Stoke-on-Trent & Staffordshire Enterprise Partnership

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CITB ANALYSIS

Construction skills gap analysis for the Stoke-on-Trent & Staffordshire area

An analysis of the opportunities presented by the construction landscape in the Stoke-on-Trent & Staffordshire LEP area

September 2018

EXECUTIVE SUMMARY

The Stoke-on-Trent and Staffordshire Local Enterprise Partnership (LEP) area can expect sustained spending on new construction projects of more than £1.2 billion per year for at least five years.

To meet this anticipated demand a total construction workforce of around 27,770 people is required in 2018 increasing to more than 28,550 in 2022. On paper the total construction workforce available appears to exceed this. However with significant demand from neighbouring areas in the West Midlands and North West and with an aging workforce resulting in retirement, there are risks that the Stoke-on-Trent and Staffordshire LEP area may not always be able to meet demand for some occupations.

Across the area, new housing accounts for 42% of anticipated spend on new projects in 2019; with infrastructure and private commercial developments each accounting for 20%.

The Stoke-on-Trent and Staffordshire LEP area's opportunity

The LEP and local authorities' opportunities are to: support growing businesses; develop a more appropriately skilled and flexible workforce; drive higher level skills, match skills and the local economy and encourage job creation. This will, in turn, support the delivery of infrastructure that will enable further development and ensure that the area is prepared to exploit opportunities as they emerge and deliver the new housing that is needed.

Construction on its own makes up a huge part of the UK economy representing more than 7% of GDP. But crucially it is also an enabler. It will create the new housing that is so desperately needed; will enhance the environment; will create better public spaces and facilities that we depend on; build the facilities for new technologies and manufacturing; and create new infrastructure that enables growth and prosperity. Construction opens up opportunities for major social and economic gains.

"The Stoke-on-Trent and Staffordshire LEP area will have a huge range of opportunities in construction trades and professions over the coming years. With well-paid and highly skilled job opportunities in a wide range of trades and professions, we should be encouraging young people to look at construction as a career of choice with excellent prospects. A skilled workforce will help the area's growth aspirations and leave a legacy for future generations. CITB is working with employers to inspire, attract and train this new talent for these valuable and rewarding careers."

Andrew Bridge, CITB Partnership Manager

High demand occupations

The top ten occupations for which there is greatest demand in the LEP area are:

- Non-construction professional, technical, IT & office-based
- Wood trades and interior fit-out
- Electrical trades and installation
- Other construction process managers
- Senior, executive, and business process managers
- Plumbing and HVAC Trades
- Other construction professionals and technical staff
- Labourers
- Painters and decorators
- Building envelope specialists

At risk occupations

The occupations at greatest risk of a shortfall in numbers available locally are:

- Architects
- Plasterers & dry liners
- Painters and decorators
- Floorers
- Construction project managers
- Bricklayers
- Specialist building operatives

Priority occupations

The report identifies occupations for which there is high demand AND a high risk of a shortfall.

- Woods trades and interior fit out
- Plumbing and HVAC trades
- Labourers
- Painters and decorators
- Building envelope specialists
- Bricklayers
- Specialist building operatives
- Plasterers and dry liners

Occupations in context – the challenge

This report sets out a challenge to the Stoke-on-Trent and Staffordshire LEP, local authorities, colleges universities, training providers, construction employers and other stakeholders – namely to attract, train, recruit and maintain a high skilled construction workforce that meets anticipated demand.

Construction offers a range of well-paid high skilled jobs for which there is demonstrable demand. The opportunity is to exploit the opportunities to achieve social and economic gains by encouraging people from the area into these roles, providing the associated support and career pathways.

This challenge is set against the backdrop of: concerns about the future availability of skilled workers and demand from other UK regions and major infrastructure projects.

The professions

There is high demand for several professional roles, jobs which require a significant length of training before candidates become qualified. Architects, surveyors and civil engineers require higher level qualifications plus professional accreditation, so the effect of action now will only be felt in five to ten years' time. These are jobs in demand the world over. However, these roles do not need to be permanently on-site so it is likely that some demand may be met by those working outside the region.

There are also opportunities to modernise construction and for Stoke-on-Trent and Staffordshire LEP to start to encourage and adopt new technologies and new practices like off-site and modular construction to help meet demand.

Training and education

Around 80 training providers have delivered construction related training (including apprenticeships) over the last five years. A core network of ten providers have delivered around 87% of that.

The Stoke-on-Trent and Staffordshire LEP area accounts for 22% of construction related training across the West Midlands region. Provision of training provision reduced between 2012/13 and 2016/17, with new starters decreasing by 3%. However, in comparison, across the region construction training has declined by 19%. Over the same period, apprenticeship starts have increased by 6% in the LEP area, whereas across the West Midlands region that increase has been 24%.

Recommendations

The report proposes recommendations that include:

1. Develop and strengthen relevant collaborative partnerships. With a view to building collaborative holistic action plans and encouraging local stakeholders to work together and input to, and take ownership of, the construction skills actions.
2. Establish a Stoke-on-Trent & Staffordshire LEP area construction skills strategy and action plan that recognises collective actions and solutions that may be required in and across the area.
3. Develop skills and training pathways for both current and future skills needs. Ensure training is appropriate for local needs and businesses. Develop LEP area construction training so that it is appropriate for the needs of the construction industry and local circumstances, addressing risks of supply shortfalls.
4. Outreach. Build a more positive image of construction locally with young people. Increase recruitment through new entrance points, career changes and reskilling. Emphasise that construction offers high value rewarding careers for all.
5. Use procurement as a lever to enable positive action. Develop smarter approaches to procurement to encourage wider contract award inclusivity of small and medium sized employers. With those tendering for construction and infrastructure contracts or those funding developments to be mandated to include provision for recruitment, training, apprenticeships and outreach.

STOKE-ON-TRENT & STAFFORDSHIRE LEP SKILLS CAPITAL PROJECTS

The Stoke-on-Trent and Staffordshire Local Enterprise Partnership has in place a number of capital projects and provision in relation to skills. The aims are to:

- Provide growth in sector specific traineeship and apprenticeships
- Upskill the workforce in the sector to improve productivity
- Upskill and retrain those looking for work
- Provide specialist facilities and training to meet employer needs
- Promote careers in the sector and use the facilities and training as a progression route

The initiatives are being delivered by a network of colleges and, private training establishments, sector specialists and other organisations and has been divided between two phases of introduction.

Construction specific initiatives have included: carpentry, brickwork, construction multi skills, construction design, building information modelling (BIM), construction technologies, civil engineering, and electrical installation. Development of hybrid construction training is also being established in Stafford.

Other activities have embraced motor vehicle and engineering provision; automotive and hybrid technologies; renewable pneumatics; advanced manufacturing & engineering for agricultural technology.

Delivery bodies include:

The Advanced Manufacturing & Engineering Hub (AME Hub). This is a network of providers operating under the umbrella of the Stoke-on-Trent and Staffordshire Local Enterprise Partnership, providing world-class vocational environments with state of the art facilities in local communities linked to key employers, providers, schools and colleges.

The Skills Equipment Fund allows local employers and training institutions to submit bids to secure funding to purchase state-of-the-art equipment to enable the delivery of high quality and high level training programmes to support local growth in priority sectors. The fund has matched grants with private investment and has supported many of the AME Hub activities.

Further data and reports relating to the Stoke on Trent and Staffordshire area are available at: www.staffordshireobservatory.org.uk/homepage.aspx

Locality profiles can be found at: www.staffordshireobservatory.org.uk/publications/thestaffordshirestory/LocalityProfiles.aspx#.W7IWVntKipq

A number of other useful strategic documents are also available from the SSLEP web page at: www.stokestaffslep.org.uk/resources/publication-library/

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1. INTRODUCTION

This report represents the first step in developing and maintaining an evidence base, to be utilised by the Stoke-on-Trent and Staffordshire local authorities and Local Enterprise Partnership, as well as those interested in the growth, prosperity and built environment in the area to inform decision making that will help determine the employment and skills opportunities emerging in the construction industry.

Construction is a significant part of the economy and is a major employer. But it is also an enabler of economic growth and job creation and has a significant impact on enhancing the built environment, in creating the facilities required of a modern economy and addresses significant social issues, such as a shortage of housing.

It is also an enabler of other sectors' success by building the facilities required for commercial and industrial advances as well as the infrastructure that is, in turn, an enabler of growth. It is, therefore, essential for the Stoke-on-Trent and Staffordshire LEP area to invest in supporting the actions proposed in this report as well as referring to the wider evidence base available and involving stakeholders in the development of the associated plans.

The analysis starts to determine priorities for interventions to ensure local opportunities are maximised and that the area has the right future skills and training pathways in place to deliver demand led solutions.

The area is also bordered by a number of significant metropolitan areas that may have a net effect of drawing skilled workers to them from the Stoke-on-Trent and Staffordshire LEP area.

1.1. THE COMMISSION

Figure 1 shows the Stoke-on-Trent & Staffordshire area that has been assessed, that includes the local authority areas of:

- Cannock Chase
- East Staffordshire
- Lichfield
- Newcastle-under-Lyme
- South Staffordshire
- Stafford
- Staffordshire Moorlands
- Stoke-on-Trent
- Tamworth

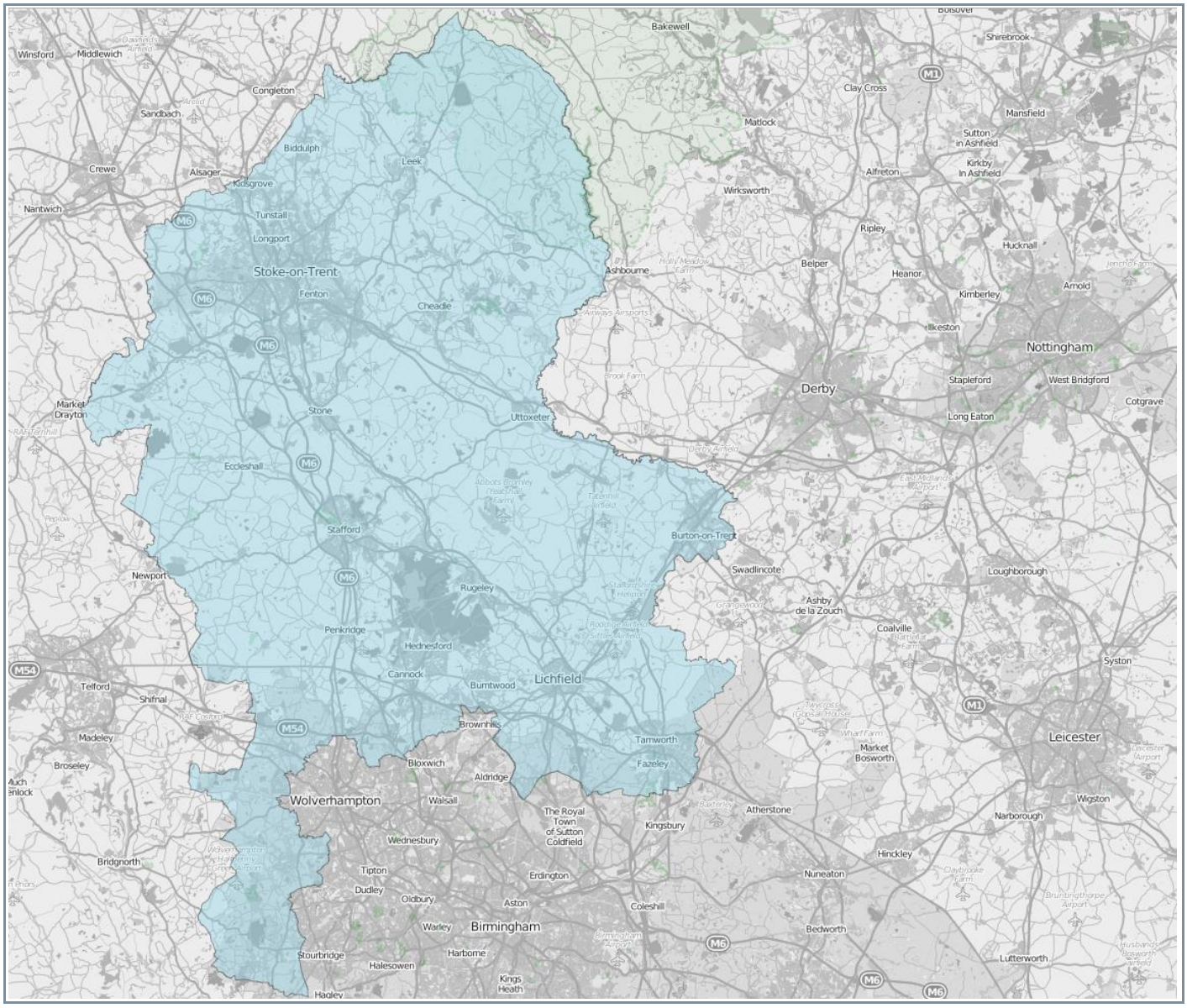

Figure 1: Stoke-on-Trent & Staffordshire and surrounding areas

Locality profiles can be found at:
www.staffordshireobservatory.org.uk/publications/thestaffordshirestory/LocalityProfiles.aspx#.W7IWVntKipq

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2. LABOUR DEMAND IN THE STOKE-ON-TRENT & STAFFORDSHIRE AREA

The following sections provide an estimate of the labour demand predicted by our Labour Forecasting Tool that construction investment will create across the area over the period 2018-2022. The tool and method of analysis are described in Appendix A.

2.1. SUMMARY OF DEMAND

- Our estimate of the labour demand in the Stoke-on-Trent & Staffordshire is around 27,770 people in 2018. The projected growth between 2018 and 2022 suggest that the labour demand in 2022 will be around 28,550 people.
- Around 60% of the workforce is employed in skilled trades & operatives, the other 40% are in Managerial, professional & office based staff.
- During 2019 the most labour-intensive occupation group is “Non-construction professional, technical, IT, and other office–based staff (excl. managers)” with an annual demand of 3,730 people.
- The skilled trade & operative occupations in greatest demand are:
  - Wood trades and interior fit-out with a requirement for 2,840 people;
  - Electrical trades and installation follow with 2,080 people.
  - Plumbing and heating, ventilation, and air conditioning trades rank third, with a demand of 1,830 people

2.2. PIPELINE OF KNOWN PROJECTS

2.2.1. Glenigan pipeline analysis

We have considered projects in the Glenigan database[1] and the National Infrastructure and Construction Pipeline (NICP)[2]. These comprise what are referred to as the known projects.

An initial review of the Glenigan database identified 748 projects in the Stoke-on-Trent & Staffordshire area. Of the Glenigan projects, one project was removed due to missing values and 85 were removed due to missing dates. Also excluded was one project which was clearly identified as a consultancy project. Two projects were removed because they were duplicates. One project was removed due to it not being located in the analysed area and one was removed due to it being included in the NICP. Three projects were removed following consultation with the local authorities within the LEP. A full set of the projects which were omitted from the analysis is provided in Appendix C. The spend in projects which were removed because of missing dates is around 4.6% of the total pipeline value. It is possible that this work will take place at some point in the future but as dates are unknown it is most likely that this will be later in the forecast period. Since dates are not known it is not possible to pinpoint when the labour will be required. However, an assessment of the labour demand from potential additional projects is included in the estimates of other work as outlined in Appendix A.

The Mean Value Theorem was applied to the remainder of the pipeline to identify the significant projects. The process identified 136 significant projects accounting for 84% of the total construction spend in the area. This allowed a detailed analysis of a large proportion of all the projects and a comprehensive consideration of the project types to which they were assigned.

Appendix D provides a full breakdown of the Glenigan significant projects and their construction values. The peak year for the Glenigan spend profile is 2019. The location of the significant projects within the Stoke-on-Trent & Staffordshire can be seen in Figure 2. The values of the projects are proportional to the sizes of the coloured dots.

[1] The Glenigan database allows contractors to identify leads and to carry out construction market analysis. It is updated every quarter to provide details of planning applications from local authorities supplemented with additional project-specific data. For the purposes of this analysis with have used the 2018Q1 cut of data.

[2] The Infrastructure and Projects Authority (formerly Infrastructure UK and Major Projects Authority) compile annually a pipeline of UK infrastructure and construction projects and the associated annual public and private investment. For this report we have used the 2017 which includes details of around 700 projects valued at some £463bn.

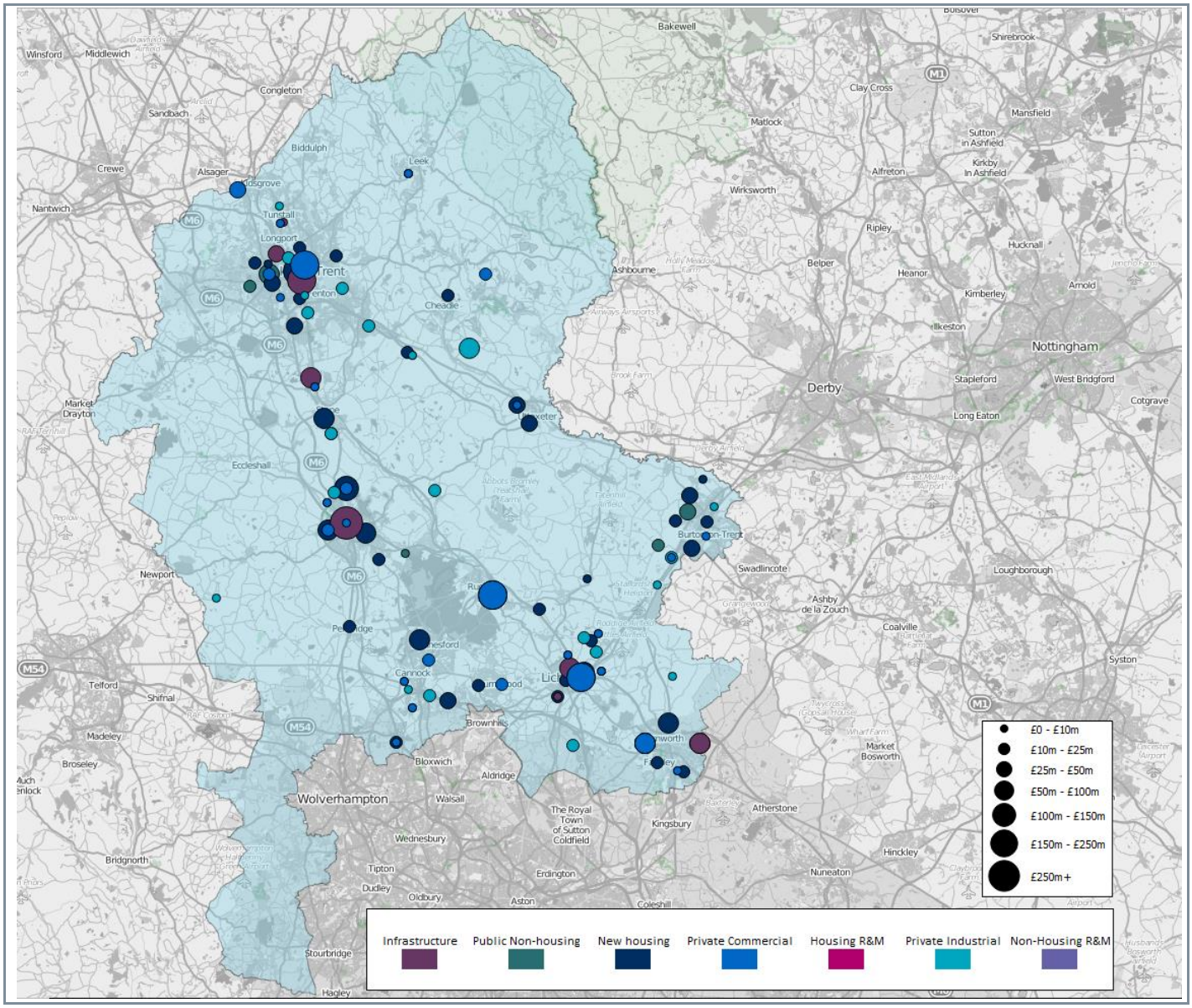


Figure 2: Location of significant Glenigan projects included in the analysis

2.2.2. Glenigan & NICP spend analysis

Implementing the methodology outlined in Appendix A leads to the following findings for the peak year for known projects of 2019. The peak year is used because the tail off in the known projects is more likely to be due to a lack of future planning rather than an actual tail off in workload.

Table 1 shows the distribution by project type of new build spend for the total pipeline of known projects.

Table 1: New-build construction spend by project type in 2019 (total known projects)

Project type	Construction spend in 2019 (2018 values - £m)	% of total
New housing	507	42%
Private commercial	243	20%
Infrastructure	243	20%
Public non-housing	125	10%
Private industrial	93	8%
Total	1,211	100%

Table 2 shows the infrastructure construction spend from the known projects in 2019 by infrastructure sub-type. Appendix E provides a full breakdown of the NICP and LEP projects and their construction values.

Table 2: Construction spend per infrastructure sub-type in 2019 (total known projects)

Project type	Construction spend in 2019 (2018 values - £m)	% of total
Transport	155	64%
Water	53	22%
Energy	24	10%
General infrastructure	6	2%
Flooding	4	2%
Total	**242**	**100%**

2.3. ESTIMATE OF FUTURE TOTAL LABOUR DEMAND

The known project pipeline may not include smaller projects or repair and maintenance work. Figure 3 shows the outcomes of the analysis of future labour demand with the forecast regional employment growth rate applied. The solid purple area shows the labour demand arising from the new build Glenigan and NICP projects. This is projected forward from the peak as shown in green. The R&M (including any in Glenigan or the NICP) is also shown along with the likely total labour demand arising from estimates of other work (please note that in Stoke and Staffordshire the estimates of other work is negligible). The method for calculating these is provided in Appendix A. The total construction labour demand is around 27,770 people in 2018. The projected growth between 2018 and 2022 suggest that the labour demand in 2022 will be around 28,550.

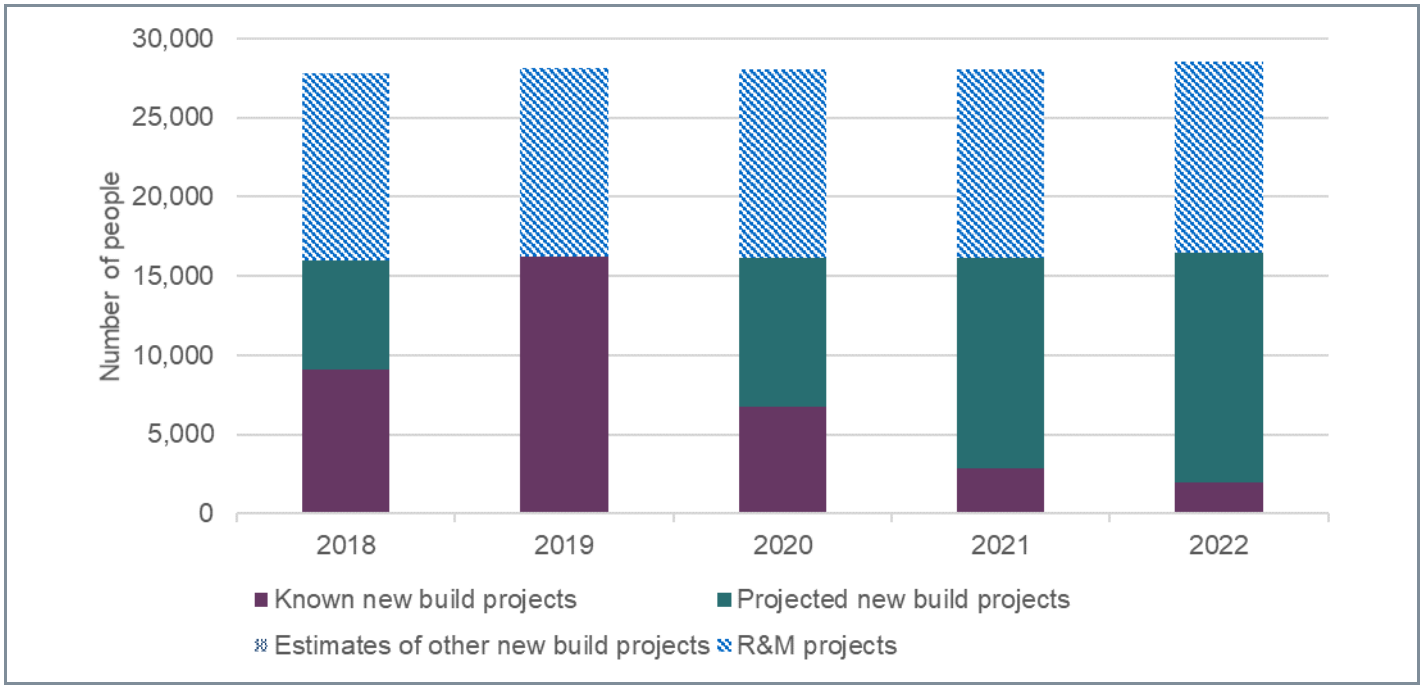


Figure 3: Total construction labour demand including estimates for both R&M and estimates of other work

2.3.1. Breakdown of labour demand by occupation

Figure 4 presents the breakdown of labour for skilled trades & operatives and managerial, professional & office based staff. Around 60% of the workforce are in skilled trades & operative occupations.

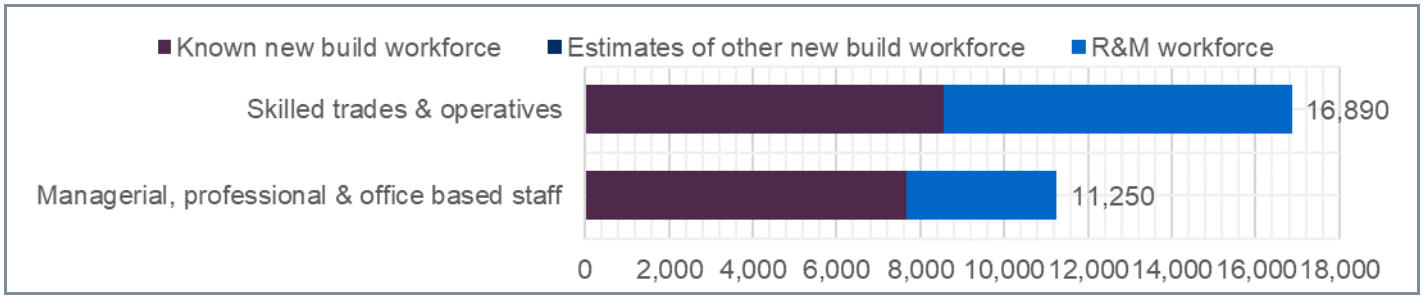


Figure 4: Total construction labour demand for 2019 by broad occupational group

For the peak year in Glenigan of 2019, Figure 5 shows the detailed breakdown for the 20 skilled trade & operative occupational groups for the pipeline of known projects, the estimates of other new-build work and the R&M work. These occupations will be predominately based at or near the location of the work.

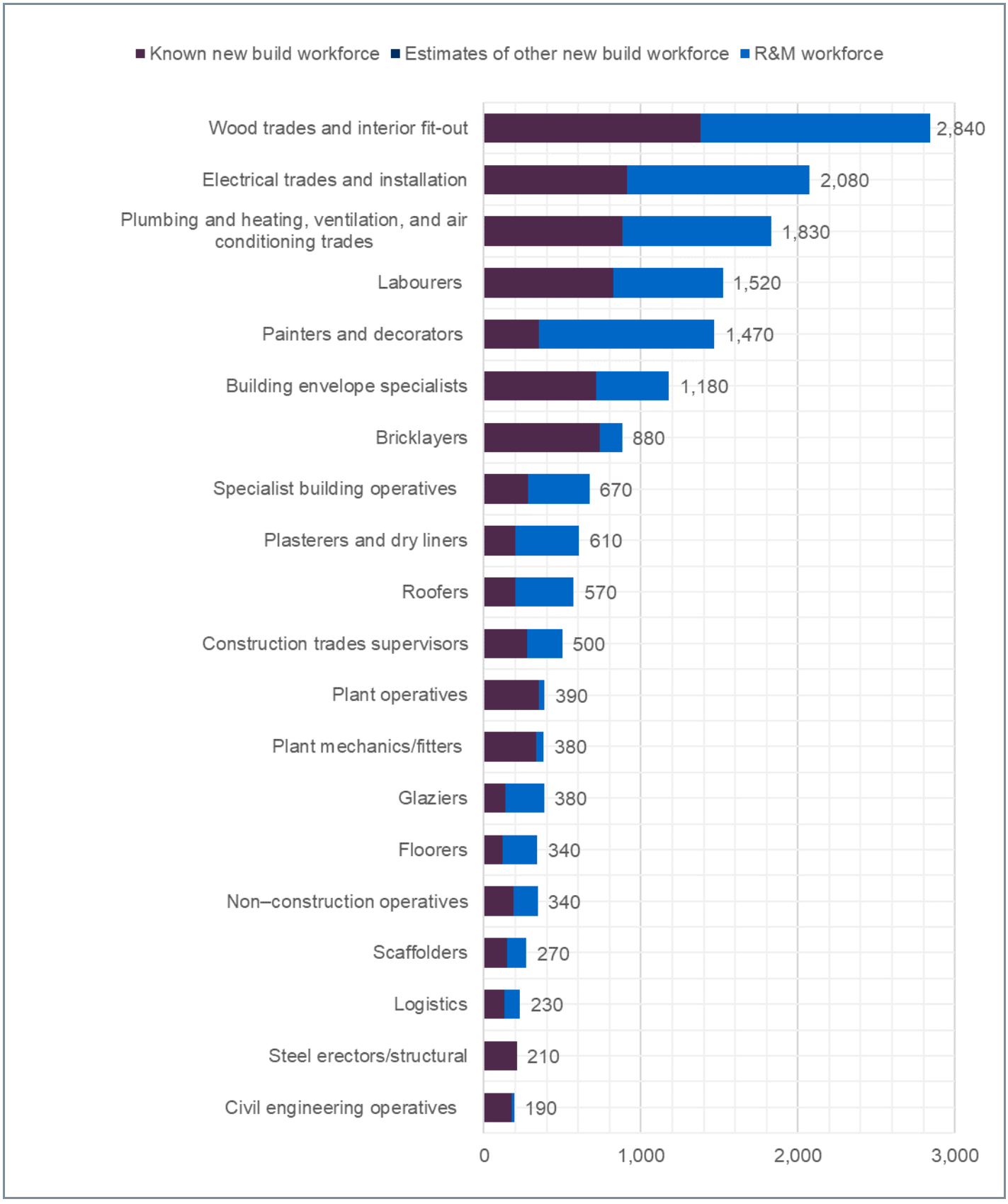


Figure 5: Construction labour demand for skilled trades & operative occupations in the peak year

Figure 6 shows a breakdown of the managerial, professional & office based occupations. Since it is possible for many of these people to work remotely from the site, they will not necessarily generate a local demand.

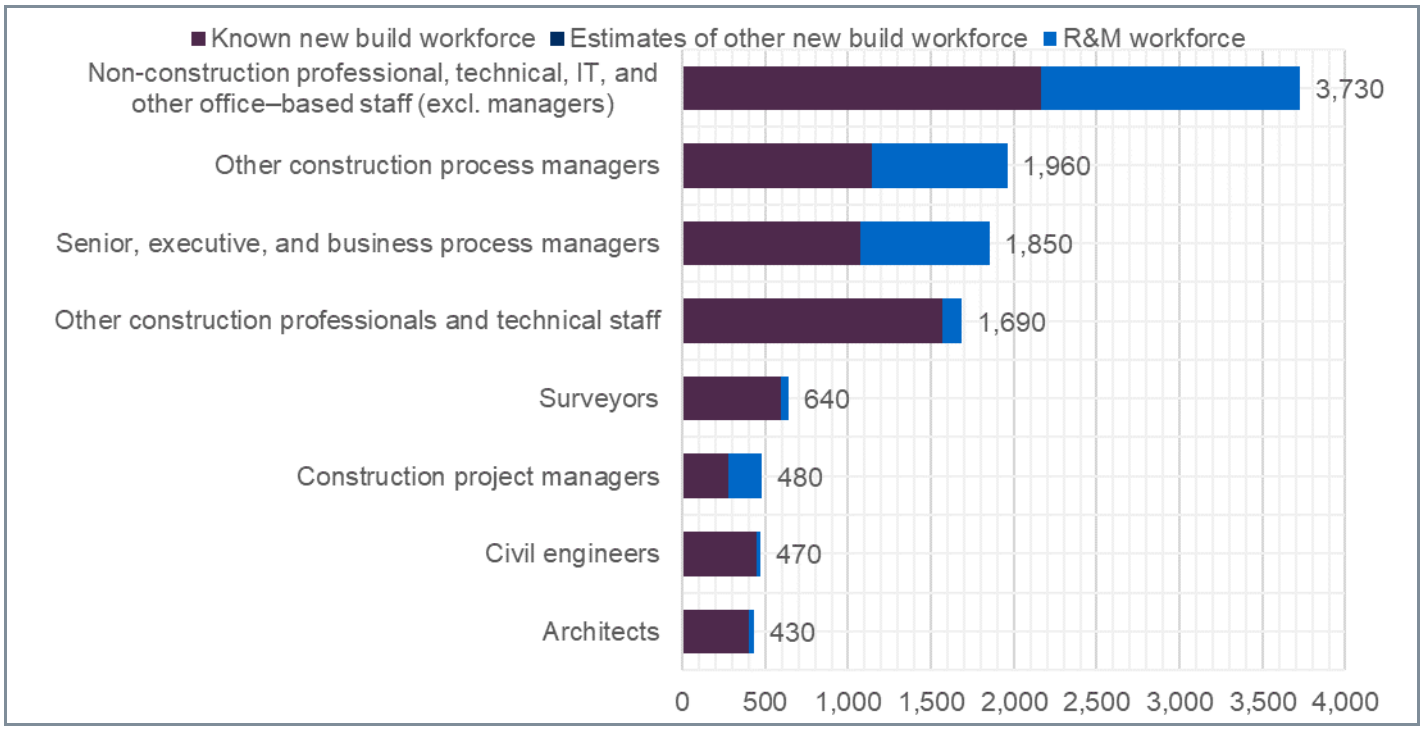


Figure 6: Construction labour demand managerial, professional & office based occupations in the peak year

2.3.2. Breakdown of labour demand by project type

Table 3 shows the labour demand generated by the known projects and the estimates of other work in 2019 broken down by project type.

Table 3: Labour demand by project type in 2019

Project type	Known pipeline labour demand in 2019 (people)	Estimates of other work labour demand in 2019 (people)	Total labour demand in 2019 (people)	% of total in 2019
Non-housing R & M	-	7,640	7,640	27%
New housing	6,170	-	6,170	22%
Housing R&M	340	3,930	4,270	15%
Private commercial	4,180	-	4,180	15%
Public non-housing	2,200	-	2,200	8%
Infrastructure	2,070	-	2,070	7%
Private industrial	1,620	-	1,620	6%
Total	**16,580**	**11,570**	**28,150**	**100%**

2.4. LABOUR INSIGHT – CONSTRUCTION POSTINGS

The Stoke-on-Trent and Staffordshire LEP has provided additional demand data that helps inform the local circumstances and should be included in the review of available information and in guiding prioritisation of decision making.

2.4.1. Advertised Salaries - April 2017 to March 2018

The median salary advertised for construction jobs in the Stoke-on-Trent and Staffordshire LEP area is around £30,000 per annum, slightly lower than the median for the West Midlands (£30,800) and the median for England of £32,200.

Compared to England, a greater proportion of Construction vacancies fall into some of the lower salary bandings, particularly £15,000 to £19,999. In the LEP area, around 22% of Construction vacancies were in this banding, compared to 12% of vacancies across England. As a result, the proportion of vacancies in the LEP which have a salary of £60,000 or greater is substantially lower than England; 1.4% of LEP vacancies, compared to 7.4% across England.

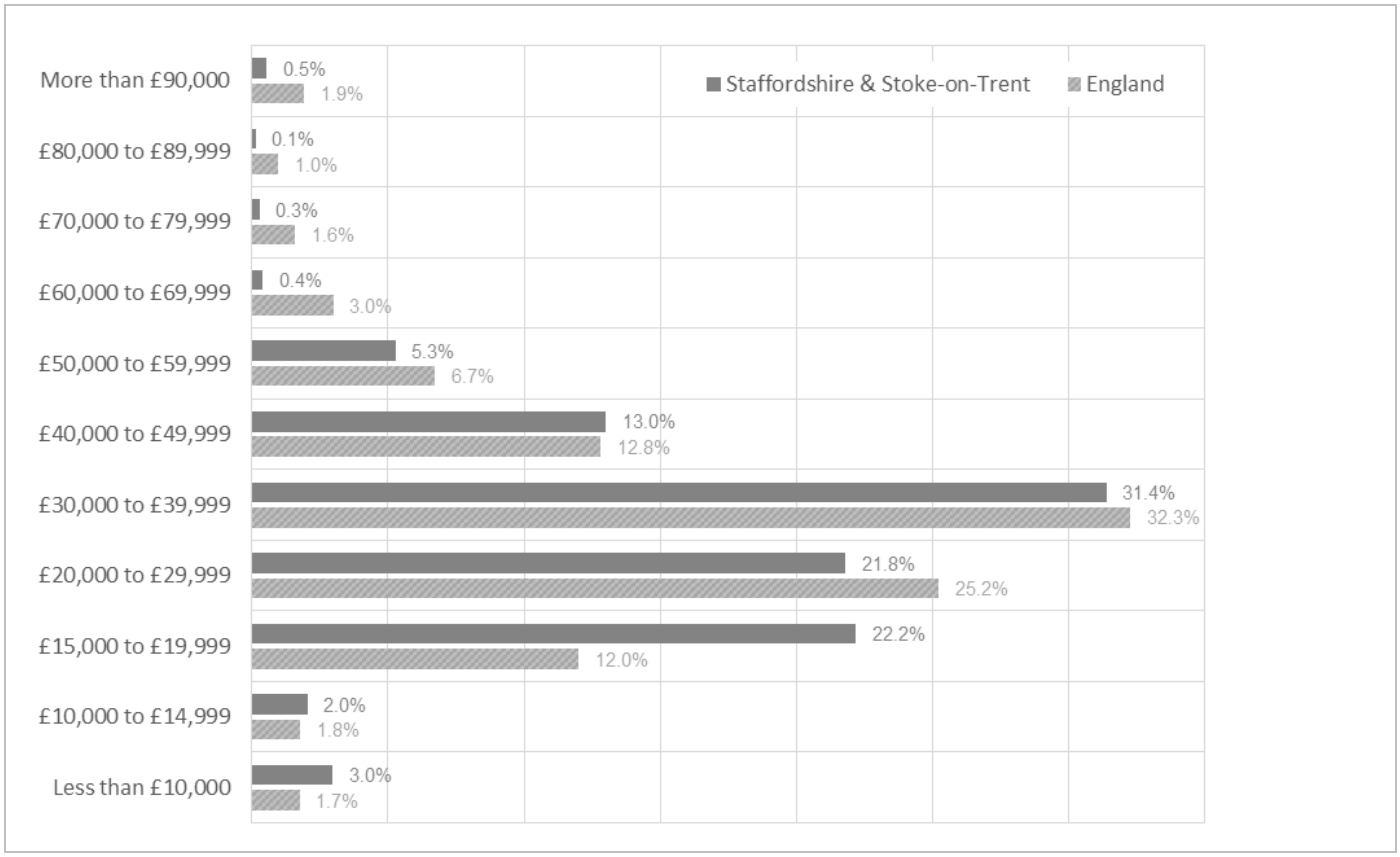


Figure 7: Proportion of Postings by Salary Banding (2017-18)

Source: Labour Insight Database, Burning Glass

2.4.2. Labour Insight – Construction Postings

The most in demand construction occupations in the Staffordshire and Stoke-on-Trent LEP area are plumbers and HVAC trades (SOC 5314) and Carpenters and joiners (SOC 5315) – both of which individually account for around 10% of construction vacancies. In terms of advertised vacancies, these appear to be the construction occupations with greatest demand across the LEP, West Midlands and England overall.

Table 4: Vacancy postings in the Stoke-on-Trent & Staffordshire area – top ten, April 2017 to March 2018

Occupation	LEP Postings	LEP Pct	LEP Rank	SOC code
Plumbers and heating and ventilating engineers	138	10.7%	1	5314
Carpenters and joiners	103	8.0%	2	5315
Sales related occupations nec	75	5.8%	3	7129
Managers and proprietors in other services nec	52	4.0%	4	1259
Bricklayers and masons	46	3.6%	5	5312
Other administrative occupations nec	42	3.2%	6	4159
Quantity surveyors	37	2.9%	7	2433
Construction operatives nec	36	2.8%	8	8149
Customer service occupations nec	34	2.6%	9	7219
Electricians and electrical fitters	33	2.6%	-10	5241
Elementary construction occupations	33	2.6%	-10	9120

Source: Labour Insight Database, Burning Glass

2.5. HIGH SPEED TWO (HS2)

High Speed Two Ltd has been granted the powers by Parliament to begin the construction of Phase One of HS2 which will be the new high speed line between London, Birmingham, Crewe, Manchester and Leeds. The HS2 route passes through the Stoke & Staffordshire LEP area between Stafford and Stoke on Trent, passing close to Stone.

2.5.1. INDICATIVE SCHEDULE AND IMPACT

The Government's information states that: The construction of the whole Phase One route will take approximately eight years, from the moment that site clearance work starts to the completion of railway installation. This will be followed by a period of testing and commissioning before the first services commence in 2026.

Phase 2a of the project is from the West Midlands to Crewe, with the first services scheduled for 2027. The line will connect to the West Coast Main Line at Handsacre near Rudgely, allowing trains to stop at Stafford and Stoke-on-Trent. Phase 2a now also includes a 400m extension of Crewe Station's platform 5 to allow for the splitting and joining of HS2 services, which may allow trains to re-join the HS2 line after stopping at Stoke-on-Trent.

2.5.2. HS2 LABOUR AND SKILLS FORECASTING

High Speed 2 commissioned its own analysis of the demand for construction and the potential impact on the construction industry along the route. And in September 2018, High Speed 2 published its Skills, Employment and Education Strategy available from the HS2 website.

This strategy is linked to the HS2 labour and skills demand and supply forecasting and analysis also available from the HS2 website.

At its peak in 2021/22, the demand for labour generated by construction and rail engineering activities is expected to support around 30,500 jobs, in construction and rail engineering activities, primarily from the Phase One construction. Of these jobs, a peak construction workforce of around 25,600 is anticipated.

In total, more than 15,000 of these jobs are expected to be supported each year between 2019/20 and 2023/24.

A second peak of around 25,000 jobs is forecast resulting from Phase 2b early in the 2030s. The forecast requirement is for over 10,000 jobs to deliver the work every year with the exceptions of 2026/27. A third of the construction jobs are forecast to require skills, at least at NVQ4+ or degree-level so the work represents a significant opportunity to upskill the construction and infrastructure workforce.

To some extent, HS2 is attempting to address some of these potential gaps with the creation of the new National College for High Speed Rail (NCHSR). The proposal is also to establish at least 2,000 apprentices accounting for 4% of the contractors' workforce on the main contracts.

The distribution of labour between regions for Phases 1 and 2a is summarised in Table 5.

Table 5: HS2 Construction labour demand by region – Phase One and Phase 2a

Region	Person-years	Peak workforce	Timing of peak
London	50,100	8,800	2021/22
South East	19,300	5,300	2021/22
East Midlands	4,000	1,000	2020/21
North West	4,200	1,200	2021/22
West Midlands	44,300	9,000	2021/22
Total	121,900	25,200	2021/22

Source: High Speed Two labour and skills demand and supply forecasting and analysis, August 2018

The need for roles will not be evenly spread across the spectrum of construction occupations. Occupations including: construction supervisors, scaffolders, plant operatives, civil engineers, are forecast to experience particular labour demand pressures. More detailed information is included in the HS2 labour and skills demand and supply forecasting and analysis.

3. CONSTRUCTION LABOUR SUPPLY IN THE STOKE-ON-TRENT AND STAFFORDSHIRE LEP AREA

When looking at the supply of workers there are two main elements to consider: the size of the current workforce and the existing training provision.

The first element is to take a view on construction employment in the Stoke-on-Trent and Staffordshire LEP and how this relates to employment across the West Midlands region and the UK. The Stoke-on-Trent LEP falls entirely in the West Midlands region. So comparisons are made against the West Midlands region and, where applicable, the UK. Data from CITB's Construction Skills Network (CSN) is used along with official Government sources. Employment and employers are considered together as they are intrinsically linked, particularly as a large proportion of construction workers are employed within micro businesses or are self-employed, where the business location is also the home location.

For the second element, whilst training occurs at Further Education (FE) and Higher Education (HE) levels, the main focus of this report is on the FE that takes place. FE tends to be sourced and delivered in a closer proximity to the home and workplace, whereas the length of study time and specialisms for Universities for HE typically give much greater degrees of mobility. Nevertheless, Higher Education in the region is also analysed, but should be considered in the context of the greater mobility levels of the learners at this level.

Finally, the demand forecasts are compared against employment, training and workforce mobility to give an indication of possible gaps and/or occupational pinch points.

3.1. MAIN POINTS

- Current construction workforce within the LEP area is estimated at just over 46,000 workers.
- Over half of the workforce in the Stoke-on-Trent and Staffordshire LEP is located in Stoke-on-Trent (29%), Cannock Chase (15%) and Stafford (15%).
- The Stoke-on-Trent and Staffordshire LEP accounts for around 21% of the West Midlands total current construction workforce and 22% of its construction firms.
- Employment levels in the Stoke-on-Trent and Staffordshire LEP in 2016/17 are the highest they have been in over the last six years.
- Over the last five years around 80 training providers have delivered construction related training within the LEP; ten main providers deliver 87% of provision.

3.2. EXISTING WORKFORCE

- The Stoke-on-Trent and Staffordshire LEP construction workforce has received positive growth of 26.5% in the year to December 2017.
- 94% of Stoke on-Trent and Staffordshire LEP businesses are Micro sized (0-9 employees), identical to West Midlands region as whole.

An analysis of the Annual Population Survey shows that the Stoke-on-Trent and Staffordshire LEP area accounts for around 21% of construction employment in West Midlands region as a whole. This is the number of workers employed by employers within the Stoke-on-Trent and Staffordshire LEP. Table 6 applies this percentage share across the CSN occupational breakdown for the West Midlands region as a whole to give an estimate of total employment at occupational and industry level in the Stoke-on-Trent and Staffordshire LEP area. For comparison, the wider West Midlands region has been included.

Decline in workforce growth was witnessed in the LEP in 2014/15 of 14.3%, however over the last two years there has been increases. Strong workforce growth for the LEP has been achieved in 2016/17 with 26.5%, outperforming the West Midlands as a whole (6.1%) in the same time period.

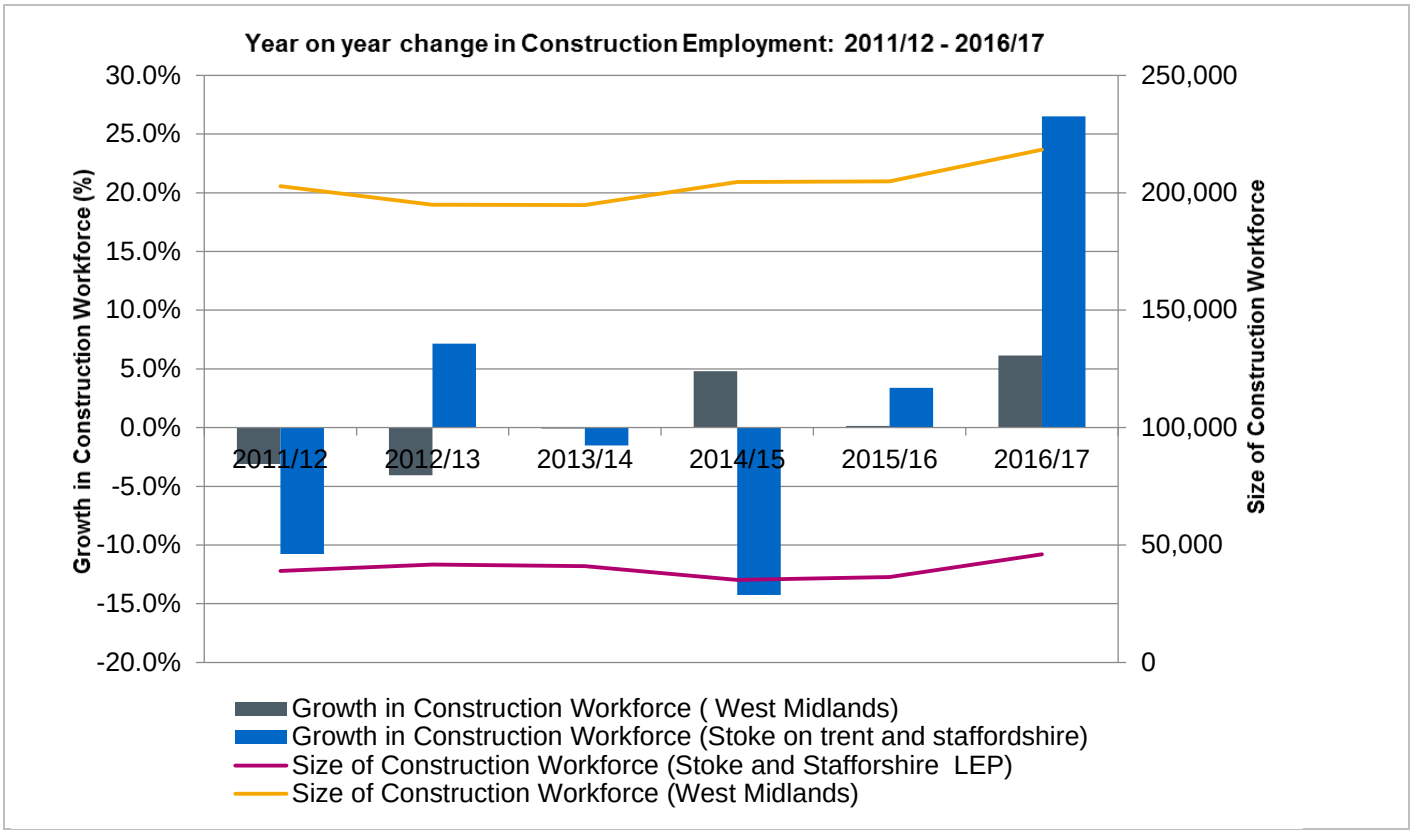


Figure 8: Year on year change in Construction Employment (Experian/CITB & NOMIS 2017)

The number of construction businesses within LEP has decreased slightly from a 24% share of all construction businesses across the West Midlands in 2013 to a 22% share in 2017. However, in actual numbers there has been a rise in construction businesses within the LEP, from 4,750 in 2013 to 5,350 in 2017, a 13% increase. Looking at the West Midlands, there was an increase of around 9,650 businesses within the area, over the same timeframe, a rise of 20% on 2013 levels.

Figure 7 shows the distribution of construction businesses within the Stoke-on-Trent and Staffordshire LEP and Figure 8 shows the distribution of the construction workforce. There are clear differences between the two;

- Comparing business to workforce distribution indicates that East Staffordshire, Lichfield, South Staffordshire and Staffordshire Moorland's have a higher share of businesses compare to the construction workforce.
- Over 90% of firms within the LEP are micro sized (less than 10 employees), similar to that of the West Midlands as a whole.

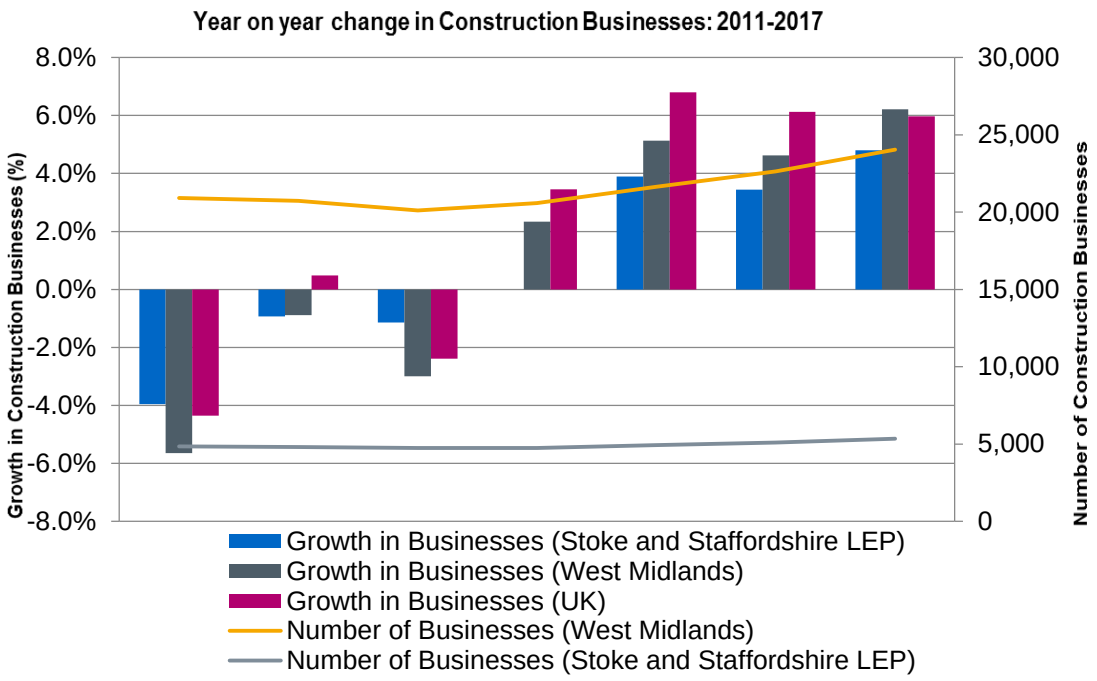


Figure 9: Year on year change in Construction Businesses (UK Business Count, NOMIS 2017)

The local authority areas in the LEP with the largest share of the workforce are Stoke-on-Trent, Cannock Chase and Stafford accounting for nearly 60% of the total.

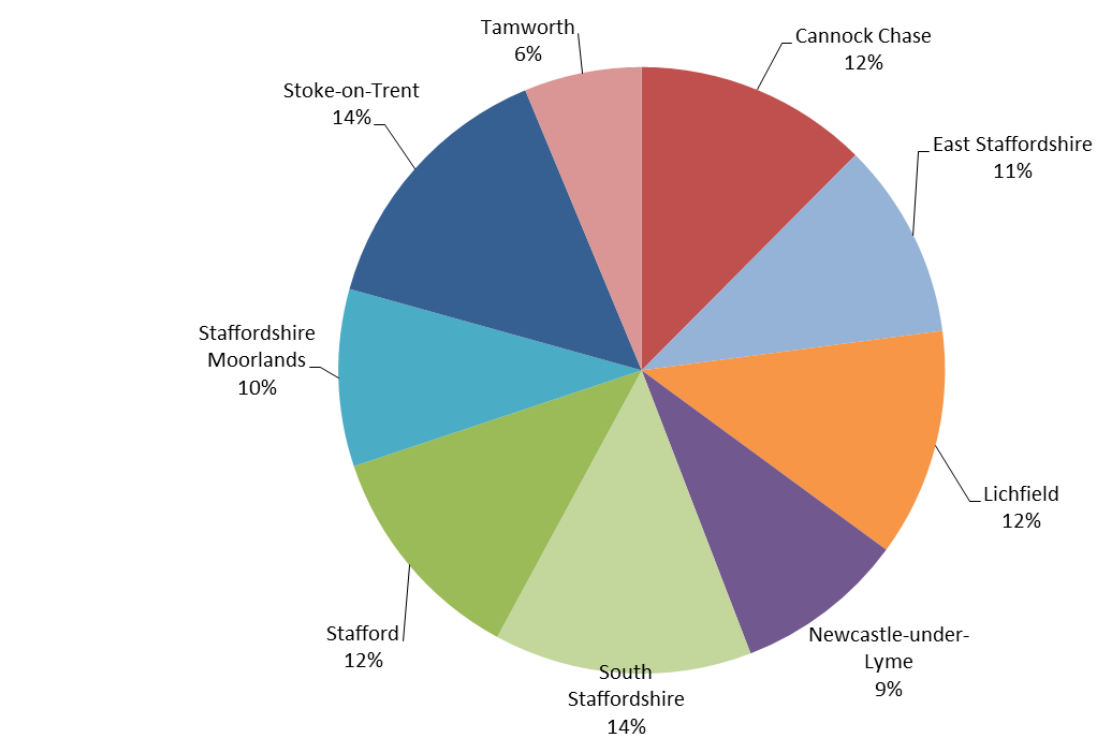


Figure 10: Distribution of construction businesses within the Stoke-on-Trent and Staffordshire LEP (UK Business Count, NOMIS 2017)

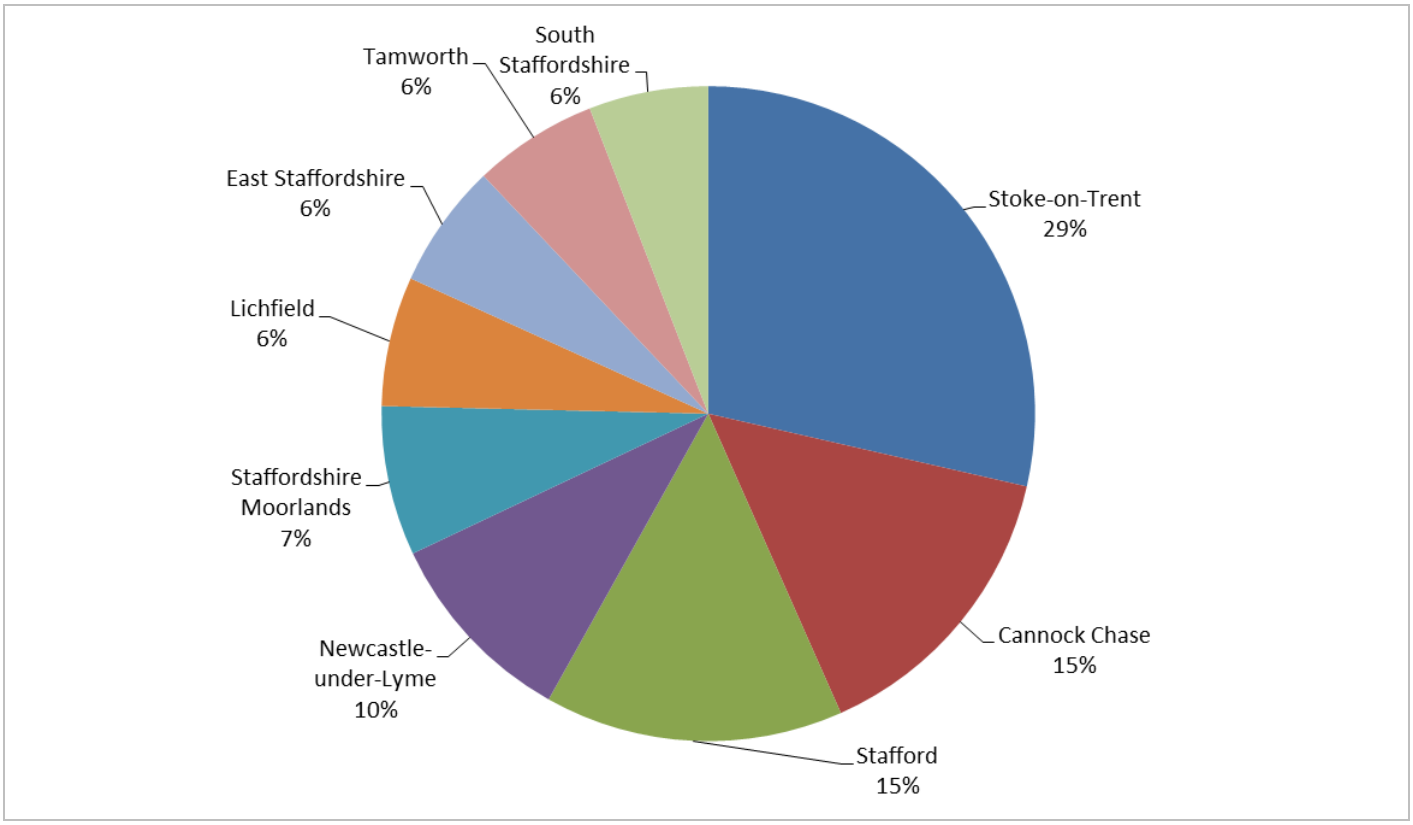


Figure 11: Construction employment by area within the Stoke-on-Trent and Staffordshire LEP area (2017, NOMIS)

When assessing the patterns between workforce and number of businesses it is important to note two main factors when looking at the construction sector:

- Direct employment vs self-employment
- Size of business.

The construction sector has high levels of self-employment with around 40% of the UK construction workforce being self-employed; which is replicated in the West Midlands. Interestingly, the figure for self-employment in the Stoke-on-Trent and Staffordshire LEP is higher at 45%.

When looking at business size, the distribution of companies across the LEP area is on the whole similar to the West Midlands as a whole, and the United Kingdom with the majority of companies being micro sized, (94% respectively). The proportion of small businesses are slightly higher in the Stoke-on-Trent and Staffordshire LEP at 6%, compared to the West Midlands and the UK at 5%.

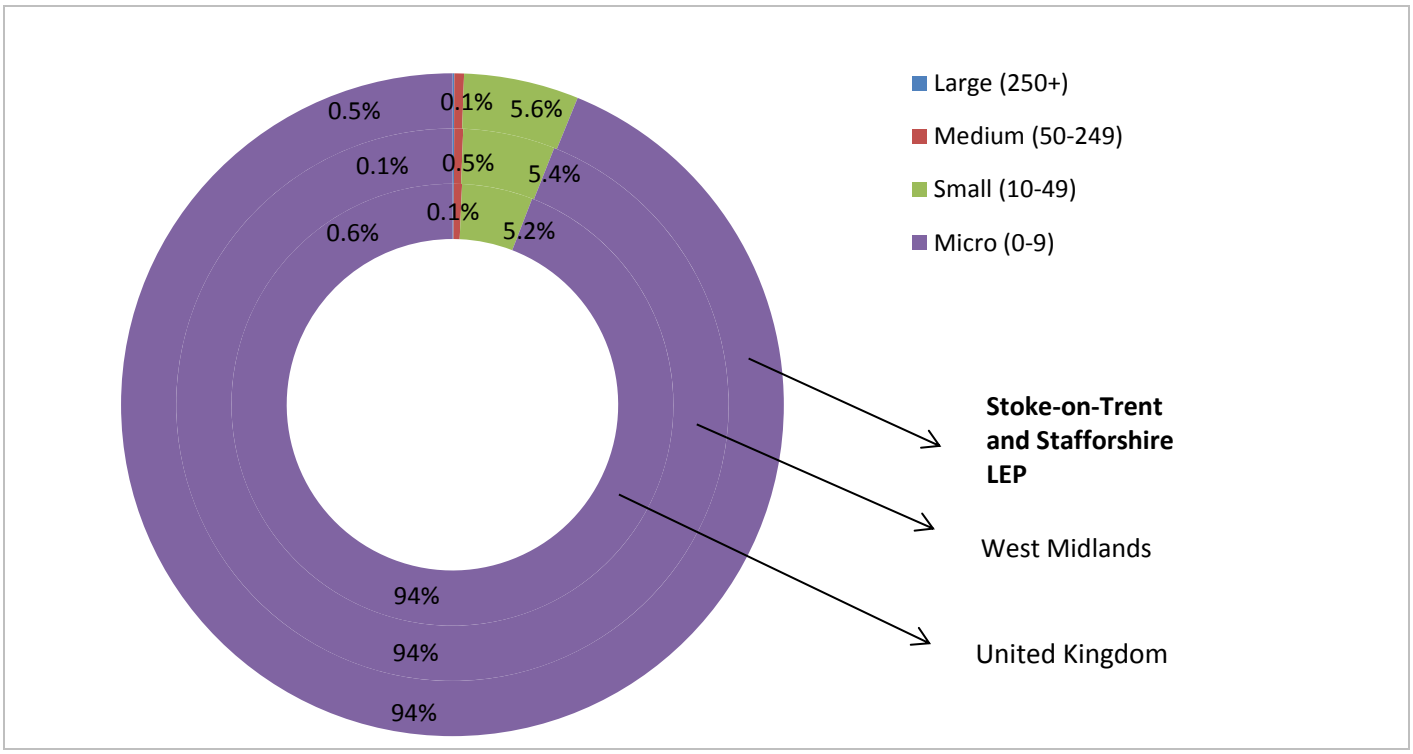


Figure 12: Construction Businesses by Size (UK Business Count, NOMIS 2017)

Table 6: Construction workforce – occupational breakdown, 2017 (Source Experian & CITB)

	Stoke-on-Trent & Staffordshire	West Midlands region
MANAGERIAL, PROFESSIONAL AND OFFICE BASED ROLES		
Other construction professionals and technical staff	2,930	13,910
Other construction process managers	4,280	20,280
Senior, executive, and business process managers	4,000	18,970
Surveyors	1,380	6,550
Construction Project Managers	490	2,310
Civil engineers	620	2,950
Construction Trades Supervisors	780	3,720
Architects	290	1,400
Non-construction professional, technical, IT, and other office-based staff	6,840	32,400
Non–construction operatives	640	3,010
SKILLED TRADES		
Wood trades and interior fit-out	3,720	17,630
Electrical trades and installation	3,850	18,260
Plumbing and HVAC Trades	2,820	13,350
Labourers nec*	2,200	10,450
Building envelope specialists	1,660	7,860
Painters and decorators	1,350	6,380
Specialist building operatives nec*	820	3,890
Bricklayers	990	4,700
Roofers	780	3,690
Plasterers	540	2,560
Plant mechanics/fitters	1,500	7,120
Plant operatives	480	2,270
Glaziers	630	2,970
Floorers	330	1,560
Logistics	650	3,060
Steel erectors/structural fabrication	620	2,940
Scaffolders	420	1,970
Civil engineering operatives nec*	450	2,120
Total	**46,060**	**218,310**

Note: numbers rounded to the nearest 10

Note: nec: not elsewhere classified; HVAC: Heating, ventilation and air-conditioning.*

4. TRAINING PROVISION

4.1. MAIN POINTS -TRAINING PROVISION

- Over the last five years around 80 training providers have delivered construction related training within the LEP; ten main providers deliver 87% of provision.
- Overall, training volumes in the LEP have fallen slightly, while apprenticeships starts have increased slightly over the last four years.
- Good levels of competence qualifications achievements are found within the following occupations; plant mechanic/fitter, painters & decorators, roofers, scaffolders, construction trade supervisors

Overall, the volume of training in Stoke-on-Trent and Staffordshire LEP has slightly reduced between 2012/13 and 2016/17, with the number of new starters decreasing by 3% over this period. This fall is considerably smaller than, the decline witnessed in the West Midlands region as a whole of 19% over the same period.

CITB analysis of Education and Skills Funding Agency (ESFA) Individualised Leaner Records from 2012/13 through to 2016/17 academic years for construction learners shows that:

- The Stoke-on-Trent and Staffordshire LEP area accounts for 22% of identified construction related training across the West Midlands area.
- There has been a reduction in the total number of construction learners starting in the Stoke-on-Trent and Staffordshire LEP (-3%).A greater reduction is found in the West Midlands region of-19%.
- Apprenticeship starts within the Stoke-on-Trent and Staffordshire LEP have increased over the period from 2012/13 to 2016/17 to 6%. However, this increase in apprenticeship starts is lower than the West Midlands as a whole at 24% over the same period.
- When looking at other Education and Training construction learner starts (i.e. non-Apprenticeship construction qualifications) there has been reductions both in the Stoke-on-Trent and Staffordshire LEP and in the West Midlands (-6% and -26% respectively).
- A number of areas within the LEP have witnessed positive growth in starters between 2012/13 to 2016/17. The two areas that have witnessed the largest positive growth in starters is Lichfield (116%) and Staffordshire Moorlands (58%).

“Knowledge” based qualifications describe those qualifications that typically have a theoretical basis so are more likely to be ‘classroom based’. “Competence” based qualifications, in the main, achieve a recognised NVQ and so a link can be made between the qualification title and the likely occupation that an individual will have. For example someone starting or achieving a Bricklaying qualification is highly likely to be working as a Bricklayer as competence based qualifications are based on an assessment of work based skills.

Table 7 shows qualification achievements over the last five years for the identified competence based qualifications, comparing achievement volumes against the overall pattern for the West Midlands as a whole. From this analysis there appear to be patterns for particular occupations. [3]

The majority of the achievements referred to in Table 7 are at:

- Level 2 (75%),
- Level 3 (26%)
- Level 4 and above (0%).

The percentage comparison with the West Midlands region as a whole is used to demonstrate how the provision of training in the Stoke-on-Trent and Staffordshire LEP by occupation is relatively high or low against the regional context.

[3] The information shown in Table 7 has been produced by mapping qualification reference numbers and titles to the most appropriate Construction Skills Network occupations. This has been built up over a number of years by CITB with over 1,800 qualifications reviewed and linked where possible. Note: there are some qualifications that have broad or generic titles that cannot be linked to distinct occupations

The first group of occupations to be identified for the main training volumes, which are broadly similar with the overall training pattern seen in the West Midlands. These are:

- Plant Operatives
- Wood trades and interior fit-out
- Electrical trades and installation
- Plumbing and HVAC Trades
- Bricklayers

Here the qualification achievements are consistent with or slightly higher than the overall share of training being achieved in the LEP area or there is a larger volume of training being delivered against them. For occupations such as wood trades and plumbing, the volume of training will be related to their share of employment, while for others such as plant operators, training will be more related to the need to demonstrate competence for these roles through card scheme monitoring (for example the CPCS Card scheme for Plant Operatives).

Table 7: Competence qualification achievements in Stoke-on-Trent and Staffordshire LEP as a % of total competence qualification achievements in West Midlands region as a whole (Source: CITB/ESFA)

Construction occupations	12-13	13-14	14-15	15-16	16-17	Total Achievements	Total
Main Occupations							
Plant operatives	15%	16%	26%	34%	46%	998	21%
Plumbing and HVAC Trades	22%	15%	22%	25%	25%	530	21%
Wood trades and interior fit-out	16%	21%	22%	23%	24%	470	21%
Bricklayers	31%	25%	28%	32%	37%	409	31%
Electrical trades and installation	17%	14%	16%	22%	13%	409	17%
Occupations with good provision							
Plant mechanics/fitters	67%	66%	84%	74%	80%	338	76%
Painters and decorators	29%	37%	21%	30%	38%	236	31%
Roofers	5%	27%	22%	54%	33%	87	29%
Scaffolders	26%	27%	31%	26%	20%	87	27%
Construction Trades Supervisors	6%	35%	80%	58%	64%	84	27%
Occupations to Monitor							
Glaziers	7%	16%	33%	47%	35%	157	22%
Plasterers	15%	23%	23%	18%	22%	88	19%
Specialist building operatives nec*	19%	23%	21%	19%	13%	189	19%
Building envelope specialists	2%	28%	26%	6%	3%	99	15%
Civil engineering operatives nec*	6%	6%	9%	12%	23%	186	11%
Low Overall Learner Volumes							
Floorers	19%	22%	19%	33%	25%	66	22%
Other construction professionals & technical staff	0%	0%	0%	7%	2%	5	2%

There is a second group of occupations with good provision: where there appears to be a higher level of provision for occupations such as plant mechanic/fitter, painters & decorators, roofers, scaffolders, construction trade supervisors. It could be that there are providers with particular specialisms in these areas operating with the LEP, or a particular need for this type of training.

The third group – occupations to monitor: identifies a small number of occupations where we would expect higher levels of training, again linked to either the occupational size and/or demonstrating competence. This cluster includes construction glaziers, plasterers, specialist building operatives nec*, building envelop specialists, civil engineering operatives nec* happening within the LEP is lower than would be expected. It is possible that individuals within the Stoke-on-Trent and Staffordshire LEP area may be travelling outside the area for this type of training.

Lastly there is a group of occupations where the low level of learner volumes makes it difficult to judge patterns across the years. Whilst the training provider network can adjust to cover changes in demand, there will be a requirement for a certain volume of training to make it viable for a provider to deliver it. These occupations could suffer from this intermittent demand or learners could be travelling further afield to more specialist training providers.

In the Stoke-on-Trent and Staffordshire LEP area between 2012/13 and 2016/17, 82 different providers have been delivering training. The majority of training (86%) is being delivered by ten main providers, as shown in Table 8.

Table 8: Top ten training providers delivering training to the Stoke-on-Trent and Staffordshire LEP by number of starts – excluding apprenticeships (Source: CITB/ESFA)

Provider	12-13	13-14	14-15	15-16	16-17	Total (Learner Aims)	% share of Total Quals	% Quals Ofqual Regulated
Milton Keynes College	1,393	664	1468	1133	1128	5786	28%	79%
Stoke On Trent College	787	892	654	643	489	3465	17%	92%
South Staffordshire College	344	357	344	423	406	1874	9%	93%
Newcastle-under-Lyme College	273	300	328	329	383	1613	8%	100%
South & City College Birmingham	311	500	296			1107	5%	100%
Stafford College	228	202	205	305	160	1100	5%	100%
BCTG Limited	110	142	309	224	251	1036	5%	96%
Project Management (Staffordshire) Limited	360	103	71	2	1	537	3%	100%
LTE Group	0	95	428	2	0	525	3%	0%
Swindon College	24	43	7	5	300	379	2%	21%

Not all of the providers are in the Stoke-on-Trent and Staffordshire LEP area. Providers that are outside the area include: Milton Keynes College, South and City College Birmingham, BCTG Limited, LTE Group and Swindon College. The majority of colleges based in the LEP area provide a high percentage of Ofqual registered qualifications (all above 92%). The average for provision for the area as whole is 87%.

This profile is typical of many LEP areas, where a relatively small group of FE colleges deliver the majority of construction training. A smaller proportion of additional training is then delivered by a larger number of other providers. Sometimes these smaller specialist providers can operate far from the normal base of those for whom they provide training. In total this training covers the majority of the main occupations involved in the construction workforce.

Table 9: Unique Learner starts by area, construction subjects, all levels (Source: CITB/ESFA)

Local Authority	2012-13	2013-14	2014-15	2015-16	2016-17	% Net change	% Quals at Level 2+
Cannock Chase	370	350	340	270	150	-59%	79%
East Staffordshire	130	200	250	230	190	46%	71%
Lichfield	260	300	360	110	560	115%	59%
Newcastle-under-Lyme	290	230	370	360	330	14%	73%
South Staffordshire	600	630	870	810	800	33%	45%
Stafford	550	450	400	390	350	-36%	62%
Staffordshire Moorlands	150	140	220	100	240	60%	77%
Stoke-on-Trent	1,260	1,270	1,060	980	920	-27%	59%
Tamworth	230	190	200	210	160	-30%	67%
Total	3,840	3,760	4,070	3,460	3,700	-3%	61%

As a whole, the Stoke-on-Trent and Staffordshire LEP area is showing a slight decrease in the number of construction learner starts of -3% across the five years at a time, when the wider West Midlands region experienced a much larger decline of -19% over the same period.

In the LEP there has been a 6% increase in the number of apprenticeship starts between 2012/13 and 2016/17. Whilst the college based courses are an important stepping stone or progression route for learners to acquire knowledge, construction employers tend to have a preference for practical or competence based skills, so it is positive that the LEP has witnessed this increase in apprenticeships over these four years. Apprenticeships are investigated in more detail in the next section.

4.2. APPRENTICESHIPS

In the Stoke-on-Trent and Staffordshire LEP area overall volumes of training are declining, whereas numbers of apprenticeship starts within the area are increasing, albeit by a small proportion in both cases.

The Local Authority areas within the Stoke-on-Trent and Staffordshire LEP making the biggest contribution to this increase from 2012/13 to 2016/17 are Stafford, East Staffordshire, Newcastle-under-Lyme, Staffordshire Moorlands, South Staffordshire and Tamworth. These six Local Authority areas saw an increase of 130 apprenticeship starts. A few areas, most notably, Cannock Chase have seen a decrease over the same period.

When looking at 11 the number of apprenticeship starts rose by 6% from 2012/13 to 2016/17, compared to a decrease (-3%) throughout the same time frame for the total number of construction learner starts within the LEP area. The increase in apprenticeships starts within the West Midlands region from 2012/13 to 2016/17 was greater that in the Stoke-on-Trent and Staffordshire LEP, with at 24% increase.

Table 10: Unique apprenticeship starts by area (Stoke-on-Trent and Staffordshire LEP), construction subjects (Source: CITB/ESFA)

Local Authority	2012-13	2013-14	2014-15	2015-16	2016-17	Increase/ decrease	% Net Change
Stafford	60	110	100	90	90	30	50%
East Staffordshire	60	70	90	110	90	30	50%
Newcastle-under-Lyme	80	60	100	90	100	20	25%
Staffordshire Moorlands	40	60	40	60	60	20	50%
South Staffordshire	70	90	90	110	90	20	29%
Tamworth	30	30	30	70	40	10	33%
Lichfield	50	60	50	40	40	-10	-20%
Stoke-on-Trent	320	300	320	300	290	-30	-9%
Cannock Chase	180	220	180	180	120	-60	-33%
Total	**850**	**930**	**960**	**1,020**	**900**	**50**	**6%**

When considering apprenticeship starts by occupation between 2012/13 and 2016/17 the biggest increases in volumes (increases of 10 and higher) have been in bricklaying, construction trade supervisors and glazers. Six occupations have experienced a decrease over the same time frame, these are; civil engineering operatives nec*, plant mechanics/fitters, roofers, electrical trades and installation, plumbing and HVAC trades, and specialist building operatives nec*. In 2016/2017, plumbing and HVAC trades, electrical trades and installation, wood trades and interior fit-out and bricklaying have larger numbers of apprenticeships starts. These higher numbers have been consistent over the four occupations over the five year time period.

Table 11: Unique apprenticeship starts by occupation (Stoke-on-Trent and Staffordshire LEP), construction subjects (Source: CITB/ESFA)

Occupation	12-13	13-14	14-15	15-16	16-17	Increase / decrease
Bricklayers	60	80	100	130	130	70
Construction Trades Supervisors	30	20	30	10	40	10
Glaziers	30	50	40	30	40	10
Other construction professionals and technical staff	<10	<10	<10	10	10	0
Scaffolders	10	20	20	10	10	0
Building envelope specialists	0	30	20	20	<10	0
Floorers	<10	20	10	20	10	0
Plant operatives	0	<10	0	0	0	0
Wood trades and interior fit-out	130	140	160	180	130	0
Painters and decorators	50	60	40	60	50	0
Plasterers	10	10	20	20	10	0
Civil engineering operatives nec*	20	30	30	30	10	-10
Plant mechanics/fitters	80	80	80	60	70	-10
Roofers	20	40	30	40	10	-10
Electrical trades and installation	130	130	150	140	120	-10
Plumbing and HVAC Trades	150	110	140	150	140	-10
Specialist building operatives nec*	80	80	60	40	20	-60

Table 12 considers apprenticeship starts by provider. Over 70 different providers in total have delivered apprenticeships in construction for the Stoke-on-Trent and Staffordshire LEP area between 2012/13 and 2015/16. The bulk of training is being delivered by 10 providers which account for 77% of all provision in the LEP. Project Management Staffordshire and Stoke-on-Trent College delivered over 300 apprenticeships within the LEP between them in 2016/2017.

Table 12: Unique apprenticeship starts by provider in Stoke-on-Trent and Staffordshire LEP (subjects (Source: CITB/ESFA)

Local Authority	2012-13	2013-14	2014-15	2015-16	2016-17	Total	% Share
Project Management (Staffordshire) Limited	144	166	155	185	180	830	17.8%
Stoke On Trent College	155	122	147	108	133	665	14.3%
CITB	94	124	126	149	91	584	12.5%
South Staffordshire College	39	69	57	71	50	286	6.1%
Newcastle-Under-Lyme College	16	35	57	74	85	267	5.7%
JTL	55	47	55	61	36	254	5.5%
Stafford College	32	38	45	16	59	190	4.1%
Finning (UK) Ltd.	39	36	52	21	22	170	3.6%
Burton and South Derbyshire College	28	23	34	50	30	165	3.5%
Targeted Training Projects Limited	67	68	27			162	3.5%
BCTG Limited	11	23	54	60	8	156	3.3%
Walsall College	7	20	36	47	41	151	3.2%
Total People Limited	30	25	35	19	21	130	2.8%
Dudley College	19	12	9	18	33	91	2.0%
Telford College of Arts & Technology	30	20	10	10	19	89	1.9%

4.3. HIGHER EDUCATION

There are five broad HE qualifications that relate to construction: Architecture, Building, Landscape & garden design, Planning, Civil Engineering, and a small number of other courses linked to architecture, building & planning. All these courses are offered at universities accessible to the Stoke-on-Trent and Staffordshire area. Of these construction related courses, the three that are most relevant to delivering construction projects are Civil Engineering, Architecture, and Building.

There are a number of significant challenges to address in understanding Higher Education's place in UK construction. Most significantly, those starting and completing HE level qualifications tend to be willing to travel significant distances to study and then find employment. For many students the opportunity to leave home and move to a new town or city is one motivation for entering Higher Education. In the UK, this has become normalised. University students are more likely to move into a region to study and then, once graduated, out of a region to find employment.

A 2014 study undertaken by Education Phase on behalf of TV Licensing indicated that the average distance from home to place of HE study was around 90 miles. This also indicated that of the sample, only around 5% of HE students were studying within 20 miles of home but that 78% moved 60 or more miles or were from overseas.

However, when questioned, different institutions respond differently – with some universities indicating that they believe they attract students from closer to home while others have a more national and often international focus. This is, in part, down to the course type and its availability elsewhere. But there appears to be a rough correlation between the UCAS points required for entry to some universities and the distance students' travel. Typically the most demanding universities draw students from a greater average distance.

4.3.1. Local provision

Within the area, higher education is provided by:

- The University of Keele, near Newcastle under Lyme;
- Staffordshire University; based in four sites across Stoke-on-Trent and Staffordshire;
- University of Wolverhampton with a site in Stafford offering key specialisms and with a developing presence in the area;
- University of Derby – with courses delivered through Buxton & Leek College (from the Leek campus).

4.3.2. Degree level apprenticeships

Some provision for higher level training for professional roles is available as degree apprenticeship programmes that attract government subsidy and are available to potential students as debt free education.

This is an attractive opportunity that could be highlighted to applicants and employers but that also requires support from employers to recruit at age 18 rather than 21 (graduate). This may help fill some higher level skills gaps earlier as the apprentice can start to make a contribution in their professional roles after one year of study.

4.4. CAREER PROGRESSION

Relatively limited information is available to explain any trends in career progression. The complexity of occupations, qualifications and the inability to track individuals make establishing a clear picture extremely difficult.

There is some anecdotal evidence to suggestions that:

i. Some more experienced workers are able to move into supervisory roles.

ii. Some experienced workers take on a greater variety of occupational skills (and are therefore able to say they have experience working in several occupations)

iii. There is more structured career progression among the professions (backed by professional development/CPD routes through professional chartership, to allow individuals to work progressively towards Member or Fellow status. However not all professionals will be a part of a professional body.)

iv. The professions are more likely to work to an older age in their chosen field. However this is balanced against professionals tending to start at an older age as a result of the need for higher level education and accreditation.

In December 2016 CITB commissioned a report considering “Career progression in the construction industry”. This identified a number of trends in relation to the Progression of construction workers into teaching and training roles.

Anecdotal evidence suggests that the primary issue, especially amongst full-time teaching staff, is fear about losing touch with one’s professional or vocational background. There is a view that that regular return to industry should be facilitated so that technical teachers could refresh their practical knowledge, skills, and stay abreast of innovation.

Results of a 2010 study into what employers wanted from training and trainers showed that, while they prioritised industry skills and knowledge above education skills and knowledge, a complex mixture of the two was required, which was generally felt to be lacking.

This suggests that initiatives aiming to utilise ‘retirees’ in Vocational Education Training (VET) needs to consider how individuals can keep their skills up-to-date.

In this sense whilst any initiative to engage retirees in training has some benefit in terms of keeping skilled people engaged with the sector it creates another challenge if employers perceive those individuals to have ‘out-dated’ skills.

5. MOBILITY OF THE WORKFORCE

Construction workforces are fluid by nature and this section of the report will look at findings from the CITB survey into Workforce Mobility and Skills in the UK Construction Sector 2015 to give a picture of mobility within the workforce. Data specific to the West Midlands will be analysed in order to understand how this might impact on future training interventions and the supply of job opportunities for local people.

5.1. MAIN POINTS – MOBILITY

- Almost a third of all West Midlands construction workers have worked in the industry for at least 20 years (31%). A total of nearly two thirds have done so for 10+ years (63%).
- Eight in ten of all construction workers in West Midlands (84%) were interviewed in the same region in which they were living in when they started their construction career.
- Within West Midlands, the average (mean) distance from workers' current residence (taking into account temporary residences) to their current site was 22 miles.
- Around four fifths of all construction workers in West Midlands are confident that when they finish this job they will get a job that allows them to travel from their permanent home to work on a daily basis (79%).
- Overall more than half of all construction workers have only worked on one project type (58%).
- A third of construction workers say they definitely will be working in the industry in five years' time (35%) and a further almost five in ten think it is very or quite likely (48%).

5.2. WORK HISTORY

Almost a third of construction workers in the West Midlands have worked in the construction industry for over 20 years (31%) and almost two thirds have worked in the industry for at least 10 years (63%). The most likely reason for working in the region is because they grew up there/have always lived there (52%). Eight in ten (80%) construction workers in the region have remained in the West Midlands for all or most of their career.

Further proof of the stability of the construction workforce in West Midlands is emphasised by the finding that in the majority of cases (75%) workers reported their last site was also in the West Midlands.

In terms of the regions or nations in which workers' current employer operates in, the majority (92%) of workers in the West Midlands reported that their employer operated within the region they were currently working in, while 24% operated in the East Midlands, 15% in the South West, 14% in Wales, 11% in the South East and 11% in the North West. See Table 13.

Table 13: Region / nation employer operates in, compared with region / nation working in

Region / nation employer operates in	Region / nation currently working in											
	EM %	EE %	GL %	NE %	NW %	NI %	SC %	SE %	SW %	WA %	WM %	YH %
East Midlands	83	16	8	13	3	2	4	12	8	7	24	11
East of England	12	67	15	11	2	1	4	19	8	7	9	6
London	10	27	84	13	4	1	5	27	12	7	9	6
North East	9	9	8	93	3	1	4	6	7	7	8	15
NORTH WEST	11	9	8	14	93	1	4	6	7	11	11	10
Northern Ireland	3	3	3	2	1	99	3	2	1	3	2	1
Scotland	6	4	6	9	1	2	97	2	4	4	5	4
South East	13	23	27	12	3	*	4	65	21	7	11	6
South West	9	5	7	10	3	*	4	18	83	10	15	5
Wales	6	5	5	8	3	*	4	3	10	96	14	4
West Midlands	21	9	8	12	6	*	4	7	12	9	92	8
Yorkshire & the Humber	15	10	7	19	4	1	5	6	8	8	8	88
Republic of Ireland	1	2	3	*	*	2	1	1	1	2	2	*
Other parts of Europe	*	*	*	1	0	0	0	0	*	0	1	0
Outside Europe	*	1	0	*	0	0	0	0	*	0	*	0
Other / Unsure	1	3	2	3	2	*	1	3	1	*	1	3
Unweighted bases	410	366	452	427	435	274	463	439	494	290	352	369

Source: Workforce Mobility and Skills in the UK Construction Sector 2015 Report. BMG Research on behalf of CITB.
Base: All respondents. *denotes less than 0.5%

5.3. WORKER ORIGINS

Workers were asked which region/nation they were living in just before they got their first job in construction in the UK. Overall eight in ten of all construction workers in West Midlands (84%) were interviewed in the same region in which they were living in when they started their construction career.

Furthermore construction workers in the West Midlands are likely to have stayed in the region where they studied for their first qualification (79%).

5.4. TRAVEL TO SITE

The majority of construction workers were interviewed on a site that was located within the same region/nation as their permanent home with 1 in 6 (18%) construction workers in West Midlands travelling into the region for work from another region in which their current residence is based (which includes those travelling to/from work from a neighbouring region).

Additionally more than four fifths (82%) of construction workers in the West Midlands were interviewed on a site that was located within the same region as their current residence.

Workers in the West Midlands were asked to indicate the furthest distance they have worked from their permanent or current home in the last 12 months. Two fifths have worked more than 50 miles away from their permanent home (41%), with more than a quarter that have worked between 51 and 100 miles away (28%). Workers based in West Midlands were amongst those least likely to have travelled more than 100 miles from their permanent home to work in the last 12 months (13%).

However, the average (mean) distance from workers' current residence (taking into account temporary residences) to their current site was 22 miles for West Midlands, the same as the UK average of 22 miles. This indicates that although workers can travel some distance to work, it is likely to be intermittent.

5.5. SITE DURATION AND CHANGE

In order to get a measure of workplace stability, workers were asked to indicate how long in total they expect to work at that specific site during this phase.

Around one in six of all construction workers in the West Midlands (16%) do not expect to work on that site for more than a month, including 5% that only expect to be there for about a week or less compared to three in ten who expect to stay on that site for a year or longer (31%). However a comparable proportion (25%) of workers did not know how much longer they could expect to be on site.

Three quarters of all construction workers in West Midlands are confident that when they finish this job they will get a job that allows them to travel from their permanent home to work on a daily basis (79%).

5.6. SUB-SECTOR AND SECTOR MOBILITY

All workers were asked what types of construction work they have spent periods of at least three months at a time working in.

Compared with 2012 there has been a significant increase in the proportion of construction workers that have been working on new housing within West Midlands; up from 51% to 88%. For all other types of projects the proportion of construction has reduced.

Overall more than half of all construction workers have only worked on one project type (58%), compared with around a quarter in 2012 (26%), which again suggests a pattern of increased stability in the sector.

5.7. LEAVING THE SECTOR

In order to assess the potential outflow from the sector in the next five years (led by worker preference), all workers were asked how likely it is that in 5 years' time they will still want to be working in construction. Within the West Midlands, just over a third of construction workers say they definitely will be (35%); a further almost half think it is very or quite likely (48%).

Excluding those aged 60 and over (as those over 60 may be assumed to be considering retirement in the next five years): 37% believe they will definitely want to be working in the construction sector, 34% believe it is very likely they will want to be working in the construction sector and 15% believe it is quite likely they will want to be working in the construction sector. Only 8% think on any level that they will not want to be working in the construction sector in five years' time which is similar to 2012 (9%).

Overall the findings from the Mobility survey indicate a stable, well established workforce across the West Midlands. There is some evidence of movement between neighbouring regions, specifically the East Midlands, South West and Wales but on the whole the workforce have grown up in the region, undertaken their initial construction training in the region and have stayed there for the majority of their working life. Additionally optimism across the workforce is high with a majority expecting to still be in the construction industry in five years' time.

Setting the Mobility survey research against the overall workforce and business patterns noted earlier indicates that while the West Midlands as a whole region has a relatively stable workforce, workers within the West Midlands Construction Area will not be limited to working only within the area – they may travel to work in other neighbouring areas. Likewise, workers in other neighbouring areas will also be travelling to work within the West Midlands Construction Area.

5.8. THE IMPACT OF BREXIT

While the issue of leaving the EU is of particular interest to the UK construction industry, it is impossible to offer with any certainty predictions of what may happen or how it will affect the local economy and construction, CITB has published a review that considers some potential implications for UK construction.

Migration in the UK construction industry and built environment sector

The report, published in July 2018, found that while more employers are feeling the impact of Brexit, less than a third have taken action or plan to do so as it approaches. The report updates CITB's previous 2017 migration research.

5.9. MODERN METHODS OF CONSTRUCTION AND DIGITAL SKILLS

In initial consultation, stakeholders enquired about the potential of modern methods of construction, offsite and modular construction to help address the need to build more new housing. Stakeholders have also enquired about the opportunities presented by digital technologies.

Digital technologies are hoped to open up opportunities to simplify and automate some tasks and enhance productivity. However there is no simple description or common understanding of an ever expanding list of new technologies with a multitude of applications. Some have already been adopted and have quickly become normalised – notably in surveying, in design and in the way that smart mobile telecommunications have enabled the sharing of information and remote working. But the benefits have tended to be for professional roles and very large projects.

Building Information Modelling (BIM) is increasingly referred to, and visualisation and design tools are slowly being adopted. Future opportunities may include better analysis and application of data and the integration of multiple technologies. The CITB report Unlocking construction's digital future: a skills plan for industry goes some way to describe the developing technological landscape and where opportunities may be.

The report identifies that embracing future skills is initially a matter of enhancing leadership and management skills and more generally instilling competencies and behaviours such as: interpersonal skills, time management; curiosity; communication; problem solving; confidence; creativity; initiative; organisation; resilience; teamwork. (However employers already report that many of these competencies are just as relevant in the workplace now.)

The CITB digital report "Unlocking construction's digital future…" identifies that the necessary competencies can be considered along two spectrums requiring:

- A flexible mindset, and
- An understanding of digital tools and data.

Future curricula should consider the opportunities to support or develop employees so that they can:

- Think creatively about problems and their solutions: be able to articulate clearly exactly what problem needs solving and thinking beyond what they have to hand about solving it.
- Understand how to use digital tools: have an awareness and some knowledge about a wide range of digital platforms and hardware.
- Assess which tools to use in which circumstances: be able to assess a wide range of options to find a resolution and identify when the right tool isn't available.
- Manage the data that flows to and from the use of these tools: have an understanding of different types of data and what can be collected, how to share this and what implications it has.

Offsite

While no analysis has been undertaken to consider the specific opportunities and limitations associated with the Stoke on Trent and Staffordshire area, CITB has published a report that provides a timely assessment of how the adoption of offsite is changing the skills and training landscape for construction. This report is available on the CITB website. Faster, Smarter, More Efficient: Building Skills for Offsite Construction

There has in recent years been interest and investment in modular housing and while it represents only a small proportion of UK housing output it may open up opportunities to help address Stoke on Trent and Staffordshire's ambitious housing aspirations. The profile of the workforce required is very different to deliver pre-manufactured housing components that are assembled and finished on site. Many of the traditional roles are relocated into manufacturing sites but there is a need for groundwork and the provision of utilities as well as assembly, likely to require plant operatives that are already in high demand for significant infrastructure developments.

A broad consensus is that the adoption of new and digital technologies will require a broader range of competencies and attributes that allow individuals to adapt to changes. This is in preference to teaching specific technical skills for which demand may never emerge. And so the opportunity for future curriculum development is to enhance individual's soft skills that allow them to adapt as well as give them the competencies to meet the demands of employers today.

5.10. BARRIERS AND OPPORTUNITIES FOR PEOPLE ENTERING THE CONSTRUCTION INDUSTRY

Recruiting and retaining a sufficient talent pool has been one of the key challenges for the construction and built environment (CBE) sector for years. The challenge of finding and training the next generation of construction workers is immediate and pressing. CITB's 2017 White Paper Achievers and leavers: barriers and opportunities for people entering the construction industry considers:

- The value vocational qualifications offer to both individuals and employers in construction.
- What happens to those leaving FE after completing a construction related course, and how many end up working in the sector.
- The reasons people leave construction jobs or apprenticeships early.

6. THE DIFFERENCE BETWEEN DEMAND AND SUPPLY

6.1. MAIN POINTS

The occupations for which there appears to be the greatest risk of a shortfall between anticipated peak demand and the estimated supply of workers are:

Among professional and managerial roles:

- Architects

Among skilled trades:

- Plasterers & dry liners
- Painters and decorators
- Floorers
- Bricklayers
- Specialist building operatives
- Plant operatives

Before looking at demand for construction compared with supply of construction workers, it should be noted that the Glenigan dataset used to produce the demand view is based on projects that are picked up at various stages of the planning process. As such there will be projects in the pipeline that may not go ahead or be subject to delay; additionally there will be newer projects that will be added to the list. In this respect the view is essentially a snapshot of what potential work could look like.

It is also important to note that the demand calculations are based on data covering the Stoke-on-Trent and Staffordshire area, whereas the supply figures are an extrapolation of data for the West Midlands region.

When looking forward, there will be less visibility on future projects for work that requires shorter planning times. Research carried out by CITB on behalf of UK Contractors Group UKCG showed that the lead time from planning to work starting on site varied by the type of work and value. Large scale infrastructure and commercial projects take the longest time whereas lower value work in general, along with work in the industrial sector, is able to get on site quickest.

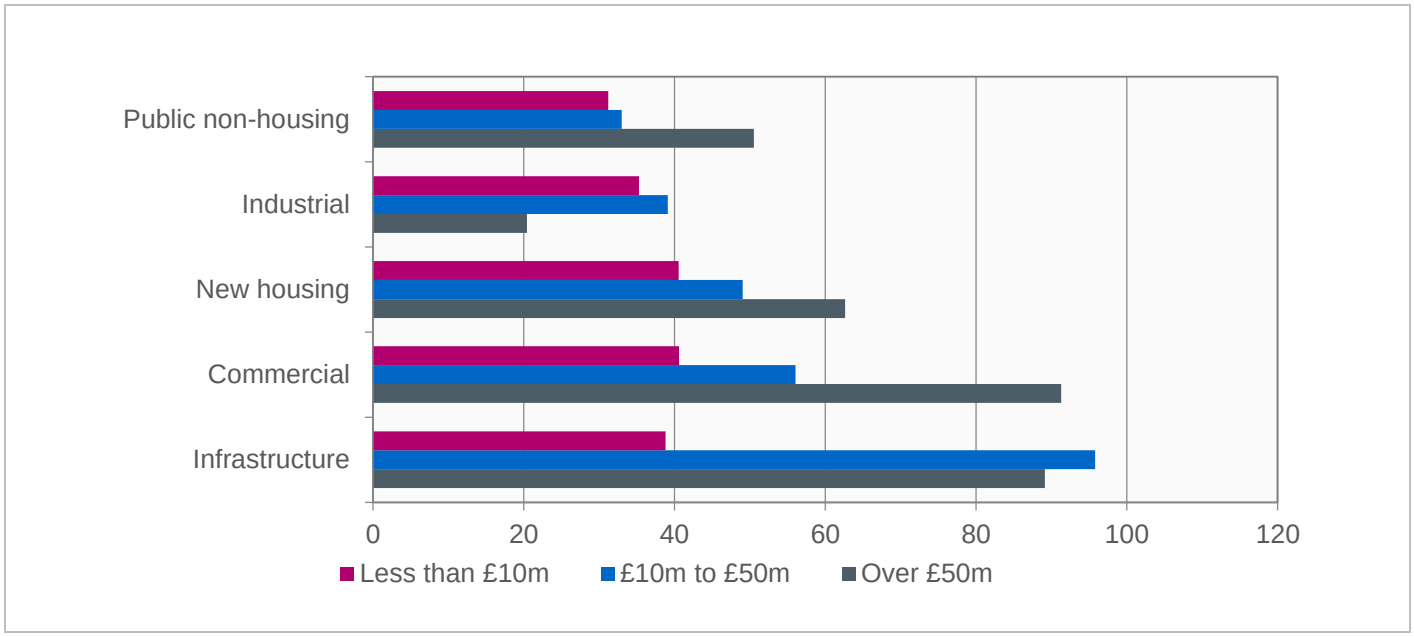


Figure 13: Average number of weeks from planning to work on site, UK 2010-2013 (Source: UKCG/Glenigan)

There will also be work carried out that does not require planning permission, for example household repair and maintenance (R&M) work, and this can account for a significant share of work in the construction sector. Current estimates for R&M work in the West Midlands region indicate that it accounts for 34% of yearly construction output[4].

Also, whilst different types of projects can be categorised by their type of build, such as housing, commercial or industrial, the workforce skills required are less easy to categorise in the same way as some occupations will be able to apply their skills across a number of sectors. For example, evidence from the 2015 Mobility research shows that occupations such as banksmen / bankspersons, labourers/general operatives, roofers and bricklayers are most likely to have only worked on one project type, while site managers and painters and decorators are more likely to have worked on a wider range of projects[5].

[4] CITB (2018) Construction Skills Network – North West

[5] CITB(2015) Workforce Mobility and Skills in the UK Construction Sector – North West

6.2. GAP ANALYSIS

With current construction employment in the Stoke-on-Trent and Staffordshire LEP area estimated at just under 40,000, the identified demand forecast for 2018 accounts for 87% of current employment, before reducing in later years as current visibility for future identified projects decreases. Employment and demand by occupation for 2018 is shown in Table 14.

Table 14: Occupational breakdown of demand for Stoke-on-Trent and Staffordshire area against current employment

	Stoke-on-Trent and Staffordshire LEP area 2018 Demand	*Risk rating: shortfall 2018*
SKILLED TRADES		
Plasterers & dry liners	600	1.13
Painters and decorators	1470	1.10
Floorers	340	1.04
Bricklayers	880	0.90
Specialist building operatives nec*	670	0.82
Plant operatives	390	0.81
Wood trades and interior fit-out	2840	0.77
Roofers	570	0.74
Building envelope specialists	1180	0.71
Labourers nec*	1520	0.69
Scaffolders	270	0.66
Plumbing and HVAC Trades	1830	0.65
Glaziers	380	0.62
Electrical trades and installation	2070	0.54
Civil engineering operatives nec*	190	0.44
Logistics	230	0.35
Steel erectors/structural fabrication	210	0.34
Plant mechanics/fitters	380	0.25
PROFESSIONAL ROLES		
Architects	430	1.46
Construction project managers	480	0.99
Civil engineers	470	0.76
Construction trades supervisors	500	0.64
Other construction professionals and technical staff	1690	0.58
Surveyors	640	0.47
Senior, executive, and business process managers	1850	0.46
Other construction process managers	1960	0.46
NON CONSTRUCTION ROLES		
Non-construction professional, technical, IT & office-based	3728	0.55
Non-construction operatives	345	0.54
TOTAL	***28,140***	***0.61***

Source: CITB/WLC

Note: nec*: not elsewhere classified; HVAC: Heating, ventilation and air-conditioning.

Table 14 shows that there are some possible disparities where demand is expected to outstrip the current estimates for employment available locally. These occupations show high relative gap in comparison with other occupations.

The gap analysis compares the number of workers calculated as being required to meet the peak construction demand (as described in the demand section of this report) with the number of workers estimated as being available in the Stoke-on-Trent and Staffordshire LEP area (as described in the supply section of the report). This gives an indication as to the comparative risk of a shortfall between construction occupations.

Those occupations highlighted:

- **RED** – [Top quartile] are at high risk of an immediate shortfall of workers and are worthy of urgent consideration for action to increase numbers of skilled workers.
- **AMBER** – [Second quartile] appear to be at moderate risk of a shortfall and should be reviewed to determine where opportunities for further training and development exist
- **BLUE** – [Third quartile] do not appear to demonstrate an immediate risk of a shortfall but should be monitored and tested to compare with local qualitative opinions.
- **GREEN** – [Bottom quartile] appear to be at low risk compared with other occupations. This does not mean changes in construction demand, training provision or the movement of workers will not change this status and so monitoring is recommended.

Those occupations at risk appear most likely to be:

Among skilled trades:

- Plasterers & dry liners
- Painters and decorators
- Floorers
- Bricklayers
- Specialist building operatives nec*
- Plant operatives

Among professional and managerial roles:

- Architects

6.2.1. Construction specific occupations

The high risk associated with Architects is a reflection of the wider UK shortage[6]. Additionally as professionally qualified occupations, which tend to require degree qualifications, there will be at several years of education and training before becoming qualified plus years more to gain experience. And if new candidates are to be attracted to join professions, it is likely that encouragement is required some years before they start training.

It is therefore highly likely that the short-term demand increase identified would require workers to be drawn into the Stoke-on-Trent and Staffordshire LEP area from the wider West Midlands region and beyond.

It should also be noted that for some professions workers often have an office location away from the site location and travel between them. And for some, there is anecdotal evidence to suggest that demand is met by provision based in other centres of population.

The greatest risk of shortage is among plasterers, painters and decorators, and floorers. Entry to these occupations is normally through work experience, with training such as NVQs offering the quickest way to get qualified with entry levels taking up to a year to complete (of course it can take much longer to become fully skilled and experienced). There is currently adequate training in the local area to meet existing demand, which has the potential to be increased should demand for these courses grow. Skilled workers could also travel from neighbouring regions to meet short-term spikes in demand.

The risk associated with bricklayers is also quite high. As with other skilled trades training tends to be NVQs, however, as has already been discussed these occupations appear to be well served in the LEP are in terms of training provision and so could be expected to cope with any spike in demand for skilled workers.

Specialist Building Operatives nec include a range of workers who undertake tasks such as operating insulating equipment, fixing plasterboard or dry linings to ceilings and walls, helping to construct, maintain, repair and demolish buildings and clean and resurface eroded stonework for example. There are no formal academic entry requirements

[6] Migration Advisory Committee (MAC) Shortage Occupation List 2015

for this role and training is typically provided on-the-job. NVQs in General Construction Operations are relevant, and offered by several providers in the LEP area with good levels of provision.

6.2.2. Cross-sector occupations

As skills in these occupations can be used in other sectors, the degree to which demand can be met will be influenced by factors other than construction demand.

Around a quarter of: scaffolders, construction project managers and civil engineers work outside construction.

6.2.3. Plant operatives

Plant operatives are crucial to the progress and productivity of the construction industry and the risk of shortages are relatively high but are less acute that the experiences of individual local expert witnesses suggest. This is a complex situation and there are a number of factors that may help explain this disparity:

- Plant operatives may work across sectors. Around 21% of UK plant operatives work within construction. Although the analysis is specific to the construction sector, the plant equipment and services providers will often work across multiple sectors and many skills for some equipment types will be transferable. So workers may move between sectors.
- Plant supply firms and therefore the plant operatives are relatively mobile and so are thought more likely than some occupations to travel over a larger area to undertake work. This may also skew research findings where supply may be met from outside a project's region and demand may draw operatives away from a region.
- Training provision appears often to exceed expectations. Within the construction sector there are two main causes for this:
    1. Plant operatives will often be required to work with multiple types of machinery and require certification for each significant equipment type – so may hold multiple certifications.
    2. Other professions – notably site based roles, such as bricklayers and labourers – may be required to use plant on-site for which they have gained certification.
- In addition, the implication in relation to training provision for a group of occupations that are mobile is that while training provision may be delivered in one location, the benefits of that training may be felt in different regions and more likely on a national level.
- •Shortages may be for specific equipment types while overall the statistics may indicate good levels of provision. This is particularly the case with complex infrastructure works, where unusual specialist machinery is required but for which there is a shortage of appropriately qualified workers. This may go some way to explain shortages highlighted by individual commentators.
    - Plant operative employers also operate with different business models and this can complicate the picture:
    - some employ their own operatives and own the plant,
    - some will employ operatives and hire the plant,
    - some will provide the plant for hire while agencies provide the operatives.

6.3. GAP ANALYSIS – TRAINING NEEDS

Looking at the future demand against current competence based training, there are two aspects:

- Is there training in the areas of potential demand?
- Is there the volume of training required across the spread of occupations?

Taking the first of these, **'is there the training in the areas of potential demand?'**

For Architects, much of this demand would typically be met from graduate level recruitment which would not be restricted to supply from within the Stoke-on-Trent and Staffordshire LEP area therefore, a training needs analysis specific to the Stoke-on-Trent and Staffordshire LEP area is unlikely to give useful information.

Good levels of competency provision has been in place for priority occupations: wood trades, plumbing and HVAC trades as well as painters and decorators. For bricklayers there is good provision and a significant proportion of regional training completed.

For electric trades, where there is high demand, there are good numbers of competency achievements but a relatively low proportion compared with the region, indicating that some of those competent workers may work in the wider West Midlands.

There appear to be relatively low levels of competency based training for some priority occupations at risk of a shortage and in high demand: plasterers, specialist building operatives and building envelope specialists.

Is there the required volume of training across a good spread of occupations?

For most trades training is at rates similar to or better than for the West Midlands region. The exceptions are for: electrical trades, building envelope specialists and civil engineering operatives where in comparison with the region, there have been low numbers of competence achievements.

7. CONCLUSIONS AND RECOMMENDATIONS

The aim of the Stoke-on-Trent & Staffordshire LEP should be to achieve progress in addressing the long term and immediate challenges that the construction industry faces in the area. Balancing the supply of construction workers and skills against future demand and ensuring that a well-qualified workforce is in place is likely to be assisted by the Local Enterprise Partnership encouraging collaboration between influential local stakeholders. Positive progress is likely to be the result of a succession of incremental and interlinked actions undertaken by organisations working towards common goals.

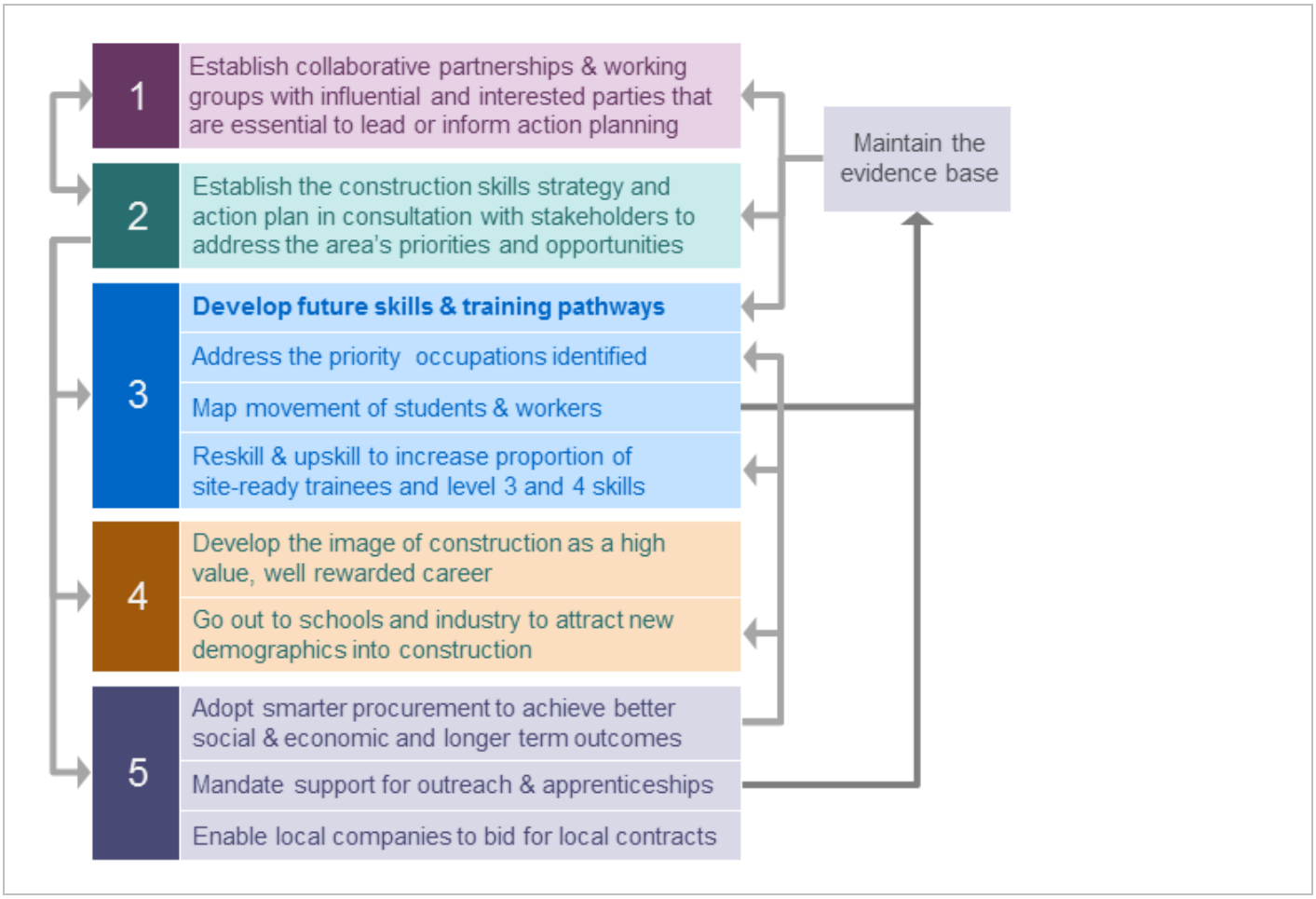
There is strong evidence to suggest that the Stoke-on-Trent & Staffordshire LEP area will suffer a shortage for some construction occupations. While these may be drawn in from others areas, it seems more likely that any net effect will be for workers to be drawn to other neighbouring areas of population and so the risk of inadequate local skills is that construction may be delayed or increase in price, inhibiting the achievement of local social and economic goals.

Some significant initial progress has already been made – for example through the skills capital projects the Stoke-on-Trent and Staffordshire LEP has supported the Advanced Manufacturing & Engineering Hub and the Skills Equipment Fund that are helping address provision for: traineeship and apprenticeships; upskilling; promoting careers in construction and have invested in specialist facilities and training.

There are six integrated recommendations that follow a logical progression.

Action planning

It is the responsibility of the Local Enterprise Partnership and its influential stakeholders to review the recommendations, develop a strategy and agree an action plan to address the construction challenges and opportunities that exist in the Stoke-on-Trent & Staffordshire area. The LEP need not deliver the action plan but needs to take a leading role in coordinating and overseeing or delegating action and monitoring progress



7.1. COLLABORATIVE PARTNERSHIPS

7.1.1. Conclusion

It will be essential to ensure that those interested in construction and with an influence over outputs and construction skills in the Stoke-on-Trent & Staffordshire LEP area work together.

Some significant initial progress has already been made with a network of colleges and private training establishments, sector specialists and other organisations already working together. However there will be significant opportunities to work together to: align better the training delivered with the needs of construction employers; to find new opportunities for drawing people into construction related careers and to deliver action that addresses the following recommendations.

7.1.2. Recommendation

a. The LEP should ensure that relevant stakeholders and influencers are engaged. Share available evidence with them with a view to building collaborative action plans. Points of common interest should be established to encourage these stakeholders to input to, and take ownership of, the construction skills actions. This will maintain a sense of shared ownership of the challenges, priorities and solutions. Those stakeholders should include: local construction businesses; major employers; local authorities; developers (especially those interested in housing); housing associations; those responsible for managing infrastructure (transport and utilities); construction training providers, local influencers and universities.

b. Early on, establish a construction working group comprising those with a remit to develop, or influential in, the built environment in the LEP area and neighbouring areas and task it with delivering outputs that achieve the LEP's desired social and economic outcomes. This should take ownership of 7.2 below.

c. Longer term projections and the development of scenarios may enable an assessment of the potential impacts of major initiatives that may skew demand. Scenario planning and actions around skills pathways and career development should, in response, focus on delivering appropriate levels of high quality training to meet the future demand for site based trades (see related recommendations below).

d. Identify demographic data available and associate actions with opportunities for target candidates where the greatest potential social and economic impact can be gained by addressing occupational shortfalls or other priorities.

e. Establish processes whereby those responsible for: setting local regulation and funding developments can agree with construction suppliers holistic outcome-based approaches for tackling social and economic opportunities. This might consider moving towards a balance of awarding contracts based on good value for money and achieving wider benefits linked to: the built environment; training; support for apprenticeships; outreach; etc. This links to requirements outlined in the *Public Services (Social Value) Act.*

7.2. SKILLS STRATEGY: ACTION PLANNING AND EXPLOITATION

Establish (or develop) a Stoke-on-Trent & Staffordshire LEP area construction skills strategy and action plan which recognises collective and potentially unique actions and solutions that may be required across the LEP area.

7.2.1. Conclusions

An ambition to develop construction skills and training pathways should be to match training and development with the needs of employers and the local economy. In support of this ambition, further understanding is needed of where the potential sources of people are to meet the needs of the Stoke-on-Trent & Staffordshire LEP area and what the end-to-end skills and training pathways are that need to be in place to enable improved flows of people and skills supply to meet demand. These pathways may include localised initiatives supporting training needed by particular groups to enable them to access more formalised elements of training and careers pathways.

In the Local Enterprise Partnership area around 87% of Further Education (FE) training is provided by ten providers; so the greatest potential impact is through mediated collaboration with and between the FE colleges.

The majority of training provision is at low levels. These may be a necessary introduction to construction in an individual's development but often are insufficient in meeting the needs of employers and so very often do not lead to a career in the occupation for which the individual has received trained. This is supported by an apparent mismatch between training achievements and supply for some occupations.

Also, construction employers have expressed concern that often those newly qualified and having gained site access through a CSCS card or similar are not equipped with the variety of skills required – these might include general competencies such as numeracy, literacy, timekeeping, productivity, interpersonal skills.

This suggests a need to work with colleges, employers and graduating students to help ensure that a greater proportion move into appropriate additional and vocational training and the career for which they have a qualification.

7.2.2. Recommendations

a. Develop the Stoke-on-Trent & Staffordshire LEP construction skills strategy along with an action plan that ensures that priority is given to trades highlighted in this report as being:
   - In high demand AND at high risk of a shortfall.
   - In high demand
   - At high risk of a shortfall

Priority occupations

The report identifies occupations for which there is high demand AND a relatively high risk of a shortfall.

- Wood trades and interior fit out
- Plumbing and HVAC trades
- Labourers
- Painters and decorators
- Building envelope specialists
- Bricklayers
- Specialist building operatives
- Plasterers and dry liners

High demand trades

- Wood trades & interior fit-out
- Electrical trades & installation
- Other construction process managers
- Plumbing and HVAC trades
- Labourers
- Painters and decorators
- Building envelope specialists

High risk trades

Trades at immediate risk of a shortage locally

- Architects
- Plasterers & dry liners
- Painters and decorators
- Floorers
- Construction project managers
- Bricklayers
- Specialist building operatives

b. Most local authorities are under pressure to maintain the provision of new housing but there are apparent shortages in some occupations in demand by house builders. A recommended action is to establish with local construction suppliers whether this trend is likely to continue and if so ensure that training provision addresses future demand for occupations of relevance, in particular site-based roles of relevance to house builders (see below).

c. An early action plan should assess if employers are facing specific skills shortages or skills wage inflation and what short-term interventions can be activated to address them. If issues are identified, consideration should be given to pursuing funding that can be utilised to support delivery of new training interventions.

d. Early consideration should be given to those occupations that need to be site-based, for which demand cannot be met by office based roles that could be located outside the LEP area.

Site based roles

While it is important to have sufficient provision of all construction roles locally, it is possible that in some cases the provision can be met from outside the LEP area.

Many professional roles such as architects, surveyors and senior managers may only need to visit the construction site occasionally. There may also be roles that are more mobile that travel to the site for a short duration but can operative over a large area – for example plant or scaffolding

However there are many roles that can only operate on the construction site and for which local provision is essential. Examples of those roles – also particularly relevant in house building include: bricklayers; building envelope specialists; electrical trades and installation; floorers; glaziers; painters and decorators; plasterers & dry liners; plumbing and HVAC trades; roofers; wood trades and interior fit-out. Most of the roles identified as being in high demand or at risk for the Stoke-on-Trent and Staffordshire LEP area are these site based roles.

e. Identify demographic data available and associate, as far as possible, relevant skills and training pathways and actions with opportunities for those where the greatest potential social and economic impact can be gained by addressing occupational shortfalls or other priorities.

f. Develop a co-ordinated approach to training and skills development that, as far as possible, integrates the development of multiple skills to enhance the success rates of initial construction training. (See 7.3 below.)

7.3. DEVELOP FUTURE SKILLS AND TRAINING PATHWAYS

7.3.1. Conclusions

It is clear there is high demand for several construction occupations and so there will be continuing demand to train people in essential skills. There are also some apparent gaps between supply and demand where immediate action would help address shortfalls in the near future.

CITB has received anecdotal evidence that in some locations, colleges would like to support the provision of more apprenticeships but that employers are not always providing the opportunities.

Construction training needs to improve the success rate of producing site-ready, competent, multi-skilled workers.

There will also be a developing need for new skills to address new construction methods (e.g. offsite and modular build and the need for BIM applications.) [BIM is Building Information Modelling.]

The CITB report – 'Faster, Smarter, More Efficient: Building Skills for Offsite Construction' – provides an assessment of how the adoption of offsite is changing the skills and training landscape for construction.

7.3.2. Recommendations

a. By working together the major colleges should avoid duplication of effort or share resources, enhance specialisations and explore innovative ways of delivering the curriculum that meets employers' and students' needs.

b. The aims of this should be to: reduce the provision of under-subscribed courses; add provision for over-subscribed courses; add additional or enhance specialist courses to reflect the potential need for new construction skills and balance the provision of training with anticipated demand from the construction contractors locally. Pilot a range of options incrementally to test validity and effectiveness and achieve the most expedient solutions.

c. Introduce understanding of the need for other competencies so that training includes: understanding other construction roles; future skills; the potential career pathways between construction roles.

d. For some candidates it may be that training should also incorporate development of other competencies such as: numeracy, literacy, interpersonal skills, time management, productivity.

e. Action to address future skills needs should be incremental and take into consideration the delivery of training that supports construction industry needs – i.e. establish site ready proficient workers. Emphasis should be on ensuring that initial training leads individuals into more advanced and competency based training and high quality sustainable apprenticeships.

f. Identify and facilitate how FE colleges and employers can engage with specialist training providers as well as with major projects, to establish greater provision for priority roles:

g. Address any anticipated specific local needs and ensure that training delivers what employers need as part of a complete package of training initiatives.

h. This may involve establishing training pathways through which students can complete initial knowledge based training before progressing into vocational training and apprenticeships and gaining site experience (while finishing their training).

i. In the longer term there may also be opportunities for the LEP to work with those colleges that offer Higher Education qualifications and Universities to consider how they can attract, train and retain the higher level, advanced and 'future' skills for which there appears to be demand and inadequate provision (across the UK). For example that may be in high demand for the many significant projects that are expected to proceed in the Stoke-on-Trent & Staffordshire LEP area and further afield and that will increasingly need to utilise developing technology e.g. Building Information Modelling (BIM).

j. Consideration should also be given to building an understanding of the economic and transport inhibitors that may prevent people accessing training and apprenticeships. Are there options for ensuring that training is provided where it is accessible; that those with limited financial support can receive support with the provision of appropriate clothing and equipment or that there is assistance with transport to remote worksites. This is particularly relevant for remote and sparsely populated places which, in the Stoke-on-Trent & Staffordshire area present challenges to some potential students

7.4. OUTREACH: BUILD A MORE POSITIVE IMAGE OF CONSTRUCTION AND INCREASE RECRUITMENT THROUGH NEW ENTRACE POINTS, CAREER CHANGERS AND RESKILLING

7.4.1. Conclusion

Construction is sometimes associated with negative and inaccurate stereotypes that deter potential recruits, with education choices and career decisions often influenced in school and sometimes at a very early age.

It is increasingly clear that influences and preferences are established early in childhood and so it may be appropriate to build a positive profile of construction with children before the age of 11 as well as during secondary education.

7.4.2. Recommendation

a. With an anticipated long term demand for some skills, the potential exists for a schools outreach programme to build a positive perception of construction as offering high value rewarding careers and encourages applications for construction skills courses and apprenticeships from a broader spectrum of young people – in particular ethnic minorities and women.

b. There are further opportunities for outreach with those aged 16 and above, in particular those studying relevant STE(A)M subjects but who have not considered that they lead into interesting and rewarding careers in construction or supporting construction.

   [CITB has supported employers and other stakeholders across the construction and built environment to develop an industry led initiative called Go Construct (www.goconstruct.org). This initiative inspires individuals to find out more about the sector, to access an experience with employers from school engagement via the Construction Ambassador scheme and find work experience placements.]

c. There may also be more mature audiences that can be encouraged to move into construction careers. This may include people with relevant transferable skills (e.g. from manufacturing or ex-military see *Careers Transition Partnership*) or those where there is a significant social gain by ensuring they are in valuable employment, e.g. ex-offenders and so contact should be made with HM Prison Service and DWP. Targeted intervention should be included within the construction skills action plan.

d. There is an opportunity to maximise Go Construct and introduce other similar employer and local authority led initiatives to raise engagement between the local employers, educators and individuals from all backgrounds (e.g. the Careers and Enterprise Company.)

e. For the long term, Careers advice should engage very young audiences – i.e. pre-secondary education – to address early on negative stereotypes that may deter some groups from construction careers.

f. Early on careers advisors educators and parents should be targeted to change perceptions of construction among significant influencers.

Go Construct is one of the construction industry's initiatives; supported by CITB, aimed at helping to attract more young people into construction careers by improving understanding of the careers and rewards available.

7.5. USE PROCUREMENT AND PLANNING REGULATION TO ENABLE SKILLS DEVELOPMENT

7.5.1. Conclusion

Construction is delivered through construction employers and suppliers, funded by private developers as well as by local authorities and regulated by local planning authorities. These organisations are better placed to prepare for the future if they have certainty on construction plans and programmes. Small and micro companies, in particular, have limited ability to maintain the processes and people to search for local opportunities or enable collaboration to support larger projects.

Public bodies have a requirement under the Public Services (Social Value) Act to ensure procurement addresses wider social, environmental and economic benefits.

The opportunities for small and micro companies (with limited resources and means) to respond to complex requirements, or invest in delivering services outside a basic construction contract, are severely limited.

Larger suppliers have expressed the view that some problems encountered with section 106 agreements include that: they are poorly thought out in terms of delivering tangible benefits; rarely are developed with contractors and agreed outputs are not measured and reported against.

7.5.2. Recommendations

a. The potential exists through smarter approaches to procurement (including co-ordinated approaches to Section 106 agreements) to encourage those tendering for construction and infrastructure contracts or those funding developments to be mandated to include provision for recruitment, training, apprenticeships and outreach that is co-ordinated across the Local Enterprise Partnership area, to achieve both good value for money and wider social benefits.

b. Early engagement with employers to discuss any such approach should be adopted as standard to find ways of ensuring that such requirements take into consideration the industry's needs and circumstances. (i.e. discuss wider social gains with potential suppliers well before tender documents are published. Let construction contractors input to sections 106 discussion.).

c. Provision could be made to hold contractors to account for commitments made. Such an approach could be co-ordinated through the Stoke-on-Trent & Staffordshire LEP and local authorities and be a requirement of planning applications and local authority and public sector contracts.

d. Procurement of major contracts, or conditions of planning consent could mandate the sharing of supply and sub-contracting through a locally managed portal available to businesses based within the region.

e. Consideration of the use of smaller lots when procuring schemes and supporting access for small and medium sized employers onto frameworks and supply chains to enable them to grow their businesses which will build further delivery capacity across the Stoke-on-Trent & Staffordshire LEP area.

7.6. MAINTAIN AND ENHANCE THE EVIDENCE BASE

Utilise local qualitative knowledge and experience to inform the findings of this report. And use other sources of data available to help inform decision making. CITB publishes a range of research of relevance to the construction industry but other relevant information is also regularly published.

As part of this report, the Stoke-on-Trent & Staffordshire LEP is given 12 months access to the Labour Forecasting Tool, including the source project data used to compile this report. This should be utilised as part of the action planning process to test scenarios, and to update and check the evidence base that supports decision making as circumstances change.

Ensuring that pipeline visibility assists the local industry in reducing risks such as economic instability or maintaining sustainable employment. The demand forecasts produced using data from Glenigan are the result of a snapshot at a moment in time and so it is wise to update demand at regular intervals according to the need and capability.

END

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Version	Date	Details of modifications
First draft	July 2018	First collated draft for initial consultation
Second draft V4.0	September 2018	Additions from LEP, updates & corrections
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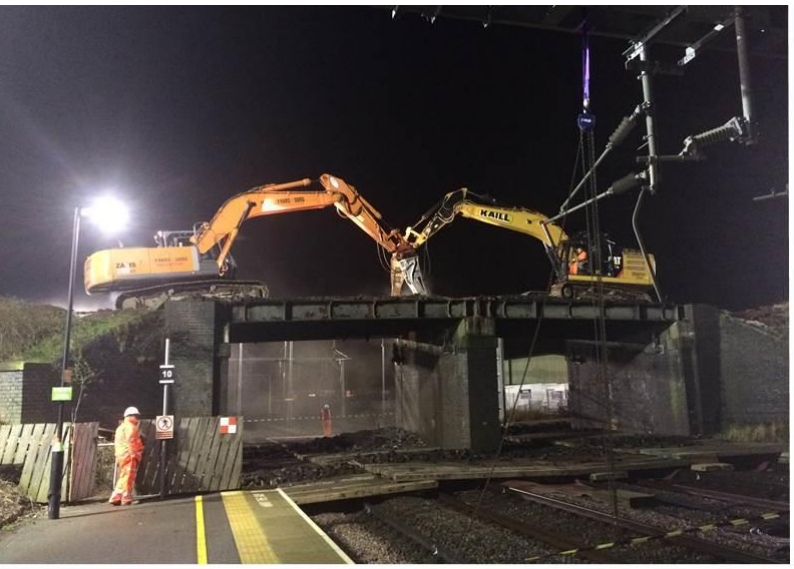
CITB Analysis

Construction skills gap analysis for the Stoke-on-Trent & Staffordshire area



Appendices to the Construction skills gap analysis for the Stoke-on-Trent & Staffordshire LEP area

September 2018

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APPENDIX A. DEMAND ANALYSIS METHODOLOGY

Introduction

The Construction Skills Network (CSN) provides labour market intelligence for the construction industry. Developed by Experian on behalf of CITB it forecasts labour demand in each of 12 UK regions and provides forecasts of how the industry will change year on year. It is not designed however to predict labour demand at a sub-regional level. For this purpose, we use our prize-winning Labour Forecasting Tool (LFT) developed on behalf of CITB. Labour demand is calculated by converting the volume of construction activity forecast to take place in any geographical region into forecast labour demand using labour coefficients (the number of person years required to produce £1m of output). For the sake of consistency with ONS terminology the 'volume of activity' is referred to as 'output' throughout this report. The following sections describe:

- the sources of data we use;
- how the output is calculated;
- how we deal with the absence of comprehensive data that is the typical situation beyond the first year or two of our analysis;
- how we reconcile any differences between the results produced by the LFT and those produced by the CSN;
- the steps we take to deal with any shortcomings in the sources of data; and
- how the LFT converts output into labour demand.

Calculating construction output

Data sources

There are two principal sources of data: the Glenigan database and the National Infrastructure and Construction Pipeline (NICP).

Glenigan

The original purpose of the Glenigan database is to allow contractors to identify leads and to carry out construction market analysis. It is updated every quarter to provide details of planning applications from local authorities supplemented with additional project-specific data. Of particular relevance to this report, it provides a description of each project, its name, location, value, and in most cases, projected start and end dates. It contains many tens of thousands of projects. The Glenigan pipeline does not identify every single project in an area: projects which are small (typically but not exclusively those less than £250,000 in value), and most that involve repair and maintenance are not included.

We have used the latest available cut of Glenigan data including all the relevant projects which started before 2017 but excluding those which are already complete. We have included in our analysis only those projects shown to be at the following planning stages because there is a reasonable probability that these projects will be realised in practice.

- Planning not required
- Detail plans granted
- Reserved matters granted
- Application for reserved matters
- Plans approved on appeal
- Listed building consent

The values of some infrastructure projects given in the Glenigan database are the total value of construction and engineering works. In these cases, since the scope of this study is limited to the construction sector, an estimate of the engineering value has been calculated and subtracted from the total value. This provides what we have termed the construction value. The percentages applied to the total value of each infrastructure project type to derive the construction value are shown in Appendix Table 1. The construction/engineering proportions have been validated through work we have undertaken for other clients and have been used in the production of Infrastructure UK's National Infrastructure Plan for Skills and the Construction Skills Network forecasts.

An initial review of the projects in the pipeline is carried out to ensure that only projects which have (a) a defined value and (b) defined start and end dates, are considered in the analysis, and that no projects are duplicated. For example "major leads" and "frameworks" may include smaller projects that are separately identified in the database.

Because of the size of the database, it is impossible to review the details of every project. Instead, we identify the small number of projects that represent the greatest value, the so-called significant projects. To do this, we use the Mean Value Theorem developed at the University of Dundee which states that maximum information from any set of data is obtained simply by considering the data whose value is greater than the average. This is a version of the Pareto rule which suggests that 80% of the value in a data set is contained within the 20% of items whose value is the greatest. The significant projects are then thoroughly inspected to make sure that the information reported in the Glenigan database is consistent and accurate as far as can be ascertained. Any anomalies are resolved, if necessary by returning to the source of the data. Since this process typically picks up the projects whose value represents 80% of the total, the scope for any errors in the remaining data to have a significant impact is severely limited.

Appendix Table 1: Proportion of total value related to construction

Infrastructure type	Sub-type	Construction value as a proportion of total value
Flooding	Flooding	90%
Transport	Bridges	100%
	Road tunnel	100%
	Roads	100%
	Air traffic control	100%
	Airports	100%
	Ports	90%
	Stations (underground/Network Rail)	80%
	Mixed rail	55%
	Electrification	35%
	Underground/DLR (not incl. stations)	35%
	Rail maintenance	10%
	Trams	55%
	Contactless ticketing	20%
Water	Water/wastewater treatment works	90%
Communications	Broadband/Digital infrastructure	20%
Energy	Photovoltaics	80%
	Generation (biomass)	50%
	Generation (energy from Waste)	50%
	Generation (nuclear)	50%
	Undefined electricity generation	40%
	Generation (fossil fuel)	25%
	Generation (renewables - offshore)	20%
	Generation (renewables - onshore)	10%
	Gas Transmission/distribution	30%
	Electricity transmission/distribution	25%
	Interconnectors	20%
	Nuclear decommissioning	60%
	Smart meters	0%
	Oil and gas	10%
Mining	Mining	80%
General infrastructure	General infrastructure	100%

For the significant projects, the project descriptions in the database are assigned the most appropriate project type to be used when the data is input to the LFT (each type is driven by a different underlying model). Cases where a project consists of more than one type are broken down into multiple forecasts which are assigned specific project types to more closely predict the labour demand. This takes account of the different types of work which may exist within a single project, e.g. mixed developments comprising residential, commercial and industrial buildings. For the non-significant projects, the default project type defined in the Glenigan pipeline is applied.

In order to maintain consistency with the CSN we have limited our forecast to the same time period as the most recently published CSN forecast.

NICP data

The Infrastructure and Projects Authority (formerly Infrastructure UK and Major Projects Authority) compiles a pipeline of UK infrastructure and construction projects and the associated annual public and private investment.

We examine the NICP data to identify infrastructure projects or programmes of work taking place in the region under consideration that are not included in the Glenigan database. The construction cost is calculated from the total cost reported in the NICP using the percentages in Appendix Table 1. Projects in the Glenigan dataset and the NICP are combined (ensuring that there is no double counting) to create a pipeline of 'known' projects for the area. We have only considered those projects which are specifically allocated to the region under consideration in the NICP (i.e. projects at a national level have not been considered).

The pipeline includes both construction and infrastructure projects but for the purposes of this analysis we have included only projects which are clearly defined specific projects rather than regional programmes of work. This reduces the risk of double counting in the Glenigan data.

CSN data

The CSN model produced by Experian also uses Glenigan as a major source of data relating to the volume of construction activity in the UK. Experian supplement the Glenigan data with market intelligence collected by a variety of means including a series of 'Observatories' held every six months in each region, at which representatives of the industry are invited to comment on the validity of Experian's data and findings. In Experian's annual CSN report, their estimate of the output in each of the following sectors is published:

- Public housing
- Private housing
- Infrastructure
- Public non-housing
- Industrial
- Commercial
- Housing repair and maintenance
- Non-housing repair and maintenance

Aligning the Glenigan pipeline with CSN output

The following process is undertaken to ensure that the value of work in the Glenigan pipeline is aligned with output as measured by the CSN.

3. Considering the government region within which the research area lies, identify only the new build in the known projects by removing all repair and maintenance projects.
4. Compare the output identified in the known projects as new build at the regional level with the CSN new build at the regional level sector by sector e.g. residential, non-residential, infrastructure etc.
5. If in any sector the known new-build regional output for the peak year is more or less than that forecast by the CSN for the same year then the value of each new build known project is factored by the following ratio:

$$\frac{Value\ of\ CSN\ new\ build\ at\ regional\ level\ for\ given\ sector}{Value\ of\ known\ new\ build\ projects\ at\ regional\ level\ for\ given\ sector}$$

The outputs calculated in this way are referred to as 'factored new build outputs'

This process takes account of both projects (typically less than £250k in value) not included in the known projects and those whose value or probability of realisation is over-optimistic.

6. To take account of housing repair and maintenance (R&M) at the research area level, it is assumed that the proportion of the total output represented by housing R&M is the same at the local area level as it is at the regional level in the CSN. The Glenigan new build factored housing output is therefore multiplied by the following ratio:

$$\frac{Value\ of\ CSN\ housing\ R\&M\ at\ regional\ level}{Value\ of\ CSN\ new\ build\ housing\ at\ regional\ level}$$

   to derive the output in housing R&M to be added to the factored new build output

7. The non-housing R&M to be added to the factored new build non-housing output is calculated in a similar way.

Dealing with the 'cliff edge'

As the time horizon extends there is less clarity on what is planned. As a result, the number of known projects declines the further into the future we look. This apparently declining workload is highly unlikely to reflect the total amount of work that will take place in the future. It is almost certain that there will be additional projects that come on stream which are yet to be identified. To overcome this 'cliff edge' effect we assume, based on an analysis of historical data, that the future workforce is approximately equal to the peak. It should be noted that the peak labour demand refers to the current "snapshot" of the scheduled construction spend. It is prudent to expect that, should the investment in future years follow the same pattern, the peak labour demand figures are likely to be roughly similar assuming the mix of projects remains consistent. The peak has, therefore, been projected forwards and backcast to create a more likely scenario of the ongoing workforce. The employment growth rate is based on the CSN employment forecast for the whole region under consideration.

A consequence of this approach is the implicit assumption that the proportion of people in each occupation in the additional projects remain unchanged year on year.

Calculating total labour demand

Our Labour Forecasting Tool is used to determine the labour demand generated by the construction outputs in the peak year. The LFT can determine the labour demand generated by a pipeline of construction projects given only the project types, their start and end dates and their locations. It quantifies the month-by-month demand in each of the 28 occupational groups shown in Appendix B. To do this, it uses labour coefficients (person years to produce £1m of output) derived from historical ONS data. The labour coefficients are updated annually as new data becomes available, and indexed to take account of different locations and changes in prices.

There are different labour coefficients for each occupation and for each of the following project types:

- residential
- non-residential
- infrastructure
- residential R&M
- non-residential R&M

Infrastructure projects can be broken down into the types shown in Appendix Table 1.

APPENDIX B. OCCUPATIONAL DEFINITIONS

Reference is made in this report to a range of occupational aggregates for construction occupations. This appendix contains details of the 166 individual occupations which are aggregated into 28 occupational aggregates.

Appendix Table 2: Occupation definitions

Occupations included within construction occupational aggregates (Four-digit codes refer to Office for National Statistics Standard Occupational Classification Codes).	
1 Senior, executive, and business process managers[7]	
(1115) Chief executives and senior officials	(1162) Managers and directors in storage and warehousing
(1131) Financial managers and directors	(1259) Managers and proprietors in other services nec
(1132) Marketing and sales directors	(1139) Functional managers and directors nec
(1133) Purchasing managers and directors	(2133) IT specialist managers
(1135) Human resource managers and directors	(2134) IT project and programme managers
(1251) Property, housing and estate managers	(3538) Financial accounts managers
(1136) Information technology and telecommunications directors	(3545) Sales accounts and business development managers
(2150) Research and development managers	
2 Construction project managers[7]	
(2436) Construction project managers and related professionals	
3 Other construction process managers[7]	
(1121) Production managers and directors in manufacturing	(3567) Health and safety officers
(1122) Production managers and directors in construction	(3550) Conservation and environmental associate professionals
(1161) Managers and directors in transport and distribution	
(1255) Waste disposal and environmental services managers	
4 Non-construction professional, technical, IT, and other office–based staff (excl. managers)[7]	
(3131) IT operations technicians	(3541) Buyers and procurement officers
(3132) IT user support technicians	(3562) Human resources and industrial relations officers
(3534) Finance and investment analysts and advisers	(4121) Credit controllers
(3535) Taxation experts	(4214) Company secretaries
(3537) Financial and accounting technicians	(7129) Sales related occupations nec
(3563) Vocational and industrial trainers and instructors	(7211) Call and contact centre occupations
(3539) Business and related associate professionals nec	(7219) Customer service occupations nec
(3520) Legal associate professionals	(9219) Elementary administration occupations nec
(3565) Inspectors of standards and regulations	(2111) Chemical scientists
(2136) Programmers and software development professionals	(2112) Biological scientists and biochemists
(2139) Information technology and telecommunications professionals nec	(2113) Physical scientists
	(3111) Laboratory technicians
(3544) Estate agents and auctioneers	(3421) Graphic designers
(2413) Solicitors	(2463) Environmental health professionals
(2419) Legal professionals nec	(2135) IT business analysts, architects and systems designers
(2421) Chartered and certified accountants	
(2424) Business and financial project management professionals	(2141) Conservation professionals
	(2142) Environment professionals
(2423) Management consultants and business analysts	(2425) Actuaries, economists and statisticians
(4216) Receptionists	(2426) Business and related research professionals
(4217) Typists and related keyboard occupations	(4124) Finance officers
(3542) Business sales executives	(4129) Financial administrative occupations nec
(4122) Book-keepers, payroll managers and wages clerks	(4138) Human resources administrative occupations
(4131) Records clerks and assistants	(4151) Sales administrators
(4133) Stock control clerks and assistants	(4159) Other administrative occupations nec
(7213) Telephonists	(4162) Office supervisors
(7214) Communication operators	(7130) Sales supervisors
(4215) Personal assistants and other secretaries	(7220) Customer service managers and supervisors
(7111) Sales and retail assistants	(4161) Office managers
(7113) Telephone salespersons	

[7] Managerial, professional & office based staff

5 Construction trades supervisors[8]	
(5250) Skilled metal, electrical and electronic trades supervisors (5330) Construction and building trades supervisors	
6 Wood trades and interior fit-out[8]	
(5315) Carpenters and joiners (8121) Paper and wood machine operatives	(5442) Furniture makers and other craft woodworkers (5319) Construction and building trades nec (25%)
7 Bricklayers[8]	
(5312) Bricklayers and masons	
8 Building envelope specialists[8]	
(5319) Construction and building trades nec (50%)	
9 Painters and decorators[8]	
(5323) Painters and decorators	(5319) Construction and building trades nec (5%)
10 Plasterers[8]	
(5321) Plasterers	
11 Roofers[8]	
(5313) Roofers, roof tilers and slaters	
12 Floorers[8]	
(5322) Floorers and wall tillers	
13 Glaziers[8]	
(5316) Glaziers, window fabricators and fitters	(5319) Construction and building trades nec (5%)
14 Specialist building operatives not elsewhere classified (nec)[8]	
(8149) Construction operatives nec (100%) (5319) Construction and building trades nec (5%)	(9132) Industrial cleaning process occupations (5449) Other skilled trades nec
15 Scaffolders[8]	
(8141) Scaffolders, stagers and riggers	
16 Plant operatives[8]	
(8221) Crane drivers (8129) Plant and machine operatives nec	(8222) Fork-lift truck drivers (8229) Mobile machine drivers and operatives nec
17 Plant mechanics/fitters[8]	
(5223) Metal working production and maintenance fitters (5224) Precision instrument makers and repairers (5231) Vehicle technicians, mechanics and electricians	(9139) Elementary process plant occupations nec (5222) Tool makers, tool fitters and markers-out (5232) Vehicle body builders and repairers
18 Steel erectors/structural fabrication[8]	
(5311) Steel erectors (5215) Welding trades (5214) Metal plate workers, and riveters	(5319) Construction and building trades nec (5%) (5211) Smiths and forge workers (5221) Metal machining setters and setter-operators
19 Labourers nec[8]	
(9120) Elementary construction occupations (100%)	
20 Electrical trades and installation[8]	
(5241) Electricians and electrical fitters (5249) Electrical and electronic trades nec	(5242) Telecommunications engineers
21 Plumbing and heating, ventilation, and air conditioning trades[8]	
(5314) Plumbers and heating and ventilating engineers (5216) Pipe fitters	(5319) Construction and building trades nec (5%) (5225) Air-conditioning and refrigeration engineers
22 Logistics[8]	
(8211) Large goods vehicle drivers (8212) Van drivers (9260) Elementary storage occupations	(3541) Buyers and purchasing officers (50%) (4134) Transport and distribution clerks and assistants

23 Civil engineering operatives not elsewhere classified (nec)[8]	
(8142) Road construction operatives (8143) Rail construction and maintenance operatives	(8123) Quarry workers and related operatives
24 Non–construction operatives[8]	

[8] Skilled trades & operatives

(8117) Metal making and treating process operatives	(9249) Elementary security occupations nec
(8119) Process operatives nec	(9233) Cleaners and domestics
(8125) Metal working machine operatives	(9232) Street cleaners
(8126) Water and sewerage plant operatives	(5113) Gardeners and landscape gardeners
(8132) Assemblers (vehicles and metal goods)	(6232) Caretakers
(8133) Routine inspectors and testers	(9241) Security guards and related occupations
(8139) Assemblers and routine operatives nec	(3319) Protective service associate professionals nec
25 Civil engineers[7]	
(2121) Civil engineers	
26 Other construction professionals and technical staff[7]	
(2122) Mechanical engineers	(3119) Science, engineering and production technicians nec
(2123) Electrical engineers	(3121) Architectural and town planning technicians
(2126) Design and development engineers	(3122) Draughtspersons
(2127) Production and process engineers	(3115) Quality assurance technicians
(2461) Quality control and planning engineers	(2432) Town planning officers
(2129) Engineering professionals nec	(2124) Electronics engineers
(3112) Electrical and electronics technicians	(2435) Chartered architectural technologists
(3113) Engineering technicians	(3531) Estimators, valuers and assessors
(3114) Building and civil engineering technicians	(3116) Planning, process and production technicians
27 Architects[7]	
(2431) Architects	
28 Surveyors[7]	
(2433) Quantity surveyors	
(2434) Chartered surveyors	

APPENDIX C. GLENIGAN PROJECTS REMOVED FROM STOKE-ON-TRENT & STAFFORDSHIRE

This appendix contains a list of all the Glenigan projects removed from the analysis, stating the reason for their exclusion.

Appendix Table 3: Removed Glenigan projects from Stoke-on-Trent & Staffordshire

	Heading	Local authority	Value (£m)	Start date	End date	Reason for omission
1	Mineral Extraction	South Staffordshire		30/08/2017	30/04/2018	Missing Values
2	Industrial Unit (Extension)	Newcastle-Under-Lyme	0.3			Missing dates
3	2 Office/Research & Innovation Centre	Lichfield	0.3			Missing dates
4	Industrial Unit (Extension)	East Staffordshire	0.4			Missing dates
5	5 Residential Development	Newcastle-Under-Lyme	0.4			Missing dates
6	Office Building	Lichfield	0.4			Missing dates
7	Restaurant & Takeaway	East Staffordshire	0.4			Missing dates
8	10 Flats (Conversion/Extension)	Stoke-On-Trent	0.5			Missing dates
9	Road Works	Stafford	0.5			Missing dates
10	Storage & Distribution Depot (New/Conversion)	Stoke-On-Trent	0.6			Missing dates
11	Industrial Unit (Extension)	Lichfield	0.6			Missing dates
12	12 Flats	Cannock Chase	0.6			Missing dates
13	Golf Club House	South Staffordshire	0.6			Missing dates
14	5 Retail Units	Stafford	0.6			Missing dates
15	2 Office Buildings	East Staffordshire	0.6			Missing dates
16	10 Houses	Stafford	0.8			Missing dates
17	10 Houses	South Staffordshire	0.8			Missing dates
18	Warehouse (Extension)	Newcastle-Under-Lyme	0.8			Missing dates
19	Dwellings	Staffordshire	0.8			Missing dates
20	School	Staffordshire	0.8			Missing dates
21	Visitor/Owl Conservation Centre	South Staffordshire	0.8			Missing dates
22	3 Commercial Buildings (New/Extension)	Stafford	0.8			Missing dates
23	Hotel (Extension/Alterations)	East Staffordshire	0.8			Missing dates
24	2 Workshop/Office Buildings	East Staffordshire	0.9			Missing dates
25	13 Houses	Stoke-On-Trent	1.0			Missing dates
26	Storage Building & Vehicle Workshop	Staffordshire Moorlands	1.0			Missing dates
27	Industrial Unit	Staffordshire Moorlands	1.0			Missing dates
28	Nursing Home (Extension)	South Staffordshire	1.0			Missing dates
29	6776 Solar Photovoltaic Panels	Lichfield	1.0			Missing dates
30	14 Houses	Staffordshire Moorlands	1.1			Missing dates
31	12 Houses & 2 Flats/2 Retail Units	Newcastle-Under-Lyme	1.1			Missing dates
32	13 Houses	Newcastle-Under-Lyme	1.1			Missing dates
33	Football Club House/Changing Rooms	Stafford	1.1			Missing dates

	Heading	Local authority	Value (£m)	Start date	End date	Reason for omission
34	Sports Academy (Extension/Alterations)	Stoke-On-Trent	1.2			Missing dates
35	Golf Club House (Extension)	Staffordshire Moorlands	1.2			Missing dates
36	14 Houses & 3 Bungalows	South Staffordshire	1.3			Missing dates
37	26 Flats	Staffordshire Moorlands	1.3			Missing dates
38	2 Restaurants/Cafes	East Staffordshire	1.4			Missing dates
39	19 Residential Units	South Staffordshire	1.4			Missing dates
40	Wine Experience Venue	Stafford	1.5			Missing dates
41	14 Houses & 6 Bungalows	Lichfield	1.5			Missing dates
42	Foodstore	Staffordshire	1.5			Missing dates
43	32 Flats	Stoke-On-Trent	1.6			Missing dates
44	23 Houses	Staffordshire Moorlands	1.7			Missing dates
45	24 Houses	Stafford	1.8			Missing dates
46	Nursing Home (Extension)	Staffordshire Moorlands	1.8			Missing dates
47	Care Home (Extension)	Newcastle-Under-Lyme	1.9			Missing dates
48	29 Residential Units	Stoke-On-Trent	2.0			Missing dates
49	5 Industrial Units & 1 Warehouse Unit (New/Alterations)	Cannock Chase	2.1			Missing dates
50	Marinas Harbour	Stafford	2.5			Missing dates
51	Light Industry & Office/Warehouse	Lichfield	2.5			Missing dates
52	Industrial Building	Stoke-On-Trent	2.6			Missing dates
53	Dwellings	East Staffordshire	2.6			Missing dates
54	Gospel Hall	Stafford	2.6			Missing dates
55	39 Residential Units	Cannock Chase	2.9			Missing dates
56	Metal Recycling Facility	Stoke-On-Trent	3.0			Missing dates
57	25 Houses	Staffordshire Moorlands	3.0			Missing dates
58	49 Houses	East Staffordshire	3.2			Missing dates
59	Care Home	Stoke-On-Trent	3.5			Missing dates
60	45 Houses & 2 Flats	East Staffordshire	3.5			Missing dates
61	63 Residential/Commercial Units(New/Refurb)	Staffordshire Moorlands	4.1			Missing dates
62	55 Houses	Newcastle-Under-Lyme	4.1			Missing dates
63	Industrial/Office & Warehouse Buildings	Stoke-On-Trent	4.5			Missing dates
64	6 Commercial Units	Stoke-On-Trent	4.7			Missing dates
65	65 Houses	Newcastle-Under-Lyme	4.9			Missing dates
66	Warehouse & Office Development	Stoke-On-Trent	5.0			Missing dates
67	School	Lichfield	5.0			Missing dates
68	Industrial Warehouse	Stafford	5.5			Missing dates
69	88 Houses/Flats & 1 Commercial/Community Unit	Lichfield	6.7			Missing dates
70	140 Houses	East Staffordshire	8.7			Missing dates
71	140 Houses	East Staffordshire	10.5			Missing dates

	Heading	Local authority	Value (£m)	Start date	End date	Reason for omission
72	Hospital Retail/Commercial Accommodation	Stoke-On-Trent	10.9			Missing dates
73	10 Office/Industrial/Storage & Distribution Units	East Staffordshire	13.5			Missing dates
74	Bypass	Staffordshire	15.5			Missing dates
75	Storage & Distribution Warehouse	Stoke-On-Trent	18.6			Missing dates
76	300 Residential Units	East Staffordshire	22.5			Missing dates
77	330 Houses	Stafford	24.8			Missing dates
78	450 Residential & Employment Units	Lichfield	33.8			Missing dates
79	450 Residential Units	Lichfield	33.8			Missing dates
80	Distribution Centre	Lichfield	35.0			Missing dates
81	500 Residential Units & 1 Care Home/1 Shop/1 Public House	East Staffordshire	37.7			Missing dates
82	350 Houses	Stoke-On-Trent	55.0			Missing dates
83	814 Student Rooms (New/Extension)	Newcastle-Under-Lyme	55.0			Missing dates
84	Student Flats/Townhouse & Teaching Facility	Newcastle-Under-Lyme	55.0			Missing dates
85	617 Student Rooms (New/Extension)	Newcastle-Under-Lyme	55.0			Missing dates
86	2500 Residential & 14 Commercial Units	East Staffordshire	134.8			Missing dates
87	Design team Services (Refurbishment)	Staffordshire	0.3	05/07/2018	05/07/2019	Consultancy
88	SMART Motorway	Staffordshire	234.0	12/03/2018	15/03/2021	Not in the area
89	Grade Separated Junction	East Staffordshire	28.0	30/05/2016	05/12/2018	In NICP
90	87 Houses	Lichfield	55.0	07/08/2017	13/08/2018	Duplicate
91	260 Houses/Flats	Tamworth	19.5	06/03/2017	27/04/2018	Duplicate

APPENDIX D. SIGNIFICANT GLENIGAN PROJECTS IN STOKE-ON-TRENT & STAFFORDSHIRE

This appendix provides a list of all the significant projects analysed. The projects appear in the order they were put into the LFT.

Appendix Table 4: Significant Glenigan projects in Stoke-on-Trent & Staffordshire

	Description	Local authority	Value (£m)	Start date	End date	Project type
1	1800 Residential & Business Development Units	Cannock Chase	369.5	01/06/2020	29/06/2035	New housing, Private Industrial, Private Commercial
2	Highways Maintenance Contract	Staffordshire	324.9	01/04/2014	01/04/2024	New housing, Private Industrial, Private Commercial
3	Employment Development	Lichfield	178.6	16/07/2018	17/07/2028	Private Commercial, Private Industrial
4	Offices, Hotel, Shops & Leisure	Stoke-On-Trent	154.0	11/11/2013	09/11/2020	New housing, Private Industrial, Private Commercial
5	Motorway	Stafford	136.1	30/03/2018	31/03/2022	New housing, Private Industrial, Private Commercial
6	800 Houses/Flats/1 School & Retail/Commercial Units	Tamworth	119.9	30/09/2019	30/10/2020	New housing, Public Non-housing, Private Commercial, Infrastructure
7	Railway Station (Enhancement)	Staffordshire	97.5	26/10/2022	26/10/2027	New housing, Private Industrial, Private Commercial
8	1100 Houses & 2 School/Local Centres	Tamworth	92.1	05/09/2016	06/09/2021	New housing, Public Non-housing, Infrastructure
9	1100 Houses & Flats	Stoke-On-Trent	68.8	03/02/2020	03/02/2026	New housing, Private Industrial, Private Commercial
10	1600 Residential Units	Staffordshire	60.9	29/08/2017	29/11/2025	New housing, Private Industrial, Private Commercial
11	2000 Houses/Flats/1 Elderly Living Unit & Commercial Units	Stafford	60.1	31/10/2018	30/11/2019	New housing, Public Non-housing, Private Commercial
12	2000 Residential Units	Tamworth	51.6	02/12/2019	02/12/2024	New housing, Private Industrial, Private Commercial
13	7 Elderly Care Centres	Staffordshire	51.3	25/12/2018	06/06/2023	New housing, Private Industrial, Private Commercial
14	Commercial Development	Stoke-On-Trent	49.9	13/01/2020	15/11/2021	Private Commercial, Infrastructure
15	1975 Residential Units & 4 Neighbourhood Centre	Stafford	49.7	24/03/2019	20/04/2020	New housing, Private Commercial, Public Non-housing, Infrastructure
16	Link Road	South Staffordshire	45.5	31/10/2018	31/10/2022	New housing, Private Industrial, Private Commercial
17	Residential Development	Staffordshire	34.4	11/03/2019	08/03/2021	New housing, Private Industrial, Private Commercial
18	900 Residential Units	Cannock Chase	34.4	11/07/2018	12/07/2023	New housing, Private Industrial, Private Commercial
19	Water Pipe	Staffordshire	34.2	05/06/2023	05/06/2027	New housing, Private Industrial, Private Commercial

	Description	Local authority	Value (£m)	Start date	End date	Project type
20	164 Student Flats/12 Commercial Units	Newcastle-Under-Lyme	32.5	31/10/2018	30/11/2019	Public Non-housing, Private Commercial
21	1191 Residential Units	Tamworth	30.7	02/12/2019	02/12/2027	New housing, Private Industrial, Private Commercial
22	Combine Cycle Gas Turbine Power Station	Stafford	30.5	29/10/2018	26/10/2020	New housing, Private Industrial, Private Commercial
23	Office/Research & Industrial/Storage (Extension/Alterations)	Newcastle-Under-Lyme	27.9	15/05/2018	15/02/2019	New housing, Private Industrial, Private Commercial
24	Broadcast Centre	Stoke-On-Trent	27.2	30/08/2017	30/08/2019	New housing, Private Industrial, Private Commercial
25	Railway Track/Viaduct	Lichfield	26.8	11/06/2018	12/06/2023	New housing, Private Industrial, Private Commercial
26	1000 Homes/1 School & 1 Local Centre	Lichfield	25.8	31/10/2018	30/11/2019	New housing, Public Non-housing
27	300 Homes	Staffordshire	24.0	31/10/2018	31/10/2021	New housing, Private Industrial, Private Commercial
28	4 Retail/Restaurant/Pub/Leisure Centre	Tamworth	22.8	31/03/2019	31/03/2021	New housing, Private Industrial, Private Commercial
29	Data Centre	Staffordshire	22.8	31/10/2018	31/10/2020	New housing, Private Industrial, Private Commercial
30	Planned Works Framework	Staffordshire	22.0	27/11/2017	29/11/2021	Housing R&M, Public Non-housing
31	48 Retail Units and a Multi Storey Car park	Cannock Chase	21.8	11/06/2018	05/08/2019	Private Commercial, Infrastructure
32	84 Commercial/Restaurants/Cafes/Retail Units	Cannock Chase	21.1	25/05/2018	22/05/2020	Private Commercial, Infrastructure
33	Housing (Refurbishment)	Tamworth	20.3	03/04/2017	29/03/2019	New housing, Private Industrial, Private Commercial
34	700 Houses/1 Care Home/1 School & 1 Local Centre	Stafford	19.6	31/10/2018	30/11/2019	New housing, Public Non-housing, Private Commercial
35	82 Flats/11 Town Houses & 37 Retail/Commercial Units	Lichfield	19.2	04/06/2018	01/06/2020	New housing, Private Commercial, Public Non-housing, Infrastructure
36	500 Residential Units	Stafford	18.9	24/02/2019	24/03/2023	New housing, Private Industrial, Private Commercial
37	352 Residential Units	Lichfield	18.9	01/02/2016	01/12/2021	New housing, Private Industrial, Private Commercial
38	700 Homes	Tamworth	18.1	31/10/2018	31/10/2021	New housing, Private Industrial, Private Commercial
39	94 Flats/Care Facility/Care home & Nursery	East Staffordshire	17.9	04/03/2019	02/12/2019	New housing, Public Non-housing
40	175 Houses & 12 Employment/Commercial Units	Staffordshire Moorlands	17.3	01/01/2019	01/01/2022	New housing, Private Commercial, Private Industrial, Infrastructure, Infrastructure
41	Link Road	Stoke-On-Trent	16.2	02/07/2018	22/11/2019	New housing, Private Industrial, Private Commercial

	Description	Local authority	Value (£m)	Start date	End date	Project type
42	Link Road/Viaduct	Stoke-On-Trent	16.2	06/08/2018	03/08/2020	New housing, Private Industrial, Private Commercial
43	755 Residential/Care Village/School/Commercial Units	Lichfield	16.0	31/03/2019	30/09/2019	New housing, Public Non-housing, Private Commercial
44	Industrial units	Tamworth	15.5	27/04/2019	02/11/2019	New housing, Private Industrial, Private Commercial
45	939 Student Flats	Stoke-On-Trent	15.1	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
46	700 Homes & Commercial Buildings	East Staffordshire	14.7	18/05/2018	18/05/2019	New housing, Public Non-housing, Private Commercial, Private Industrial
47	630 Residential Units	East Staffordshire	14.0	20/12/2018	17/01/2020	New housing, Private Industrial, Private Commercial
48	Public Services Hub Building	Newcastle-Under-Lyme	14.0	15/08/2016	07/05/2018	New housing, Private Industrial, Private Commercial
49	250 Holiday Lodges & 1 Central Hub Building	Staffordshire Moorlands	13.4	31/03/2019	30/04/2020	Private Commercial, Public Non-housing, Infrastructure
50	506 Flats	Newcastle-Under-Lyme	13.1	28/05/2018	28/06/2019	New housing, Private Industrial, Private Commercial
51	Car Storage Site	Stafford	12.7	19/03/2018	26/10/2018	Infrastructure, Private Industrial
52	Commercial & Residential	Staffordshire	12.5	31/10/2018	31/10/2020	New housing, Private Commercial
53	531 Residential Units/1 School	Stoke-On-Trent	12.0	26/05/2019	22/06/2020	New housing, Public Non-housing
54	3 Commercial Units	Stoke-On-Trent	11.7	05/06/2018	04/06/2019	Private Commercial, Private Industrial
55	500 Houses	Tamworth	11.3	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
56	429 Houses/Bungalows	East Staffordshire	11.1	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
57	475 Residential Units & 1 School	Lichfield	10.9	02/11/2018	30/11/2019	New housing, Public Non-housing, Infrastructure
58	481 Houses	Cannock Chase	10.8	09/05/2019	05/06/2020	New housing, Private Industrial, Private Commercial
59	400 Houses	East Staffordshire	10.3	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
60	510 Residential Units	East Staffordshire	10.3	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
61	12 Retail Units	Lichfield	10.1	14/05/2018	10/05/2019	New housing, Private Industrial, Private Commercial
62	449 Houses	Cannock Chase	10.1	07/02/2019	06/03/2020	New housing, Private Industrial, Private Commercial
63	451 Residential & Commercial Units	Lichfield	9.9	31/10/2018	31/10/2020	New housing, Public Non-housing, Private Commercial, Infrastructure

	Description	Local authority	Value (£m)	Start date	End date	Project type
64	Supermarket & Commercial Units	Tamworth	9.2	31/10/2018	31/10/2019	Private Commercial, Public Non-housing
65	41 Industrial/Office Units	East Staffordshire	8.9	31/10/2018	30/04/2020	Private Industrial, Private Commercial
66	School	East Staffordshire	8.4	10/10/2016	01/09/2018	New housing, Private Industrial, Private Commercial
67	350 Houses	Lichfield	8.0	07/08/2017	03/09/2018	New housing, Private Industrial, Private Commercial
68	5 Commercial Units	East Staffordshire	7.8	28/09/2018	27/04/2019	New housing, Private Industrial, Private Commercial
69	139 Holiday Lodges	Lichfield	7.7	31/10/2018	30/11/2019	Private Commercial, Public Non-housing, Infrastructure
70	325 Homes & 1 School	Staffordshire Moorlands	7.4	16/11/2018	14/12/2019	New housing, Public Non-housing
71	201 Houses	Stoke-On-Trent	7.4	01/09/2016	30/09/2018	New housing, Private Industrial, Private Commercial
72	321 Residential Units	Lichfield	7.3	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
73	Supermarket (Extension)	Stoke-On-Trent	7.2	10/02/2019	09/09/2019	New housing, Private Industrial, Private Commercial
74	280 Houses/Flats	Stafford	7.2	31/03/2019	30/04/2020	New housing, Private Industrial, Private Commercial
75	197 Residential Units	East Staffordshire	6.9	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
76	Industrial Development	Stafford	6.7	14/11/2018	13/11/2019	Private Commercial, Private Industrial
77	320 Houses	Stafford	6.6	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
78	Petrol Filling Station & Restaurant	Stoke-On-Trent	6.5	06/01/2019	05/08/2019	Infrastructure, Private Commercial
79	University Building Development	Staffordshire	6.5	11/06/2018	11/06/2019	New housing, Private Industrial, Private Commercial
80	276 Residential Units	Newcastle-Under-Lyme	6.4	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
81	210 Houses & 1 Convenience Store	South Staffordshire	6.3	31/03/2019	30/04/2020	New housing, Private Commercial
82	300 Houses	East Staffordshire	6.2	15/08/2016	10/09/2018	New housing, Private Industrial, Private Commercial
83	Commercial Units	Stafford	5.7	31/10/2018	30/04/2019	Private Commercial, Private Industrial, Public Non-housing
84	Warehouse & Distribution (Extension)	Stoke-On-Trent	5.6	02/07/2018	07/01/2019	New housing, Private Industrial, Private Commercial
85	Retail Mezzanine Floor (Extension/Alterations)	Tamworth	5.6	08/01/2018	12/10/2018	New housing, Private Industrial, Private Commercial
86	69 Flats & 41 Houses/Town Houses	Lichfield	5.5	24/03/2019	20/04/2020	New housing, Private Industrial, Private Commercial

	Description	Local authority	Value (£m)	Start date	End date	Project type
87	204 Flats & 152 Houses	Stoke-On-Trent	5.5	28/03/2019	24/04/2020	New housing, Private Industrial, Private Commercial
88	2 Industrial Units	Staffordshire Moorlands	5.2	15/05/2017	24/08/2018	New housing, Private Industrial, Private Commercial
89	200 Houses/Flats	Stafford	5.2	30/04/2018	27/05/2019	New housing, Private Industrial, Private Commercial
90	61 Houses & 36 Flats	Tamworth	5.2	24/09/2018	24/10/2019	New housing, Private Industrial, Private Commercial
91	180 Houses & 20 Bungalows (New/Extension)	Lichfield	5.2	31/03/2019	30/04/2020	New housing, Private Industrial, Private Commercial
92	180 Residential Units & 1 Light Industry/Storage	Cannock Chase	5.1	31/10/2018	31/10/2019	New housing, Private Industrial, Private Commercial
93	Warehouse	Staffordshire	5.0	04/03/2019	02/12/2019	New housing, Private Industrial, Private Commercial
94	183 Houses & 10 Flats	Stoke-On-Trent	5.0	10/10/2017	25/09/2018	New housing, Private Industrial, Private Commercial
95	136 Residential Units	South Staffordshire	4.9	31/10/2018	30/11/2019	New housing, Private Commercial
96	210 Residential Units	Tamworth	4.9	13/12/2018	10/01/2020	New housing, Private Industrial, Private Commercial
97	300 Student Flats	Stoke-On-Trent	4.9	10/07/2017	08/02/2019	New housing, Private Industrial, Private Commercial
98	University Central Science Laboratories	Newcastle-Under-Lyme	4.8	02/10/2017	31/03/2019	New housing, Private Industrial, Private Commercial
99	Warehouse/Industrial Units (Extension)	Stafford	4.7	31/03/2019	30/09/2019	New housing, Private Industrial, Private Commercial
100	200 Homes	Stafford	4.7	31/10/2018	31/10/2019	New housing, Private Industrial, Private Commercial
101	200 Residential Units	South Staffordshire	4.7	13/11/2018	12/11/2019	New housing, Private Industrial, Private Commercial
102	200 Houses	Stoke-On-Trent	4.7	05/02/2018	02/09/2019	New housing, Private Industrial, Private Commercial
103	163 Homes/Assisted Care Units & 1 Neighbourhood Centre	Lichfield	4.5	27/03/2019	23/04/2020	New housing, Public Non-housing, Private Commercial
104	3 Storage/Distribution & Industrial Units	East Staffordshire	4.4	31/03/2019	30/09/2019	New housing, Private Industrial, Private Commercial
105	168 Houses/Commercial Units	Staffordshire Moorlands	4.3	31/03/2019	30/04/2020	New housing, New housing, New housing, New housing
106	134 Houses & 8 Flats	Stafford	4.2	16/01/2019	15/01/2020	New housing, Private Industrial, Private Commercial
107	Warehouse & Office	Stoke-On-Trent	4.1	18/06/2018	24/12/2018	Private Industrial, Private Commercial

	Description	Local authority	Value (£m)	Start date	End date	Project type
108	Industrial Building	Stoke-On-Trent	4.1	01/05/2019	06/11/2019	New housing, Private Industrial, Private Commercial
109	150 Residential Units	East Staffordshire	3.9	31/03/2019	30/09/2019	New housing, Private Industrial, Private Commercial
110	141 Houses & 9 Flats	Lichfield	3.9	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
111	147 Houses	Stoke-On-Trent	3.8	18/06/2018	29/07/2019	New housing, Private Industrial, Private Commercial
112	73 Homes/Food Store/Non Food Retail/Restaurant/Pub Units	Lichfield	3.7	15/01/2018	08/10/2018	Private Commercial, New housing
113	Care Home	Stafford	3.4	06/08/2018	06/05/2019	New housing, Private Industrial, Private Commercial
114	6 Broiler Rearing Units	Lichfield	3.2	31/10/2018	30/04/2019	New housing, Private Industrial, Private Commercial
115	125 Residential Units	Stafford	3.2	31/03/2019	30/04/2020	New housing, Private Industrial, Private Commercial
116	Storage & Distribution Depots	Lichfield	3.2	07/12/2018	19/06/2019	New housing, Private Industrial, Private Commercial
117	124 Residential Units	Newcastle-Under-Lyme	3.2	31/10/2018	30/11/2019	New housing, Private Industrial, Private Commercial
118	135 Houses	East Staffordshire	3.2	26/01/2019	23/02/2020	New housing, Private Industrial, Private Commercial
119	Warehouse & Roundabout/Road Works	Staffordshire Moorlands	3.0	10/12/2018	22/06/2019	Private Industrial, Infrastructure
120	Industrial Warehouse & Office Building	Stoke-On-Trent	2.8	29/01/2019	11/08/2019	Private Industrial, Private Commercial
121	2 Warehouse/Industrial Buildings	Stafford	2.7	03/09/2018	11/03/2019	New housing, Private Industrial, Private Commercial
122	120 Residential Units	East Staffordshire	2.6	31/03/2019	30/09/2019	New housing, Private Industrial, Private Commercial
123	Production & Storage Building (Extension)	Lichfield	2.5	29/01/2019	11/08/2019	New housing, Private Industrial, Private Commercial
124	Access Road	Staffordshire	2.4	31/10/2018	30/04/2019	New housing, Private Industrial, Private Commercial
125	Warehouse	Staffordshire	2.4	01/04/2019	01/01/2020	New housing, Private Industrial, Private Commercial
126	Care Home	Stafford	2.2	31/10/2018	31/07/2019	New housing, Private Industrial, Private Commercial
127	2 Industrial/Warehouse Units	Stoke-On-Trent	2.2	12/02/2019	25/08/2019	New housing, Private Industrial, Private Commercial
128	5 Employment Units	Stoke-On-Trent	2.1	24/07/2017	31/08/2018	New housing, Private Industrial, Private Commercial

	Description	Local authority	Value (£m)	Start date	End date	Project type
129	Industrial/Warehouse Building (Alterations)	East Staffordshire	1.8	25/09/2017	31/05/2018	New housing, Private Industrial, Private Commercial
130	Office/Light Industry/Warehouse	Cannock Chase	1.8	20/08/2018	19/11/2018	Private Commercial, Private Industrial
131	Light Industrial/Warehouse	Stoke-On-Trent	1.8	31/10/2018	30/04/2019	New housing, Private Industrial, Private Commercial
132	3 Industrial/Warehouse Units	East Staffordshire	1.5	26/02/2018	21/09/2018	New housing, Private Industrial, Private Commercial
133	Industrial & Warehouse	Stoke-On-Trent	1.5	31/03/2019	30/09/2019	New housing, Private Industrial, Private Commercial
134	6 Agricultural Storage Units	Stafford	1.4	18/06/2018	24/12/2018	New housing, Private Industrial, Private Commercial
135	Builders Merchants & Employment Units (New/Extension)	East Staffordshire	1.1	11/06/2018	10/12/2018	New housing, Private Industrial, Private Commercial
136	Egg Production Unit	Lichfield	1.1	09/11/2018	22/05/2019	New housing, Private Industrial, Private Commercial

APPENDIX E. NICP AND LEP PROJECTS IN STOKE-ON-TRENT & STAFFORDSHIRE

This appendix provides a list of all the NICP and LEP projects analysed. The projects appear in the order they were put into the LFT.

Appendix Table 5:NICP and LEP projects in Stoke-on-Trent & Staffordshire

	Name	Value (£m)	Start date	End date	Source
1	Severn Trent Water: Water Service AMP6	219.4	01/04/2016	01/04/2019	NICP
2	Severn Trent Water: Wastewater Service AMP6	216.5	01/04/2016	01/04/2019	NICP
3	Highways Maintenance Block Funding (SR10 allocation)	81.2	01/04/2016	01/04/2020	NICP
4	Eon Central Networks West (WMID) RIIO	53.6	01/04/2016	01/04/2020	NICP
5	Local Enterprise Partnerships Allocation for Transport in Strategic Economic Plans - West Midlands	45.7	01/04/2016	01/04/2020	NICP
6	Integrated Transport Block	29.3	01/04/2016	01/04/2020	NICP
7	LEP i54 Western Extension	28.8	01/04/2019	01/04/2021	LEP
8	A50 Uttoxeter	28.2	01/04/2016	01/04/2017	NICP
9	South Staffordshire Water: Water Service AMP6	28.1	01/04/2016	01/04/2019	NICP
10	NGGD West Midlands RIIO-GD1	26.6	01/04/2016	01/04/2020	NICP
11	Local Authority Major Schemes - Committed and Approved - West Midlands	16.1	01/04/2016	01/04/2020	NICP
12	Challenge Fund Tranche 1 - West Midlands	11.9	01/04/2016	01/04/2018	NICP
13	Stafford Area Improvement Scheme	11.6	01/04/2016	01/04/2016	NICP
14	National Productivity Investment Fund Round 1 West Midlands	10.4	01/04/2019	01/04/2020	NICP
15	West Midlands Development programme	9.8	01/04/2016	01/04/2020	NICP
16	West Midlands Construction programme	5.8	01/04/2016	01/04/2020	NICP
17	Challenge Fund - Tranche 2A West Midlands	2.6	01/04/2018	01/04/2018	NICP

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Version	Date	Details of modifications
First draft	July 2018	First collated draft for initial consultation
Second draft V4.0	September 2018	Additions from LEP, updates & corrections
V4.1	October	Minor typographical corrections
V4.2	March 2019	Link added to CITB digital skills report

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