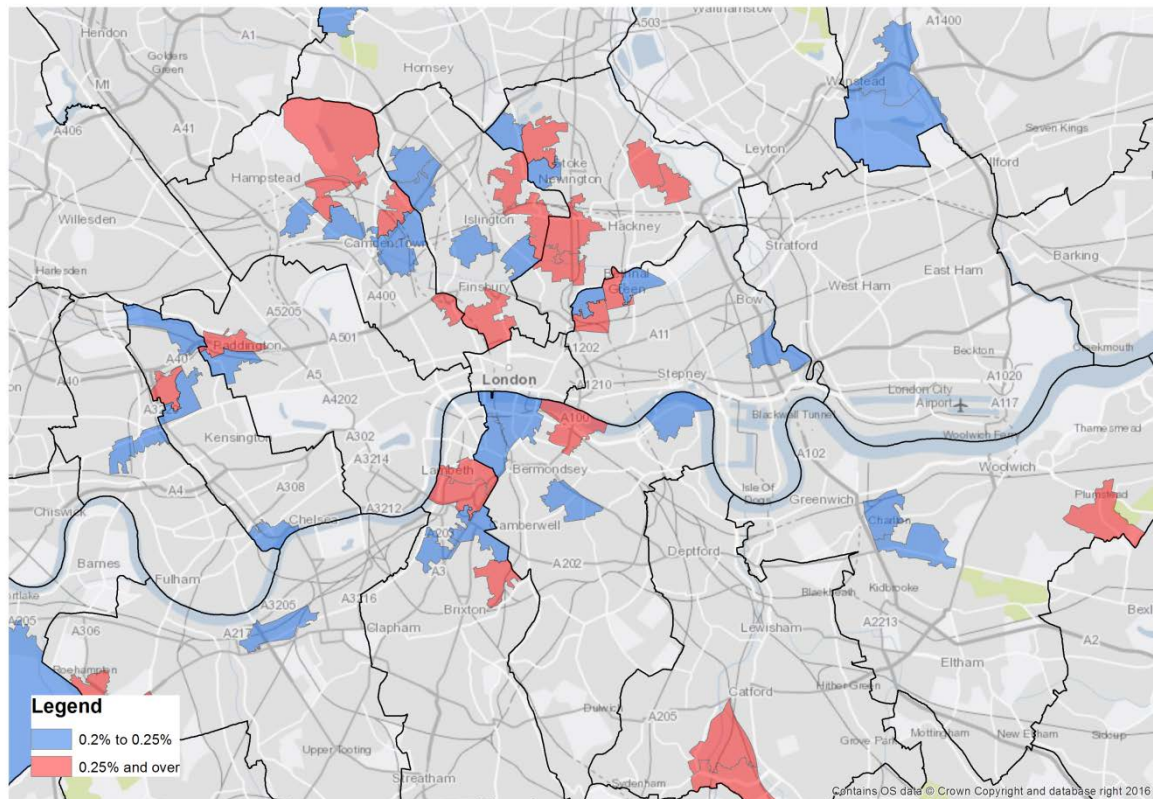
Map 2: Percentage of workplaces in the Architecture sector by London MSOA in 2016



Note: figures have been rounded to the nearest five. That means that some MSOAs that reportedly have no workplaces in the architecture sector may be untrue. Source: ONS Inter-Departmental Business Register

Map 3 takes a closer look at these central London areas. Locations where more than 0.2 per cent of all workplaces within the MSOA are in the architecture sector include the area around Stoke Newington, Camden Town, Bethnal Green and Paddington (among others).

Map 3: London MSOAs where the percentage of workplaces in the Architecture sector is greater than 0.2 per cent in 2016



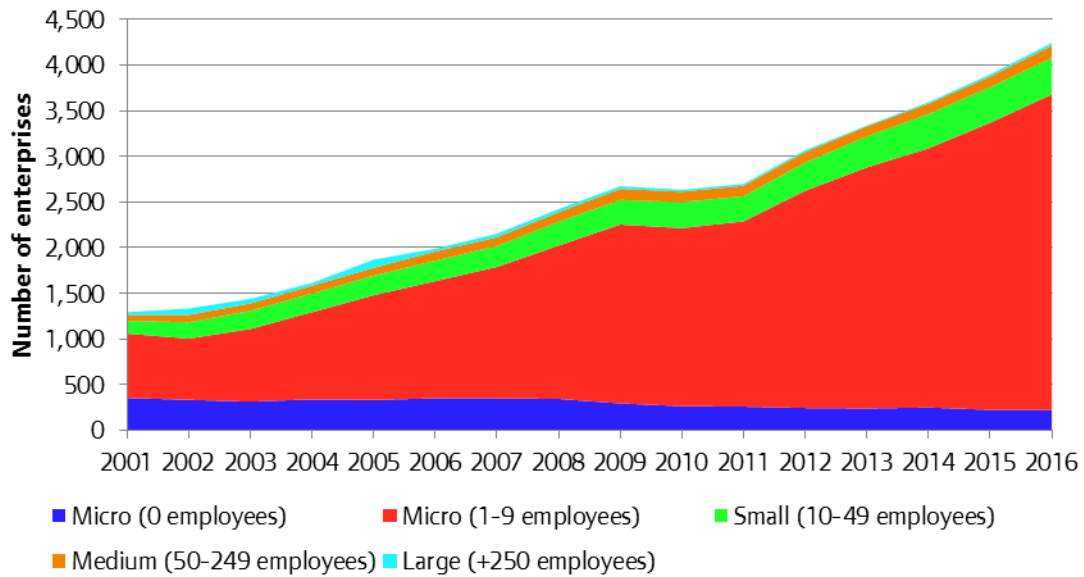
Note: figures have been rounded to the nearest five. Source: ONS Inter-Departmental Business Register

Whereas the above analysis referred to workplaces, further characteristics of architectural firms in London are on an enterprise basis. A workplace (or local unit) is an individual place of work, like an office or a shop. These are counted as being in London if the individual premise is within the London boundaries. In contrast, an enterprise can instead be thought of as the overall business which can be made up of one or more workplaces that are not necessarily all in London.

Acknowledging this, the vast majority (86.7 per cent) of workplaces in London had parent enterprises that were micro enterprises with only 0–9 employees¹³. In fact, only 3.9 per cent of workplaces had parent enterprises that employed more than 50 people. As can be seen in Figure 3, workplaces with micro parent enterprises have been dominant over time and this share has been increasing.

¹³ An enterprise can have zero employees if it was operated by a single individual or by partners who did not employ anyone else in the business for example.

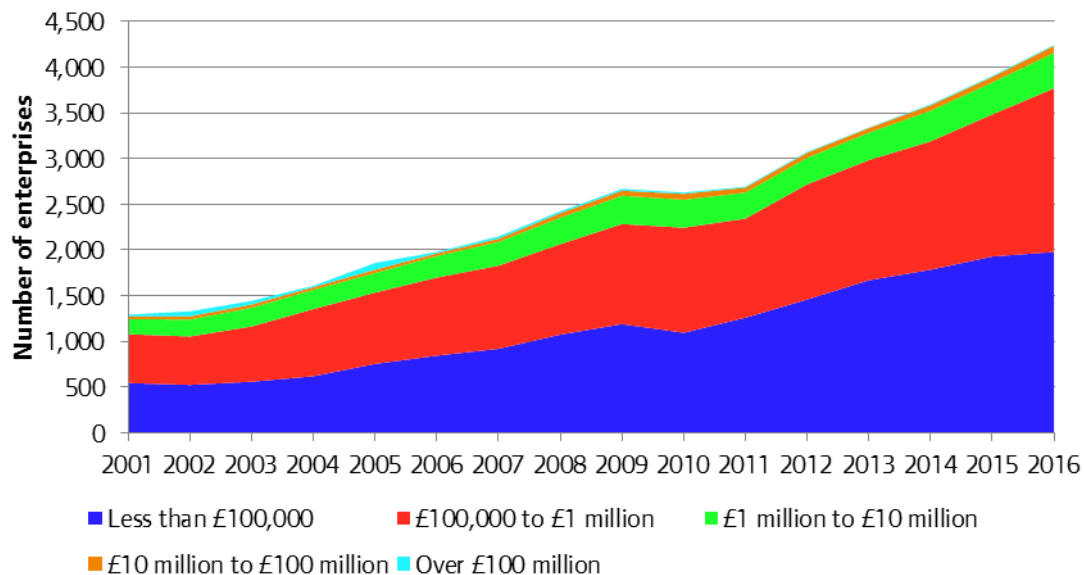
Figure 3: Number of workplaces in London's architecture sector by size of parent enterprise between 2001 and 2016



Note: some of the increase in the number of workplaces between 2011 and 2012 could be due to classification changes. Source: ONS Inter-Departmental Business Register

Reflective of most architectural workplaces in London having micro parent enterprises, 46.6 per cent had parent enterprises with annual turnover less than £100,000. A further 42.2 per cent had parent enterprises with annual revenues between £100,000 and £1 million.

Figure 4: Number of workplaces in London's architectural sector by turnover of parent enterprise between 2001 and 2016



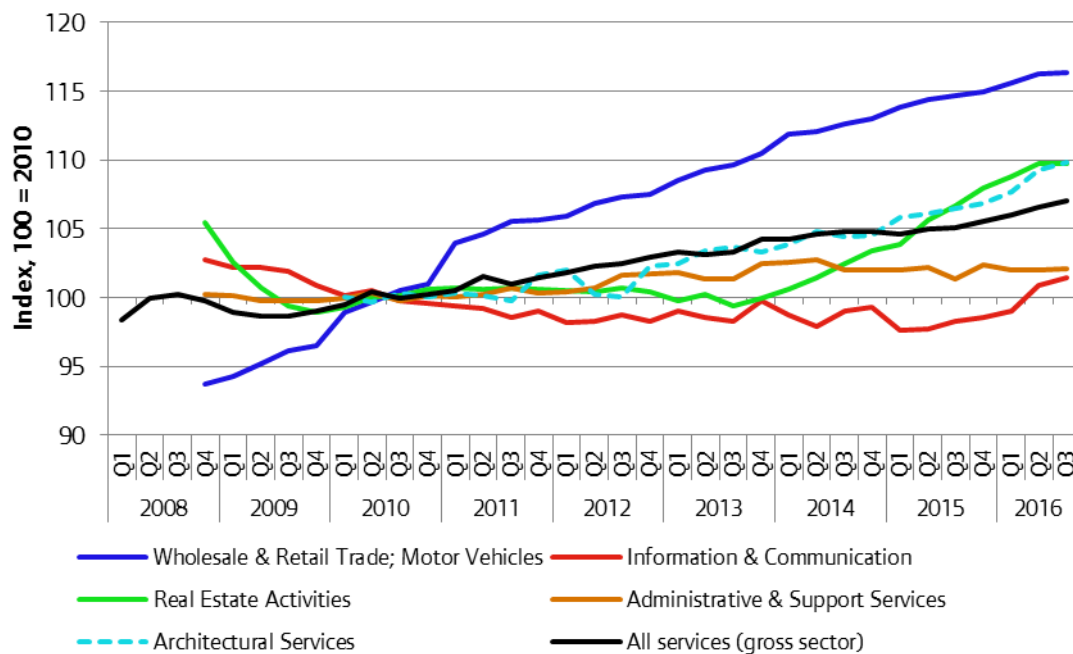
Note: some of the increase in the number of workplaces between 2011 and 2012 could be due to classification changes. Source: ONS Inter-Departmental Business Register

Value of work

This section looks at the fees that architectural firms charge for their services – that is, their revenue. There is an inherent lack of information on this, particularly at the regional level, meaning that this analysis is largely based on qualitative, survey based data.

Initially, the ONS collects pricing information for a number of services provided by UK businesses as part of the Services Producer Prices Indices. One of the services that they track relates to architecture (specifically, SIC 71.11 which links to the DCMS definition of the architecture sector). While this dataset provides insight into how the price of Architectural Services has changed over time, it does not provide an indication as to the actual price level. Given this, Figure 5 shows that Architectural Services prices are generally 9.8 per cent higher in Q3 2016 compared with Q1 2010. This rate of inflation was slightly faster than that for all services¹⁴ (7.5 per cent).

Figure 5: Services producer price indices for selected services in the UK, current prices, Q1 2008 to Q3 2016, 100 = 2010



Source: ONS Services Producer Prices Indices

One thing to note about Figure 5 is that it relates to price trends for the UK as a whole. There are likely to be regional differences hidden behind this national 'average'. For example, an article published by the ONS looked at the relative regional differences in consumer price levels in 2010 and found that the price of goods and services in London was comparably higher than the UK as a whole¹⁵.

¹⁴ This refers to the aggregation of all services producer price indices (except Financial Intermediation) and is not a full representation of the services sector. This also uses the gross sector definition which is calculated using weights based on sales from all transactions in the UK to UK businesses and government.

¹⁵ ONS (2010). UK relative regional consumer price levels for goods and services for 2010.

Alternatively, a different approach to estimating the value of work undertaken by architectural firms is to use the RIBA Business Benchmarking and The Architects' Journal 100 (AJ100) surveys. Both separately ask architectural businesses in the UK about their revenue and salaries, though the former also includes questions about profit, marketing spend and clients. While both are survey based, they target different companies albeit with some overlap. The RIBA survey targets RIBA affiliated companies only and responding is a criterion for membership. In contrast, the AJ100 is voluntary and open to all architectural firms, though the results are only published for the 100 largest businesses responding. This means that both sets of survey data are not representative of the architecture sector as a whole. In addition, some caution should be given to the accuracy of the information provided by these surveys; the information may potentially be biased (selection, reporting, recall and positive results bias among others) and there is no way to check the validity of responses.

Acknowledging the above, the RIBA Business Benchmarking Survey suggested that £2.4 billion work of revenue was generated by RIBA chartered practices across the UK in 2015¹⁶. Meanwhile, the AJ100 reported that total fee income was approximately £2 billion in 2016 (based on the top 100 largest companies of which contained 106 individual businesses)¹⁷.

As the AJ100 presents the data by architectural practice, an estimate of total fee income by UK region can be calculated. This is estimated by allocating each architect firm to a region based on the location of its registered head office with Companies House¹⁸. However, this simple approach does not take into account firms which may have more than one office location in the UK. This presents a particular issue as total fee income is attributed to where the business is headquartered and not necessarily where the income was actually earned. Arguably, this issue could be larger for London where many large architectural firms are registered meaning the figures for London could be overstated. Acknowledging this, it is estimated that London-based architectural businesses brought in approximately £1.4 billion of fee income in 2016, the equivalent of 71.7 per cent of the UK total.

Table 5: Fee income by UK region of AJ100 architectural firms in 2016, £millions

UK region	UK offices - all projects	Overseas offices	Total fee income
North East	£19.9	£0.1	£20.0
North West	£70.4	£122.6	£193.1
Yorkshire & Humber	£27.0	£0.0	£27.0
East Midlands	£30.0	£0.0	£30.0
West Midlands	£21.6	£0.7	£22.3
East	£18.8	£0.0	£18.8
London	£893.6	£537.4	£1,431.9
South East	£90.4	£74.3	£164.7
South West	£41.1	£0.0	£41.2
Scotland	£35.4	£0.0	£35.4
Wales	£8.9	£0.0	£8.9
Northern Ireland	£2.9	£0.0	£2.9
UK total	£1,260.0	£735.1	£1,996.2

Source: AJ100

¹⁶ RIBA (2016). RIBA business benchmarking 2015, Report prepared for the RIBA by The Fees Bureau, April 2016.

¹⁷ <http://aj100.architectsjournal.co.uk/view/income/2016/view.aspx>

¹⁸ <https://beta.companieshouse.gov.uk/>

Gross value added

A different measure to illustrate the architecture sector's contribution to the London economy is gross value added (GVA). This is a measure of the value of goods and services produced and is defined as output minus the cost of inputs associated to that production (i.e. intermediate consumption). This differs from the value of work discussed above which is essentially a measure of revenue and, therefore, includes an element of profit.

The ONS produces estimates of regional GVA by industry. This showed that London's total economic output was approximately £378.4 billion in 2015. However, this information is only available at the section level (1 digit SIC) and, therefore, does not go into sufficient detail to show the value of the architecture sector.

To get around this, GLA Economics *Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015*, (forthcoming) presents a methodology for estimating GVA at the division (2 digit SIC) level¹⁹. This approach first identified the proportion of GVA attributed to the workforce at the section (1 digit SIC) level using ONS Regional GVA data. Then this is effectively apportioned to the section's individual component divisions based on the number of employee and self-employed jobs. That is, GVA is proportioned out based on the share of jobs. This is further adjusted to account for different labour productivities at the division level so that divisions with higher wages will have a larger proportion of the section's GVA. This is based on the relative wage level of the division compared with the section as a whole.

Using the above methodology and the DCMS definition of the architecture sector, GVA was estimated at £1.7 billion in 2015²⁰. While that represents only a very small part of the London economy as a whole (0.4 per cent), the architecture sector contributes around 4 per cent of total output for the creative industries. In fact, the architecture sector is larger in economic output terms than the Crafts, Design (product, graphic and fashion design) and Museums, Galleries & Libraries creative industries (Table 6). However, it is less than half the size of Advertising & Marketing and less than a fifth of Film, TV, Video, Radio & Photography.

Table 6: GVA by creative industry group in London in 2015, £millions

Creative industry group	GVA (£ millions)	as a percentage
Advertising & Marketing	£4,146.4	9.9%
Architecture	£1,671.0	4.0%
Crafts	£81.9	0.2%
Design: Product, Graphic & Fashion Design	£1,214.9	2.9%
Film, TV, Video, Radio & Photography	£8,592.2	20.5%
IT, Software & Computer Services	£15,952.7	38.0%
Publishing	£5,679.0	13.5%
Museums, Galleries & Libraries	£502.3	1.2%
Music, Performing & Visual Arts	£4,173.5	9.9%
Creative industry total	£42,013.8	100.0%

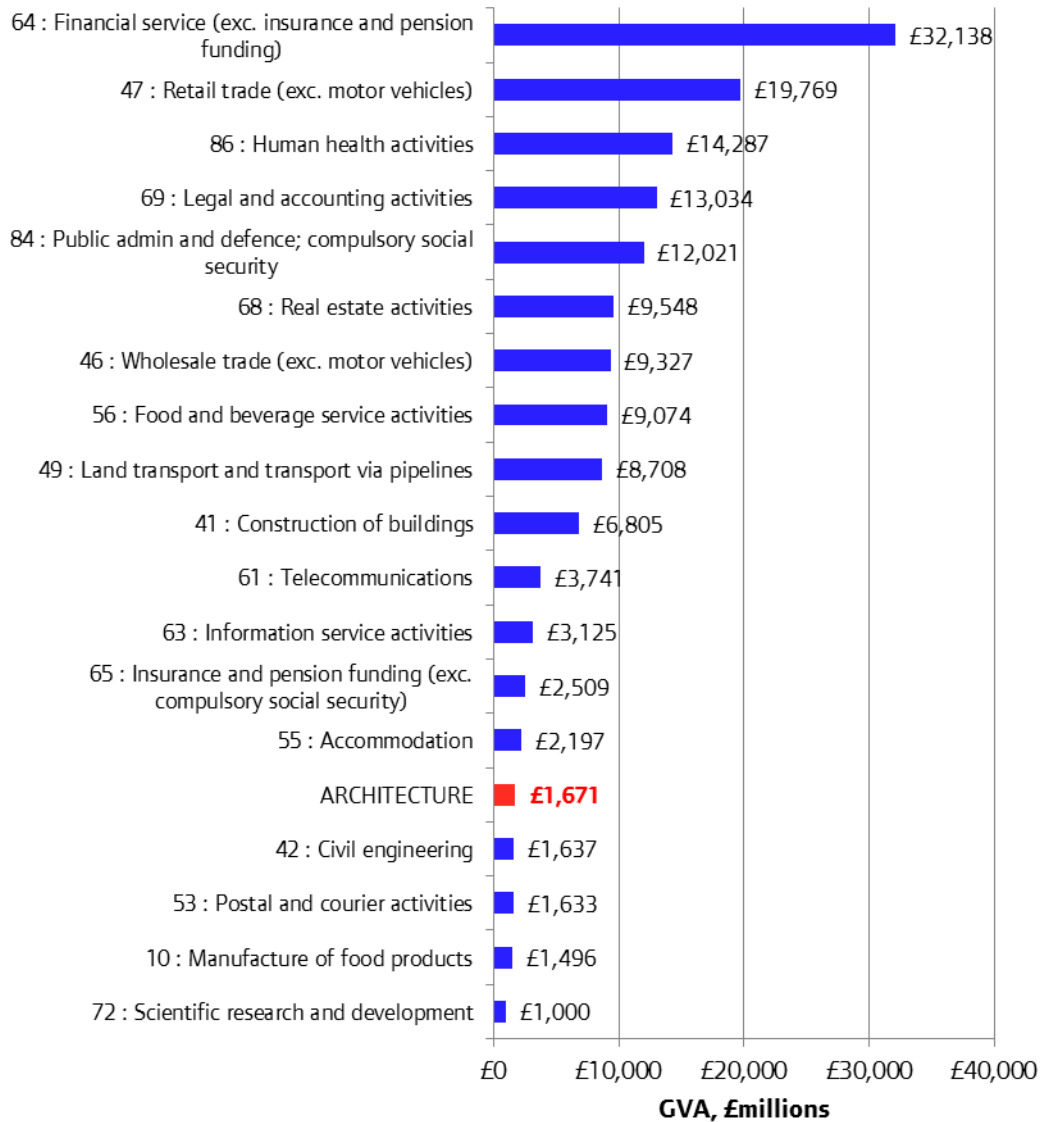
Source: GLA Economics

¹⁹ Smith, B & Girardi, A (2017, forthcoming). Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015, GLA Economics

²⁰ These figures are consistent with those published in GLA Economics Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015 (forthcoming).

Figure 6 shows a wider comparison of the architecture sector with other selected industry divisions (2-digit SIC) in London²¹. Architecture's GVA was broadly similar to that for Civil Engineering (£1.6 billion) and Postal & Courier Activities (£1.6 billion)²². It was also only slightly smaller – in relative terms – than the Accommodation (£2.2 billion) and Insurance, Reinsurance & Pension Funding (£2.5 billion) divisions.

Figure 6: GVA by selected industry division (2 digit SIC) in London in 2015, £millions



Note: Architecture does not relate to a specific industry division (2 digit SIC). Instead it is based on the DCMS Creative Industries definition which is based on sub-classes (4 digit SIC). Source: ONS Regional GVA, GLA Economics

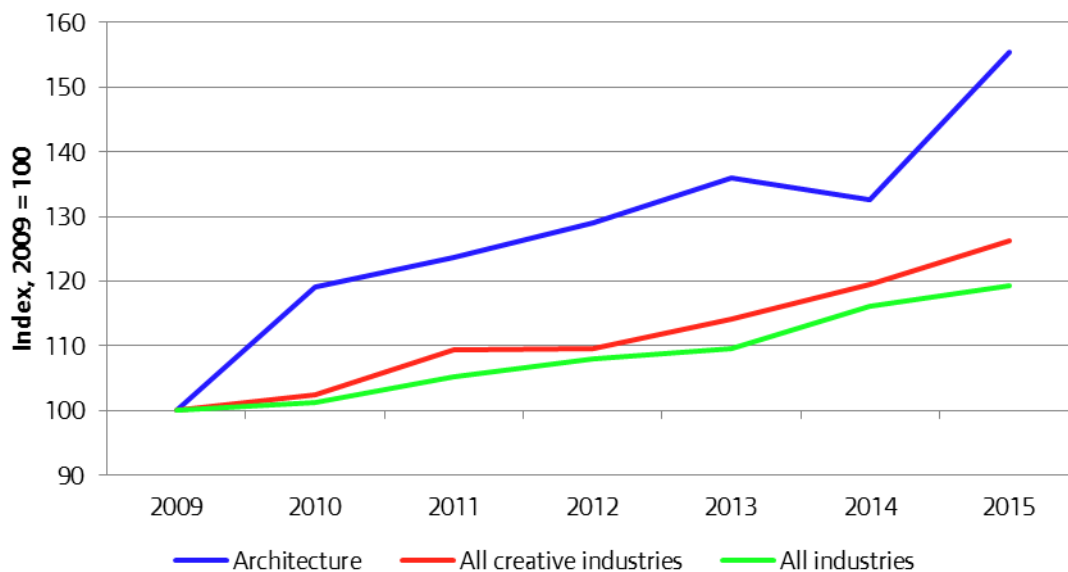
Over time, London's architecture sector GVA has increased on average 9.3 per cent per annum between 2009 and 2015 (CAGR) in nominal prices. For instance, it has increased by £689.9 million over this period in absolute terms. However, when looking at prices over time, it is better

²¹ For more information about SIC codes and the type of activities that are included in these divisions, see: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/SIC/ONS_SIC_hierarchy_view.html

²² Like above, these figures are consistent with those published in GLA Economics Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015 (forthcoming).

to look at them in constant or real terms. That is because prices tend to rise over time and so some of the increase could be a result of general inflation instead of a change in GVA itself. One method for converting nominal prices into constant prices is using a deflator. This paper uses the UK GDP deflator which is considered as a measure of general inflation. On this basis, London's architecture sector has grown 7.6 per cent per annum on average in real terms. That was a stronger rate of growth than for the creative industries (3.9 per cent) and the London economy (3 per cent) as a whole.

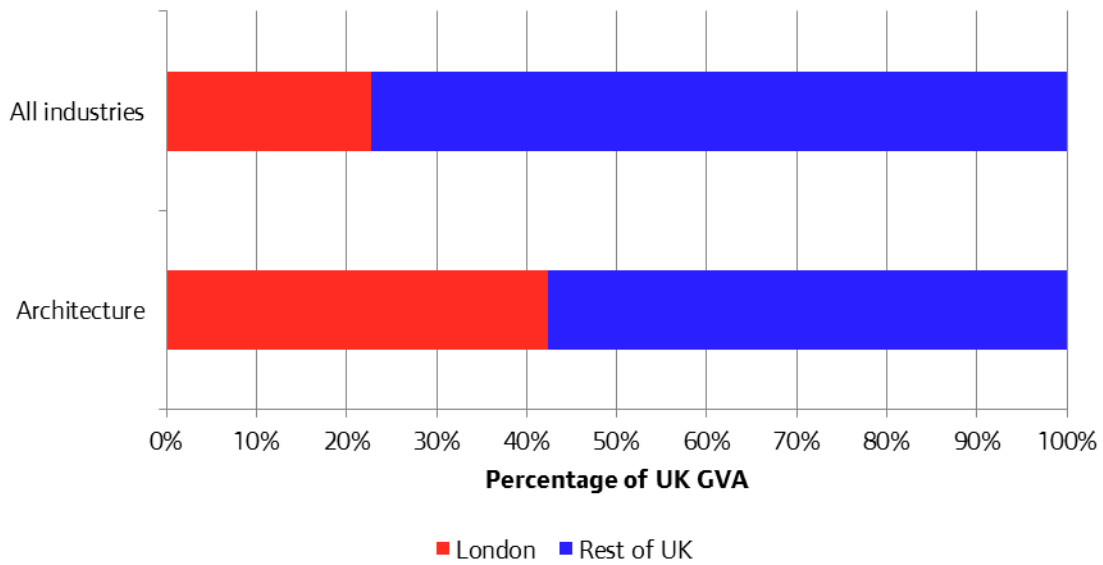
Figure 7: Index of GVA by industry for London between 2009 and 2015, constant 2015 prices, 100 = 2009



Source: ONS Regional GVA, GLA Economics

In comparison with the UK as a whole, London contributed approximately 42.4 per cent of the total output of the architecture sector in 2015. This was greater than London's share of total economic output for all sectors (22.7 per cent) suggesting that London is of greater importance to architecture than for other sectors.

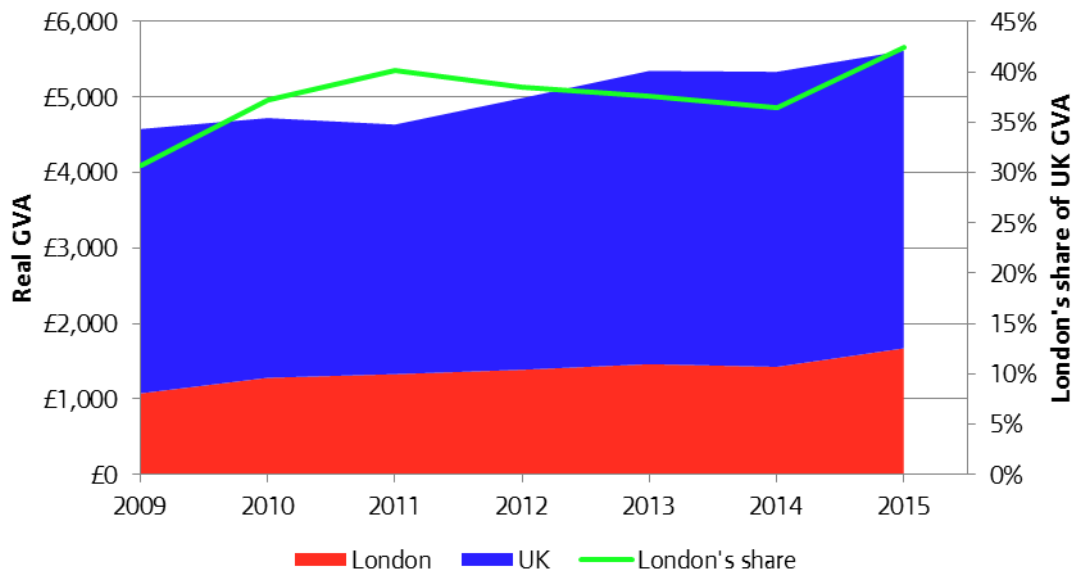
Figure 8: Percentage of UK GVA by industry and UK region in 2015



Source: ONS Regional GVA, GLA Economics

London's share of the UK's architecture sector has generally been increasing over time, rising from 30.7 per cent in 2009.

Figure 9: GVA of London's and the UK's architecture sector between 2009 and 2015, constant 2015 prices



Source: GLA Economics

4 Employment

Key points

- There were approximately 22,800 jobs in London's architecture sector in 2015. More than a quarter of jobs in the UK's architecture sector were in London.
- London had around 24,300 architect occupations – regardless of sector – in 2015. One-in-four architects in the UK were based in London.
- Combining the two, there were approximately 12,200 architect occupations in London's architecture sector in 2015. This suggests that approximately half of all architect occupations are in the architecture sector, and just over half of all jobs in the architecture sector are architects.
- Around half of all London-based architects were aged 35-54 and approximately 40 per cent were female in 2015.
- The gross median hourly wage for architects in London was £17.88 in 2016. That is higher than the average for London as a whole.
- While GVA per workforce job – a measure of labour productivity – in London's architecture sector was lower than the all-sector average, it was above the equivalent figure for the UK's architecture sector as a whole.

In addition to the output that they produce, architectural firms are also a source of employment. Subsequently, this chapter discusses the number of jobs in terms of both the number of architects and the total number of jobs in the architectural sector, as well as average earnings and labour productivity.

Number of jobs

As noted in Chapter 2, the number of jobs can be one of three definitions. It could refer to the total number of jobs in the architecture sector and include HR and finance occupations; it could refer to architect jobs only, but in any sector; or it could refer to architect jobs within the architecture sector. This section presents information about the number of jobs using both these definitions in turn.

From the offset, it should be noted that the job estimates presented in this section use data from the ONS Annual Population Survey. This is consistent with the approach taken in the GLA Economics Creative Industries 2015 Update²³ as well as the DCMS Creative Industries Economic Estimates releases²⁴. It also allows for more comprehensive data about the characteristics of jobholders like their age and gender. However, this is inconsistent – and thus not directly

²³ Togni, L (2015). The creative industries in London, GLA Economics Working Paper 70, October 2015.

²⁴ <https://www.gov.uk/government/collections/creative-industries-economic-estimates>

comparable – with other pieces of analysis that uses different job estimates (i.e. the ONS Workforce Jobs series) such as GLA Economics Labour Market Projections²⁵.

Jobs in the architecture sector

There were approximately 22,800 jobs in London's architecture sector in 2015. That was the lowest number in the seven year history of data, down from a peak of 34,100 jobs in 2010. Despite this, London has historically had more than a quarter of all jobs in the UK's architecture sector.

Table 7: Number of jobs in the architecture sector by UK region between 2009 and 2015

UK region	2009	2010	2011	2012	2013	2014	2015	Share of UK in 2015
North East	2,400	2,500	2,400	2,400	2,100	3,200	1,800	2.0%
North West	8,600	6,900	6,400	9,300	8,500	6,000	6,900	7.7%
Yorkshire & Humber	5,700	7,400	5,500	3,600	4,600	5,000	7,300	8.0%
East Midlands	6,100	6,400	6,600	4,900	3,300	2,000	3,600	4.0%
West Midlands	5,800	4,200	3,700	6,200	5,000	6,100	5,000	5.5%
East	10,600	7,000	9,200	7,800	11,700	10,700	7,100	7.9%
London	24,300	34,100	29,500	25,900	26,500	26,800	22,800	25.2%
South East	10,900	8,600	10,100	9,700	12,000	16,000	13,600	15.0%
South West	8,400	8,000	7,300	6,700	7,000	9,200	6,500	7.2%
Wales	2,600	2,100	3,600	3,000	3,500	3,300	3,600	4.0%
Scotland	9,000	8,900	7,700	9,500	8,400	9,900	9,900	11.0%
Northern Ireland	1,300	2,000	1,800	1,600	1,000	2,900	2,300	2.6%
UK total	95,700	98,100	93,800	90,600	93,500	101,300	90,400	100.0%

Source: ONS Annual Population Survey

In 2015, more than half (55.7 per cent) of the jobholders in London's architecture sector were aged 35–54 years. This has generally only been the case in recent years as the 16–34 age group had the largest share of jobs in 2009 and 2010. The 55 years and over category has consistently had the lowest share of jobs in London's architecture sector.

While it is a similar trend for the architecture sector at the UK level, there is a higher percentage of jobholders who are aged 55 years and over.

²⁵ GLA Economics (2016). London labour market projections 2016.

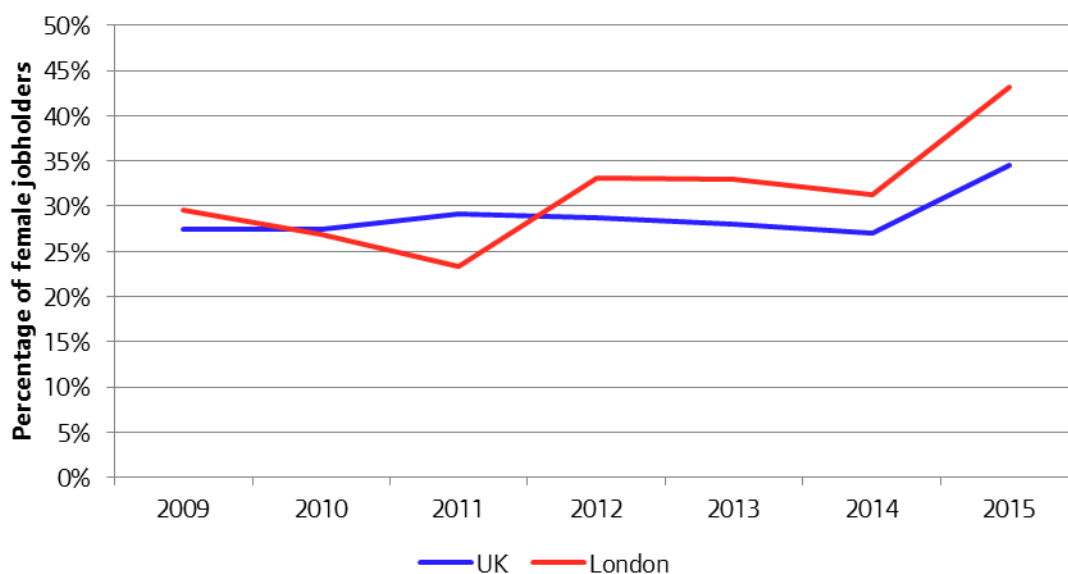
Table 8: Percentage of jobs in London's and the UK's architecture sector by age group between 2009 and 2015

	2009	2010	2011	2012	2013	2014	2015
London							
16-34yrs	42.7%	46.9%	34.7%	33.2%	27.6%	44.2%	31.6%
35-54yrs	39.1%	42.6%	52.0%	53.4%	51.6%	42.5%	55.7%
+55yrs	18.3%	10.5%	13.3%	13.4%	20.9%	13.3%	12.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
UK							
16-34yrs	31.1%	29.7%	26.0%	29.0%	24.7%	34.8%	27.9%
35-54yrs	44.6%	44.3%	50.6%	48.5%	45.3%	41.2%	47.3%
+55yrs	24.3%	26.0%	23.4%	22.5%	30.1%	24.0%	24.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ONS Annual Population Survey

Approximately 43.1 per cent of the jobholders in London's architecture sector were female in 2015. This percentage has generally been increasing since 2009 (Figure 10). There is a higher percentage of female jobholders in the architecture sector in London than the UK as a whole.

Figure 10: Percentage of female jobholders in London's and the UK's architecture sector between 2009 and 2015

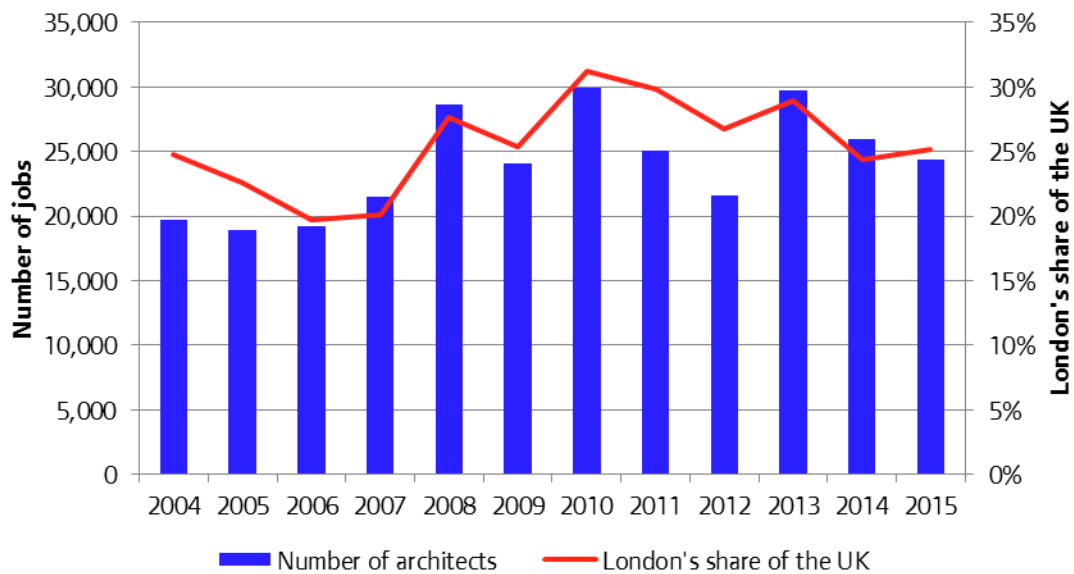


Source: ONS Annual Population Survey

Architect jobs

There were 24,300 architect jobs – regardless of sector – in London in 2015. That is down from a peak of 29,800 in 2013 and slightly below the ten-year average of 25,000. Nonetheless, around a quarter of the UK's architects are based in London.

Figure 11: Number of architect occupations in London between 2004 and 2015



Source: ONS Annual Population Survey

In fact, the number of architects in London is broadly equal to the sum of the next two largest UK regions (South East with 13.6 per cent share in 2015 and Scotland with 12.7 per cent share).

Table 9: Number of architect occupations by UK region between 2009 and 2015

UK region	2009	2010	2011	2012	2013	2014	2015	Share of UK in 2015
North East	2,900	2,500	1,600	1,900	2,200	2,600	3,300	3.4%
North West	8,400	6,300	7,600	8,700	8,500	6,200	5,300	5.5%
Yorkshire & Humber	6,600	8,700	5,300	3,100	4,800	6,500	7,400	7.6%
East Midlands	4,900	4,300	3,700	3,300	4,000	4,100	5,700	5.9%
West Midlands	3,900	3,600	4,100	5,000	5,600	5,300	6,900	7.2%
East	10,100	7,800	5,900	6,200	10,300	8,300	5,200	5.4%
London	24,000	29,900	25,100	21,600	29,800	25,900	24,300	25.2%
South East	11,800	9,800	9,400	8,000	11,500	17,400	13,100	13.6%
South West	8,100	9,300	6,300	5,300	8,500	9,800	7,200	7.5%
Wales	3,500	2,700	3,600	3,400	3,700	3,700	3,500	3.6%
Scotland	9,500	7,800	8,000	11,000	10,200	12,400	12,300	12.7%
Northern Ireland	1,200	3,300	3,500	3,100	3,700	4,000	2,400	2.5%
UK total	94,900	96,000	84,100	80,600	102,800	106,200	96,500	100.0%

Source: ONS Annual Population Survey

Similarly to the architecture sector, around a half (48.8 per cent) of all architect jobholders in London were aged between 35 and 54 years in 2015. However, this has not historically been the case with the largest age group being 16-34 years between 2004 and 2010. London based architects were generally younger than architects based in the UK as a whole.

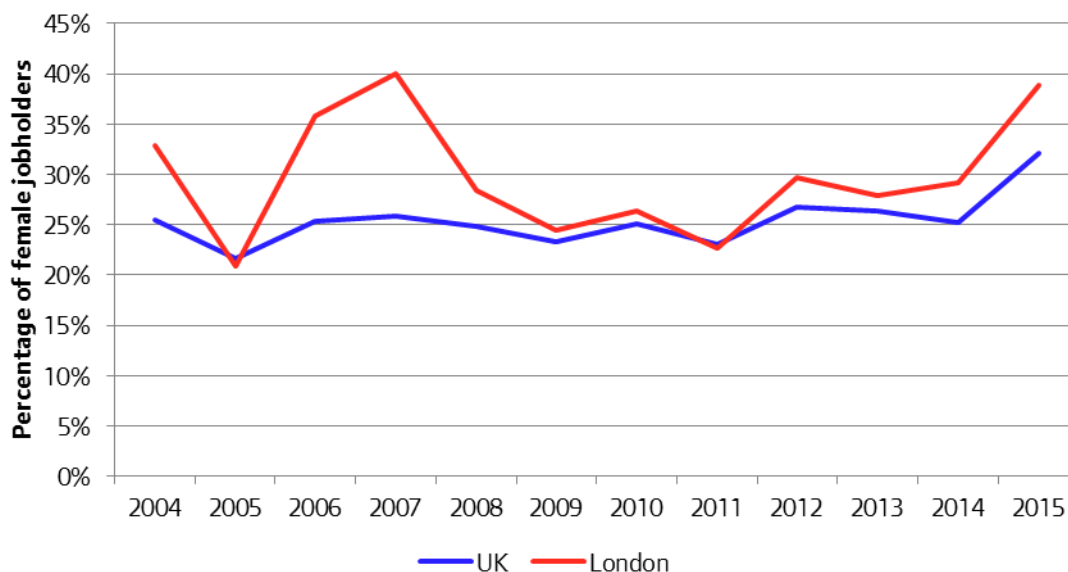
Table 10: Percentage of architect occupations in London and the UK by age group between 2004 and 2015

	2004	2006	2008	2010	2012	2013	2014	2015
London								
16-34yrs	45.7%	52.8%	52.9%	48.6%	28.9%	35.4%	45.2%	36.3%
35-54yrs	39.0%	28.1%	37.4%	41.6%	55.4%	48.1%	43.9%	48.8%
+55yrs	15.3%	19.1%	9.8%	9.8%	15.7%	16.6%	10.9%	14.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
UK								
16-34yrs	38.4%	34.9%	41.0%	36.5%	32.0%	30.0%	34.5%	33.4%
35-54yrs	40.2%	43.8%	40.4%	41.7%	45.7%	47.0%	47.4%	49.1%
+55yrs	21.3%	21.3%	18.5%	21.9%	22.3%	23.0%	18.0%	17.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ONS Annual Population Survey

Approximately 38.8 per cent of architects in London were female in 2015, which is higher than 32.1 per cent for the UK as a whole.

Figure 12: Percentage of female architects in London and the UK between 2004 and 2015



Source: ONS Annual Population Survey

Architect jobs in the architecture sector

A more strict definition of architecture jobs is a combination of the two discussed above. That is, the number of architect occupations within the architecture sector. In total, there were 12,200 architect jobs in London's architecture sector in 2015. Generally, this has been falling since reaching a peak of 22,500 jobs in 2010. This is also reflected in London's share of the UK total number of architect jobs in the architecture sector, which has fallen from a peak of 37.7 per cent in 2011 to 24.8 per cent in 2015.

Figure 13: Number of architect occupations in London's architecture sector between 2009 and 2015



Source: ONS Annual Population Survey

Approximately half (50.1 per cent) of all architect jobs in London were in the architecture sector in 2015. While that was broadly on par with that for the UK as a whole (50.9 per cent), over two-thirds (69.9 per cent) of all architect jobs used to be in London's architecture sector in 2009. Therefore, this suggests that there has been an increase in the proportion of architect occupations in other sectors other than architecture in London. These other sectors could include construction and engineering for instance.

This dispersion of architect jobs can also be seen when looking at the number of architect jobs as a percentage of all jobs in London's architecture sector. Around 53.5 per cent of the jobs in London's architecture sector were architect occupations in 2015, down from 69.2 per cent in 2009. This therefore suggests that London's architecture sector has seen a larger increase in the number of non-architect occupations, which could include HR and finance for example.

Figure 14: Share of architect jobs in the architecture sector for London and the UK in 2009, 2012 and 2015



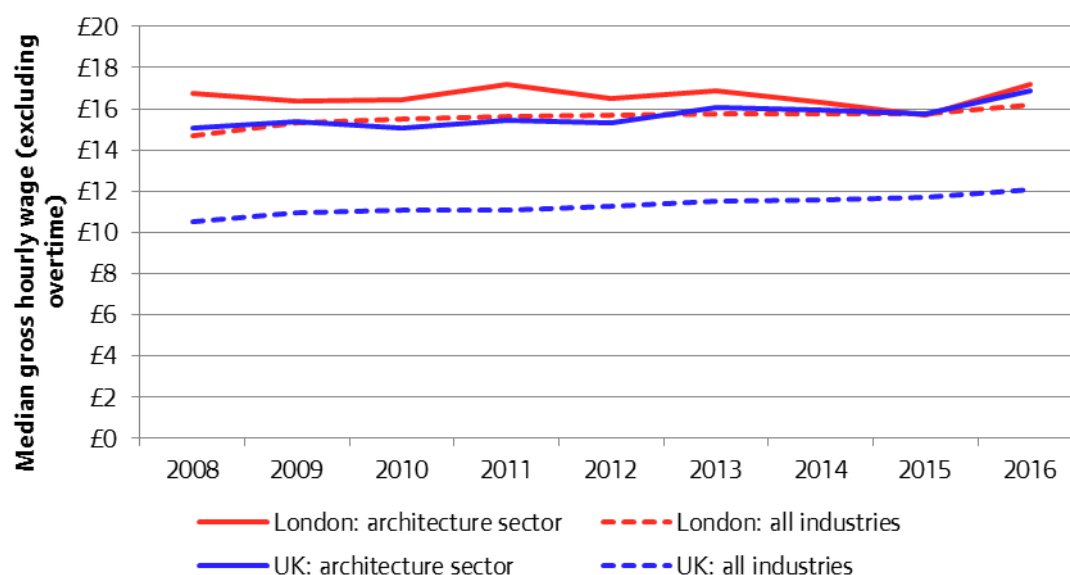
Source: ONS Annual Population Survey

Earnings

The ONS publishes data about average earnings using the Annual Survey of Hours & Earnings. This is split by industry and occupation meaning that the average wage in the architecture sector and for architect jobs regardless of industry can be calculated. These are discussed separately below.

The average (mean) hourly wage excluding overtime in London's architecture sector was £19.65 in 2016. However, given the structure of London's labour market where some workers are paid high wages and would therefore affect the mean, a better measure of average earnings uses the median. Given this, the median hourly wage in London's architecture sector was £17.16 in 2016. That was higher than the all-sector average in London of £16.17. It was also 1.6 per cent higher than that for the UK's architecture sector, though this difference is smaller than that for all industries (median hourly pay excluding overtime in London – regardless of sector – was 33.6 per cent higher than the UK).

Figure 15: Median gross hourly pay (excluding overtime) for London's and the UK's architecture sector between 2008 and 2016, current prices



Source: ONS Annual Survey of Hours and Earnings

Hourly earnings vary within the architecture sector as illustrated by looking at the percentile breakdowns (i.e. the 75th percentile earnings show the wage earned by the person who sits three-quarters along the wage distribution when arranged from lowest to highest). In London, the hourly wage (excluding overtime) in the architecture sector was £11.85 at the 10th percentile. This rose to £21.77 at the 75th percentile, but this estimate is potentially unreliable given the large confidence interval²⁶ meaning the 'true' value could be as low as £9.67 or as high as £33.87.

Table 11: Gross hourly pay (excluding overtime) for London's and the UK's architecture sector by wage percentile in 2016

Wage percentile	London		UK	
	Estimate	Confidence interval	Estimate	Confidence interval
10th	£11.85	+/- £4.90	£10.73	+/- £3.90
20th	£13.88	+/- £4.90	£12.94	+/- £3.70
25th	£14.38	+/- £5.70	£13.88	+/- £3.00
30th	£15.33	+/- £4.20	£14.31	+/- £2.80
40th	£16.35	+/- £3.40	£15.83	+/- £3.40
50th	£17.16	+/- £4.40	£16.89	+/- £3.20
60th	£18.50	+/- £6.80	£18.81	+/- £4.40
70th	£20.45	+/- £8.50	£20.51	+/- £5.20
75th	£21.77	+/- £12.10	£21.70	+/- £6.10
80th	x	x	£22.97	+/- £10.20
90th	x	x	x	x

Note: unreliable values are illustrated with an x. Source: ONS Annual Survey of Hours and Earnings

²⁶ As these estimates are derived from a survey, there is some statistical error that the estimate derived from the survey sample is not reflective of the 'true' figure for the wider population. This difference is known as the confidence interval and shows the range around the estimate that the true figure may actually lie.

Men working in London's architecture sector were paid more than women on average in 2016 (£17.23 versus £16.77). This gender pay gap for all employees of 2.7 per cent is nonetheless smaller than that for the UK's architecture sector as a whole (9.9 per cent)²⁷.

Meanwhile, in London, gross median hourly pay excluding overtime was higher for architect occupations (£17.88) than the architecture sector more generally (£17.16) in 2016. Architects in London also earned more on an hourly basis than the average for all occupations (£16.17). Additionally, London-based architects have historically had a higher hourly wage than the UK average with the exceptions of 2014 and 2015.

Figure 16: Median gross hourly pay (excluding overtime) for architects in London and the UK between 2011 and 2016, current prices



Source: ONS Annual Survey of Hours and Earnings

London posted a higher hourly wage for architects than the UK across the wage distribution (where data exists). The hourly wage ranged from £12.91 at the 10th percentile to £22.25 at the 75th percentile, though these estimates are subject to some statistical error as illustrated by the confidence interval.

²⁷ The gender pay gap is calculated as the difference between median hourly earnings (excluding overtime) of men and women as a percentage of median hourly earnings (excluding overtime) of men only. For example, $(£16.77 - £17.23) \div £17.23 = -2.7\%$.

Table 12: Gross hourly pay (excluding overtime) for architects in London and the UK by wage percentile in 2016

Wage percentile	London		UK	
	Estimate	Confidence interval	Estimate	Confidence interval
10th	£12.91	+/- £5.80	£12.10	+/- £4.20
20th	£14.30	+/- £4.90	£13.45	+/- £2.20
25th	£15.15	+/- £4.70	£14.05	+/- £2.70
30th	£15.83	+/- £4.30	£14.61	+/- £3.40
40th	£16.87	+/- £3.70	£16.26	+/- £3.20
50th	£17.88	+/- £4.70	£17.36	+/- £2.70
60th	£19.50	+/- £6.50	£18.47	+/- £3.60
70th	£21.60	+/- £8.40	£20.17	+/- £5.20
75th	£22.25	+/- £13.70	£21.60	+/- £5.70
80th	x	x	£22.74	+/- £8.10
90th	x	x	x	x

Note: unreliable values are illustrated by an x. Source: ONS Annual Survey of Hours and Earnings

Labour productivity

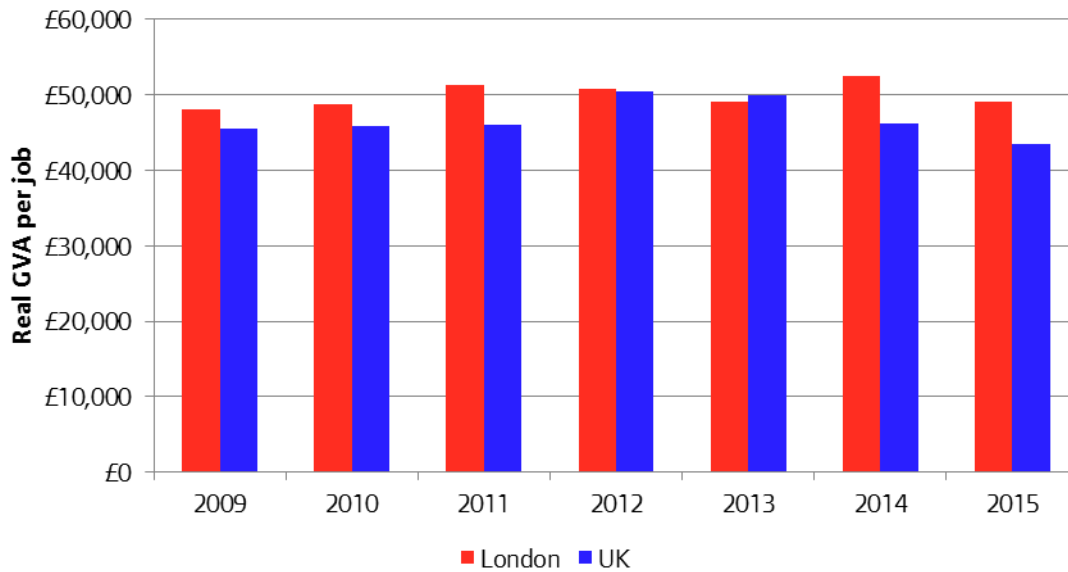
Another economic indicator related to employment is labour productivity. Productivity is a useful indicator for benchmarking and comparing economic performance as it shows the efficiency of converting inputs into outputs. For example, it shows the amount of output generated by one unit of labour which, here, is a job.

In this section, the measure of labour productivity used is GVA per job. It is worth noting that the job figures used here are essentially based on a workforce jobs series meaning they are not directly comparable with those discussed in the previous section. Consequently, the productivity measure is more accurately GVA per workforce job. A more detailed methodology note as to how the GVA per workforce job estimates have been calculated can be found in the forthcoming GLA Economics *Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015*²⁸.

Acknowledging the above, GVA per workforce job in London's architecture sector was estimated at £49,110 in 2015. That was 12.8 per cent higher than the equivalent figure for the UK as a whole (£43,524). London has generally posted a higher GVA per workforce job for the architecture sector, except for 2013.

²⁸ Smith, B & Girardi, A (2017, forthcoming). Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015, GLA Economics.

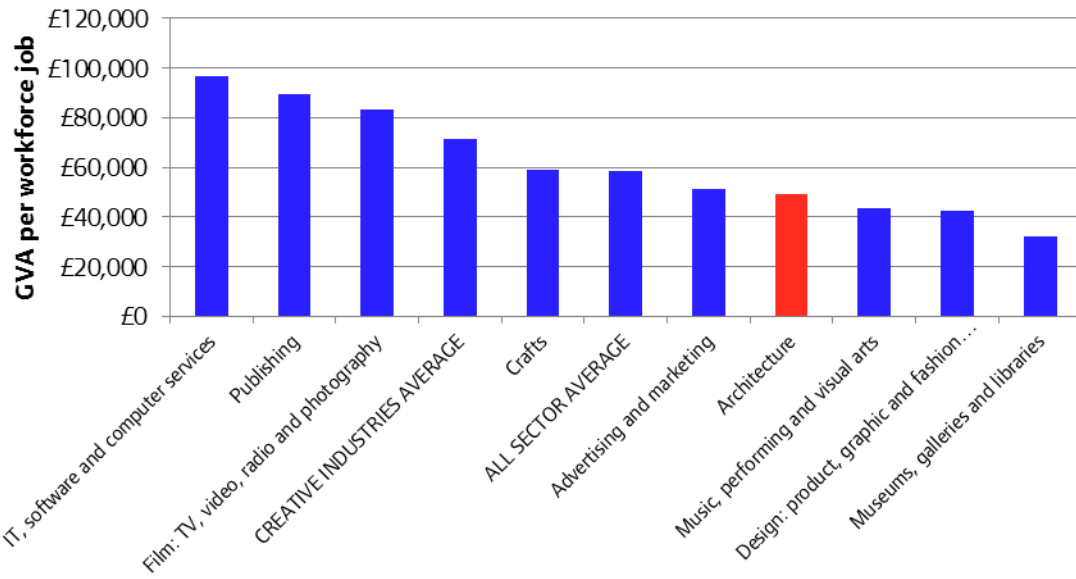
Figure 17: GVA per workforce job in London's and the UK's architecture sector between 2009 and 2015, constant 2015 prices



Source: GLA Economics

However, London's GVA per workforce job for the architecture sector was below the all-sector average of £58,442 in 2015. It was also below the creative industries average of £71,435. The forthcoming GLA Economics Productivity trends: GVA per workforce jobs for London and the UK, 1997-2015, provides more comparisons. For example labour productivity in London's architecture sector was higher than London's Wholesale & Retail Trade (including Repair of Motor Vehicles) (£45,795) and Administrative & Support Services (£37,548) sectors; and it was broadly on par with Construction (£51,441) in London.

Figure 18: GVA per workforce job in London's creative industries in 2015



Source: GLA Economics

5 Education

Key points

- Of those studying Architecture, around one-in-five undergraduates and two-in-five postgraduates chose to do so in London during the 2014-15 academic year.
- This in part is reflective of London being home to several highly rated universities for architecture. For example, UCL is often rated as one of the top five UK universities for architecture.
- More than half of the Architecture, Built Environment & Planning research conducted by London-based universities is considered as being world-leading or internationally excellent.

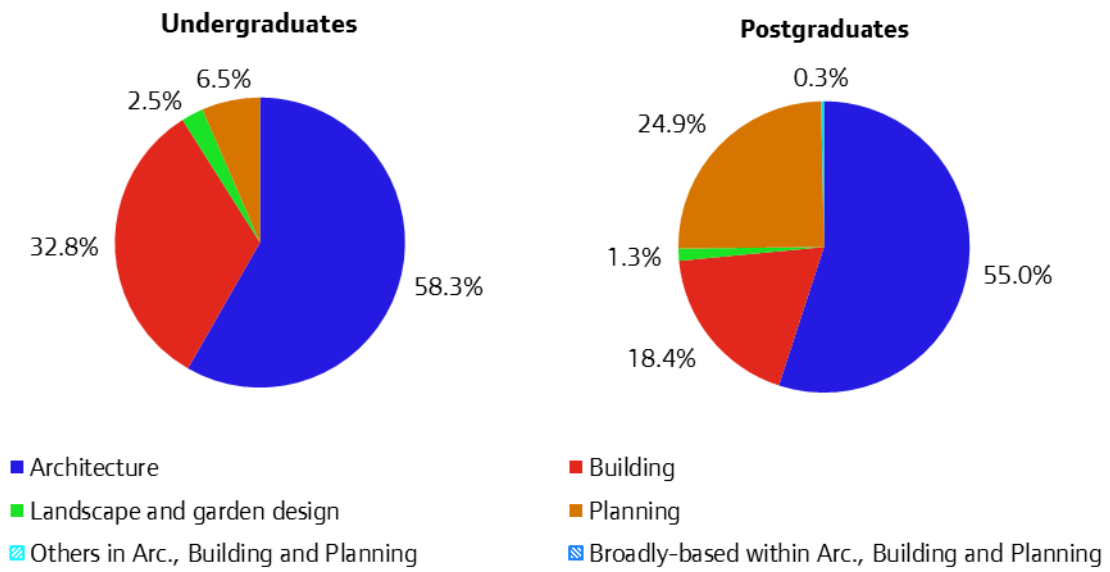
In addition to architecture's role as a place of work, London is home to a number of widely recognised architectural schools which attract students from across the country and even abroad. In this chapter, we look at the number of students studying architecture-related subjects in London and discuss some of the characteristics of London's higher education providers which make them attractive.

Students

The Higher Education Statistics Agency (HESA) collects student data from state-funded higher education institutions (HEIs). While it does not cover privately funded institutions such as Architectural Association School of Architecture or the London School of Architecture, it is the single source of comprehensive student data. Regional information is available, though is based on the location of HEIs which is not necessarily the same as where students were originally or are currently living.

At the headline level, the HESA data shows that there were approximately 5,460 undergraduates and 4,820 postgraduates studying Architecture, Building & Planning degrees at London-based HEIs in the 2014-15 academic year. More than half of these students were specifically undertaking Architecture courses, with the remainder largely doing Building or Planning degrees.

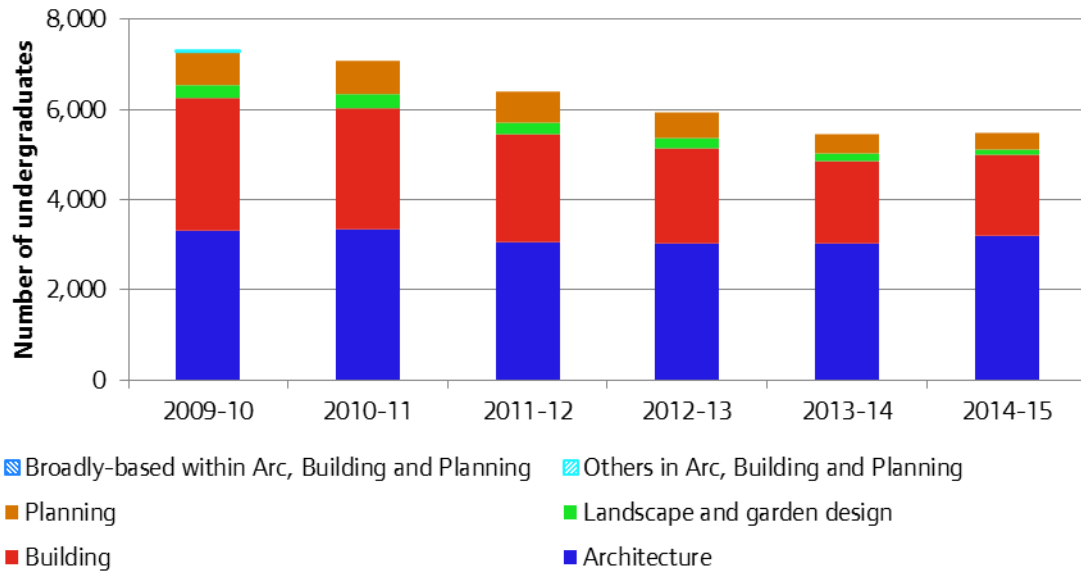
Figure 19: Percentage of under and postgraduates at London based HEIs by Architecture, Building & Planning subject in 2014-15



Source: HESA Student Records

Over time, the number of undergraduates studying Architecture, Building & Planning degrees at London-based HEIs has fallen. For example, this has declined from 7,255 in 2009-10 to 5,460 in 2014-15. However, this headline finding masks differing trends for specific subjects. While the number of students taking Building, Landscape & Garden Design and Planning courses has fallen since 2009-10, the number studying Architecture at London-based HEIs has remained broadly stable at around 3,000 (Figure 20).

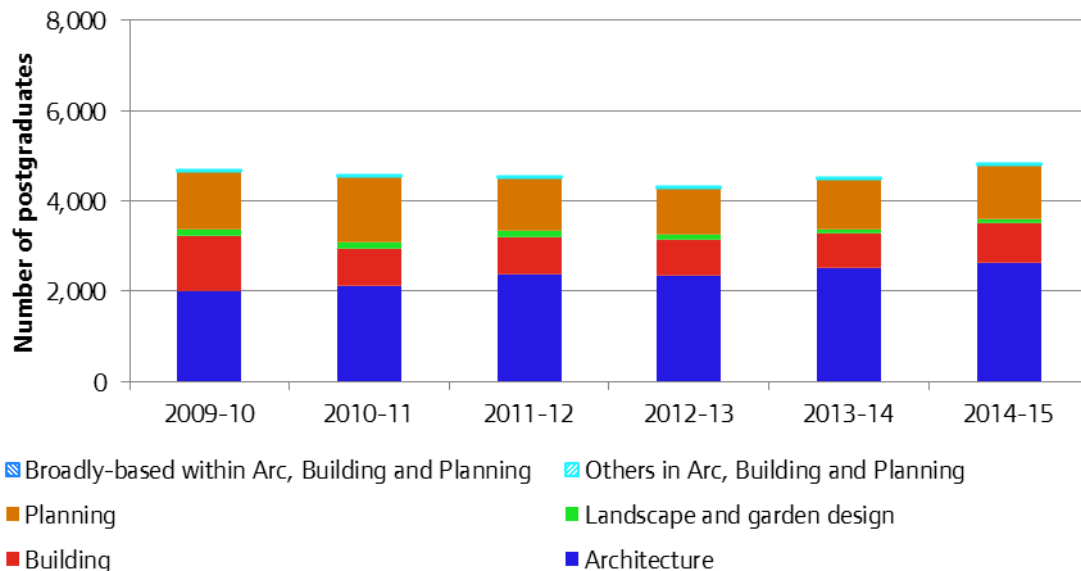
Figure 20: Number of undergraduates studying Architecture, Building & Planning degrees at London based HEIs over time, 2009-10 to 2014-15



Source: HESA Student Records

In contrast, the number of postgraduates studying architecture-related degrees at London HEIs has been relatively stable over time. An increase in the number of people studying Architecture specifically (rising from 2,025 in 2009-10 to 2,655 in 2014-15) has largely been offset by a decline for Building and Landscape & Garden Design.

Figure 21: Number of postgraduates studying Architecture, Building & Planning degrees at London based HEIs over time, 2009-10 to 2014-15



Source: HESA Student Records

By UK region, London had the highest shares of undergraduates and postgraduates studying architecture-related degrees in 2014-15. For example, around one-in-five (19.3 per cent) undergraduates taking Architecture courses in the UK were at London HEIs, with this figure

rising to almost two in every five (39.9 per cent) for postgraduates. Comparably, approximately 14 per cent of all undergraduates and 22 per cent of all postgraduates in the UK regardless of subject were at London-based HEIs. This therefore suggests that London is proportionally more attractive as a place to study Architecture.

Table 13: Percentage of undergraduates studying Architecture, Building & Planning degrees by UK region in 2014-15

UK region	Architecture	Building	Landscape & Design	Planning	Arch., Building & Planning total	All subjects
North East	5.6%	7.0%	0.0%	6.4%	6.1%	4.6%
North West	10.9%	14.0%	4.5%	11.1%	11.9%	10.1%
Yorks. & Humber	7.9%	8.4%	28.2%	12.3%	9.0%	8.6%
East Midlands	12.7%	9.1%	0.0%	6.7%	10.5%	7.0%
West Midlands	3.1%	7.9%	7.1%	2.7%	5.0%	8.2%
East	2.5%	6.9%	12.2%	3.2%	4.5%	5.2%
London	19.3%	14.2%	17.3%	11.9%	16.6%	14.0%
South East	11.7%	7.9%	0.0%	5.9%	9.4%	16.2%
South West	8.5%	5.4%	8.3%	13.6%	7.7%	7.2%
Scotland	12.3%	10.3%	19.2%	9.1%	11.4%	10.2%
Wales	3.1%	4.7%	3.2%	8.2%	4.2%	6.1%
Northern Ireland	2.5%	4.2%	0.0%	9.2%	3.7%	2.6%
UK	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: HESA Student Records

Table 14: Percentage of postgraduates studying Architecture, Building & Planning degrees by UK region in 2014-15

UK region	Architecture	Building	Landscape & Design	Planning	Arch., Building & Planning total	All subjects
North East	1.4%	6.4%	0.0%	4.0%	3.3%	3.8%
North West	6.1%	17.3%	6.1%	4.6%	8.6%	9.4%
Yorks. & Humber	7.5%	4.2%	41.2%	9.5%	8.5%	8.2%
East Midlands	9.4%	10.8%	0.0%	4.7%	8.2%	6.5%
West Midlands	2.3%	6.4%	6.1%	3.9%	3.9%	8.7%
East	1.3%	2.6%	8.8%	4.3%	2.7%	6.1%
London	39.9%	24.3%	11.4%	33.4%	33.2%	22.0%
South East	9.5%	5.3%	0.0%	8.1%	7.7%	11.8%
South West	7.3%	4.2%	12.3%	5.8%	6.4%	5.7%
Scotland	9.8%	15.4%	14.0%	11.4%	11.8%	10.4%
Wales	1.5%	2.3%	0.9%	7.9%	3.3%	5.2%
Northern Ireland	3.9%	0.7%	0.0%	2.4%	2.6%	2.1%
UK	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

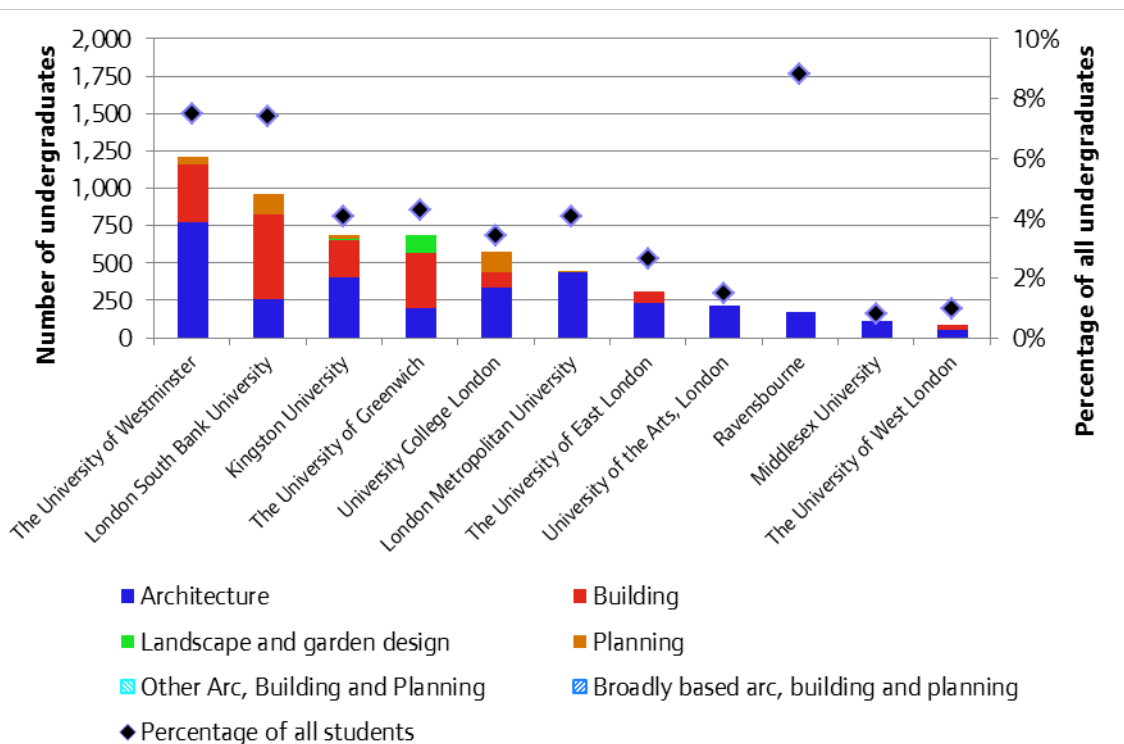
Source: HESA Student Records

The HESA Student Records data is available for individual higher education institutions, though only for those receiving state funding meaning it might not be a complete list of providers in London. Acknowledging that, University of Westminster had the largest undergraduate

population studying Architecture, Building & Planning degrees in London during the 2014-15 academic year. This was followed by London South Bank University and University of Greenwich. Slightly different trends emerge if solely looking at Architecture undergraduate degrees (Figure 22). While University of Westminster still recorded the highest number of architecture students at 775, this was followed by London Metropolitan University (435 students) and Kingston University (400 students).

Given that higher education providers vary in size, it might be better to look at the percentage of all students that are doing architecture-related courses. On this basis, Ravensbourne had the largest share at 8.8 per cent.

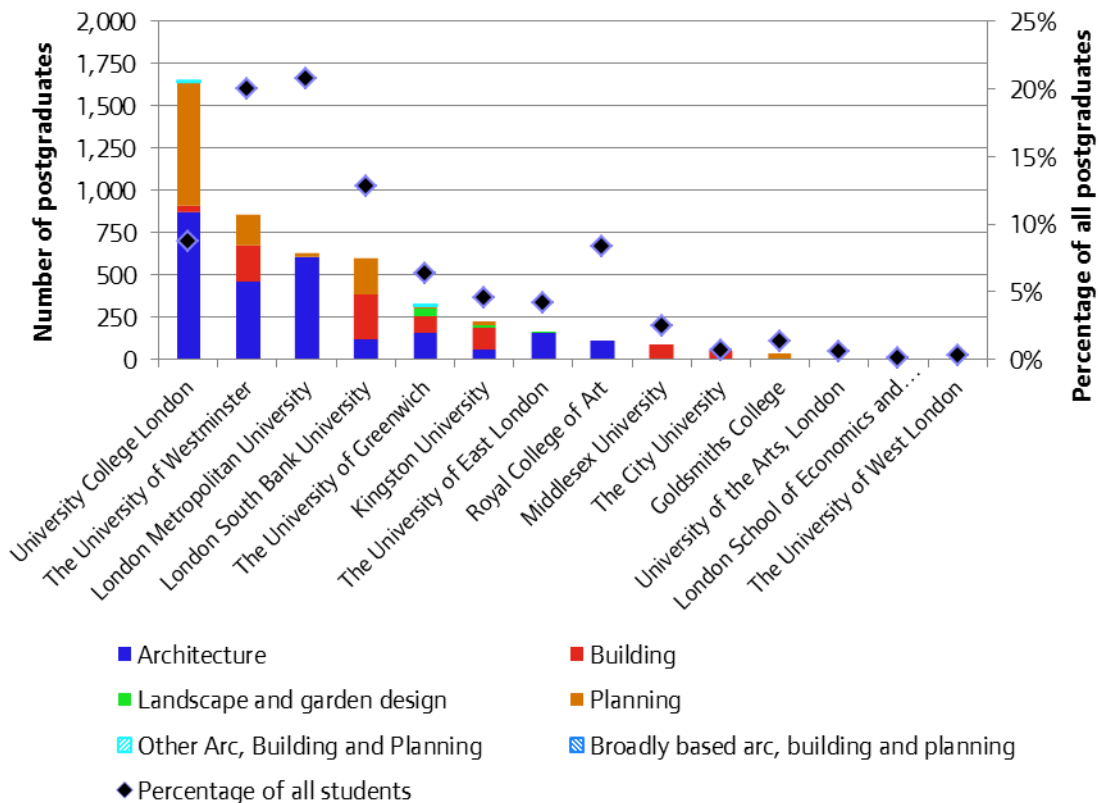
Figure 22: Number of undergraduates studying Architectue, Building & Planning degrees by London based HEI in 2014-15



Note: all other London based HEIs not shown in this chart had no students studying Architecture, Building and Planning degrees. Source: HESA Student Records

Meanwhile, University College London (UCL) had the largest number of postgraduates taking Architecture, Building & Planning degrees in London. With 1,645 students, that was almost double the next largest which was University of Westminster at 865 students. UCL also had the highest number of postgraduate Architecture students in London, followed by London Metropolitan University and University of Westminster.

Figure 23: Number of postgraduates studying Architecture, Building & Planning degrees by London based HEI in 2014-15



Note: all other London based HEIs not shown in this chart had no students studying Architecture, Building & Planning degrees. Source: HESA Student Records

Overall, four London-based HEIs featured in the top 20 providers in the UK with the highest percentage of undergraduate students taking Architecture, Building & Planning degrees in 2014-15. There were six London-based HEIs in the equivalent list for postgraduates.

Table 15: Top 20 UK HEIs with the highest percentage of students studying Architecture, Building & Planning degrees in 2014-15

Rank	Undergraduate			Postgraduate		
	HEI name	Number of student	% of all student	HEI name	Number of student	% of all student
1	Royal Agricultural University	220	28.6%	Royal Agricultural University	95	40.4%
2	Glasgow School of Art	320	24.0%	Glasgow School of Art	135	29.7%
3	Writtle College	100	16.7%	Arts University Bournemouth	20	26.7%
4	London South Bank Uni.	965	9.5%	London Metropolitan Uni.	635	20.8%
5	Ravensbourne	175	8.9%	University of Westminster	865	20.0%
6	University of Westminster	1,210	8.6%	University of Lincoln	330	15.1%
7	Uni. of the Highlands	255	8.5%	London South Bank Uni.	605	12.8%
8	Oxford Brookes University	810	7.5%	Oxford Brookes University	500	12.7%
9	Uni. of the West of England	1,355	6.9%	University of Salford	405	10.1%
10	Robert Gordon University	535	6.2%	Heriot-Watt University	335	9.1%
11	Glasgow Caledonian Uni.	770	6.1%	University College London	1,645	8.8%

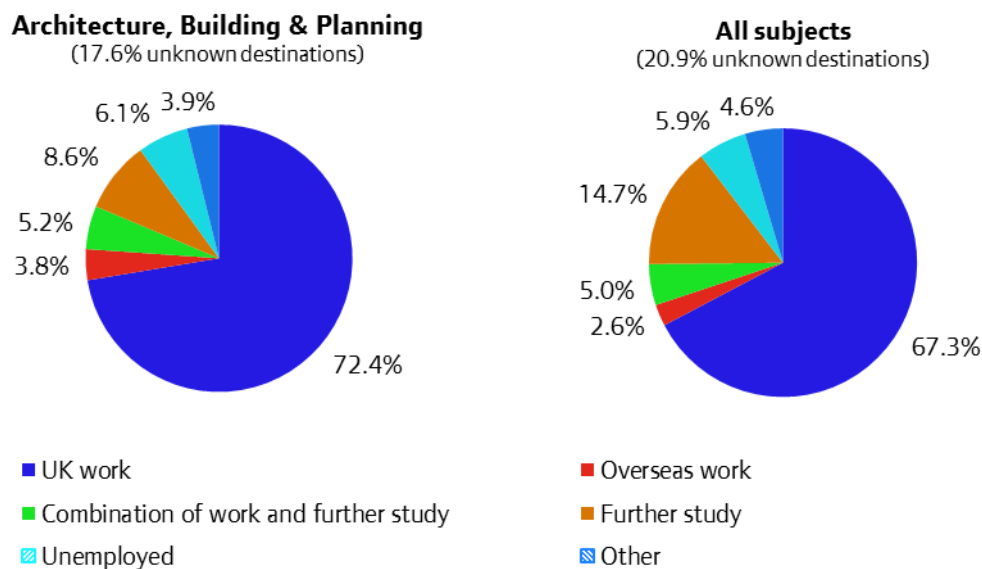
12	University of Northumbria	1,270	6.1%	Uni. of the West of England	505	8.7%
13	Anglia Ruskin University	835	6.1%	Royal College of Art	120	8.3%
14	University of Salford	840	5.9%	University of Bath	345	8.1%
15	Nottingham Trent University	1,140	5.4%	Liverpool John Moores Uni.	220	7.9%
16	University of Bolton	190	5.2%	Glasgow Caledonian Uni.	195	6.9%
17	Liverpool John Moores Uni.	860	5.2%	University of Northumbria	290	6.6%
18	University of Ulster	955	5.2%	University of Greenwich	330	6.4%
19	Leeds Beckett University	930	5.1%	Queen's University of Belfast	310	6.2%
20	University of Greenwich	685	5.0%	University of Sheffield	505	6.1%

Source: HESA Student Records

Information about the number of international students studying architecture-related courses is provided in Chapter 7.

HESA also produces data showing the destinations of students after graduation, but this only refers to those doing their first degree full-time and is only available for the UK as a whole. Of the full-time first degree students studying Architecture, Building & Planning degrees in the UK and left in 2014-15, three-quarters (76.2 per cent) went into employment either in the UK or overseas²⁹. A further 5.2 per cent went into a combination of work and further study, while 8.6 per cent went solely into further study. As can be seen in Figure 24, a larger proportion of full-time first degree students studying architecture-related subjects went into work in comparison with all degree subjects, though less went on to further study.

Figure 24: Destination of full-time first degree leavers by subject area for the UK in 2014-15, excluding unknowns



Note: the destination of some leavers is unknown. The number of unknowns as a percentage of all leavers is shown in the title. Therefore, this chart shows the percentage of destinations for known destinations only. Source: HESA Destination of Leavers

Data limitations mean that we do not know what specific jobs UK full-time first degree leavers studying Architecture, Building & Planning actually had. That said, of those entering work in

²⁹ Excluding unknowns

2014-15, 83.5 per cent had Professional and Associate Professional occupations and 51.1 per cent were working in the Professional, Scientific & Technical Activities industry³⁰.

University rankings

One potential explanation as to why London is an attractive place to study architecture is because of the reputation of its universities. For example, London is home to a number of highly rated universities for architecture. A number of university rankings put one institution in the top 10 for architecture (namely UCL) and at least two in the top 20 and five in the top 40 (Table 16).

Table 16: Number of London based HEIs in the top 10, 20 and 40 of UK university rankings for Architecture

Ranking	Number in top 10	Number in top 20	Number in top 40
Guardian University League Table 2017	1	3	5
QS World University Rankings 2016	1	n/a	n/a
The Complete University Guide League Table 2017	1	2	5
THE World University Guide 2016-17	1	3	8

Source: Guardian, QS, The Complete University Guide, Times Higher Education

While the actual methodology used to calculate the rankings vary, generally these tables look at teaching quality, research, student satisfaction and employability. They also generally exclude higher education providers that are concentrated on a particular subject, do not receive state funding or have a small number of students on the course. Therefore, like with the HESA statistics, London-based institutions like the AA School of Architecture are not included in these rankings.

Research

In addition to London higher education providers attracting students to study architecture-related courses, they also attract funding to undertake architecture-related research. Not much information about academic research is available, though the Research Excellence Framework (REF)³¹ – designed by the four UK higher education research councils to inform future grant allocations – discusses the quality of research and the broad funding income by institution.

The REF is a peer assessment of the quality of research produced by UK universities. In total, 154 UK-based universities submitted their research in 36 subject areas³² in 2014. This was assessed by a panel of experts in terms of the quality of research outputs, impact of research beyond academia and the research environment and then combined to produce an overall quality profile. Each overall quality profile shows the percentage of research activity judged to meet each of the four quality levels shown by Table 17.

³⁰ Excluding unknowns

³¹ <http://www.ref.ac.uk/>

³² The REF is voluntary meaning that not all higher education providers submitted their research for peer review and not necessarily for all the subject areas covered by the framework.

Table 17: Research quality levels as part of REF 2014

Level	Description
4*	Quality that is <u>world-leading</u> in terms of originality, significance and rigour.
3*	Quality that is <u>internationally excellent</u> in terms of originality, significance and rigour but which falls short of the highest standards of excellence.
2*	Quality that is <u>recognised internationally</u> in terms of originality, significance and rigour.
1*	Quality that is <u>recognised nationally</u> in terms of originality, significance and rigour.
Unclassified	Quality that falls below the standard of nationally recognised work. Or work which does not meet the published definition of research for the purposes of this assessment.

Source: REF 2014

One of the subject areas included in the REF is Architecture, Built Environment & Planning which is used here. Overall, 45 UK-based universities submitted research outputs for this subject area in 2014 of which 22.5 per cent was world-leading (4*) and a further 37.2 per cent was internationally excellent (3*) on average. If only looking at London-based universities, then the average proportions of research considered to be world-leading or internationally excellent was lower at 19 per cent and 32.8 per cent respectively. Instead London universities have a higher proportion of research that is considered to be recognised internationally (2*) or nationally (1*).

Table 18: Percentage of Architecture, Built Environment & Planning research outputs by REF 2014 Overall Quality Level and UK region

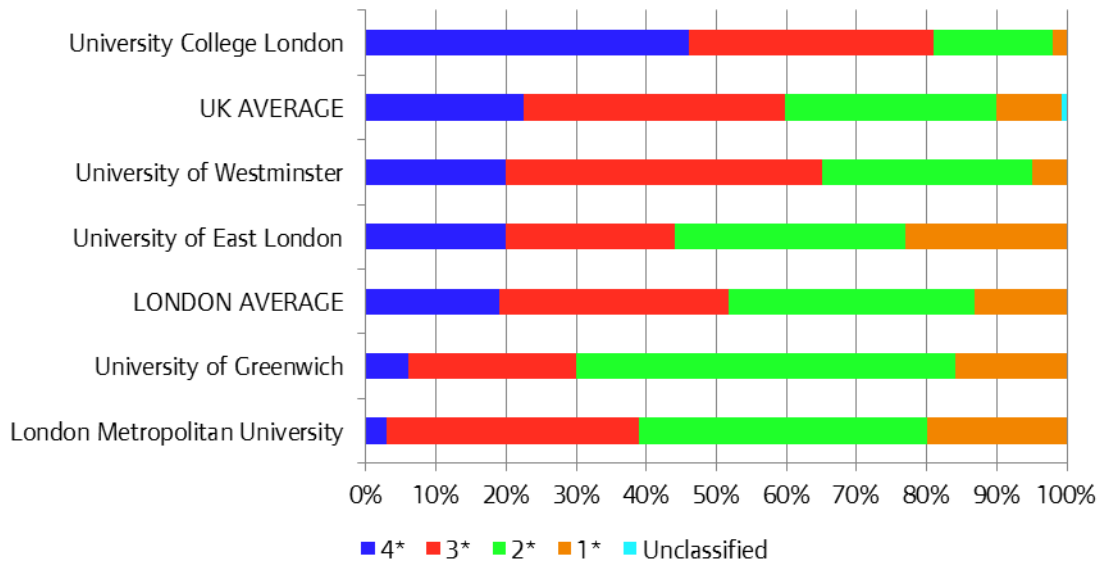
UK region	4* World-leading	3* Internationally excellent	2* Recognised internationally	1* Recognised nationally	Unclassified	Total
North East	19.0%	47.5%	30.5%	3.0%	0.0%	100.0%
North West	15.8%	36.8%	32.3%	11.8%	3.2%	100.0%
Yorkshire & Humber	32.7%	35.0%	24.3%	7.3%	0.7%	100.0%
East Midlands	19.6%	37.4%	29.8%	12.6%	0.6%	100.0%
West Midlands	9.5%	31.5%	46.5%	12.0%	0.5%	100.0%
East	29.0%	29.5%	27.0%	14.5%	0.0%	100.0%
London	19.0%	32.8%	35.0%	13.2%	0.0%	100.0%
South East	30.0%	36.7%	27.7%	5.7%	0.0%	100.0%
South West	22.0%	45.3%	29.5%	3.3%	0.0%	100.0%
Scotland	23.3%	34.4%	30.7%	10.3%	1.2%	100.0%
Wales	39.5%	40.5%	15.0%	5.0%	0.0%	100.0%
Northern Ireland	23.0%	49.0%	24.5%	3.5%	0.0%	100.0%
UK average	22.5%	37.2%	30.1%	9.4%	0.8%	100.0%

Note: these figures refer to the average quality level for all universities within specific regions. Source: REF 2014

The information for London is based on five universities only. While more London-based HEIs could be undertaking architecture-related research, they might not have submitted any information and, therefore, not a part of the REF. Nonetheless, the quality of research for Architecture, Built Environment & Planning can be broken down by institution based in London. Here almost half (46 per cent) of the architecture-related research outputs produced by UCL were considered to be world-leading – one of the highest proportions for any UK university³³.

³³ University of Cambridge and University of Bath had the joint highest share of world-leading Architecture, Built Environment and Planning research at 50 per cent according to the REF 2014. This was followed by University of Sheffield and University of Glasgow which both had 48 per cent.

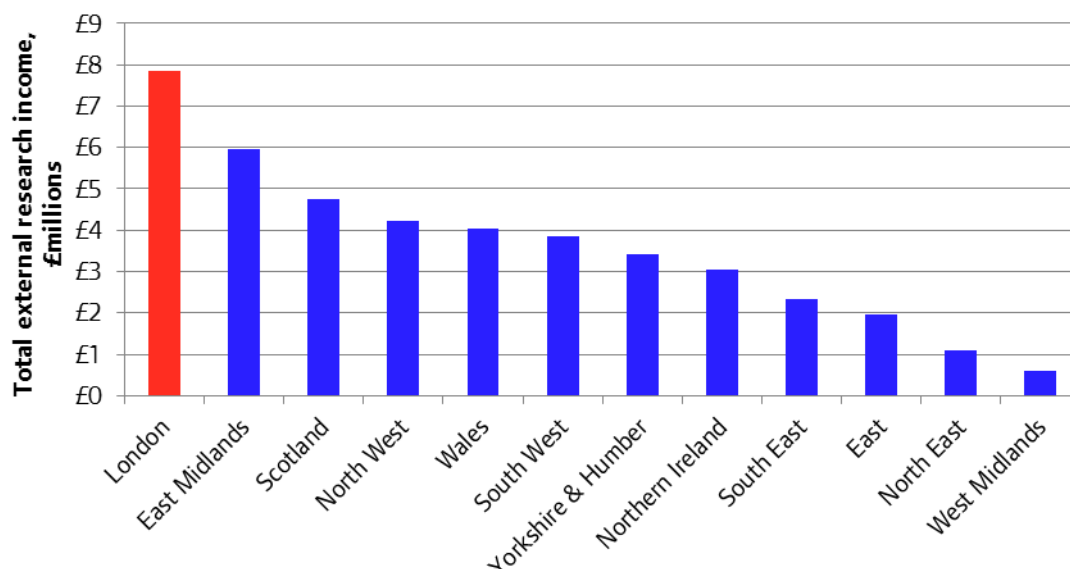
Figure 25: Percentage of Architecture, Built Environment & Planning research outputs by REF 2014 Overall Quality Level and London based HEI



Source: REF 2014

As part of the REF submissions, universities also provide estimates of the total external research income (including income in-kind) by subject area. Overall, universities received £43.2 million in external income for Architecture, Built Environment & Planning research in the UK for 2012-13 (the latest year available). London-based HEIs received £7.9 million of this funding, the equivalent of 18.2 per cent of the total. That was the largest share for any UK region as shown by Figure 26.

Figure 26: Total external research income (including in-kind) for Architecture, Built Environment & Planning research by UK region in 2012-13, £millions



Source: REF 2014

Approximately 86 per cent of London's external research income for Architecture, Built Environment & Planning was received by UCL. In fact, UCL was the largest recipient of Architecture, Built Environment & Planning funding in the UK.

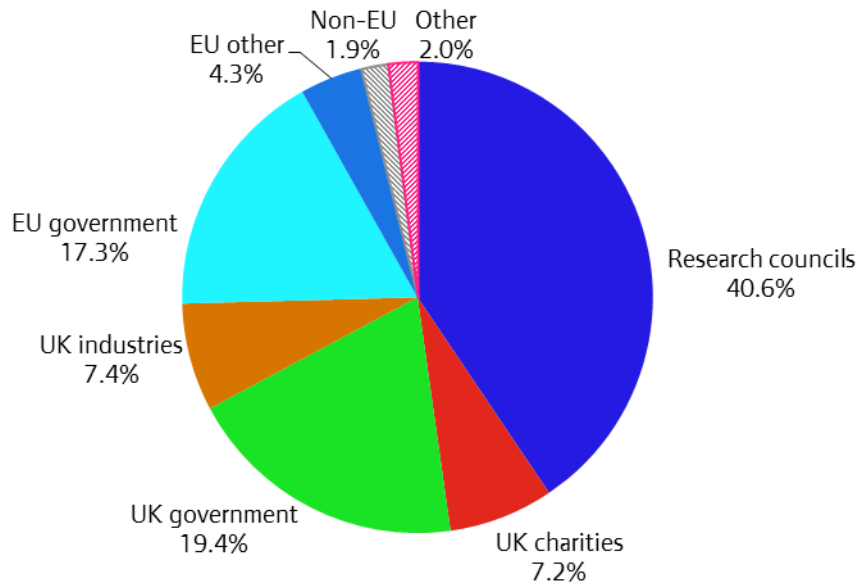
Table 19: Top 10 UK universities ranked by amount received in external income (including in-kind) for Architectural, Built Environment and Planning research in 2012-13

Rank	University	Total external income (£ millions)	Percentage of UK total
1	University College London	£6.8	15.6%
2	Loughborough University	£3.2	7.4%
3	Cardiff University*	£4.0	9.4%
4	University of Salford	£2.5	5.8%
5	University of Ulster	£2.4	5.7%
6	University of Bath	£1.9	4.4%
7	University of Reading	£1.9	4.4%
8	University of Cambridge	£1.9	4.4%
9	Sheffield Hallam University	£1.6	3.7%
10	University of Nottingham	£1.5	3.6%
	UK total	£43.2	100.0%

*This includes both the Architecture and Planning & Geography departments. Source: REF 2014

In 2012-13, 40.6 per cent of total UK funding for Architectural, Built Environment & Planning research came from UK research councils like the Royal Society and British Academy. A further 19.4 per cent and 17.3 per cent was from the UK government and EU government respectively.

Figure 27: Sources of external income (including in-kind) received by UK unviersities for Architectural, Built Environment and Planning research in 2012-13



Source: REF 2014

6 Tourism

Key points

- London is home to a number of top UK visitor attractions; of which some are known for their architectural features.
- Approximately 2.8 per cent of domestic overnight and 4.2 per cent of domestic day visitors to London undertook activities related to architecture. No information is available for international visitors.
- In total, between £382.5 million and £453.9 million of London's GVA could be attributed to architecture-related tourism.

London is one of the most visited cities in the world with tourists attracted by its cultural and heritage offerings among others. Identifying and attributing the number of visitors and the associated economic impact to architecture is therefore difficult as a number of factors are likely to influence an individual's decision to come to the capital. This chapter nonetheless attempts to discuss architecture's role in the London tourism industry.

Attractions

One way that architecture can contribute to London's tourism industry is through its offering and attractions. Although architecture is not necessarily the main factor behind these offerings, London has four UNESCO World Heritage Sites, 215 museums and 857 art galleries which is favourable against other major global cities³⁴ as shown in Table 20.

Table 20: Cultural provision of selected global cities

City	UNESCO World Heritage Sites	Museums	Art galleries
London	4	215	857
Paris	4	313	1,151
Rome	4	32	200
New York	1	143	613
Los Angeles	0	231	434
Tokyo	1	47	688

Source: World Cities Culture Forum

In fact, London is home to 15 of the top 20 visitor attractions in the UK according to the Association of Leading Visitor Attractions (ALVA)³⁵. Some of these like Westminster Abbey, Tate Modern and the Old Royal Naval College are considered architectural gems.

³⁴ World City Culture Report 2015.

³⁵ <http://www.alva.org.uk/details.cfm?p=423>

Table 21: Top 20 attractions in the UK based on number of visits in 2015

Rank	Attraction	Total visits
1	British Museum	6,820,686
2	The National Gallery	5,908,254
3	Natural History Museum	5,284,023
4	Southbank Centre	5,102,883
5	Tate Modern	4,712,581
6	Victoria and Albert Museum	3,432,325
7	Science Museum	3,356,212
8	Somerset House	3,235,104
9	Tower of London	2,785,249
10	National Portrait Gallery	2,145,486
11	Library of Birmingham	1,828,999
12	Chester Zoo	1,694,850
13	Old Royal Naval College	1,676,055
14	Westminster Abbey	1,664,850
15	Royal Botanic Gardens, Kew	1,622,821
16	St Paul's Cathedral	1,609,325
17	British Library	1,579,270
18	Edinburgh Castle	1,568,508
19	National Museum of Scotland	1,567,310
20	Scottish National Gallery	1,377,710

Source: Association of Leading Visitor Attractions

A similar rank of the top 20 visitor attractions in the UK is compiled by Visit Britain and includes some other attractions not included in the ALVA statistics. Nonetheless, some London attractions with key architectural features also appear in this list³⁶.

Economic contribution

The economic contribution of architecture-related tourism can also be estimated. This analysis is predominantly based on similar work for cultural tourism detailed in GLA Economics Current Issues Note 44³⁷. Effectively, the methodology used was to estimate the proportion of domestic day, domestic overnight and international visits that included cultural activities and apply this share to total expenditure. Therefore, this approach can be used here by focussing on architecture-related activities. It also uses the latest data available.

Domestic overnight visitors

Data from the Visit Britain's Great British Tourism Survey (GBTS) provides information about the number of visits and expenditure of domestic overnight visitors to London. This suggested that there were 12.9 million trips to London in 2015, which had total expenditure of £3.1 billion³⁸.

The GBTS also provides breakdowns of the number of visits to London by the type of leisure activities undertaken, but these estimates were last produced in 2012. While these figures are used in this analysis (in the absence of any alternative), some consideration should be given to whether the type of activities undertaken has changed since 2012. For context, Visit Britain still

³⁶ Visit Britain (2016). Annual survey of visits to visitor attractions 2015.

³⁷ Smith, B (2015). The value of cultural tourism to London, GLA Economics Current Issues Note 44, March 2015.

³⁸ Visit Britain (2016). GB tourist 2015, August 2016.

produces this data for England as a whole and, while there have been some changes between 2012 and 2015, these have generally been small³⁹.

Acknowledging this, the proportion of domestic overnight visits to London that included “viewing architecture and buildings” was approximately 2.8 per cent⁴⁰. This share can be applied to total domestic overnight expenditure in London, suggesting that £86 million was related to architecture in 2015.

Domestic day visitors

Visit Britain similarly produces information for domestic day visitors to London as part of the Great British Day Visits Survey (GBDVS). The total number of day visits to London is larger than domestic overnight trips with around 280 million visits and £11.6 billion in expenditure in 2015⁴¹.

Likewise, the GBDVS also breaks this information down by activities undertaken. This is available for the latest survey and showed that 4.2 per cent of day visits to London included viewing traditional and modern architecture. Applying this to total expenditure suggests that approximately £487.4 million was related to architecture in London during 2015.

International visitors

Estimates of the number of visits and the associated spend of international visitors to London comes from the ONS International Passenger Survey (IPS). This suggested that there were 18.6 million visits and £11.9 billion in expenditure during 2015.

The IPS does not provide a breakdown of the type of activities undertaken by international visitors. While some additional questions on this were added to the 2006 to 2011 surveys⁴², the categories do not go into sufficient detail to identify architecture-related activities. Consequently, architecture-related expenditure by international visitors to London is estimated using the proportions calculated for domestic overnight (2.8 per cent) and day visits (4.2 per cent) above. This suggests that architecture-related spending by international visitors to London could be between £333 million and £502.1 million in 2015.

Overall economic impact

Altogether, total architecture-related tourism expenditure in London was between £906.4 million and £1,075.6 million in 2015 depending on the approach for calculating international visitor spend.

To estimate the overall economic impact, it is necessary to transform the expenditure of tourists into GVA. Using the same methodology as that used in GLA Economics Current Issues Note 44 (which itself builds upon GLA Economics Working Paper 54⁴³), it is estimated that the ratio

³⁹ The percentage of trips that undertook a particular activity increased by more than 2 percentage points for three out of 64 activities between 2012 and 2015. These were ‘just relaxing’ (+10 percentage points), sightseeing on foot (+5.4 percentage points) and short walk/stroll – up to 2 miles/1 hour (+4.3 percentage points).

⁴⁰ The definition of architecture related tourism could potentially include other activities like visiting museums, art galleries and historic houses. However, while architecture could be a factor for doing these activities, other reasons like the cultural and historic aspects could be more important. Therefore, a strict definition of architecture related tourism activities is used here.

⁴¹ Visit Britain (2016). The GB day visitor: statistics 2015, April 2015.

⁴² Visit Britain (2013). Inbound tourism to Britain’s nations and regions: profile and activities of international holiday visitors, September 2013.

⁴³ Smith, B (2012). Visit London’s leisure tourism marketing campaigns: economic impact evaluations, GLA Economics Working Paper 54, June 2012.

between turnover (i.e. expenditure) to GVA in tourism-related industries is 42.2 per cent⁴⁴. This suggests that the estimated GVA from architecture-related domestic and international tourism in London was between £382.5 million and £453.9 million in 2015 (Table 22).

Table 22: Estimated GVA from architecture related domestic and international tourism in London in 2015, £millions

	Scenario 1	Scenario 2
Total expenditure (A)	£906.4	£1,075.6
<i>Of which:</i>		
Domestic day visitors	£487.4	£487.4
Domestic overnight visitors	£86.0	£86.0
International visitors	£333.0	£502.1
Turnover to GVA ratio (B)	42.2%	42.2%
Total GVA (A x B)	£382.5m	£453.9

Source: ONS International Passenger Survey, Visit Britain GB Tourism Survey, Visit Britain GB Day Visits Survey, GLA Economics calculations

⁴⁴ This is the weighted average across a range of tourism related expenditure categories (or industries). These include hotels and accommodation, eating and drinking, attractions and entertainment and transport.

7 International competitiveness

Key points

- The UK as a whole is a net exporter of architectural services, exporting £437 million more than it imported in 2015.
- Around one-third of the jobs in London's architecture sector were taken by non-UK nationals in 2015. Of this, the majority (73.3 per cent) were EU27 (excluding the UK) citizens. Comparably, only 10.9 per cent of jobs in the UK's architecture sector were occupied by non-UK citizens.
- Similarly, 37.4 per cent of architects in London (regardless of sector) were non-UK citizens in 2015. That is up from 24.3 per cent in 2004.
- At the UK level, 28.3 per cent of undergraduates and 36.7 per cent of postgraduates studying architecture were previously domiciled in other countries other than the UK. Of this, a larger proportion of overseas students were previously domiciled in non-EU countries.

London is a global city and attracts businesses and people from across the UK and abroad. This chapter looks at how architecture has helped draw people to work and study in the capital, as well as its role in London's international trade.

International trade

The UK is a net exporter of architectural services – that is, it exports more services to other countries than it imports. In 2015, the UK exported architectural services worth £468 million. In contrast, it only imported £31 million of services, giving a net balance of £437 million⁴⁵.

There is no information about where the UK's architectural services are exported to as the sector is a very small part of total service exports. Even the lowest aggregation for this information is Technical, Trade Related, Operational Leasing & Other Business Services⁴⁶ of which Architecture only represents 2.7 per cent of the total. Nonetheless, approximately one-third of the UK's exports for this product group was to the EU (31.2 per cent). A further 7.8 per cent was to other non-EU countries in Europe. However, it should be noted that the destination of architecture exports itself may be different.

Information for London's architectural exports is not currently available. While the ONS has recently started to produce experimental regional service exports data⁴⁷, it only presents this information by functional categories of which architecture falls under the Real Estate, Professional, Scientific & Technical group. Overall, London service exports for this functional

⁴⁵ ONS International Trade in Services 2015

⁴⁶ The ONS defines this group as (i) Agriculture, Forestry & Fishing, (ii) Mining & Oil & Gas Extraction Services, (iii) Waste Treatment & Depollution, (iv) Manufacturing Services on Goods Owned by Others, (v) Maintenance & Repair Services, (vi) Construction in the UK, (vii) Construction outside the UK, (viii) Architectural Services, (ix) Engineering Services, (x) Scientific & Other Technical Services (including Surveying) and (xi) Operational Leasing Services.

⁴⁷

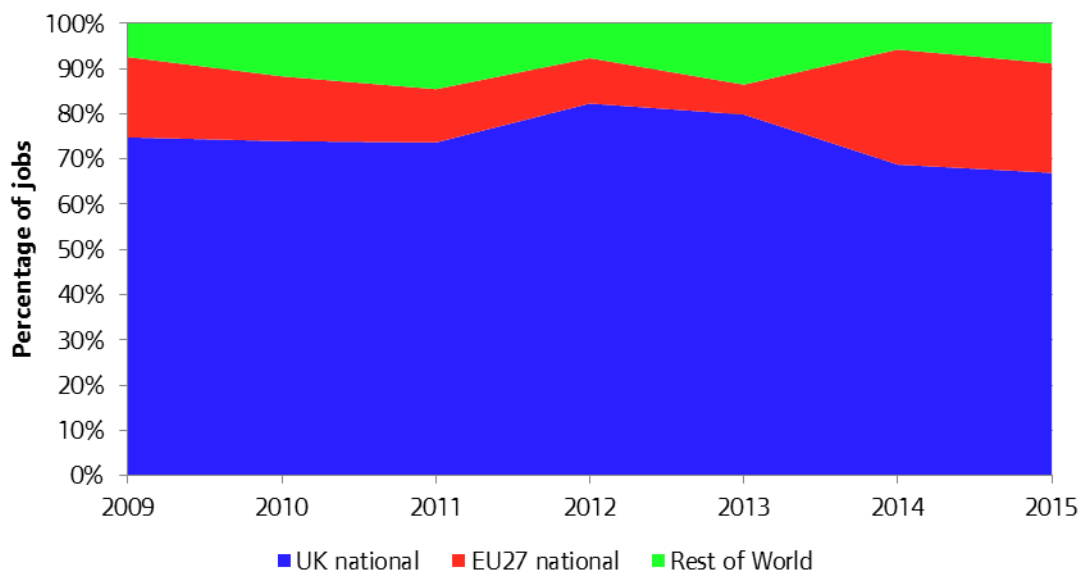
<https://www.ons.gov.uk/businessindustryandtrade/internationaltrade/articles/estimatingthevalueofserviceexportsabroadfromdifferentpartsoftheuk/2011to2014>

category was £14.8 billion in 2014, the equivalent of 16.1 per cent of total service exports for London (£92.1 billion).

International workforce

As discussed in Chapter 4, there were approximately 22,800 jobs in London's architecture sector in 2015⁴⁸. While two-thirds of these jobs were taken by UK nationals (15,300), one-third was taken by people who are non-UK citizens. Of this, 5,500 were EU27 nationals (except for the UK)⁴⁹ and the remaining 2,000 were from elsewhere in the world⁵⁰. Over time, the percentage of jobs taken by non-UK nationals in London's architecture sector has increased, rising from 25.2 per cent in 2009. Much of this increase is reflective of an increase in jobholders with EU27 nationalities.

Figure 28: Percentage of jobs in London's architecture sector by nationality of job holder between 2009 and 2015



Source: ONS Annual Population Survey

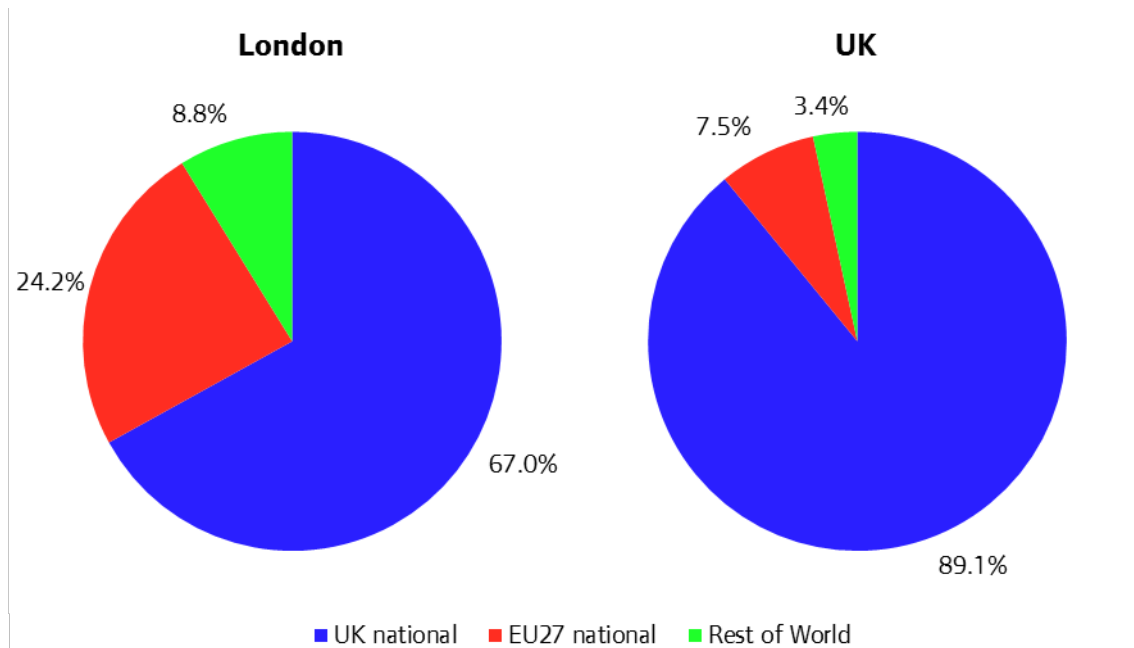
As can be seen in Figure 29, London's architecture sector had a higher proportion of jobholders with non-UK nationalities than the UK's architecture sector as a whole.

⁴⁸ This is based on the ONS Annual Population Survey. As noted earlier, this is consistent with the DCMS Creative Industries Economic Estimate releases, but is inconsistent with other GLA Economics analysis such as the labour market projections which uses a Workforce Jobs series.

⁴⁹ 4. European Union 27 comprises the European Union but excluding the United Kingdom. This includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia, Cyprus, Malta, Croatia, Romania and Bulgaria.

⁵⁰ All figures that are below 6,000 jobs are based on a small sample size and should therefore be used with some caution.

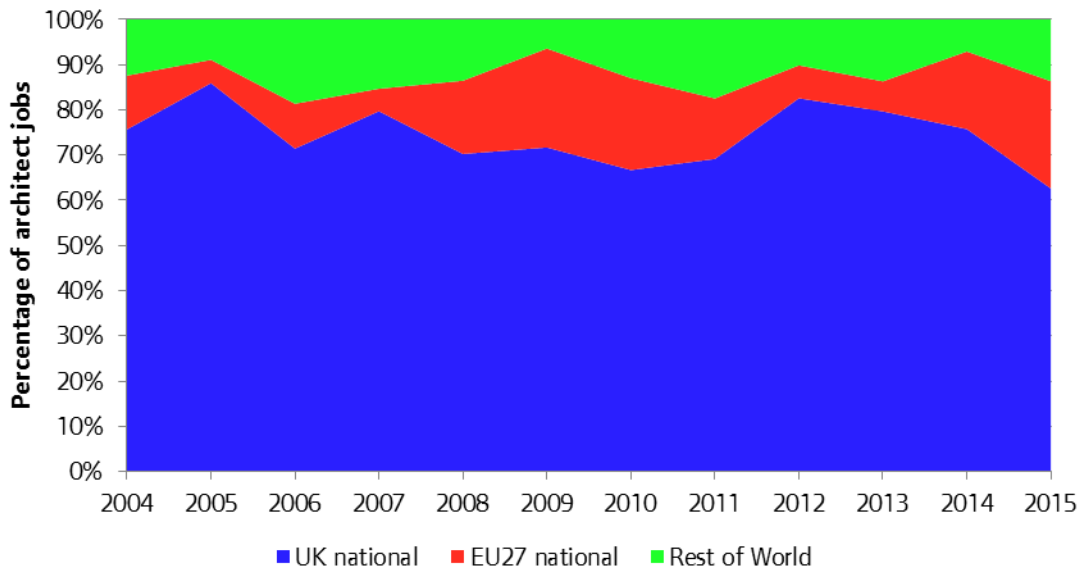
Figure 29: Percentage of jobs in London's and the UK's architecture sector by nationality of job holder in 2015



Source: ONS Annual Population Survey

Similar trends are observed when looking at architect jobs only regardless of sector. Approximately 37.4 per cent of architect jobs in London were taken by jobholders with non-UK nationalities in 2015. That said, a higher proportion of architects had non-EU27 nationalities than in the architecture sector itself (13.6 per cent versus 8.8 per cent); thus implying a smaller proportion were EU27 citizens.

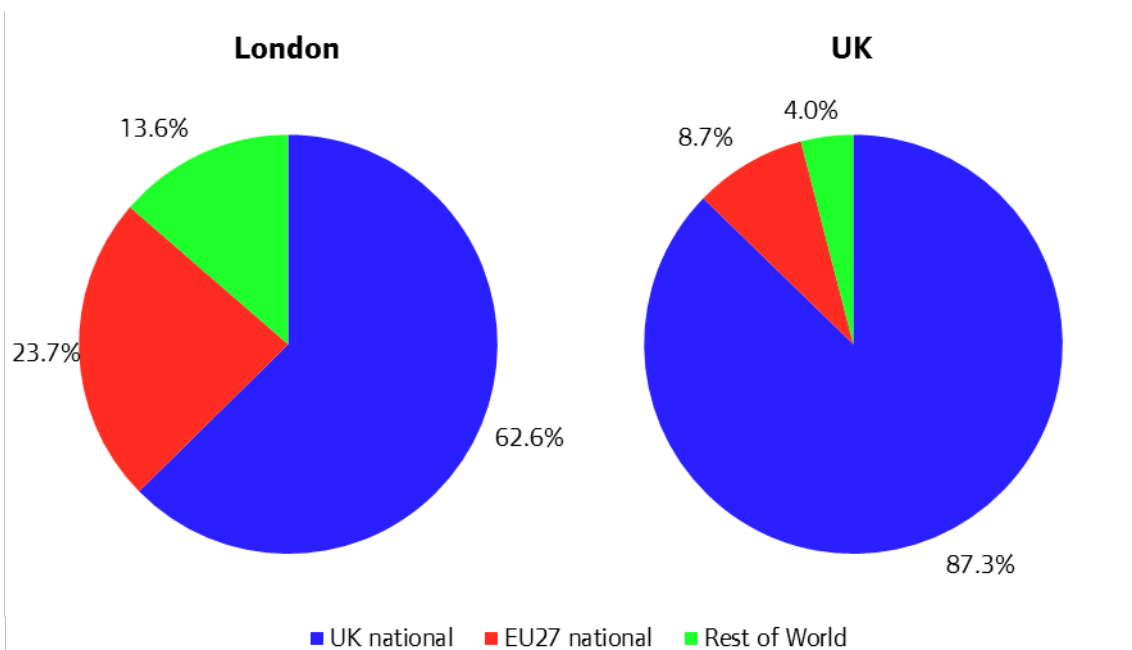
Figure 30: Percentage of architect jobs in London by nationality of job holder between 2004 and 2015



Note: Although Bulgaria and Romania joined the EU27 in 2007, they have been included in the EU27 definition prior to this date. Source: ONS Annual Population Survey

London had a higher percentage of architects that were non-UK nationals than the UK as a whole (Figure 31).

Figure 31: Percentage of architect jobs in London and the UK by nationality of job holder in 2015

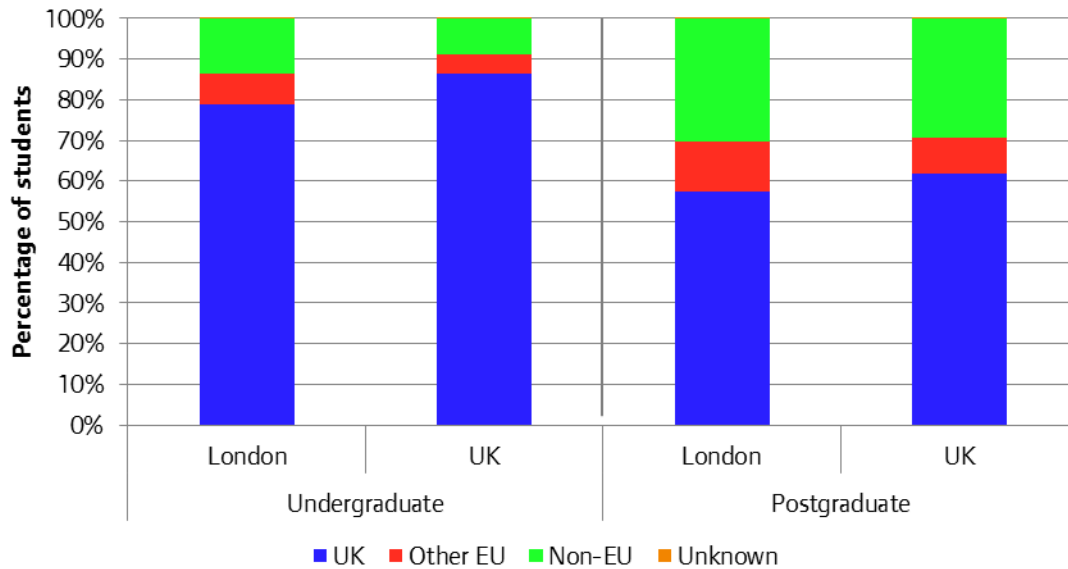


Source: ONS Annual Population Survey

International students

The attractiveness of London as a place to study was previously discussed in Chapter 5. Some of the students that London attracts would have previously been domiciled in other countries other than the UK. At the headline level for all subjects, approximately 21.2 per cent of undergraduates and 42.7 per cent of postgraduates at London-based HEIs were not domiciled in the UK in the 2014-15 academic year. That was one of the highest shares of international students among the 12 UK regions (Figure 32).

Figure 32: Percentage of under and postgraduates by country of domicile and region of HEI in 2014-15, all subjects

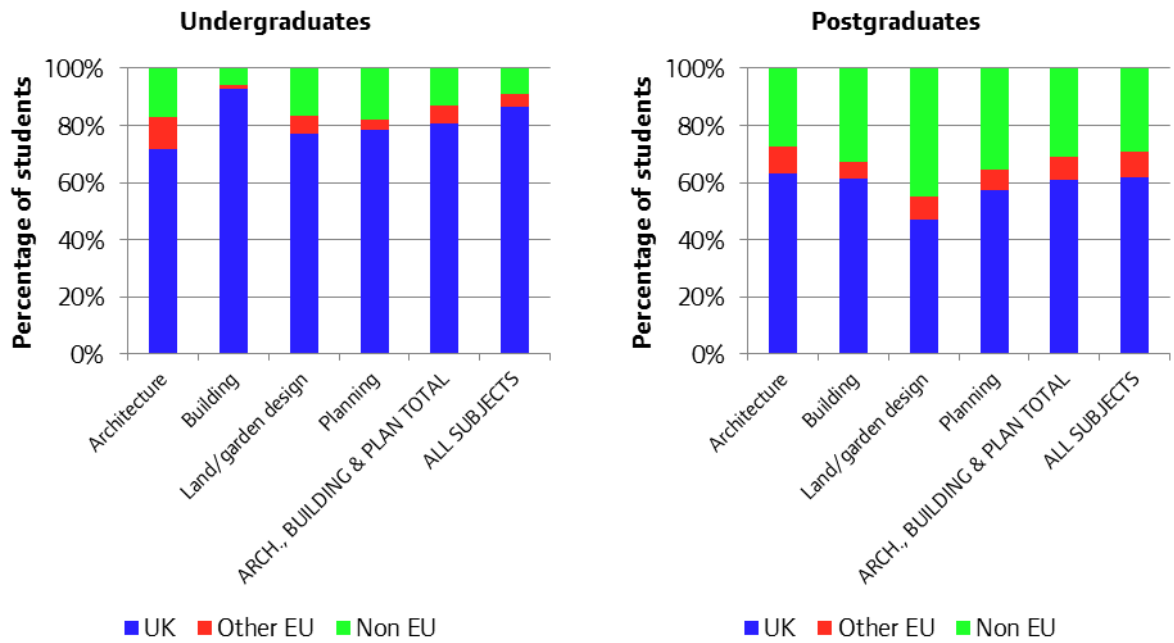


Source: HESA Student Records

While these statistics can be split by subject area, HESA only produces this information at the UK level. That said, it could be plausible to expect London to follow similar trends to the UK as a whole. Overall, 19.4 per cent of undergraduates studying Architecture, Building & Planning were not domiciled in the UK prior to starting their course. This percentage was higher for postgraduates at 38.9 per cent in 2014-15. Specifically for Architecture, 28.3 per cent of undergraduates and 36.7 per cent of postgraduates studying in the UK were previously domiciled in other countries besides the UK.

As can be seen in Figure 33, a larger proportion of overseas students studying architecture-related courses at UK HEIs previously resided in non-EU countries than Other EU countries besides the UK.

Figure 33: Percentage of under and postgraduates studying Architecture, Building & Planning degrees at UK HEIs by domicile in 2014-15



Source: HESA Student Records

8 Conclusions

This paper looked at the characteristics and economic contribution of London's architecture sector. It finds that there were approximately 4,240 workplaces (i.e. where people actually work) in London's architecture sector in 2016. The sector had around 22,800 jobs in 2015, of which more than half were aged 35-54 years and around two-in-five were female.

Overall, London's architecture sector produced £1.7 billion in added value in 2015 making it larger than the Museums, Galleries & Libraries creative industry. In addition, the compound average rate of growth between 2009 and 2015 was 7.6 per cent per annum after adjusting for inflation, which was faster than the creative industries and the London economy as a whole.

Architecture also attracts students to study in London and tourists to visit London. Approximately 19.3 per cent of undergraduates and 39.9 per cent of postgraduates studying Architecture in the UK were at London-based higher education institutions. Meanwhile, 2.8 per cent of domestic overnight and 4.2 per cent of domestic day visitors to London undertook activities relating to architecture.

The architecture sector also adds to London's international image. Around one-third of the jobs in London's architecture sector were taken by non-UK nationals in 2015. Similarly, approximately 28.3 per cent of undergraduates and 36.7 per cent of postgraduates studying Architecture at UK-based higher education institutions were previously domiciled in countries other than the UK. In addition, the UK as a whole was a net exporter of architectural activities in 2015.

Appendix 1: DCMS creative industries definition

Table 23: Creative occupations and creative industries definitions

Creative occupations group	Standard Occupation Classifications	Standard Industry Classifications
Advertising and marketing	1132 Marketing and sales directors	70.21 Public relations and communication activities
	1134 Advertising and public relations directors	73.11 Advertising agencies
	2472 Public relations professionals	73.12 Media representation
	2473 Advertising accounts managers and creative directors	
	3543 Marketing associate professionals	
Architecture	2431 Architects	71.11 Architectural activities
	2432 Town planning officers	
	2435 Chartered architectural technologists	
	3121 Architectural and town planning technicians	
Crafts	5211 Smiths and forge workers	32.12 Manufacture of jewellery and related articles
	5411 Weavers and knitters	
	5441 Glass and ceramics makers, decorators and finishers	
	5442 Furniture makers and other craft woodworkers	
	5449 Other skilled trades not elsewhere classified	
Design: product, graphic and fashion design	3421 Graphic designers	74.10 Specialised design activities
	3422 Product, clothing and related designers	
Film, TV, video, radio and photography	3416 Arts officers, producers and directors	59.11 Motion picture, video and TV programme production activities
	3417 Photographers, audio-visual and broadcasting equip. operators	59.12 Motion picture, video and TV programme post-production
		59.13 Motion picture, video and TV programme distribution
		59.14 Motion picture projection activities
		60.10 Radio broadcasting
		60.20 Television programming and broadcasting activities
		74.20 Photographic activities
IT, software and computer services	1136 Information technology and telecommunications director	58.21 Publishing of computer games
	2135 IT business analysts, architects and system designers	58.29 Other software publishing
	2136 Programmers and software development professionals	62.01 Computer programming activities

	2137	Web design and development professionals	62.02	Computer consultancy activities
Publishing	2471	Journalists, newspaper and periodical editors	58.11	Book publishing
	3412	Authors, writers and translators	58.12	Publishing of directories and mailing lists
			58.13	Publishing of newspapers
			58.14	Publishing of journals and periodicals
			58.19	Other publishing activities
			74.30	Translation and interpretation activities
Museums, galleries and libraries	2451	Libraries	91.01	Library and archive activities
	2452	Archivists and curators	91.02	Museum activities
Music, performing and visual arts	3411	Artists	59.20	Sound recording and music publishing activities
	3413	Actors, entertainers and presenters	85.52	Cultural education
	3414	Dancers and choreographers	90.01	Performing arts
	3415	Musicians	90.02	Support activities to performing arts
			90.03	Artistic creation
			90.04	Operation of arts facilities

Source: DCMS Creative Industries

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