Construction labour and skills analysis for Kent, Medway & East Sussex

Final report

Client: South East LEP
Authors: Doug Forbes, Stuart Greenacre and Andy Barron
Approved by: Malcolm Horner and Andy Barron
Date: April 2018

Version	Date	Details of modifications
	28 Nov17	First draft for consultation
	April 2018	Updates to demand data to take into account LEP contributions Updated recommendations and corrections

CITB
Bircham Newton
Kings Lynn
Norfolk
PE31 6RH
t: +44 (0)344 994 4400
www.citb.co.uk

CITB is registered in England and Wales Charity No 264289 and in Scotland Charity No SC044875

Whole Life Consultants Limited
Dundee University Incubator
James Lindsay Place
Dundee
DD1 5JJ
t/f: +44 (0)1382 224 304
enquiries@wlcuk.com

Whole Life Consultants Ltd is registered in Scotland as SC259987, VAT number 852809506
Registered office c/o 14 City Quay, Dundee DD1 3JA

Executive Summary

This report summarises research undertaken by CITB to identify the opportunities, risks and issues facing employers and training providers in the construction sector in Kent, Medway and East Sussex. It accompanies a similar report covering the construction sector in Essex, published in December 2015. This report presents the likely occupational demand arising in Kent, Medway and East Sussex. This is based on analysis of 889 construction projects but also takes into consideration estimates the occupational demand from repair and maintenance work. It has also quantified the current supply of labour and skills training in the LEP area, to identify potential risks and priorities for partners and industry to tackle. A joined up approach between the LEP, providers, industry and wider partners across the South East will be needed in order to realise the opportunities that activity in the construction sector can generate in developing skills, creating jobs and enhancing the local economy.

The Industry

Construction is a significant part of the economy of Kent, Medway and East Sussex, employing 114,280 construction workers and accounting for around 30% of construction employment in the South East Region. The sector is experiencing a high employment growth of 16.6%/yr. (2016/17). The sector is also an enabler of economic growth and job creation by enhancing the built environment, and creating the facilities required of a modern economy to address 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.

The sector has a highly mobile workforce which is willing to travel to construction projects across the South East, London and neighbouring regions. This works both ways, and workers also travel into Kent, Medway and East Sussex (Kent, Medway and East Sussex) area to service construction project labour requirements. However, there are significant risks which the industry needs to face in coming years in this LEP area, notably an ageing workforce, a need to improve the image of a career in the industry, potentially significant impacts on the migrant workforce resulting from BREXIT which will be felt hardest in London and the South East, and a continuing 'draw for workers' to service major projects in London. It is also a sector which is dominated by micro and small companies, which account for 99.5% of all the construction companies based in Kent, Medway and East Sussex (Kent, Medway and East Sussex) area. Micro companies alone account for over 95% of all construction companies in the LEP area. Self-employment within construction in Kent, Medway and East Sussex (Kent, Medway and East Sussex) LEP is now 23% above 2012/13 levels, accounting for 47,500 workers. This does mean finding an inclusive way to engage and capture industry views is more challenging.

Training and Education

The total number of construction training achievements in Kent, Medway and East Sussex (Kent, Medway and East Sussex) area for the period 2012/13 to 2015/16 has been around 16,040, with 35% being competence based and 65% being knowledge. Competence based achievements are the stronger benchmark for tracking the supply of construction training, and the most recent figures indicate 1,130 construction competence qualification achievements in Kent, Medway and East Sussex in 2015/16.

Around 100 training providers are delivering construction-relevant FE courses within Kent, Medway and East Sussex (Kent, Medway and East Sussex) LEP area, with ten providers delivering over 92% of provision. Achievement numbers are not surprisingly highest in the areas of high population density and/or where the major colleges within the LEP are located, including Medway, Maidstone, Swale, Thanet, Canterbury and Eastbourne local authority areas.

Training is delivered across the full range of construction occupations, with good levels of competence qualifications achievements for **Civil engineering operatives**, **Plant operatives**, **Wood trades and Interior fit-out**, **Glaziers**, **Plasterers and dry liners**, **Construction trades supervisors**, **Scaffolders**, **Building envelope specialists**, and **Painters and decorators** occupations. The occupations where the level of competence qualifications falls below the levels we might expect for the LEP includes **Specialist building operatives**, **Other construction professional and technical staff**, and **Floorers**

The Area has experienced a 17% decrease in the number of construction learner starts over the last four years, matching the decline in the wider South East region as a whole. However, this has mainly been due to a decline in learner starts in non-Ofqual registered qualifications at one large training provider. If the figures for this provider are stripped out, the overall reduction in construction learner starts in Kent, Medway and East Sussex has only been just 4%, significantly better than the 17% reduction for the South East as a whole.

Construction apprenticeship starts in the LEP have increased 30% from 2012/13 to 2015/16, most notably in **Wood trades and interior fit out**, **Plumbing and HVAC** trades and **Electrical trades and installation**. CITB and the British Army are the largest providers of construction apprenticeships to the LEP. Occupations which have flat-lined over the last four years in terms of growth in apprenticeship starts include **specialist building operatives nec**, **plant mechanics/fitters**, **building envelope specialists**, **construction managers** and **steel erectors and structural**. Occupations which have experienced a decrease in apprenticeship starts are **painters & decorators and floorers**.

HE provision in Kent, Medway and East Sussex is focused predominantly in the construction area of **Architecture**, which makes up over 95% of construction HE starts within the in LEP 2015/16. There are a high number of HE achievements as a percentage of the existing workforce in the Kent & East Sussex for **Architects**. HE occupational training which has also seen reduction since 2011 for **building** and **civil engineering**, and **construction project managers/construction trade supervisors** professions. **planning** provision has also reduced to zero, as has **landscape & garden design** (which is also true of the South East as a whole).

Future Project Pipeline and Skills Demands-

The labour demand arising from the construction spend in Kent, Medway and East Sussex (is projected to peak in 2018, with infrastructure, non-housing repair & maintenance and private commercial construction requiring the most workers. The occupations which will experience the greatest demand are:

1. Non-construction professional, technical, IT & other office-based
2. Wood trades & interior fit-out
3. Electrical trades and installation
4. Other construction process managers
5. Plumbing & HVAC Trades
6. Senior, executive & business process managers
7. Painters and decorators
8. Other construction professionals and technical staff
9. Labourers
10. Building envelope specialists
11. Bricklayers
12. Specialist building operatives
13. Plasterers and dryliners

Occupations where there is a risk of labour shortages

In the short term, the occupations at most risk of demand outstripping current employment estimates are **Civil engineering operatives**, **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives**. It is also likely that demand will outstrip supply for **Glaziers**, **Floorers** and **Painters & decorators**. Many of these occupations are also at risk of suffering shortfalls in labour supply in neighbouring areas including **Civil engineering operatives**, **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives** in Kent, Medway and East Sussex, **Civil engineering operatives** and **Non-construction operatives** in Kent, Medway and East Sussex (Essex) area; and **Scaffolders** in the London East and London South GLA area.

In the longer term, occupations most at risk of labour supply shortages include **Civil engineering operatives**, **Plant operatives** and **Construction project managers**. Other occupations at risk include **floorers**, **painters & decorators**, **other construction professionals and technical staff**, **other construction process managers**, **construction project managers**, **non-construction professional, technical, it & other office based staff**, **plant operatives**, **logistics** and **steel erectors/structural fabrication**. These longer term labour supply risks are also likely to be compounded in the Area for those occupations that have the same issues identified in neighbouring LEP areas, including **civil engineering operatives**, **floorers**, **scaffolders, other construction professionals and technical staff**, **construction project managers**, **non-construction professional, technical, it & other office based staff**, **plant operatives**, **logistics** and **steel erectors/structural fabrication** in Kent, Medway and East Sussex.

Occupations where there is a risk of lack of training

There appears to be good provision across the range of occupations, with a core of providers delivering the majority of training. There is good provision of competence qualifications for **civil engineering operatives**, **plant operatives**, **wood trades and interior fit-out**, **glaziers, plasterers and dry liners**, **construction trades supervisors, scaffolders, building envelope specialists**, and **painters and decorators.**

However, there are occupations, such as **roofers**, **specialist building operatives**, **other construction professional and technical staff**, and **floorers**, where the levels of competence based training appear to be lower than we would expect. Some of these occupational training areas are also at risk of not being able to provide the volume of training in neighbouring areas, including provision for **specialist building operatives** and **floorers** in the Coast to Capital LEP area, and **roofers** in the GLA area.

In terms of the quality of occupational training, provision is not fully in place for **civil engineering operatives**, **floorers and painters & decorators**, **plasterers and dry liners**, **scaffolders** and **non-construction operatives**. This is also the case with the training offer for **civil engineering operative**, **plasterers and dry liners** and **scaffolders** occupations in the neighbouring Coast to Capital LEP area.

Recommendations

The report offers recommendations around addressing five opportunities:

1. Establish a construction action plan. [The South East LEP recognises that similar issues exist across the whole of the LEP area and is developing a LEP wide action plan.]
2. Develop and strengthen collaborative partnerships. With a view to building collaborative holistic action plans and encouraging local stakeholders to input to, and take ownership of, the construction skills actions. That should include ensuring that there is appropriate construction sector representation on the LEP Employer Panel being formed.
3. Develop skills and training pathways. Ensure training is appropriate for local needs and businesses. Develop Kent, Medway and East Sussex 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 and adults. 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 those bidding for construction and infrastructure contracts or those funding developments to be mandated to include provision for recruitment, training, apprenticeships and outreach.

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1. Introduction

The Kent, Medway and East Sussex area reviewed consists of the local authorities south of the Thames listed in Table 1.

Figure 1 shows the entire area of the South East LEP. The area in pink has not been considered as part of this analysis but the area in green has been included.

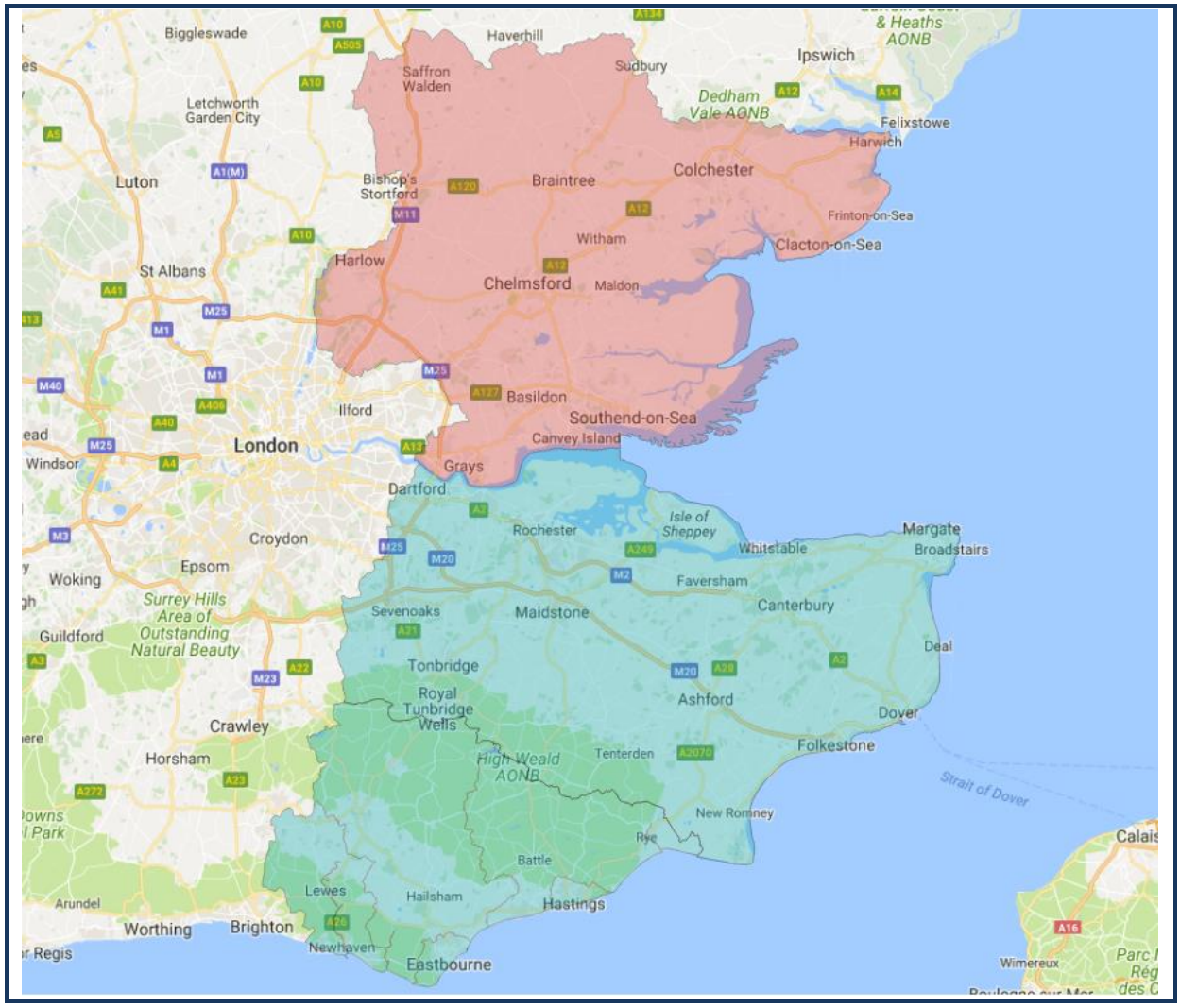

Figure 1: Map of the South East LEP showing Kent, East Sussex and Medway in green

Table 1: Local authorities analysed in the research

Local Authority
Ashford
Canterbury
Dartford
Dover
Eastbourne
Gravesham
Hastings
Lewes
Maidstone
Medway
Rother
Sevenoaks
Shepway
Swale
Thanet
Tonbridge and Malling
Tunbridge Wells
Wealden

2. Demand analysis methodology

2.1. Introduction

The Construction Skills Network (CSN) provides labour market intelligence for the construction industry. Developed by Experian on behalf of CITB it forecasts annual changes in the volume of activity and labour demand in each of 12 UK regions for the next five years. 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 overcome of any shortcomings in the sources of data; and
- how the LFT converts output into labour demand.

2.2. Calculating construction output

2.2.1. Data sources

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

2.2.2. 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 (2017 quarter 2) 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 Table 2. 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 Pareto's Law 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.

Table 2: 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 thoroughly inspected and 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, whose forecasts extend only as far as 2021, we have limited our analysis of the Glenigan data to the annual spends up to and including 2021.

2.2.3. 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. For this report we have used the Autumn 2016 NICP which includes details of around 720 projects valued at some £500bn.

The NICP data is examined to identify infrastructure projects or programmes of work taking place in Kent, Medway and East Sussex 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 Table 2. Projects in the Glenigan dataset and the NICP are combined (ensuring that there is no double counting) to create a pipeline of 'denominated' projects for the area. We have only considered those projects which are specifically allocated to Kent, Medway and East Sussex in the NICP (i.e. projects at a national level have not been considered).

The Autumn 2016 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 with data in Glenigan.

2.2.4. 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

2.3. 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.

1. Considering the government region within which Kent, Medway and East Sussex lies (in this case, the entire South East region), identify only the new build in the denominated projects by removing all repair and maintenance projects.
2. Compare the output identified in the denominated 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.
3. If in any sector the denominated 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 denominated project*** is factored by the following ratio:

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

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 denominated projects and those whose value or probability of realisation is over-optimistic.

4. To take account of housing repair and maintenance (R&M) at the LEP level, it is assumed that the proportion of the total output represented by housing R&M is the same at the LEP 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

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

2.4. Dealing with the 'cliff edge'

As the time horizon extends there is less clarity on what is planned. As a result, the number of denominated 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.

2.5. Calculating total labour demand

Our Labour Forecasting Tool is used to determine the labour demand generated by the construction outputs in the peak year calculated as described in Sections 2.2, and 2.4. 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 A. 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 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 Table 2.

3. Labour demand in the South East LEP

3.1. Introduction

The following sections provide an estimate of the labour demand that construction investment will create across Kent, Medway and East Sussex over the period 2017-2021. They report the outputs determined from the analysis described in Section 2 and the labour demand they generate as calculated by the Labour Forecasting Tool.

3.2. Pipeline of denominated projects

3.2.1. Glenigan pipeline analysis

The initial review of the Glenigan database identified 1,019 projects in Kent, Medway and East Sussex . Of these 122 were removed due to missing dates. Also excluded were eight projects which were clearly identified as consultancy projects and two duplicated projects. A full set of the projects which were omitted from the analysis is provided in Appendix B. The spend in projects which were removed because of missing dates is around 3.5% of the total pipeline. It is possible that this work will take place at some undefined 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, but an assessment of the labour demand is made in the estimates of other work from the additional projects.

The Mean Value Theorem was applied to the remainder of the pipeline to identify the significant projects. The process identified 228 significant projects accounting for 79% 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.

Table 3 shows the number of significant projects within Kent, Medway and East Sussex , the percentage of spend arising from the significant projects and the total spend. The construction spend shown in this table takes account of any adjustments for engineering works and any incomplete, duplicate or consultancy projects. Values are shown in 2017 prices, the base price used in the Glenigan database.

Table 3: Key data for significant projects in Glenigan[1]

	Number of projects	Construction spend (£m – 2017 values)
All Glenigan projects	887	£8,484
Significant Glenigan projects	228	£6,718
Percentage within significant projects	**26%**	**79%**

Appendix C provides a full breakdown of the significant projects and their construction values. The peak year for the Glenigan spend profile is 2018. The location of the significant projects within Kent, Medway and East Sussex can be seen in Figure 2. The radius of the markers is proportional to the value of the work taking place.

[1] The values in this table are the values from the Glenigan pipeline to which the construction element percentage has been applied and thus reflect the adjusted values of infrastructure projects values to distinguish between construction and engineering construction.

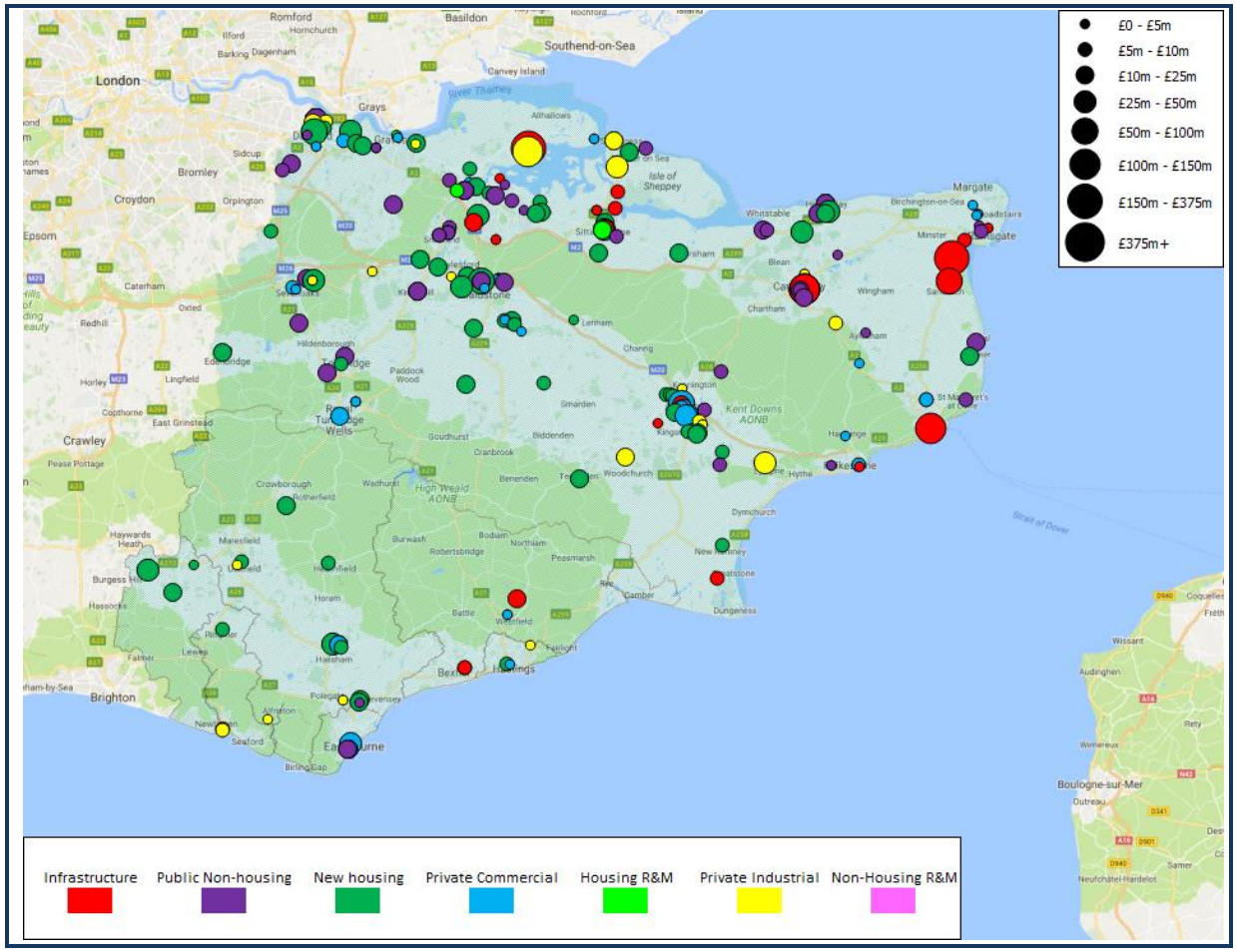

Figure 2: Location of significant projects included in the analysis

3.2.2. Glenigan & NICP spend analysis

Implementing the methodology outlined in Section 2 leads to the following findings for 2018, the peak year for denominated projects. The peak year is used because the tail off in the denominated projects is more likely to be due to a lack of future planning rather than an actual tail off in workload.

Table 4 shows the distribution by sector of new build spend for the total pipeline of denominated projects.

Table 4: New-build construction spend by project type in 2018 (total denominated project pipeline)

Project Type	Construction spend in 2018 (2017 values - £m)	% of total
New Housing	827	35%
Infrastructure	798	33%
Private Commercial	372	16%
Public Non-housing	187	8%
Private Industrial	179	8%
Total	**2,378**	**100%**

Table 5 shows the infrastructure construction spend from both Glenigan and the NICP in 2018. by sub-sector. Appendix D provides a full breakdown of the NICP and LEP projects and their construction values.

Table 5: Construction spend per infrastructure sub-type in 2018 (total denominated project pipeline)

Project Type	Construction spend in 2018 (2017 values - £m)	% of total
Transport	321	40%
Energy	258	32%
Water	159	20%
General Infrastructure	37	5%
Flooding	23	3%
Total	**798**	**100%**

3.3. Estimate of future total labour demand

As outlined in Section 2, the denominated 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 an employment growth rate included. This shows the labour demand arising from the new build Glenigan and NICP projects. Any R&M included in Glenigan or the NICP is also shown. The shaded area shows the likely total labour demand arising from estimates of other work. The total construction labour demand including the volume of R&M imputed from the CSN model peaks for the area in 2021 at 89,550.

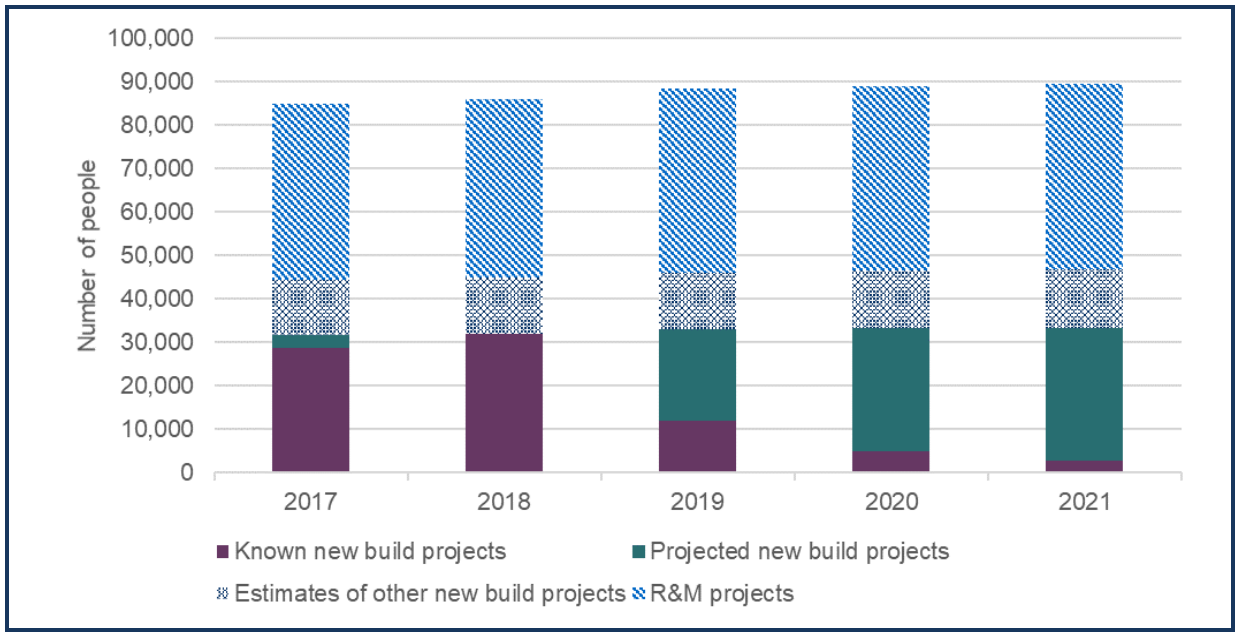

Figure 3: Total construction labour demand including estimates for both R&M and estimates of other work

3.3.1. Breakdown of labour demand by occupation

For the peak year in Glenigan of 2017 the detailed breakdown by each of the 28 occupational groups for the Glenigan and the NICP projects is shown in Figure 4. This shows the breakdown by occupation for both the pipeline of denominated projects and the estimates of other work.

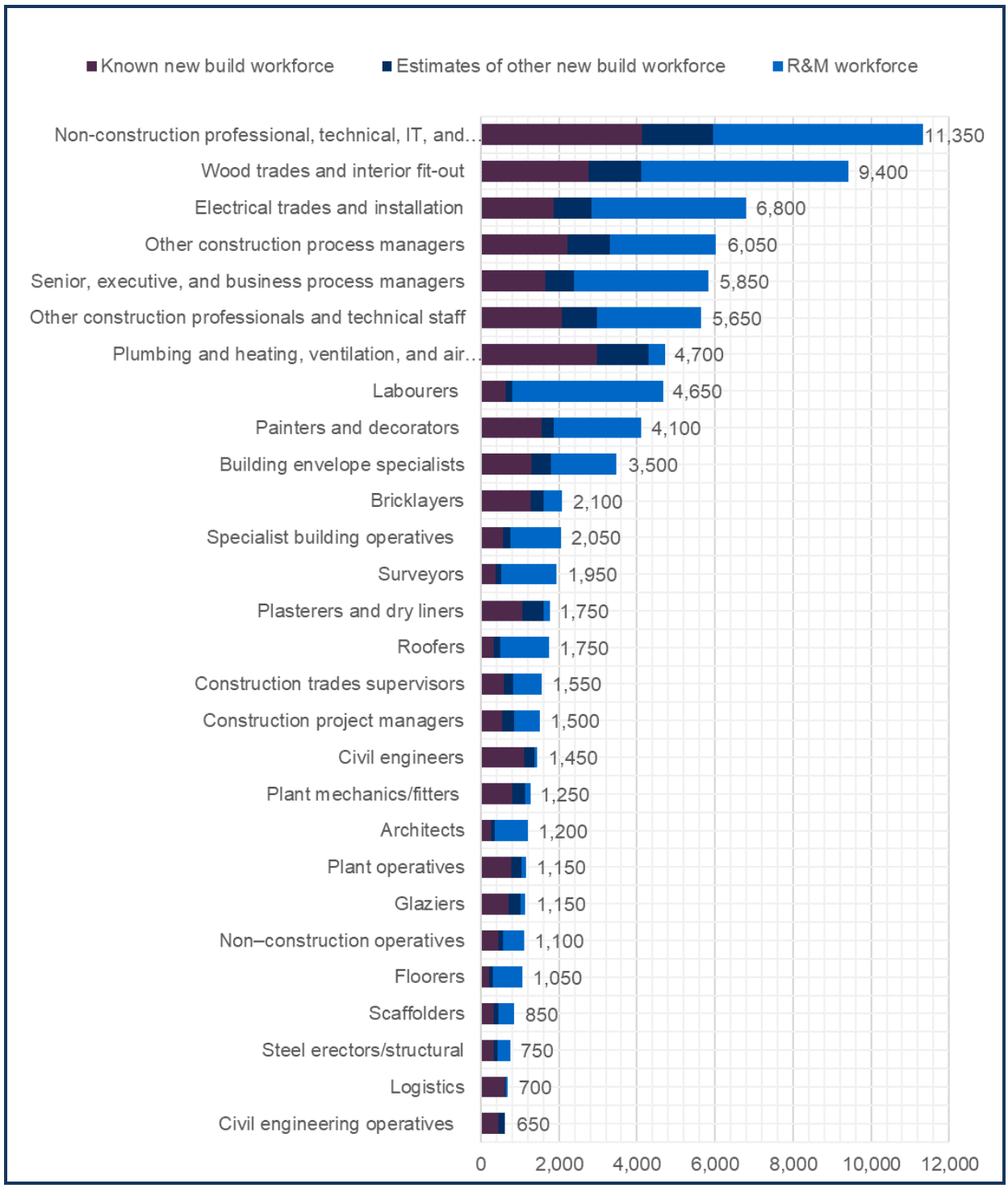

Figure 4: Construction labour demand by occupation in the peak year

3.3.2. Breakdown of labour demand by project type

Table 6 shows the labour demand generated by the denominated projects and the estimates of other work in 2018.

Table 6: Labour demand by work type in 2018

Project Type	Labour demand from denominated projects (People)	Labour demand from estimates of other work (People)	Total labour demand (People)	% of total
Non-housing R&M	-	23,900	23,900	28%
Private Commercial	7,100	12,300	19,400	22%
Housing R&M	1,950	15,200	17,150	20%
New Housing	10,350	400	10,750	13%
Infrastructure	7,850	-	7,850	9%
Public Non-housing	3,550	-	3,550	4%
Private Industrial	3,200	100	3,300	4%
Total	34,000	51,900	85,900	100%

3.4. Summary of demand

- The labour demand arising from the construction spend in Kent, Medway and East Sussex peaks at around 89,550 people in 2021, taking account of estimates of other work including R&M in addition to the pipeline of denominated projects.
- During 2018, the peak year of the denominated projects pipeline demand, the most labour-intensive occupation group is Non-construction professional, technical, IT, and other office–based staff (excl. managers) with an annual demand of 11,350 people.
- The estimate of the three largest labour demands in the trade occupations for the peak year of 2018 are as follows:
  - The trade occupation for which demand is highest is “Wood trades and interior fit-out” with a requirement for 9,400 people;
  - “Electrical trades and installation” trades follow with 6,5800 people.
  - “Plumbing and heating, ventilation, and air conditioning trades” rank third, with a demand of 4,700 people.

4. Construction labour supply in Kent, Medway and East Sussex

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

The first part of this section takes a view on the current construction employment levels in Kent, Medway and East Sussex and how this relates to overall construction employment across the wider South East region and the UK as a whole. This report considers the area including the counties of Kent and East Sussex as well as the unitary authority of Medway (part of the South East LEP) and falls entirely within the South East region. All comparisons have therefore been made against the South East region as a whole 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 part of this section, whilst training occurs at Further Education (FE) and Higher Education (HE) levels, the main focus of this report is on the FE training that takes place. This is because FE tends to be sourced and delivered in closer proximity to the home and workplace. Higher Education in the region is also analysed, but should be considered in the context of the enhanced mobility levels of the learners at this level.

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

4.1. Existing workforce

- The Kent, Medway and East Sussex construction workforce has experienced positive growth of 16.6% in the year to March 2017, and currently employs 114,280 construction workers.
- There has been a 27% increase in the number of micro sized construction businesses from 2013 to 2017 within the South East LEP, accounting for almost all (over 99%) of the total growth in construction businesses in the LEP over this period.
- Self-employment within construction in the Kent, Medway and East Sussex is now 23% above 2012/13 levels at 47,500 workers.

An analysis of the Annual Population Survey shows that the Kent, Medway and East Sussex area accounts for around 30% of construction employment in the South East region as a whole.[2] Please note this employment is 'workplace' analysis – i.e. it is the number of workers employed by employers within the South East LEP.

[2] ONS/NOMIS (2017) Annual Population Survey workplace analysis by industry Apr 2016 to Mar 2017

Table 7 applies the annual percentage shares across the CSN occupational breakdown for the South East region as a whole to give an estimate of total employment at occupational and industry level in Kent, Medway and East Sussex . For comparison, the wider South East region has been included.

After a strong growth in construction employment of 6.2% in 2013/14, two years of slight contraction followed before the number of construction workers in the LEP returned to a growth of an impressive 16.6% in 2016/17, outperforming the growth in the South East region as a whole (2.1%) this year by some margin. This is shown in Figure 5.

Figure 5: Year on year change in Construction Employment (Experian/CITB & NOMIS 2017)

The number of construction businesses within Kent, Medway and East Sussex has increased slightly from a 27% share of all construction businesses across the South East in 2013 to a 28% share in 2017. In actual numbers, the increase in construction businesses in Kent, Medway and East Sussex is 2,990 from 2013 to 2017, a 25% rise over this period. Across the South East region there was an increase of around 9,650 businesses over the same time period, a rise of 22% on 2013 levels. This is shown in Figure 6.

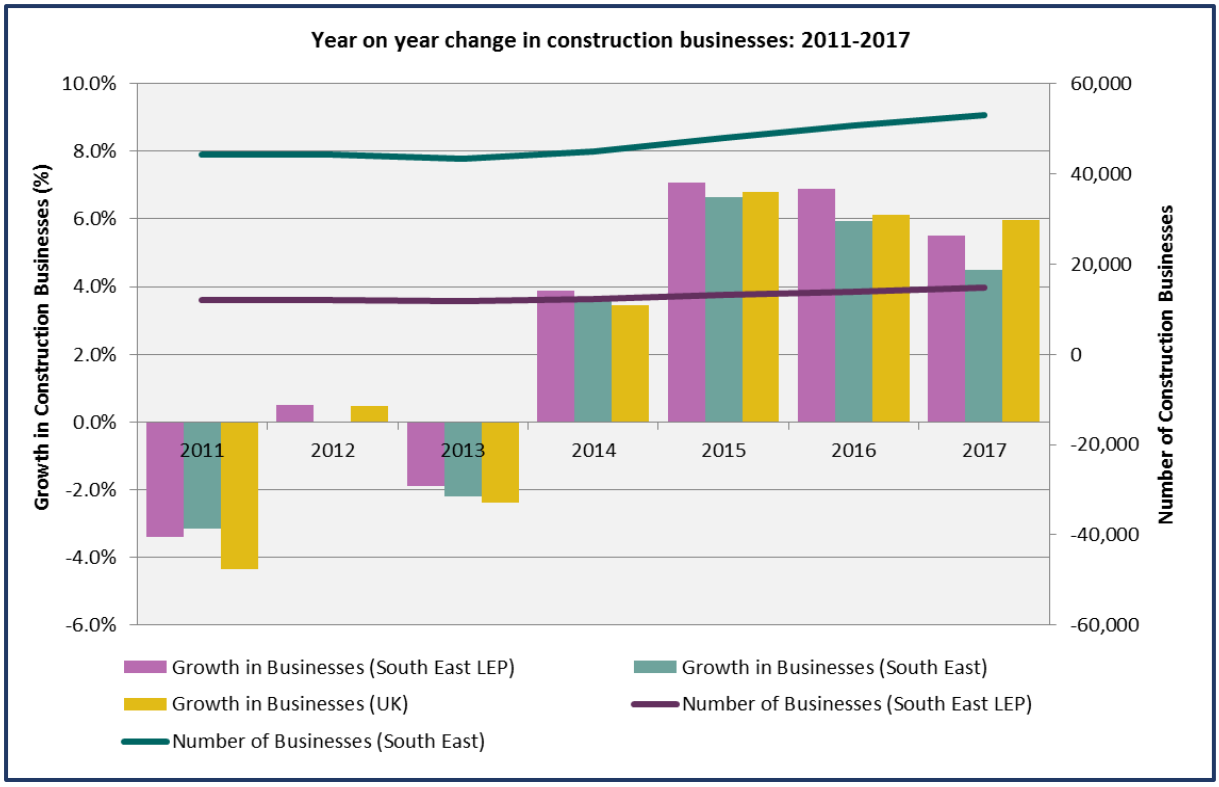

Figure 6: Year on year change in Construction Businesses (UK Business Count, NOMIS 2017)

Figure 7 shows the distribution of construction businesses within the South East LEP, and Figure 8 shows the distribution of the construction workforce. There are noticeable differences;

- Comparing business to workforce distribution indicates that Maidstone, Sevenoaks and Medway all have notably higher shares of businesses compared to workforce and are therefore likely to have more micro (less than 10 employees) and small (10-49 employees) sized firms; and
- More large (250+ employees) and medium (50-249 employees) sized firms are likely to be located within the Ashford, Dartford, Eastbourne, Thanet and Rother areas.

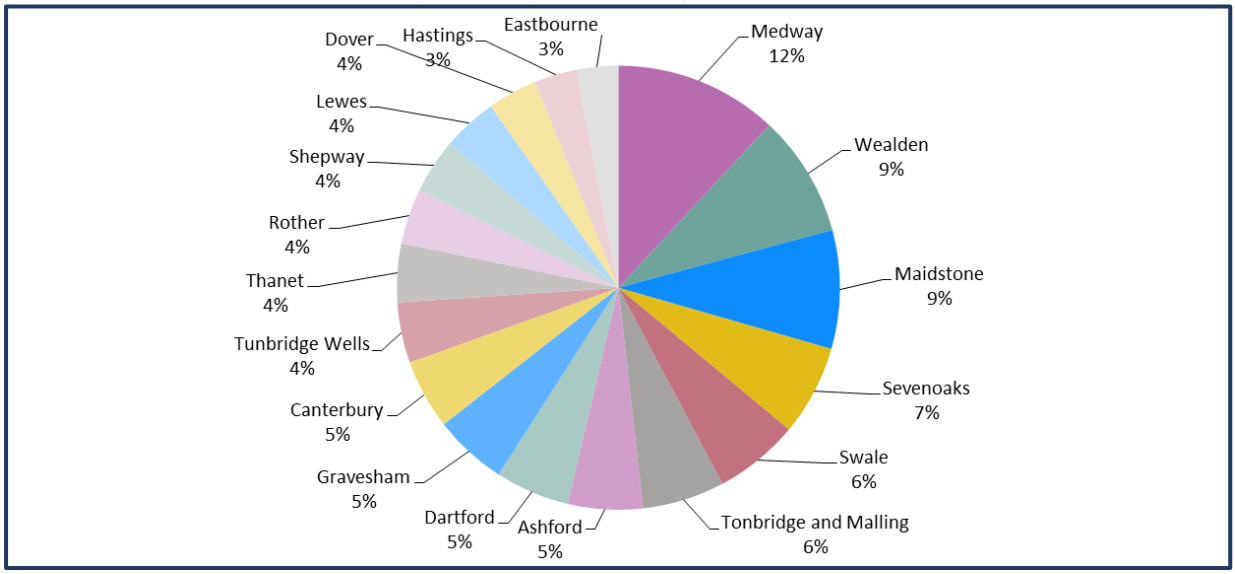

Figure 7: Distribution of construction businesses within Kent, Medway and East Sussex (UK Business Count, NOMIS 2017)

Between 2012/13 and 2016/17 there is a broadly consistent pattern in construction workforce distribution across the South East LEP, with the main areas being Medway, Ashford and Dartford, which together account for over a 25% share of the total (see Figure 8). The areas which increased their shares of construction employment in Kent, Medway and East Sussex the most over the period of 2012/13 to 2016/17 were Dartford (+4.0%), Rother (+3.4%) and Wealden (+2.0%), whilst the areas suffering the highest reductions in their share of the construction workforce in the LEP over the same period were Thanet (-3.8%), Hastings (-2.8%), Lewes (-2.6%), and Sevenoaks (-2.5%).

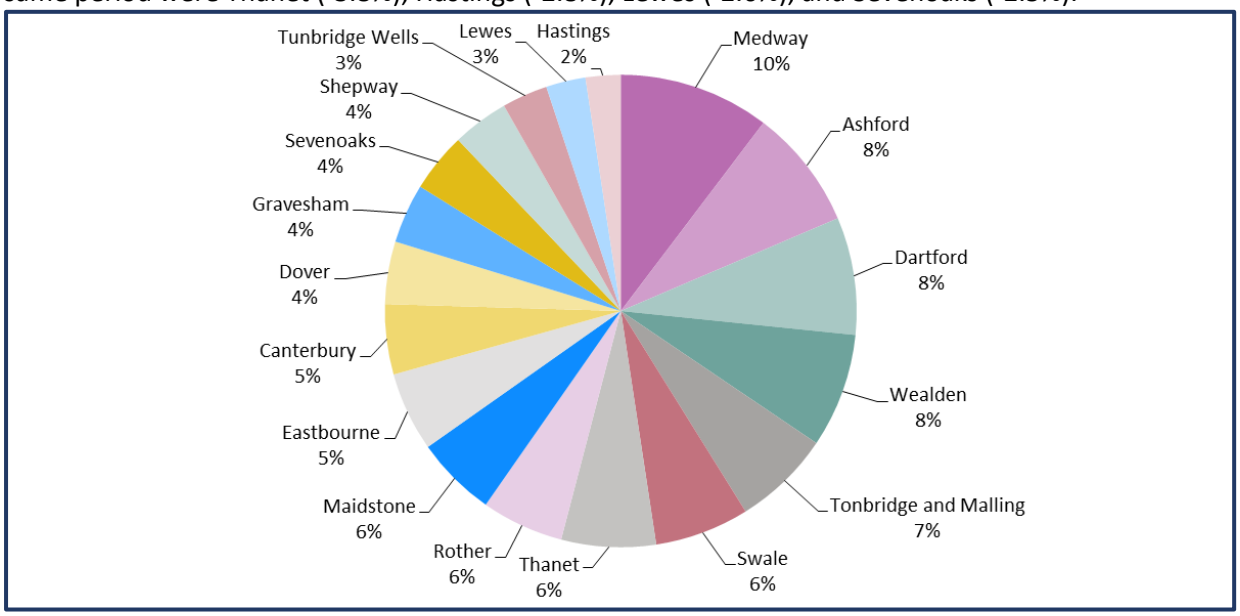

Figure 8: Construction employment by area within Kent, Medway and East Sussex (2017, NOMIS)

This slightly different pattern between workforce and number of businesses highlights two of the main factors that are important when looking at the construction sector. These are:

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

Overall the construction sector has high levels of self-employment with around 41% of the UK construction workforce being self-employed, a figure that rises to 46% for the South East region. Interestingly, the figure for Kent, Medway and East Sussex is higher than both the UK and the South East, with 50% of those working in construction in the LEP classified as self-employed. This is perhaps a consequence of the very slightly higher proportion of micro sized companies in Kent, Medway and East Sussex as a percentage of total companies (95.1% in Kent, Medway and East Sussex vs. 94.1% average for the UK and 95.0% for the South East). Self-employment levels have increased across both Kent, Medway and East Sussex and the wider South East region since 2012/13, from 49% to 50% in Kent, Medway and East Sussex and from 43% to 46% across the South East, perhaps reflecting the fact growth in businesses in both areas has been driven mostly by an increase in micro-sized companies.

When it comes to business size, the distribution of companies across Kent, Medway and East Sussex is however largely reflective of the pattern seen across the South East as a whole, and indeed the United Kingdom, with the majority of construction companies being micro sized. However, as mentioned, Kent, Medway and East Sussex has a slightly higher proportion of micro companies (95.1% of total companies in the LEP) and slightly lower proportions of small and medium sized companies (4.4% and 0.4% respectively of total companies in the South East LEP) than the average for both the South East and the UK, as shown in Figure 9.

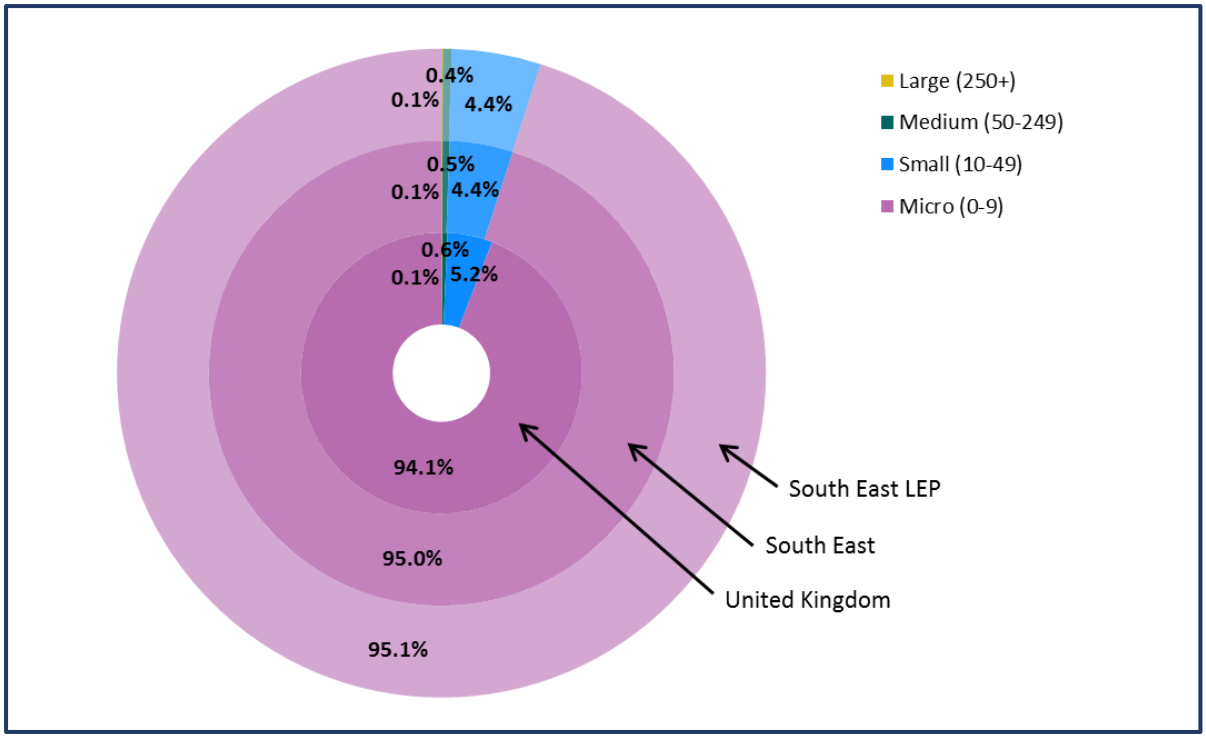

Figure 9: Construction Businesses by Size (UK Business Count, NOMIS 2017)

The majority of growth in construction businesses within Kent, Medway and East Sussex has been due to an increase in the number of micro sized companies, accounting for over 99% of the growth in construction businesses from 2013 to 2017 in the LEP during this period. Growth in micro businesses in Kent, Medway and East Sussex has increased at a slightly higher rate than the South East (27% growth in Kent, Medway and East Sussex vs 24% in the South East region as a whole since 2013).

Table 7: Current construction workforce - occupational breakdown, 2016 (Source Experian & CITB)

Construction workers in Kent, Medway and East Sussex listed by occupation [Calculated as 29.7% of the CSN data for the South East region]	**Kent, Medway & East Sussex**	**South East region**
Other construction professionals and technical staff	10,170	34,230
Other construction process managers	8,950	30,120
Senior, executive, and business process managers	7,780	26,190
Surveyors	2,600	8,740
Construction project managers	2,180	7,330
Civil engineers	1,870	6,280
Construction trades supervisors	1,760	5,920
Architects	1,510	5,090
Wood trades and interior fit-out	11,140	37,490
Electrical trades and installation	8,240	27,740
Plumbing and HVAC trades	7,590	25,560
Labourers nec*	6,090	20,510
Building envelope specialists	5,530	18,620
Painters and decorators	5,090	17,120
Specialist building operatives nec*	2,470	8,300
Bricklayers	2,400	8,080
Roofers	2,300	7,740
Plasterers	1,630	5,500
Plant mechanics/fitters	1,480	4,970
Plant operatives	1,450	4,880
Glaziers	1,280	4,320
Floorers	1,140	3,830
Logistics	860	2,880
Steel erectors/structural fabrication	850	2,850
Scaffolders	710	2,370
Civil engineering operatives nec*	400	1,670
Non-construction professional, technical, IT, and other office-based staff	15,960	53,740
Non–construction operatives	790	2,660
Total	**114,280**	**384,720**

Note: numbers rounded to the nearest 10

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

Key

Manager/Professional occupations
Skilled Trades
Office-based Staff

4.2. Training provision

The total volumes of training provision in Kent, Medway and East Sussex has reduced over the four years from 2012/13 to 2015/16, with the number of new starters decreasing by 17% over this period. However, despite an overall decline in numbers, the number of new starters on apprenticeships has increased by 30% over the same period.

CITB analysis of Skills Funding Agency Individualised Learner Records from 2012/13 through to 2015/16 academic years for construction learners shows that:

- There were 1,130 construction competence qualification achievements in Kent, Medway and East Sussex in 2015/16, which accounted for 29% of all construction achievements in Kent, Medway and East Sussex in this year
- Whilst there has been a reduction in the total number of construction learners starting in Kent, Medway and East Sussex between 2012/13 and 2015/16 (-17%), this has occurred against a back drop of an identical reduction in construction learners starting across the South East region as a whole (-17%)
- Although construction apprenticeship starts have increased across Kent, Medway and East Sussex (30% increase from 2012/13 to 2015/16), this is slightly lower than the increase in construction apprenticeship starts across the South East as a whole over the same time period (36%)
- There has been a drop in other Education and Training construction leaner starts (i.e. non-Apprenticeship construction qualifications) across both Kent, Medway and East Sussex (-24%) and the South East as a whole (-25%)
- Construction training within Kent, Medway and East Sussex is balanced slightly more towards qualifications at Level 2 and above, which account for 66% of starts over this period
- Looking at the location of provision, the decrease in starters within Kent, Medway and East Sussex has been driven largely by a reduction in learner volumes in the Swale local authority area, which saw a decrease of 1,070 starters from 2012/13 to 2015/16. The Gravesham, Eastbourne and Canterbury local authority areas also account for a decrease of 520 starters
- The significant reduction in learner volumes in the Swale local authority area appears to be the consequence of a severe reduction in non-apprentice construction learner starters at Mainstream Training Limited, based in Sittingbourne, down from 7,720 starters in 2012/13 to just 1,300 starters in 2015/16. It is interesting to note however that none of the courses provided by Mainstream Training over this period were Ofqual registered.
- Medway, Maidstone, and Thanet are the main local authority areas which have experienced an increase in starts over this period, between them accounting for an increase of 560 starters.

“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 8 shows qualification achievements over the last four years for the identified competence based qualifications, comparing achievement volumes against the overall pattern for the South East as a whole. From this analysis there looks to be patterns for particular occupations.

[This 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 majority of the achievements referred to Table 8 are at Level 2 (75%), with a smaller proportion at Level 3 (25%) and a very small minority at Level 4 and above (0.4%).

The percentage comparison with the South East region as a whole is used to demonstrate how the provision of training in Kent, Medway and East Sussex by occupations is relatively high or low against the regional context.

Table 8: Competence qualification achievements in Kent, Medway and East Sussex as a % of total competence qualification achievements in South East region as a whole (Source: CITB/SFA)

Construction Occupations	2012-13	2013-14	2014-15	2015-16	Total Achievements (Learner Aims) 12-13 to 15-16	Total
Grand Total	**1,820**	**1,540**	**1,170**	**1,130**	**5,650**	**-**
Grand Total: % of South East Total	**28%**	**28%**	**23%**	**29%**	**-**	**27%**
Main Occupations						
Civil engineering operatives nec*	49%	41%	29%	21%	430	35%
Plant operatives	23%	29%	31%	62%	950	30%
Wood trades and interior fit-out	30%	26%	27%	29%	940	28%
Plumbing and HVAC trades	22%	30%	18%	22%	900	23%
Electrical trades and installation	22%	22%	19%	24%	660	22%
Bricklayers	24%	23%	19%	22%	330	22%
Occupations with Good Provision						
Glaziers	27%	22%	45%	75%	290	48%
Plasterers and dry liners	40%	30%	25%	57%	70	42%
Construction trades supervisors	40%	29%	5%	42%	90	36%
Scaffolders	38%	37%	28%	34%	110	35%
Building envelope specialists	47%	23%	12%	28%	130	33%
Painters and decorators	29%	34%	27%	19%	220	28%
Occupations to Monitor						
Roofers	30%	26%	32%	10%	50	26%
Specialist building operatives nec*	34%	28%	11%	16%	240	25%
Other construction prof/tech staff	18%	31%	31%	22%	50	24%
Floorers	31%	19%	17%	18%	100	23%
Low Overall Learner Volumes						
Logistics	100%	50%	26%	0%	20	55%
Plant mechanics/fitters	32%	38%	10%	10%	30	27%
Steel erectors/structural	15%	27%	26%	63%	30	26%
Construction managers	32%	0%	0%	0%	20	22%

**nec – not elsewhere classified*
Note: Total achievements are across the period 2012-13 to 2015-16 have been rounded to the nearest 10
RAG rating indicates the occupation's percentage share of the South East relative to the average for all occupations in Kent, Medway and East Sussex (27%)

The **first group of occupations** to be identified accounts for the **main training volumes**, which is generally consistent with the overall training pattern seen in the South East. These are:

- Civil engineering operatives nec*
- Plant operatives
- Wood trades and interior fit-out
- Plumbing and HVAC trades
- Electrical trades and installation
- Bricklayers

Here the qualification achievements are generally consistent with the overall share of training being achieved in the Area or there is a larger volume of training being delivered against them. Plumbing and HVAC trades, electrical trades and installation, and bricklayers are perhaps of slight concern given they are slightly below the levels we might expect for Kent, Medway and East Sussex (around 27%), but nevertheless there is still a large volume of achievements in each. 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).

There is a **second group of occupations with good provision** where there appears to be a higher level of provision for occupations such glaziers, plasterers & dry liners, construction trades supervisors, scaffolders, building envelope specialists, and painters & decorators. It could be that there are providers with particular specialisms in these areas operating with the South East 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 roofers, specialist building operatives, other construction professionals and technical staff, and floorers, and represents where training happening within Kent, Medway and East Sussex is lower than would be expected. It is possible that individuals within Kent, Medway and East Sussex 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 terms of training providers, just over 100 different providers have delivered training for Kent, Medway and East Sussex between 2012/13 and 2015/16. However, there is a consistent pattern with over 92% of training being delivered by a core network of 10 providers, as shown in Table 9.

Table 9: Top ten training providers delivering training to Kent, Medway and East Sussex by number of starts – excluding apprenticeships (Source: CITB/SFA)

Provider	2012-13	2013-14	2014-15	2015-16	Total (Learner Aims)	% Share of Total Quals	% of Quals Ofqual Registered
Mainstream Training Ltd	7,720	3,780	1,660	1,300	**14,470**	27.6%	**0%**
Manchester College	2,710	2,340	1,950	610	**7,600**	14.5%	**10%**
Mid-Kent College	1,470	1,700	1,980	1,720	**6,870**	13.1%	**82%**
Sussex Downs College	1,150	970	1,340	810	**4,260**	8.1%	**50%**
East Kent College	330	830	1,480	1,440	**4,090**	7.8%	**60%**
Canterbury College	1,090	1,110	880	780	**3,850**	7.3%	**71%**
West Kent & Ashford College	1,300	1,230	600	510	**3,640**	6.9%	**79%**
Sussex Coast College Hastings	390	440	540	370	**1,740**	3.3%	**80%**
North Kent College	440	460	330	250	**1,490**	2.8%	**89%**
Grimsby Institute of FE & HE	100	380	0	0	**480**	0.9%	**100%**

Note: Number of starts has been rounded to the nearest 10
RAG rating indicates providers' performance against the average for all providers in the LEP (47%)

All of the top 10 providers are located within the South East LEP, with the exception of Manchester College and Grimsby Institute of Further & Higher Education (although Grimsby Institute now appears to have ceased delivering training to the area). Mainstream Training and Manchester College have been the largest providers of construction training to the area from 2012/13 to 2015/16, but this only tells half the story; both have suffered significant drops in the number of learner starts over this period (-83% and -77% respectively) and both deliver courses that are predominantly not Ofqual registered. On a more positive note, both Mid-Kent College and East Kent College have seen significant increases in the numbers of learners starting at their institutions, with both having over 60% of their qualification achievements over this period being Ofqual registered. The remaining colleges in the area have had fluctuating numbers of starters over this period, but are delivering strong volumes of starters on the whole, with the exception of Sussex Downs College; the majority of their qualifications are Ofqual registered.

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.

When looking at training provision across individual local authorities within Kent, Medway and East Sussex (shown in Table 10):

- Decreases in learner starts are most notable in the Swale, Gravesham, Eastbourne, & Canterbury local authority areas
- The significant reduction in learner volumes in the Swale local authority area is a consequence of a severe reduction in non-apprentice construction learner starters at Mainstream Training Limited (based in Swale) over this period.
- This is compensated for to some degree by increases in the Medway, Maidstone and Thanet local authority areas, each of which have seen increases in the number of leaner of 150 or more each over the period.

Table 10: Unique Learner starts by area, construction subjects, and all levels (Source: CITB/SFA)

Local Authority	2012-13	2013-14	2014-15	2015-16	% Net change 12/13 - 15/16	% Quals at Level 2+
Medway	1,170	1,470	1,620	1,390	19%	68%
Maidstone	700	690	880	890	27%	71%
Swale	1,750	1,120	830	680	-61%	79%
Thanet	410	650	500	580	41%	68%
Canterbury	710	730	640	580	-18%	56%
Eastbourne	710	570	630	530	-25%	52%
Hastings	430	320	340	490	14%	62%
Ashford	460	1,080	590	350	-24%	42%
Dartford	250	320	400	320	28%	81%
Gravesham	500	530	380	290	-42%	63%
Shepway	410	280	350	290	-29%	60%
Tunbridge Wells	290	330	240	250	-14%	51%
Dover	170	170	230	190	12%	77%
Sevenoaks	80	40	70	80	0%	97%
Wealden	110	80	80	80	-27%	97%
Tonbridge and Malling	140	160	110	70	-50%	88%
Lewes	60	60	180	60	0%	93%
Rother	40	20	20	20	-50%	98%
Grand Total	**8,100**	**8,300**	**7,730**	**6,740**	**-17%**	**66%**

Note: Number of starts has been rounded to the nearest 10
RAG rating indicates Local Authority performance against the average for all Local Authorities in the LEP

As a whole, Kent, Medway and East Sussex has experienced a 17% decrease in the number of construction learner starts over the last four years, matching the decline in the wider South East region as a whole (also -17% over the same period).

Looking at where the decline in learning is taking place, the reduction in learner starts is occurring mostly as a result of the decline in learner starts in non-Ofqual registered qualifications at Mainstream Training Limited in the Swale local authority area. Indeed, if we were to look at the reduction in volumes of construction starts in the region without counting Mainstream Training, the reduction in construction learner starts in Kent, Medway and East Sussex would be just 4% - significantly better than the 17% reduction for the South East as a whole.

When we look at qualification type, it is also positive to note there has actually been a small increase in competence-based qualifications (where a student would demonstrate practical skills) of 2% over the period 2012/13 to 2015/16. This also suggests that the reductions are predominantly restricted to more 'knowledge'-based courses. Whilst the more college based 'knowledge' courses are important stepping stone or progression routes for learners to acquire knowledge, construction employers tend to have a preference for the competence based skills.

On a similar note, there has been a strong 30% increase in the number of apprenticeship starts within Kent, Medway and East Sussex between 2012/13 and 2015/16, one of the reasons being a preference from employers for practical and competence-based skills. Apprenticeships are investigated in more detail in the next section.

4.3. Apprenticeships

When apprenticeships are considered as a subset of construction training we can see that the number of apprenticeship starters has increased at a time when overall training volumes are declining. Table 11 shows that the number of apprenticeship starters in Kent, Medway and East Sussex went up by 30% between 2012/13 and 2015/16, in comparison to the 17% overall decrease in the total number of construction learner starts across the same time period (see Table 11).

The Local Authority areas within Kent, Medway and East Sussex making the largest contribution to this increase are Medway, Dartford, Hastings, and Maidstone. These four Local Authority areas saw an increase of 370 apprenticeship starts between them over this period. Indeed, all but five of the local authority areas in Kent, Medway and East Sussex have seen increases in the number of construction apprenticeship starters over this period. The five local authority areas which have seen a stagnation or reduction in apprenticeship starts are Rother, Swale, Gravesham, Tunbridge Wells, and Eastbourne – together accounting for a reduction of 80 starters.

Kent, Medway and East Sussex has a 32% share of total apprenticeship starters per annum in the South East region, however the overall increase of 420 construction apprenticeship starters (a 30% increase) from 2012/13 to 2015/16 across Kent, Medway and East Sussex is slightly below the overall increase of 36% for construction apprenticeship starters across the South East region as a whole.

Table 11: Unique apprenticeship starts by area (South East LEP), construction subjects (Source: CITB/SFA)

Local Authority	2012-13	2013-14	2014-15	2015-16	Inc./Dec. 12-13 to 15-16	% Net Change
Medway	300	390	360	420	120	40%
Dartford	110	130	160	220	110	100%
Hastings	70	50	110	150	80	114%
Maidstone	130	110	140	190	60	46%
Ashford	70	50	100	110	40	57%
Canterbury	90	90	110	120	30	33%
Sevenoaks	50	30	40	70	20	40%
Thanet	110	80	90	130	20	18%
Wealden	50	40	60	70	20	40%
Dover	60	40	50	70	10	17%
Lewes	30	20	40	40	10	33%
Shepway	90	80	80	100	10	11%
Tonbridge and Malling	30	40	40	40	10	33%
Rother	20	10	20	20	0	0%
Swale	150	130	150	150	0	0%
Eastbourne	90	70	90	80	-10	-11%
Tunbridge Wells	40	20	30	30	-10	-25%
Gravesham	100	90	40	40	-60	-60%
Grand Total	**1,410**	**1,320**	**1,530**	**1,830**	**420**	**30%**

Note: Number of starts and any increase/decrease have been rounded to the nearest 10
RAG rating indicates Local Authority performance against the average for all Local Authorities in the LEP (30%)

Table 12 considers apprenticeship starts by trade, and shows the largest increase in volume terms from 2012/13 to 2015/16 has been experienced in wood trades and interior fit-out (an increase of 130 apprenticeship starters), plumbing and HVAC trades (an increase of 110 apprenticeship starters) and electrical trades and installation (an increase of 90 apprenticeship starters). Apprenticeship starts have increased over this period from a very low base for both Glazier and Construction trade supervisors to 60 and 40 starts respectively. The increase seen for Construction trade supervisors apprenticeship starts is a likely product of the increasing shift of education provision from higher to further education.

Whilst there are a few occupations where the increase in the number of apprenticeship starters over this period has remained flat, the only occupations to experience a decrease in apprenticeship starts are **Painters & decorators** and **Floorers** – a reduction of 10 starters each.

Table 12: Unique apprenticeship starts by occupation (South East LEP), construction subjects (Source: CITB/SFA)

Occupation	2012-13	2013-14	2014-15	2015-16	Increase/ decrease 12-13 to 15-16
Wood trades and interior fit-out	270	300	370	400	**130**
Plumbing and HVAC Trades	290	290	290	400	**110**
Electrical trades and installation	210	240	230	300	**90**
Glaziers	10	20	50	60	**50**
Plant operatives	50	50	60	90	**40**
Construction Trades Supervisors	<10	0	0	40	**40**
Bricklayers	110	100	160	140	**30**
Civil engineering operatives nec*	50	10	10	70	**20**
Scaffolders	20	20	20	30	**10**
Other construction prof & tech staff	10	10	10	20	**10**
Plasterers and dry liners	10	10	20	20	**10**
Roofers	<10	<10	10	10	**10**
Specialist building operatives nec*	80	80	50	80	**0**
Plant mechanics/fitters	10	<10	10	10	**0**
Building envelope specialists	0	<10	0	<10	**0**
Construction managers	<10	0	0	0	**0**
Steel erectors/structural	0	0	<10	0	**0**
Painters and decorators	60	40	40	50	**-10**
Floorers	20	10	10	10	**-10**

Note: Number of starts and any increase/decrease have been rounded to the nearest 10
RAG rating indicates Local Authority performance: green is positive, no change is amber, and negative is red

Table 13 considers apprenticeship starts by provider. Just over 80 different providers in total have delivered apprenticeships in construction for Kent, Medway and East Sussex between 2012/13 and 2015/16. However, as with non-apprenticeship training starts, the bulk is being delivered by a core network of 10 providers who account for 82% of all provision in the LEP. CITB and the British Army are the two largest providers, delivering over a third (720) of the new apprenticeships starts in the LEP in 2015/16. JTL, Sussex Coast College Hastings, and Mid-Kent College were the other providers to deliver over 100 construction apprenticeship starts in the LEP in 2015/16.

Table 13: Unique apprenticeship starts by provider in Kent, Medway & East Sussex subjects (Source: CITB/SFA)

Occupation	2012-13	2013-14	2014-15	2015-16	Total 2012-13 to 2015-16	% share of all starts
CITB	270	280	370	480	1,400	**22.9%**
British Army	180	270	220	240	920	**15.0%**
JTL	130	120	160	150	550	**9.0%**
Mid-Kent College	90	110	90	120	420	**6.9%**
Carillion Construction Ltd	100	90	100	90	380	**6.2%**
West Kent & Ashford College	140	70	60	80	340	**5.5%**
Sussex Coast College Hastings	30	50	110	140	330	**5.3%**
North Kent College	100	100	70	20	290	**4.7%**
Canterbury College	100	30	40	50	210	**3.4%**
Sussex Downs College	50	40	40	50	180	**3.0%**

Note: Number of starts and any increase/decrease have been rounded to the nearest 10

4.4. Higher Education

Kent, Medway and East Sussex has:

- Three HE providers based within the Area offer construction-related courses at HE level, the University of Kent, Canterbury Christ Church University, and the University for the Creative Arts (from their Canterbury site). These three providers account for 12% of all construction related achievements at HE level across the South East in 2015/16
- The University of Kent accounts for 8%, the University for the Creative Arts 4%, and Canterbury Christ Church University 0.4%
- HE provision in Kent, Medway and East Sussex is focused predominantly in the construction HE area of Architecture, which made up over 95% of construction HE starts within the LEP 2015/16
- There is a high number of HE achievements as a percentage of the existing workforce in Kent, Medway and East Sussex for Architects (17%), but this is much lower for Construction Project Managers/Construction Trade Supervisors (0.3%), and, owing to low/non-existent HE provision elsewhere, zero for the other occupations where HE provision would be required.

There are five Higher Education (HE) qualifications that relate to construction: Architecture, Building, Civil Engineering, Planning, and Landscape & Garden Design. All these courses, with the exception of Landscape & Garden Design, are offered in the South East region at the 12 HE institutions.

Table 14 shows the number of achievements per annum at the three institutions offering construction-related courses at HE level in the South East LEP. Overall HE achievement numbers have decreased from a peak of 320/yr. in 2012/13 to 260 achievements in 2015/16. Achievements in Kent, Medway and East Sussex are skewed very heavily towards Architecture, owing to the strong provision for this subject at the University of Kent and the University for the Creative Arts. Despite slight fluctuations, achievements have remained largely stable over this period.

It is interesting to note then that the reduction in numbers overall has been largely due to a significant drop in Building achievements (from 60 in 2011/12 to just 10 in 2015/16). Civil Engineering also, whilst having a constant 10 achievements per annum up to 2014/15, dropped to zero in 2015/16. Finally, whilst there were a small number of achievements in Planning in Kent, Medway and East Sussex in 2013/14 at the University of the Creative Arts, there have been none in

the period in question in Landscape & Garden Design (although this is also true of the South East as a whole).

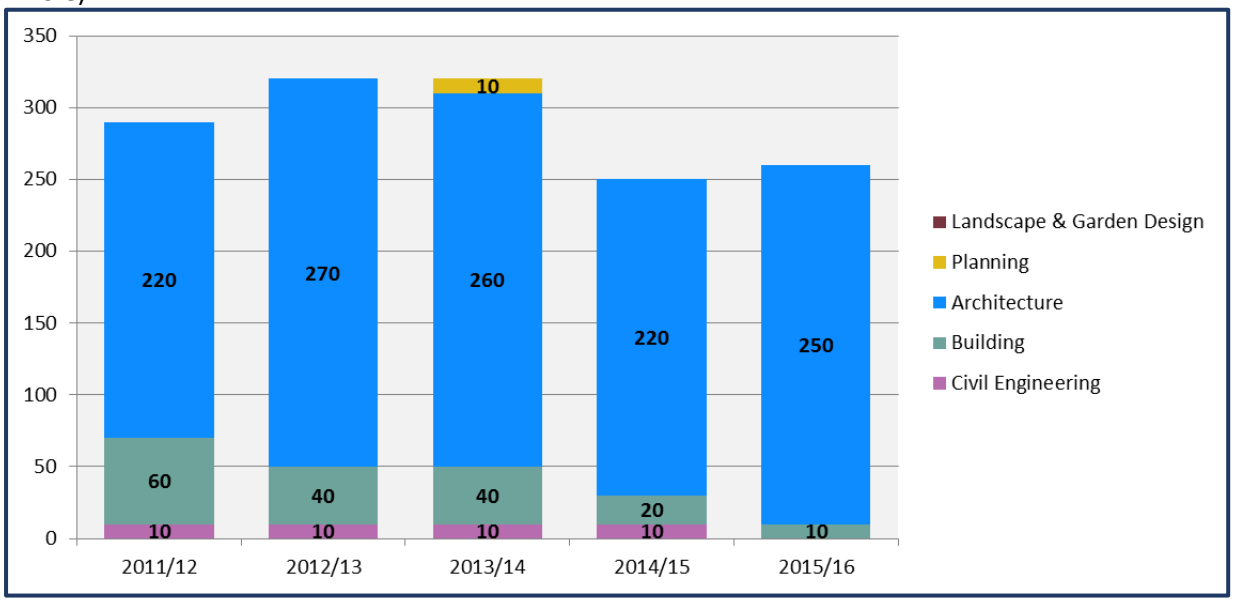

Figure 10: Higher Education achievements per annum in Kent, Medway and East Sussex (Source: HESA)

Table 14: spread of higher education achievements by qualification area across the institutions in the South East for the 2015/16 academic year

Institution	Civil Engineering	Building	Architecture	Planning	Others	Total
The University of Brighton	90	70	100	<10	0	270
Canterbury Christ Church University	0	10	0	0	0	10
University for the Creative Arts	0	0	80	0	0	80
The University of Kent	0	0	170	0	0	170
The Open University	<10	0	0	0	0	<10
Oxford Brookes University	0	50	270	160	0	470
The University of Portsmouth	150	60	190	<10	40	450
Southampton Solent University	20	80	40	0	0	140
The University of Oxford	0	0	0	20	0	20
The University of Reading	0	170	0	30	0	210
The University of Southampton	160	0	<10	0	0	160
The University of Surrey	270	0	0	0	0	270
Total - South East	700	440	850	220	40	2,250
Total - Kent, Medway and East Sussex only	0	10	250	0	0	260
% of total achievements in the South East delivered in South East LEP	0%	3%	29%	0%	0%	12%

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Table 15: Achievements on construction related degree courses at HE institutions in the South East – 2015/16 academic year (Source: HESA)

Institution	Civil Engineering	Building	Architecture	Planning	Others	Total
The University of Brighton	90	70	100	<10	0	**270**
Canterbury Christ Church University	0	10	0	0	0	**10**
University for the Creative Arts	0	0	80	0	0	**80**
The University of Kent	0	0	170	0	0	**170**
The Open University	<10	0	0	0	0	**<10**
Oxford Brookes University	0	50	270	160	0	**470**
The University of Portsmouth	150	60	190	<10	40	**450**
Southampton Solent University	20	80	40	0	0	**140**
The University of Oxford	0	0	0	20	0	**20**
The University of Reading	0	170	0	30	0	**210**
The University of Southampton	160	0	<10	0	0	**160**
The University of Surrey	270	0	0	0	0	**270**
Total - South East	700	440	850	220	40	**2,250**
Total - Kent, Medway and East Sussex only	0	10	250	0	0	**260**
% of total achievements in the South East delivered in South East LEP	**0%**	**3%**	**29%**	**0%**	**0%**	**12%**

Table 14 looks at the spread of higher education achievements by qualification area across the institutions in the South East for the 2015/16 academic year. This highlights the extent to which the University of Kent, and to a lesser extent, the University for the Creative Arts, gives Kent, Medway and East Sussex a solid presence in the delivery of construction related qualifications at HE level in the South East.

However, as already discussed, the strong achievement numbers in Kent, Medway and East Sussex are not well balanced across the five broad construction HE subject areas. Whilst Kent, Medway and East Sussex as a whole is accountable for a very high (29%) of all Architecture achievements in the South East, this figure drops to just 3% for Building achievements and 0% for Civil Engineering, Planning and Landscape & Garden Design achievements due to no provision at the institutions in Kent, Medway and East Sussex .

Table 15: Achievements on construction related degree courses at HE institutions in the South East – 2015/16 academic year (Source: HESA)

Institution	Civil Engineering	Building	Architecture	Planning	Others	Total
The University of Brighton	90	70	100	<10	0	**270**
Canterbury Christ Church University	0	10	0	0	0	**10**
University for the Creative Arts	0	0	80	0	0	**80**
The University of Kent	0	0	170	0	0	**170**
The Open University	<10	0	0	0	0	**<10**
Oxford Brookes University	0	50	270	160	0	**470**
The University of Portsmouth	150	60	190	<10	40	**450**
Southampton Solent University	20	80	40	0	0	**140**
The University of Oxford	0	0	0	20	0	**20**
The University of Reading	0	170	0	30	0	**210**
The University of Southampton	160	0	<10	0	0	**160**
The University of Surrey	270	0	0	0	0	**270**
Total - South East	700	440	850	220	40	**2,250**
Total - Kent, Medway and East Sussex only	0	10	250	0	0	**260**
% of total achievements in the South East delivered in South East LEP	**0%**	**3%**	**29%**	**0%**	**0%**	**12%**

When achievements within the Area for 2015/16 are considered as a proportion of those currently employed in the corresponding roles within the Area for 2016, Architecture achievements account for 17% of the current number of architects, and Building achievements account for 0.3% of the current number of construction project managers and construction trade supervisors. Less positively, due to no achievements in these areas, Civil Engineering achievements and Planning achievements account for 0% of the current number of people currently in these occupations in these occupations.

The figure for achievements per annum considered as a percentage of the existing workforce for Architecture are strong, indicating a very good level of higher education provision in Kent, Medway and East Sussex for this subject area. However, whilst the corresponding figure is low or zero for the other HE subject areas, unlike Further Education, there is a greater likelihood that after graduation HE students will be more mobile and may take up employment opportunities outside of their own LEP area, or not take up positions in the jobs for which they studied. This means that whilst higher education provision may not exist for some HE subject areas, the mobility of graduates who have qualified in these subjects elsewhere is higher than for FE and they may therefore be more easily attracted into the area or could even return to the area from study elsewhere.

Nevertheless, numbers of achievements gives a crude indication of the adequacy of provision for these subjects within the LEP area, implying that, Architecture aside, HE availability may not be sufficient to meet any excess demand in the other occupational areas that require an HE achievement. The challenge will therefore be retaining Architecture graduates within the LEP to fill any demand for these roles that may exist going forward, as well as attracting graduates from the other construction HE subjects into the South East LEP. The adequacy of skills supply and forecast demand is considered later in this report.

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 are more 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 HE. In the UK, this has become normalised. 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 and that 78% moved 60 or more miles from home (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. There does appear to be a rough correlation between UCAS points entry requirements and distance students are willing to travel. Typically, the most demanding universities draw students from a greater average distance, with many universities now targeting international students.

Once a student has finished their course there is limited centrally available data on their destination – both in terms of career type and location. HE institutions are now collecting increasingly detailed data on destinations, which could be harnessed to understand what proportion of those completing higher education move into career unrelated to their course.

4.5. 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:

1. Some more experienced workers are able to move into supervisory roles.
2. Some experienced workers take on a greater variety of occupational skills (and are therefore able to say they have experience working in several occupations)
3. 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.)
4. 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 and 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.

4.6. Main points – supply

Kent, Medway and East Sussex training provision:

- There were 1,130 construction competence qualification achievements in Kent, Medway and East Sussex in 2015/16, which accounted for 29% of all construction achievements in Kent, Medway and East Sussex in this year
- Over 100 training providers have delivered construction-relevant FE courses within Kent, Medway and East Sussex over the last four years.
- Ten main providers deliver over 92% of provision.
- There has been a 17% reduction in construction learners starting in Kent, Medway and East Sussex between 2012/13 and 2015/16, which has occurred against a back drop of an identical reduction in construction learners starting across the South East region as a whole.
- Achievement numbers are highest in the areas of high population density and/or where the major colleges within the LEP are located. Medway, Maidstone, Swale, Thanet, Canterbury sand Eastbourne all had achievement numbers of 500 or higher in 2015/16
- Training is delivered across the full range of construction occupations.
- There are good levels of competence qualifications achievements across many construction occupations, most notably civil engineering operatives, plant operatives, wood trades and interior fit-out, glaziers, plasterers and dry liners, construction trades supervisors, scaffolders, building envelope specialists, and painters and decorators
- The occupations where the level of competence qualifications falls below the levels we might expect for the LEP includes roofers, specialist building operatives, other construction professional and technical staff, and floorers
- Construction apprenticeship starts in the LEP have increased 30% from 2012/13 to 2015/16, most notably in wood trades and interior fit out, plumbing and HVAC trades and electrical trades and installation. CITB and the British Army are the largest providers of construction apprenticeships to the LEP
- Occupations which have flat lined over the last 4 years in terms of growth in apprenticeship starts include Specialist building operatives nec, Plant mechanics/fitters, Building envelope specialists, Construction managers and Steel erectors and structural. Occupations to experience a decrease in apprenticeship starts are painters & decorators and floorers.
- Experienced workers often move into supervisory roles and take on a greater variety of occupational skills.
- Professionals are likely to have more structured career progression and work to an older age in their chosen field
- Three HE providers based within the Area offer construction-related courses at HE level, and account for 12% of all construction related achievements at HE level across the South East in 2015/16
- HE provision in Kent, Medway and East Sussex is focused predominantly in the construction area of **Architecture**, which made up over 95% of construction HE starts within the LEP 2015/16. There is a high number of HE achievements as a percentage of the existing workforce in Kent, Medway and East Sussex for Architects, but is much lower for **Construction Project Managers/Construction Trade Supervisors** , and, owing to low/non-existent HE provision elsewhere, zero for the other professional occupations where HE provision would be required.

- HE occupational training which has seen reduction since 2011 includes **Building** and **Civil Engineering. Planning** provision has also reduced to zero, as has **Landscape & Garden Design** (which is also true of the South East as a whole).

Kent, Medway and East Sussex area workforce:

- Current construction workforce is estimated at just over 114,280 workers, which experienced positive growth of 16.6% in 2016/17.
- Nearly half is located within Medway (10%), Ashford (8%), Dartford (8%), Wealden (8%), Tonbridge & Malling (7%) and Swale (6%) local authority areas.
- Accounts for 30% of the South East region's total current construction workforce and 28% of all construction firms in the region.
- Recent employment shows an improving trend in construction workforce numbers within the Kent, Medway and East Sussex area over the last three years and in 2016/17, it exceeded the level of growth in the South East as a whole for the first time since 2013/14.

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 South East region will be analysed in order to understand how this might impact on future training interventions and the supply of job opportunities for local people.[3]

Appendix E shows the region or nation an employer currently operates in, compared with the region or nation they were previously working in. This is taken from the CITB survey into Workforce Mobility and Skills and gives an indication of the inter-regional movement of workers. In comparison with other English regions, the South East region has a relatively large proportion of workers who travel to other regions to work, as well as a large proportion of workers travelling into the South East region to work.

As some respondents would have indicated that they had worked in more than one region, the totals for percentage figures in the table exceed 100%.

5.1. Work history

Half of construction workers in the South East region have worked in the construction industry for at least 10 years (50%), compared to a higher UK average (56%), with more than a quarter working in the construction industry for over 20 years (28%). The most likely reason for working in the region is because they grew up there/have always lived there (45%). The majority (72%) of construction workers in the region have remained in the South East region for all or most of their career, again slightly lower than the UK average of 80%.

Further proof of the higher levels of fluidity of the construction workforce in the South East region is emphasised by the finding that only just over half of the workers (56%) here reported their last construction site they worked on was also in the South East.

[3] CITB (2015) Workforce Mobility and Skills in the UK Construction Sector – South East

In terms of the regions/nations in which construction workers' current employer operates in, just under two thirds (65%) of workers in the South East region reported that their employer operated within the same region they were currently working in (i.e. also the South East), the lowest of all regions in the UK. This is perhaps unsurprising given the South East's proximity to the capital, with 27% reporting their employer operated in London, whilst a high percentage cited their employer operating in the East of England (19%), the South West (18%) and the East Midlands (12%), as shown in Appendix E.

5.2. 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 more than half of all construction workers in the South East region were living in the South East region when they started their construction career (55%). Workers currently based in the South East region are therefore amongst those least likely to have remained in the same region in which they were based when they started their construction careers, on a par with the East of England (55%) and only ahead of London (50%) in this respect.

Furthermore construction workers in the South East region are again least likely to have stayed in the region where they studied for their first qualification (also 55%), with the East of England (50%) and London (58%) again also low. Unsurprisingly, there is a higher than average mention by workers in the South East region (14%) of construction workers achieving their qualification in London, and vice-versa 24% of workers in London mentioning achieving their qualification in the South East, emphasising the high degree of mobility between these two regions for learning and training.

5.3. Travel to site

Appendix F shows that the majority of construction workers interviewed in the South East region currently both work at a site in the South East region and have a current residence in the South East region (58%). This means that 42% of construction workers in the South East region are travelling into the region for work from another region in which their current residence is based. This figure of 42% is the highest of any region in the UK, and highlights the extent to which workers are willing to travel into the South East region to work, mostly from neighbouring regions: from London (12%), East Midlands (9%), East of England (8%) and South West (8%). When looking at the corresponding figures for the London region, 12% of the Capital's workforce has a current residence based in London but are travelling to the South East region to work. Given the South East region construction workforce currently stands at 384,720 and the Greater London construction workforce at 417,660, we can estimate that around 46,000 construction workers currently commute from the South East region to London to work and around 50,000 currently commute from London to the South East region to work. Construction workers move freely between the South East and London as well as other neighbouring regions.

Workers in the South East were also asked to indicate the furthest distance they have worked from their permanent or current home in the last 12 months. **Error! Reference source not found.** shows hat just over half have worked more than 50 miles away from their permanent home (55%), with 31% having worked between 51 and 100 miles away and 24% having worked more than 100 miles away. Workers based in South East were broadly similar to the UK average (21%) in terms of the proportion of workers that have travelled more than 100 miles from their permanent home to work in the last 12 months.

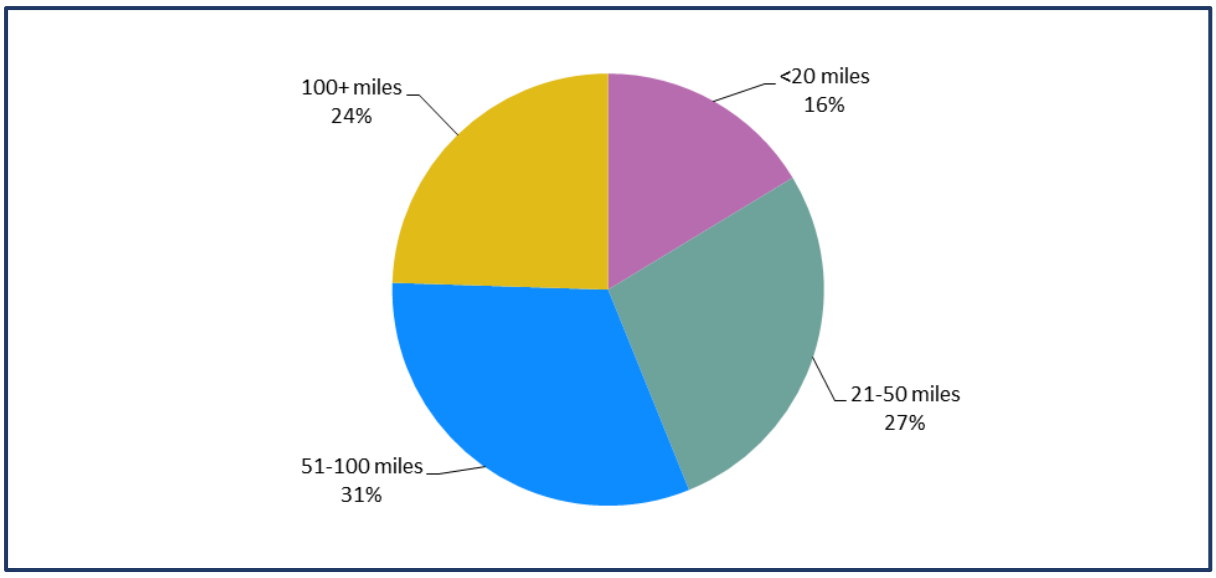

Figure 11: Furthest distance worked in past 12 months (CITB, 2015)

However, the average (mean) distance from workers' current residence (taking into account temporary residences) to their current site was 27 miles for the South East, slightly higher than the UK average of 22 miles. This indicates that although construction workers in the South East display willingness to travel some distance to work, this is likely to be intermittent.

5.4. 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 continue working at their current site of work.

Around a fifth of all construction workers in the South East (21%) do not expect to work on that site for more than a month, including 8% that only expect to be there for about a week or less. 29% expect to stay on that site for a year or longer, a notable increase compared with 2012 (12%), suggesting more stable employment in the South East than in 2012. However in more than a fifth of cases (22%) workers do not know how much longer they can expect to be on site.

Three quarters of all construction workers in the South East 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 (77%).

5.5. Sub-sector and sector mobility

All construction workers were asked which 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 small increase in the proportion of construction workers that have worked on new housing within the South East, up from 82% to 84%. For all other types of projects the proportion of construction workers that have worked on them has fallen since 2012; this includes housing repair and maintenance (down from 47% to 41%), commercial work (down from 51% to 35%), private industrial (down from 43% to 30%), and infrastructure (down from 32% to 21%).

Around a half of all construction workers have only worked on one project type in the South East (47%), a large increase compared with 18% in 2012, which again suggests a pattern of increased stability in the sector.

5.6. 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 South East, more than two fifths of construction workers say they definitely will be (43%) and a similar proportion think it is very or quite likely (42%). Just 2% say they definitely won't be and a further 2% hope to be retired by then, while 7% don't know.

Excluding those aged 60 and over (as those over 60 may be assumed to be considering retirement in the next 5 years), 43% believe they will definitely want to be working in the construction sector and a further 43% believe it is very likely or 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 less than in 2012 (16%).

5.7. Main points – mobility

Overall the findings from the Mobility survey indicate a fairly stable, well established workforce across the South East, albeit prone to some movement to and from neighbouring regions. Evidence of movement between neighbouring regions is unsurprisingly most notable with regards to London, although also significant to and from the East Midlands, the East of England and the South West. On the whole though, the workforce in the South East has grown up in the South East or London, undertaken their initial construction training in the South East or London 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 whilst the South East as a whole region has a fairly stable workforce, workers within the Kent, Medway and East Sussex area will not be limited to working only within the area – they may travel to work in other areas of the South East region as well as perhaps outside of the region, most likely in London.. Likewise, workers in other areas of the South East, as well as potentially other regions, will also be travelling to work within the South East LEP.

- More than a quarter of all construction workers in the South East have worked in the industry for at least 20 years (28%). Half have done so for 10+ years (50%).
- More than half of all construction workers in the South East were living in the South East when they started their construction career (55%). Workers based in the South East are amongst those least likely to have remained in the same region in which they were based for their first construction job, with many moving to London to work.
- 42% of all construction workers interviewed in the South East travelled into the region from another region in which their current residence is based, the highest of any region in the UK
- The South East's average (mean) distance from workers' residence (including temporary) to their current site was 27 miles (22 miles is the UK average).
- Three quarters of all construction workers in the South East 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 (77%).
- Overall about half of all construction workers in the South East have only worked on one project type (47%).
- Over two fifths of workers in the South East say they definitely will be working in the industry in five years' time (43%) and a further third think it is very or quite likely (42%).

6. Demand against supply

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. There will be projects in the pipeline that may not go ahead or be subject to delay; as well as new projects that will be added to the list. This report therefore represents 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 Kent, Medway and East Sussex area, whereas the supply figures are an extrapolation of data for the South East 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) has shown 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 and work in the industrial sector are able to get on site quickest.

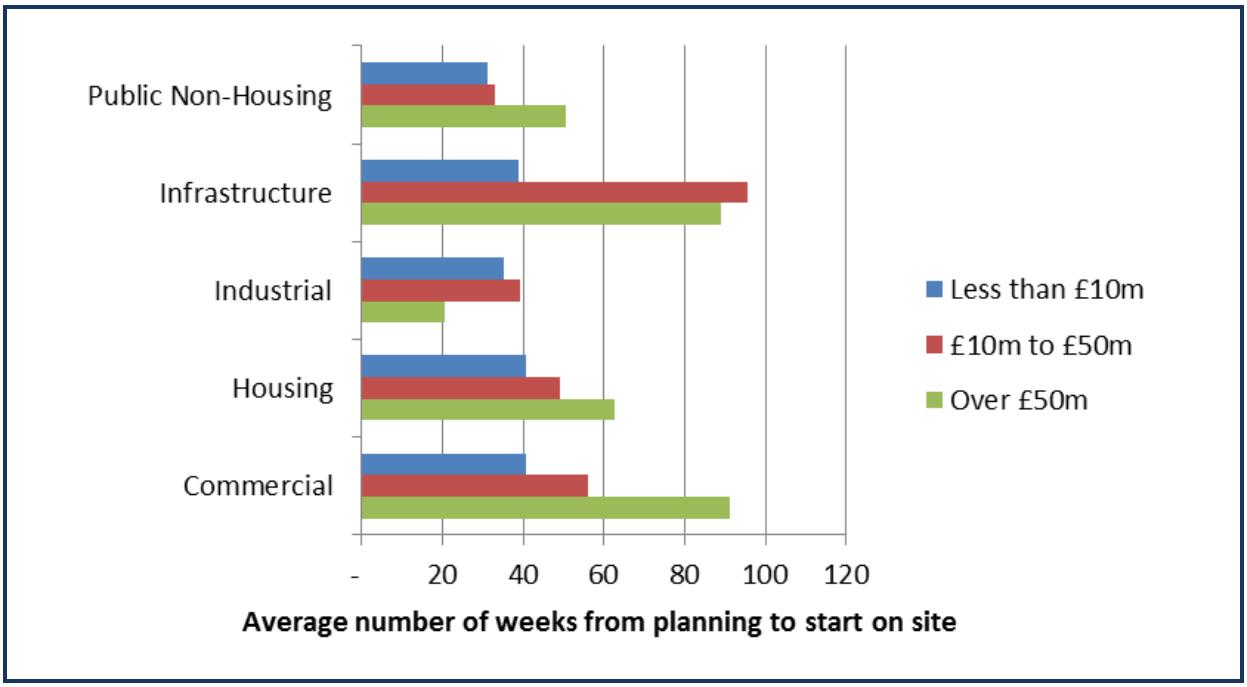

Figure 12: Average number of weeks from planning to work on site, UK 2010-2013 (Source: UKCG/Glenigan)

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 South East indicate that it accounts for 35% of yearly construction output.[4]

[4] CITB(2017) Construction Skills Network – South East

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 Mobility research undertaken in 2015 by CITB shows that occupations such as dryliners, electricians, banksmen/ bankspersons and electricians are most likely to have only worked on one project type, whereas bricklayers, site managers, plasterers, and plant operative are more likely to have worked on a wider range of projects.5

6.1. Gap Analysis

With current construction employment in the Kent, Medway and East Sussex area estimated at just over 114,000, the identified demand forecast for 2018 from projects in Glenigan accounts for 75% of current employment, before reducing in later years as current visibility for future identified projects decreases.

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 Kent, Medway and East Sussex 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. Current employment and demand by occupation for 2018 is shown in Table 14.

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

Table 16: Occupational breakdown of demand for Kent, Medway and East Sussex area against current employment (Source CITB/WLC)

Occupation	Kent, Medway & East Sussex – employment	Risk of shortfall rating
Construction trades supervisors	1,760	**0.88**
Civil engineers	1,870	**0.75**
Architects	1,510	**0.74**
Senior, executive, and business process managers	7,780	**0.72**
Construction Project Managers	2,180	**0.68**
Surveyors	2,600	**0.67**
Other construction process managers	8,950	**0.67**
Other construction professionals and technical staff	10,170	**0.46**
Civil engineering operatives nec*	500	**1.37**
Plasterers	1,630	**1.19**
Scaffolders	710	**1.19**
Glaziers	1,280	**0.94**
Floorers	1,140	**0.93**
Painters and decorators	5,090	**0.92**
Bricklayers	2,400	**0.87**
Logistics	860	**0.86**
Wood trades and interior fit-out	11,140	**0.84**
Plant mechanics/fitters	1,480	**0.84**
Specialist building operatives nec*	2,470	**0.83**
Electrical trades and installation	8,240	**0.82**
Plant operatives	1,450	**0.78**
Plumbing and HVAC Trades	7,590	**0.77**
Roofers	2,300	**0.76**
Steel erectors/structural fabrication	850	**0.73**
Labourers nec*	6,090	**0.67**
Building envelope specialists	5,530	**0.63**
Non–construction operatives	790	**1.38**
Non-construction professional, technical, IT, & other office-based	15,960	**0.70**
Kent, Medway and East Sussex Total	**114,280**	**0.75**

Key

Manager/Professional occupations
Skilled Trades
Office-based Staff

Note: nec: not elsewhere classified; HVAC: Heating, ventilation and air-conditioning.*
RAG rating: 0 to 0.99 = Green; 0.90 to 1.09 = Amber; 1.10+ = Red

Table 14 shows that there are four occupations where there is a risk that demand is likely to outstrip current employment estimates. These occupations show a relatively high gap in comparison with other occupations. Risks are most likely:

Among skilled trades:

- Civil engineering operatives
- Plasterers
- Scaffolders

And possibly:

- Glaziers
- Floorers
- Painters & decorators

There also appears to be relatively high demand for non-construction operatives.

While some of these occupations are construction specific, others have cross-sector implications.

6.1.1. Construction specific occupations

Demand for **civil engineering operatives, plasterers** and **scaffolders** is especially high, and for all three occupations demand in 2018 for workers is likely to outstrip the current supply. These occupations all fall within the skilled trades occupations, and any shortfall is therefore likely to be predominantly made up by training provision at further education level, as well as perhaps some inward mobility of workers with these skills into the Kent, Medway and East Sussex area.

In addition to these occupations, **glaziers, floorers** and **painters & decorators** should also be flagged as potentially facing a shortfall, as demand for workers in these occupations in 2018 exceeds 90% of the current supply in each instance. Again, all three occupations fall within the skilled trades occupational grouping, with any shortfalls again likely to be met via additional training and inward mobility of workers to the LEP area. However, a number of these occupations are also likely to be experiencing shortages in labour supply in neighbouring LEP areas, including;

- **Civil engineering operatives**, **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives** in the Coast to Capital LEP area;
- **Civil engineering operatives** and **Non-construction operatives** in Essex; and
- **Scaffolders** in the London East and London South GLA areas.

6.1.2. 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.

Non-construction operatives move between construction and other sectors such as manufacturing and wholesale/distribution. It is possible that experienced workers could be required by other sectors as well as across the broader South East region. Demand for non-construction operatives in 2018 is forecast to exceed the current supply by some margin, and it may be that the construction industry in Kent, Medway and East Sussex should look to other sectors to recruit workers for these roles to make up the projected shortfall.

In addition to the major projects identified in the Glenigan Pipeline, there will also be other work carried out in Kent, Medway and East Sussex that is captured within the demand analysis where additional workers will be required. This additional work includes projects that are less than £250,000, as well as repair and maintenance work that does not require planning consent, and as noted earlier, this is expected to mean a total workforce demand of just over 85,400 in 2018.

This is quite a static level of future work that would account for around 75% of current employment, which indicates that future employment demand in most cases will be focused on replacing the current workforce levels and equipping them with appropriate skills, rather than an overall increase in demand.

6.2. Gap Analysis – Long Term

When looking at the longer term past 2018, the amount of known work in the Area decreases. To give a view on the gap analysis across the wider range of work and over the longer term, Table 15 details the annual Average Recruitment Requirement (ARR) reported within the wider South East CSN 2018-2022 report which can be used to give an indication of long term demand in the South East LEP, based on the assumption that Kent, Medway and East Sussex will face similar long term demands to those of the South East region as a whole. However, as Kent, Medway and East Sussex makes up only 30% of the South East's construction workforce, this should only be used as a longer term indication.

[The ARR is a gross requirement that takes into account workforce flows into and out of construction, due to such factors as movements between industries, migration, sickness and retirement. However, these flows do not include movements into the industry from training. The ARR provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.]

Table 17: Occupational breakdown of ARR for South East region as a whole (Source: CITB)

Occupation	2016 Employment (South East)	ARR 2018-2022 (South East)	ARR as % of Current Employment
Other construction professionals and technical staff	34,230	390	1.1%
Painters and decorators	17,120	350	2.0%
Other construction process managers	30,120	290	1.0%
Construction project managers	7,330	180	2.5%
Non-construction professional, technical, IT, & other office-based	53,740	140	0.3%
Plant operatives	4,880	120	2.5%
Senior, executive, and business process managers	26,190	110	0.4%
Construction trades supervisors	5,920	110	1.9%
Logistics	2,880	110	3.8%
Labourers nec*	20,510	100	0.5%
Surveyors	8,740	100	1.1%
Architects	5,090	80	1.6%
Steel erectors/structural fabrication	2,850	80	2.8%
Floorers	3,830	70	1.8%
Civil engineering operatives nec*	1,670	70	4.2%
Wood trades and interior fit-out	37,490	-	-
Electrical trades and installation	27,740	-	-
Plumbing and HVAC Trades	25,560	-	-
Building envelope specialists	18,620	-	-
Specialist building operatives nec*	8,300	-	-
Bricklayers	8,080	-	-
Roofers	7,740	-	-
Civil engineers	6,280	-	-
Plasterers	5,500	-	-
Plant mechanics/fitters	4,970	-	-
Glaziers	4,320	-	-
Non–construction operatives	2,660	-	-
Scaffolders	2,370	-	-
South East	**384,720**	**2,300**	**0.6%**

Key

Manager/Professional occupations
Skilled Trades
Office-based Staff

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

The CSN 2018-2022 ARR is consistent with the earlier analysis in identifying a requirement for:

- Civil engineering operatives

And to a lesser extent (with a risk rating in excess of 0.90)

- Floorers
- Painters & decorators

The CSN 2018-2022 ARR also identifies some other occupations with a high occupational requirement, either as actual volumes or as a percentage of current employment. These occupations are:

- Other construction professionals and technical staff (volume)
- Other construction process managers (volume)
- Construction project managers (volume and % of employment)
- Non construction professional, technical, IT & other office based staff (volume)
- Plant operatives (volume and % of employment)
- Logistics (% of employment)
- Steel erectors/structural fabrication (% of employment)

The **non-construction office based staff** are likely to have skills that can be transferred over a range of industries so there will be a wider pool of potential recruitment to draw from across the wider LEP economy.

Plant operatives and **construction project managers** have been identified as a high risk due to a combination of comparatively high ARR by volume and an ARR as a percentage of current employment notably above the regional average.

Other construction professionals, other construction process managers, and **non-construction professional, technical, IT and other office based staff** have been identified solely in volume terms because of their comparatively high ARR by volume and high overall employment levels, accounting for 31% of all regional construction employment.

For **logistics**, and **steel erectors/structural fabrication** the ARR as a percentage of current employment is notably above the regional average at 3.8% and 2.8% respectively, which indicates potential occupational pressure to meet forecasted demand.

These longer term risks are also likely to be compounded in the Area for occupations that have the same issues identified in neighbouring LEP areas, including;

- **Civil engineering operatives**, **Floorers**, **Scaffolders, Other construction professionals and technical staff**, **Construction project managers**, **Non construction professional, technical, IT & other office based staff, Plant operatives**, **Logistics** and Steel **erectors/structural fabrication** in the Coast to Capital LEP area; and
- **Plant operatives**, **Logistics** and **Floorers** in the London GLA area.

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?'* the demand analysis and CSN has identified **Civil engineering operatives**, **Floorers and Painters & decorators** as those occupations in greatest demand, with the demand analysis also identifying **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives**.

Non-construction office based staff are not construction specific; therefore we would anticipate supply and demand to be more influenced by retail/warehouse/ transport demands.

Kent, Medway and East Sussex, like the wider region, delivers a significant volume of civil engineering competence qualification achievements (35% of the South East total, 8% above the 27% average for Kent, Medway and East Sussex for all competence qualifications). There is also an above average level of training provision for Plasterers and dry liners (42% of the South East total),Scaffolders (35% of the South East total) and Painters and decorators (28% of the South East total). Apprenticeship starts are however slightly more modest in these occupational areas, although nevertheless have all increased over the period of 2012/13 to 2015/16 (by between 10 and 20 for each), except for Painters and decorators, which reduced by 10 over this period.

There is reason to be concerned regarding the level of training provision for **Floorers,** where competence qualification achievement volumes are slightly below what we might expect, as the South East LEP's share of total competence qualification achievement volumes in the South East is comparatively low at 23%. Apprenticeship starts in **Flooring** have also reduced from 2012/13 to 2015/16 from 20 to 10. Unless action is taken, this level of starts may not currently offer a means of boosting numbers in this occupation.

Apart from roofing, there is a good provision in place for the occupations set out above, which could be flexed up However, similar research has identified that neighbouring areas are also at risk of an inadequate training being on offer for **Civil engineering operative**, **Plasterers and dry liners**, **Scaffolders and Non-construction office based staff** occupations in the Coast to Capital LEP area.

The second question *"is there the volume of training required across the spread of occupations?"* appears to give a mixed response. There would appear to be:

- Provision for training across the range of occupations
- A core of providers who deliver the majority of training
- Good provision of competence qualifications for certain occupations, most notably Civil engineering operatives, Plant operatives, Wood trades and interior fit-out, Glaziers, Plasterers and dry liners, Construction trades supervisors, Scaffolders, Building envelope specialists, and Painters and decorators.

However:

- There are occupations, such as **Roofers**, **Specialist building operatives**, **Other construction professional and technical staff**, and as mentioned above, **Floorers**, where the levels of competence based training appear to be lower than we would expect.
- Some of these occupational training areas are also at risk of not being able to provide the volume of training in neighbouring areas, including provision for **Specialist building operatives** and **Floorers** in the Coast to Capital LEP area, and **Roofers** in the GLA area. .

Although education and training levels within Kent, Medway and East Sussex appears to be declining, what is positive is this decline is mainly limited to "knowledge/theory" based qualifications and not the practical, competence based qualifications (particularly Apprenticeships) that employers have a preference for, which in many cases are growing.

6.4. Gap Analysis – Summary Points

- In the short term, the occupations at most risk of demand outstripping current employment estimates are **Civil engineering operatives**, **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives**. It is also possible that demand will outstrip supply for **Glaziers**, **Floorers** and **Painters & decorators.**
- Many of these occupations are also at risk of suffering shortfalls in labour supply in neighbouring areas including **Civil engineering operatives**, **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives** in the Coast to Capital LEP area, **Civil engineering operatives** and **Non-construction operatives** in Kent, Medway and East Sussex (Essex) area; and **Scaffolders** in the London East and London South GLA area.
- In the longer term, occupations most at risk of labour supply shortages include **Civil engineering operatives**, **Plant operatives** and **Construction project managers**. Other occupations at risk include Floorers, Painters & decorators, Other construction professionals and technical staff, Other construction process managers, Construction project managers, Non construction professional, technical, IT & other office based staff, Plant operatives, Logistics and Steel erectors/structural fabrication.
- Some of these occupations, such as **Non-construction office based staff**, are likely to have skills that can be transferred over a range of industries, so there will be a wider pool of potential recruitment to draw from across the wider LEP economy.
- These longer term labour supply risks are also likely to be compounded in the Area for those occupations that have the same issues identified in neighbouring LEP areas, including **Civil engineering operatives**, **Floorers**, **Scaffolders, Other construction professionals and technical staff**, **Construction project managers**, **Non construction professional, technical, IT & other office based staff, Plant operatives**, **Logistics** and Steel **erectors/structural fabrication** in the Coast to Capital LEP area; and **Plant operatives**, **Logistics** and **Floorers** in the London GLA area.
- In terms of the quality of the occupational training, the provision offer in the Area is not fully in place for **Civil engineering operatives**, **Floorers and Painters & decorators** , **Plasterers and dry liners**, **Scaffolders** and **Non-construction operatives**. This is also the case with the training offer for **Civil engineering operative**, **Plasterers and dry liners**, **Scaffolders and Non-construction office based staff** occupations in the neighbouring Coast to Capital LEP area.
- In terms of volume of training, there appears to be good provision across the range of occupations, with a core of providers delivering the majority of training
- In terms of the volume of training, there is a good provision of competence qualifications for **Civil engineering operatives**, **Plant operatives**, **Wood trades and interior fit-out**, **Glaziers, Plasterers and dry liners**, **Construction trades supervisors, Scaffolders, Building envelope specialists**, and **Painters and decorators**.
- However, there are occupations, such as **Roofers**, **Specialist building operatives**, **Other construction professional and technical staff**, and **Floorers**, where the levels of competence based training appear to be lower than we would expect.
- Some of these occupational training areas are also at risk of not being able to provide the volume of training in neighbouring areas, including provision for **Specialist building operatives** and **Floorers** in the Coast to Capital LEP area, and **Roofers** in the GLA area.

7. Recommendations and conclusions

The aim of Kent, Medway and East Sussex should be to work with partners to address the short, medium and long term 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 Kent, Medway and East Sussex will suffer a shortage for some critical 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.

There are five core recommendations each including a number of options for tackling the challenge as resource allows.

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 Kent, Medway and East Sussex work together.

There are many opportunities for local influencers 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. Establish a construction working group comprising those with a remit to, or influential in, developing the built environment in the Area and neighbouring areas and task it with delivering outputs that achieve the LEP's desired social and economic outcomes. Share available evidence with them with a view to building collaborative holistic 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 include: local construction businesses; major employers; CITB; 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. One possible approach is a Construction Skills Group, which looks holistically at activity, supported by activity specific task and finish groups, which will change and develop over time as activities are completed and new ones started.

7.2. SKILLS STRATEGY: PIPELINE IDENTIFICATION, PLANNING AND EXPLOITATION

Establish a construction action plan which recognises collective and potentially unique actions and solutions that may be required

[The South East LEP recognises that similar issues exist across the whole of the LEP area and is developing a LEP wide action plan.]

7.2.1. Conclusions

In Kent & East Sussex the vast majority of Further Education (FE) training is provided by a small number of providers; so the greatest potential impact is through mediated collaboration with and between these FE colleges.

A common complaint of construction employers is that new starters are not often enough site ready so pathways might include working with employers to enhance new starters' site readiness and behaviours. Although the proportion of training at level 2 and above has increased, the majority of training provision is at low levels that are a necessary step in an individual's development but often are insufficient in meeting the needs of employers.

In some cases, construction FE courses are completed but do not lead to a career in the occupation for which the individual has been trained. This suggests a need to work with colleges, employers and graduating students to help ensure that training and pathways are developed to encourage a greater proportion to move into appropriate additional and vocational training and the career for which they have a qualification.

7.2.2. Recommendations

a. Develop the Kent, Medway and East Sussex (South East LEP) construction action plan that ensures that priority is given to trades and professions 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

b. An early opportunity may be to 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.

c. 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 Kent, Medway and East Sussex .

d. 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.

7.3. DEVELOP FUTURE SKILLS AND TRAINING PATHWAYS

7.3.1. Conclusions

There is high demand for several construction occupations for which continuing training will be required. There are also some apparent gaps between supply and demand where immediate action would help address shortfalls in the near future.

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.)

7.3.2. Recommendations

a. By working together the major colleges can 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.

c. A starting point may be to consider those occupations where there appears to be high demand and a high relative gap. An option is to pilot a range of solutions to test validity and effectiveness and achieve the most expedient solutions.

d. 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 training shifts towards or leads to the provision of more competency based training and high quality sustainable apprenticeships.

e. One potential opportunity may be to identify and facilitate how FE colleges and employers can engage with specialist training providers as well as with major projects, to establish greater provision to address:

f. A common complaint of construction employers, that is – new starters are not often enough 'site ready' so a curriculum might including working with employers to enhance new starters' site readiness and behaviours.

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 Kent, Medway and East Sussex and further afield and that will increasingly need to utilise developing technology e.g. Building Information Modelling (BIM).

7.4. OUTREACH: BUILD A MORE POSITIVE IMAGE OF CONSTRUCTION AND INCREASE RECRUITMENT THROUGH NEW ENTRANCE POINTS 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 and to adults (both as influencers and as the target audience).

7.4.2. Recommendation

a. With an anticipated long term demand for some skills, the potential exists for an outreach programme that goes out to schools to build a positive perception of construction for the future as offering high value rewarding careers for all. And subsequently encourages applications for construction skills courses and apprenticeships from a broader spectrum of young people – in particular ethnic minorities and women. [This would need to align to existing initiatives working with schools such as the Careers Enterprise Advisor network.]

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.

c. [CITB has supported employers across the construction and built environment to come together working with a number of stakeholders 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.]

d. 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, in particular the unemployed but also ex-offenders and so contact should be made with DWP and HM Prison Service. Targeted intervention should be included within the construction skills action plan.

7.5. USE PROCUREMENT AND PLANNING REGULATION AS A LEVER TO ENABLE SKILLS DEVELOPMENT

7.5.1. Conclusion

Construction is delivered through construction employers and suppliers, often 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 build programme pipelines on which to base their plans. The proportion of employers that are small and micro companies are high and these companies have limited ability to maintain the processes and people to search for local opportunities or that enable collaboration to support larger projects.

The National Skills Academy for Construction (NSAfC) is an industry-led framework supporting clients and contractors to identify, develop and realise employment and skills solutions across construction projects. The Academy's client based approach (CBA) is a free toolkit for organisations that are planning or procuring construction projects. It provides information and guidance on employment and skills requirements.

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. The LEP should review and consider the potential of adopting the Client Based Approach.

c. Provision could be required to hold contractors to account for commitments made. Such an approach could be co-ordinated through Kent, Medway and East Sussex and local authorities and be a requirement of planning applications and local authority and public sector contracts.

d. Early engagement with employers to discuss any such approach is recommended 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 tenders documents are published).

e. 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.

f. 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 Kent, Medway and East Sussex .

7.6. MAINTAINING & ENHANCING 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, Kent, Medway and East Sussex 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.

Appendices

Appendix A. 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.

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	
	(1115) Chief executives and senior officials
	(1131) Financial managers and directors
	(1132) Marketing and sales directors
	(1133) Purchasing managers and directors
	(1135) Human resource managers and directors
	(1251) Property, housing and estate managers
	(1136) Information technology and telecommunications directors
	(2150) Research and development managers
	(1162) Managers and directors in storage and warehousing
	(1259) Managers and proprietors in other services nec
	(1139) Functional managers and directors nec
	(2133) IT specialist managers
	(2134) IT project and programme managers
	(3538) Financial accounts managers
	(3545) Sales accounts and business development managers
2 Construction project managers	
	(2436) Construction project managers and related professionals
3 Other construction process managers	
	(1121) Production managers and directors in manufacturing
	(1122) Production managers and directors in construction
	(1161) Managers and directors in transport and distribution
	(1255) Waste disposal and environmental services managers
	(3567) Health and safety officers
	(3550) Conservation and environmental associate professionals
4 Non-construction professional, technical, IT, and other office–based staff (excl. managers)	
	(3131) IT operations technicians
	(3132) IT user support technicians
	(3534) Finance and investment analysts and advisers
	(3535) Taxation experts
	(3537) Financial and accounting technicians
	(3563) Vocational and industrial trainers and instructors
	(3539) Business and related associate professionals nec
	(3520) Legal associate professionals
	(3565) Inspectors of standards and regulations
	(2136) Programmers and software development professionals

	(2139) Information technology and telecommunications professionals nec
	(3544) Estate agents and auctioneers
	(2413) Solicitors
	(2419) Legal professionals nec
	(2421) Chartered and certified accountants
	(2424) Business and financial project management professionals
	(2423) Management consultants and business analysts
	(4216) Receptionists
	(4217) Typists and related keyboard occupations
	(3542) Business sales executives
	(4122) Book-keepers, payroll managers and wages clerks
	(4131) Records clerks and assistants
	(4133) Stock control clerks and assistants
	(7213) Telephonists
	(7214) Communication operators
	(4215) Personal assistants and other secretaries
	(7111) Sales and retail assistants
	(7113) Telephone salespersons
	(3541) Buyers and procurement officers
	(3562) Human resources and industrial relations officers
	(4121) Credit controllers
	(4214) Company secretaries
	(7129) Sales related occupations nec
	(7211) Call and contact centre occupations
	(7219) Customer service occupations nec
	(9219) Elementary administration occupations nec
	(2111) Chemical scientists
	(2112) Biological scientists and biochemists
	(2113) Physical scientists
	(3111) Laboratory technicians
	(3421) Graphic designers
	(2463) Environmental health professionals
	(2135) IT business analysts, architects and systems designers
	(2141) Conservation professionals
	(2142) Environment professionals
	(2425) Actuaries, economists and statisticians
	(2426) Business and related research professionals
	(4124) Finance officers

	(4129) Financial administrative occupations nec
	(4138) Human resources administrative occupations
	(4151) Sales administrators
	(4159) Other administrative occupations nec
	(4162) Office supervisors
	(7130) Sales supervisors
	(7220) Customer service managers and supervisors
	(4161) Office managers
5 Construction trades supervisors	
	(5250) Skilled metal, electrical and electronic trades supervisors
	(5330) Construction and building trades supervisors
6 Wood trades and interior fit-out	
	(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	
	(5312) Bricklayers and masons
8 Building envelope specialists	
	(5319) Construction and building trades nec (50%)
9 Painters and decorators	
	(5323) Painters and decorators
	(5319) Construction and building trades nec (5%)
10 Plasterers	
	(5321) Plasterers
11 Roofers	
	(5313) Roofers, roof tilers and slaters
12 Floorers	
	(5322) Floorers and wall tillers
13 Glaziers	
	(5316) Glaziers, window fabricators and fitters
	(5319) Construction and building trades nec (5%)
14 Specialist building operatives not elsewhere classified (nec)	
	(8149) Construction operatives nec (100%)
	(5319) Construction and building trades nec (5%)
	(9132) Industrial cleaning process occupations
	(5449) Other skilled trades nec

15 Scaffolders	
	(8141) Scaffolders, stagers and riggers
16 Plant operatives	
	(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	
	(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	
	(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	
	(9120) Elementary construction occupations (100%)
20 Electrical trades and installation	
	(5241) Electricians and electrical fitters
	(5249) Electrical and electronic trades nec
	(5242) Telecommunications engineers
21 Plumbing and heating, ventilation, and air conditioning trades	
	(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	
	(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)	
	(8142) Road construction operatives
	(8143) Rail construction and maintenance operatives
	(8123) Quarry workers and related operatives
24 Non–construction operatives	
	(8117) Metal making and treating process operatives
	(8119) Process operatives nec
	(8125) Metal working machine operatives
	(8126) Water and sewerage plant operatives
	(8132) Assemblers (vehicles and metal goods)
	(8133) Routine inspectors and testers
	(8139) Assemblers and routine operatives nec
	(9249) Elementary security occupations nec
	(9233) Cleaners and domestics
	(9232) Street cleaners
	(5113) Gardeners and landscape gardeners
	(6232) Caretakers
	(9241) Security guards and related occupations
	(3319) Protective service associate professionals nec
25 Civil engineers	
	(2121) Civil engineers
26 Other construction professionals and technical staff	
	(2122) Mechanical engineers
	(2123) Electrical engineers
	(2126) Design and development engineers
	(2127) Production and process engineers
	(2461) Quality control and planning engineers
	(2129) Engineering professionals nec
	(3112) Electrical and electronics technicians
	(3113) Engineering technicians
	(3114) Building and civil engineering technicians
	(3119) Science, engineering and production technicians nec
	(3121) Architectural and town planning technicians
	(3122) Draughtspersons
	(3115) Quality assurance technicians
	(2432) Town planning officers
	(2124) Electronics engineers

	(2435) Chartered architectural technologists (3531) Estimators, valuers and assessors (3116) Planning, process and production technicians
27 Architects	
	(2431) Architects
28 Surveyors	
	(2433) Quantity surveyors (2434) Chartered surveyors

Appendix B. Glenigan projects removed from Kent, Medway and East Sussex

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

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
1	Lorry Park	Dover	130.0			Missing dates
2	Peaking Plant Facility	Dover	43.0			Missing dates
3	212 Houses/153 Flats/51 Sheltered Units & Commercial Units	Lewes	31.2			Missing dates
4	Runway (Extension)	Shepway	25.0			Missing dates
5	79 Later Living Flats & 2 Leisure/Retail Facilities	Hastings	10.4			Missing dates
6	4 Offices/2 Workshops/Industrial Units	Dartford	9.7			Missing dates
7	16 Industrial Units	Dover	8.5			Missing dates
8	83 Flats & 74 Houses	Tonbridge & Malling	7.9			Missing dates
9	85 Houses & Flats	Shepway	6.4			Missing dates
10	Industrial Unit & Photovoltaic Array	Dover	6.1			Missing dates
11	77 Houses	Shepway	5.8			Missing dates
12	Packaging Store Building	Canterbury	5.2			Missing dates
13	Road Works/Infrastructure	Thanet	5.0			Missing dates
14	Nursing Home	Wealden	5.0			Missing dates
15	33 Sheltered Flats	Ashford	4.7			Missing dates
16	3 Commercial Units	Canterbury	4.4			Missing dates
17	3 General Industrial Units	Thanet	3.9			Missing dates
18	2 Warehouse Buildings (Extension)	Medway	3.7			Missing dates
19	48 Houses	Tonbridge & Malling	3.6			Missing dates
20	Crematorium	Rother	3.5			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
21	Supermarket/Health Centre & Pharmacy	Dover	3.1			Missing dates
22	Medical Centre (Conversion)	Medway	3.0			Missing dates
23	23 Houses & 2 Flats	Ashford	3.0			Missing dates
24	Dementia Care Home	Sevenoaks	3.0			Missing dates
25	Nursing Home (Extension)	Thanet	2.9			Missing dates
26	31 Holiday Units	Shepway	2.5			Missing dates
27	School Teaching Block (Extension)	Ashford	2.4			Missing dates
28	Sports Fields & Running Track	Shepway	2.2			Missing dates
29	School Sports Hall (Extension)	Dover	2.1			Missing dates
30	School Arts & Literature Building (Extension)	Tunbridge Wells	2.0			Missing dates
31	8 Flats & 5 Shop/Office/Restaurant Units	Shepway	2.0			Missing dates
32	16 Town Houses & 1 Community Building	Dartford	2.0			Missing dates
33	26 Residential/Student/tourist Units & Commercial Units	Rother	2.0			Missing dates
34	Exhibition Hall	Thanet	1.9			Missing dates
35	38 Flats (Conversion)	Swale	1.9			Missing dates
36	Anaerobic Digestion Plant	Tonbridge & Malling	1.9			Missing dates
37	School (Extension/Alterations)	Dartford	1.8			Missing dates
38	College Sports Hall (Extension)	Maidstone	1.8			Missing dates
39	College Sports Hall (Extension)	Maidstone	1.8			Missing dates
40	School Science Block (Extension)	Ashford	1.7			Missing dates
41	Care Home (Extension/Alterations)	Wealden	1.6			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
42	Community Centre	Eastbourne	1.6			Missing dates
43	Medical Centre	Hastings	1.5			Missing dates
44	5 Commercial Units	Rother	1.5			Missing dates
45	Fruit Store	Swale	1.5			Missing dates
46	12 Light Industrial/Workshop/Studio Units	Wealden	1.4			Missing dates
47	16 Residential Flats & 12 Holiday Flats	Eastbourne	1.4			Missing dates
48	18 Houses	Medway	1.4			Missing dates
49	Medical Centre & Pharmacy	Medway	1.3			Missing dates
50	12 Houses/3 Holiday Lets & 2 Office Units	Tunbridge Wells	1.3			Missing dates
51	School (Extension)	Rother	1.3			Missing dates
52	Medical Centre & Pharmacy	Shepway	1.3			Missing dates
53	Church	Maidstone	1.1			Missing dates
54	Care Home	Canterbury	1.1			Missing dates
55	14 House (New/Alterations)	Canterbury	1.1			Missing dates
56	School (Extension)	Tonbridge & Malling	1.0			Missing dates
57	10 Elderly Persons Bungalows	Canterbury	1.0			Missing dates
58	39 Elderly Sheltered Flats	Rother	1.0			Missing dates
59	Landscape Works	Tonbridge & Malling	1.0			Missing dates
60	2 Industrial Storage Units	Dover	1.0			Missing dates
61	Luxury House (Conversion/Extension)	Lewes	1.0			Missing dates
62	School Teaching Block (Extension)	Gravesham	1.0			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
63	12 Houses & 1 Flat (New/Extension)	Maidstone	1.0			Missing dates
64	5 Industrial/Offices/Warehouse Units	Tunbridge Wells	1.0			Missing dates
65	Community Centre/Village Centre	Tonbridge & Malling	1.0			Missing dates
66	Hotel Bedrooms (Extension)	Canterbury	0.9			Missing dates
67	8 Houses & 4 Flats	Wealden	0.9			Missing dates
68	2 Industrial Buildings (Extension)	Medway	0.9			Missing dates
69	Community Centre	Canterbury	0.8			Missing dates
70	11 Houses	Maidstone	0.8			Missing dates
71	Factory (Extension)	Ashford	0.8			Missing dates
72	Showroom	Rother	0.8			Missing dates
73	Indoor Riding School	Maidstone	0.8			Missing dates
74	Day Centre (Extension)	Canterbury	0.8			Missing dates
75	Care Home (Extension/Alterations)	Tunbridge Wells	0.8			Missing dates
76	Store Building	Tonbridge & Malling	0.8			Missing dates
77	10 Flats & 5 Shops (Extension/Alterations)	Medway	0.8			Missing dates
78	15 Flats (Conversion)	Tonbridge & Malling	0.8			Missing dates
79	10 Houses	Canterbury	0.8			Missing dates
80	10 Houses	Wealden	0.8			Missing dates
81	12 Flats	Tonbridge & Malling	0.7			Missing dates
82	Care Home (Extension)	Rother	0.7			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
83	14 Flats	Maidstone	0.7			Missing dates
84	Hospital (Extension/Alterations)	Wealden	0.7			Missing dates
85	Boxing Gym	Medway	0.7			Missing dates
86	12 Flats	Canterbury	0.7			Missing dates
87	Vehicle Dealership	Wealden	0.7			Missing dates
88	Community Hall	Wealden	0.7			Missing dates
89	Office (Extension)	Tonbridge & Malling	0.6			Missing dates
90	Place of Worship (Extension/Alterations)	Tunbridge Wells	0.6			Missing dates
91	12 Flats (Conversion)	Maidstone	0.6			Missing dates
92	9 Flats/2 Houses & 1 Retail Unit (New/Extension)	Rother	0.6			Missing dates
93	9 Flats & 3 Shops	Rother	0.6			Missing dates
94	11 Flats (Conversion/Extension)	Thanet	0.6			Missing dates
95	Bridge Works	Lewes	0.6			Missing dates
96	Golf Course	Tonbridge & Malling	0.6			Missing dates
97	Community Centre	Maidstone	0.6			Missing dates
98	10 Flats & 1 House (Conversion/Extension)	Tunbridge Wells	0.6			Missing dates
99	Hospital (Extension)	Eastbourne	0.5			Missing dates
100	School Hall/Group Room (Extension/Alterations)	Ashford	0.5			Missing dates
101	Scout/Sports Changing Facilities	Tonbridge & Malling	0.5			Missing dates

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
102	10 Flats (Conversion/Alterations)	Wealden	0.5			Missing dates
103	Offices (Refurbishment)	Dartford	0.5			Missing dates
104	Sports Club Ground (New/Refurb)	Tunbridge Wells	0.5			Missing dates
105	Motorway Service Building (Extension)	Maidstone	0.5			Missing dates
106	Visitor Centre	Hastings	0.5			Missing dates
107	School Lecture Hall (Extension)	Swale	0.5			Missing dates
108	Community Hall	Wealden	0.5			Missing dates
109	6 Industrial Units	Canterbury	0.4			Missing dates
110	Demolition	Canterbury	0.4			Missing dates
111	School	Sevenoaks	0.4			Missing dates
112	Hotel/Public House (Extension/Alterations)	Canterbury	0.4			Missing dates
113	Industrial Building	Tunbridge Wells	0.4			Missing dates
114	Hotel Building	Medway	0.4			Missing dates
115	Office (Extension)	Medway	0.3			Missing dates
116	Food Store	Ashford	0.3			Missing dates
117	Anaerobic Digestion Plant	Dover	0.3			Missing dates
118	Public House Letting Rooms (Extension)	Maidstone	0.3			Missing dates
119	Care Home (Extension)	Wealden	0.3			Missing dates
120	Karting Centre (Alterations)	Tonbridge & Malling	0.3			Missing dates
121	Sports Field Facility	Rother	0.3			Missing dates
122	Vehicle Maintenance (Extension)	Eastbourne	0.3			Missing dates
123	NHS Strategic Estates Partnership	Tonbridge &	100.0	01/01/2014	27/12/2028	Consultancy

Number	Heading	Local Authority	Value (£m)	Start Date	End Date	Reason for omission
		Malling				
124	Consultancy Services Framework	Swale	10.0	25/11/2016	04/12/2020	Consultancy
125	Construction Consultancy Framework 2014-2018	Shepway	10.0	15/02/2016	17/02/2020	Consultancy
126	Civil & Structural Engineering Services Framework	Medway	25.0	13/04/2017	15/04/2021	Consultancy
127	Consultancy Framework	Maidstone	20.0	01/06/2015	27/05/2019	Consultancy
128	Highway Consultancy Services	Maidstone	50.0	01/04/2013	01/04/2023	Consultancy
129	Design Consultancy Framework	Dover	6.0	26/10/2016	26/10/2020	Consultancy
130	Consultancy Services for Housing Development	Dartford	0.3	21/05/2014	21/05/2019	Consultancy
131	School Teaching Block (Extension/Alterations)	Dover	3.5	19/12/2016	25/08/2017	Duplicate
133	Non Infrastructure Maintenance Services	Tonbridge & Malling	150.0	01/04/2015	01/04/2020	Duplicate

Appendix C. Significant Glenigan projects in Kent & East Sussex

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

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
1	4000 Homes & Commercial Units	Canterbury	415.6	10/07/2017	12/07/2027	New housing, Private Commercial, Public Non-housing, Infrastructure
2	Green Power Park	Thanet	262.4	06/05/2019	01/05/2023	Infrastructure
3	Highway Maintenance Contract	Lewes	210.0	16/08/2016	15/08/2023	Infrastructure R&M
4	12 Industrial Units	Medway	140.6	03/08/2015	30/07/2018	Private Industrial
5	Combine Cycle Gas Turbine Plant	Medway	131.2	24/11/2017	19/11/2021	Infrastructure
6	Motorway (Maintenance)	Dartford	124.9	07/06/2016	07/06/2021	Infrastructure
7	6,000 Housing Units Maintenance Contract	Maidstone	120.0	03/12/2012	03/03/2021	Housing R&M
8	Off Shore Wind Farm	Hastings	110.3	01/02/2016	26/01/2018	Infrastructure
9	Mixed Development Contract	Dartford	109.4	24/07/2017	22/07/2019	New housing, Private Commercial, Public Non-housing
10	310 Flats & 1 Shop/Training Centre/Leisure Centre	Maidstone	95.3	05/01/2018	05/01/2021	New housing, Private Commercial, Public Non-housing
11	Docks Redevelopment & Marine Civil Engineering	Dover	85.0	07/02/2017	09/11/2018	Infrastructure
12	Cinema/Hotel/Residential Units	Ashford	85.0	02/10/2017	01/07/2019	Private Commercial
13	Residential Development	Dartford	84.2	01/11/2015	31/12/2018	New housing
14	Motorway	Maidstone	73.1	08/01/2018	08/05/2020	Infrastructure
15	Biomass Heat & Power Plant	Dover	56.0	23/06/2016	25/10/2018	Infrastructure
16	215 Residential Units/Retail/Leisure	Swale	52.7	09/04/2018	06/07/2020	New housing, Private Commercial, Infrastructure
17	Motorway Improvement Works Framework	Dartford	52.5	01/10/2013	01/10/2017	Infrastructure
18	12 Flats & 1 Houses (New/Alterations)	Dartford	50.0	17/11/2014	29/09/2017	New housing
19	Regional Distribution Centre	Swale	50.0	27/04/2015	27/03/2018	Private Industrial

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
20	Carriageway (Improvements)	Tunbridge Wells	48.8	08/06/2015	08/09/2017	Infrastructure
21	Housing Repair & Maintenance Contract (Refurb)	Medway	48.0	01/09/2014	01/09/2019	Housing R&M
22	Housing Repairs and Maintenance Works	Thanet	47.3	04/09/2017	03/09/2018	Housing R&M
23	Shopping Centre (Extension)	Eastbourne	45.0	03/01/2017	12/11/2018	Private Commercial
24	Commercial & Residential (Regeneration)	Canterbury	43.7	04/01/2016	08/01/2018	Private Commercial, New housing, Public Non-housing
25	Minor Works Framework	Medway	40.6	30/06/2018	30/06/2022	Housing R&M, Public Non-housing
26	4,260 Housing (Improvements)	Eastbourne	40.0	01/04/2016	01/04/2021	Housing R&M
27	18 Shops/Cinema/Restaurant Units	Dover	40.0	13/06/2016	02/03/2018	Private Commercial
28	103 Flats/99 Houses & 63 Extra Care Units	Medway	39.8	30/11/2011	08/02/2019	New housing
29	Residential/Community Development	Tonbridge & Malling	38.8	18/12/2017	14/01/2019	New housing, Public Non-housing
30	620 Employment Units/210 Residential & Commercial Units	Medway	38.2	17/01/2018	17/01/2021	New housing, Private Commercial, Public Non-housing
31	250 Houses	Tunbridge Wells	35.2	22/08/2016	23/12/2019	New housing
32	Non-Infrastructure Major Works	Tonbridge & Malling	35.0	01/07/2015	01/07/2020	Infrastructure
33	Shopping Centre (Extension)	Ashford	35.0	01/01/2018	31/12/2018	Private Commercial
34	450 Residential Units	Canterbury	33.8	11/12/2017	07/01/2019	New housing
35	178 Houses/Flats	Wealden	33.6	28/08/2016	28/02/2019	New housing
36	Interconnector Cable	Shepway	32.4	26/06/2017	29/06/2020	Infrastructure

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
37	14587 Housing (Improvements)	Maidstone	32.0	01/04/2011	01/07/2019	Housing R&M
38	Highways Maintenance Works	Maidstone	31.5	22/09/2017	21/09/2018	Infrastructure
39	770 Flats/Commercial Development	Ashford	31.0	15/01/2013	15/01/2018	New housing, Private Commercial
40	Devonshire Park Complex (Extension/Alterations)	Eastbourne	30.6	24/04/2017	11/01/2019	Private Industrial, Infrastructure, Private Commercial
41	Residential/School & Commercial Units	Wealden	30.2	17/01/2018	17/02/2019	New housing, Public Non-housing, Private Commercial
42	39 Apartments	Sevenoaks	30.0	07/11/2016	05/03/2018	New housing
43	157 Care Flats & 6 Commercial Units (New/Conversion)	Canterbury	30.0	21/08/2017	23/08/2019	New housing
44	Demolition/Site Works/Infrastructure/Warehouse/Rail	Swale	29.8	03/08/2017	12/07/2018	Infrastructure, Private Industrial
45	Training Centre/Restaurant & Museum	Canterbury	29.3	15/01/2018	08/10/2018	Public Non-housing, Private Commercial, Infrastructure
46	607 Residential & Commercial Development	Maidstone	28.1	17/01/2018	17/01/2020	New housing, Private Commercial
47	Street Lighting Maintenance Works	Maidstone	28.0	15/03/2016	14/05/2019	Infrastructure
48	Commercial/Office Developments	Shepway	27.4	06/11/2017	14/05/2018	Private Industrial
49	277 Residential Units	Dover	27.0	11/07/2016	03/07/2020	New housing
50	140 Apartments/Houses	Canterbury	26.0	27/11/2017	25/11/2019	New housing
51	71 Houses & 4 Flats	Lewes	25.5	05/10/2016	27/04/2018	New housing
52	Responsive Maintenance and Void Property Works Alliance Framework	Swale	25.0	28/03/2017	30/03/2021	Housing R&M
53	144 Residential Units	Maidstone	25.0	08/07/2016	01/03/2019	New housing
54	326 Residential Units	Ashford	24.5	17/01/2018	17/02/2019	New housing

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
55	152 Residential Units	Tonbridge & Malling	24.3	14/03/2016	30/06/2019	New housing, Private Commercial, Public Non-housing
56	156 New Homes	Gravesham	23.0	28/11/2016	27/04/2018	New housing
57	Road (Improvements)	Ashford	22.4	08/01/2018	08/07/2019	Infrastructure
58	Residential Development	Maidstone	21.0	22/09/2015	31/03/2018	New housing
59	220 Houses & 51 Flats	Maidstone	20.3	09/10/2017	09/09/2019	New housing
60	248 Residential Units	Swale	19.7	05/02/2018	04/03/2019	New housing
61	186 Houses & 64 Flats	Ashford	18.8	02/10/2017	30/11/2018	New housing
62	162 Houses & 80 Elderly Flats	Swale	18.2	06/02/2017	02/03/2020	New housing
63	Residential Development	Medway	18.0	02/01/2017	30/03/2018	New housing
64	125 Houses & 105 Flats	Tonbridge & Malling	17.3	18/01/2016	05/01/2018	New housing
65	118 Houses & 42 Flats	Ashford	17.2	18/09/2017	20/09/2019	New housing
66	157 Houses & 66 Flats	Dover	16.7	16/01/2017	12/02/2018	New housing
67	112 Houses/41 Flats & 1 Primary School	Tonbridge & Malling	16.2	06/03/2017	06/03/2020	New housing, Public Non-housing
68	Residential/Commercial Development	Ashford	16.1	05/02/2018	04/03/2019	New housing, Private Commercial
69	105 Houses & 25 Flats	Maidstone	15.7	09/11/2015	29/12/2017	New housing
70	169 Houses & 27 Flats	Sevenoaks	15.7	10/08/2018	07/09/2019	New housing
71	Student Accommodation	Canterbury	15.6	08/08/2016	05/09/2017	Public Non-housing
72	95 Houses/25 Flats & 1 Community Facility	Wealden	15.4	28/11/2016	29/11/2019	New housing, Public Non-housing
73	216 Residential Units/Commercial Units	Ashford	15.0	02/10/2017	02/10/2018	Private Industrial, Private Commercial, New housing

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
74	114 Houses & 42 Flats	Canterbury	15.0	01/07/2016	01/09/2018	New housing
75	Relief Road	Swale	14.3	09/10/2017	08/07/2019	Infrastructure
76	Care Home & Healthcare Centre	Canterbury	14.3	08/03/2018	06/12/2018	Public Non-housing
77	Measured Term Contract	Canterbury	14.3	01/12/2015	04/12/2018	Public Non-housing
78	190 Houses	Medway	14.3	17/01/2018	17/02/2019	New housing
79	189 Houses	Wealden	14.2	24/07/2017	17/09/2018	New housing
80	College Classrooms/Sports Hall/Facilities (Extension)	Eastbourne	14.1	04/01/2016	04/09/2017	Public Non-housing
81	Roads (Improvement Works)	Ashford	14.0	22/05/2017	22/11/2018	Infrastructure
82	89 Flats	Medway	14.0	01/05/2017	31/05/2019	New housing
83	75 Houses & 18 Flats	Dartford	13.8	06/08/2016	31/05/2018	New housing
84	Elderly Extra Care/Residential Units	Sevenoaks	13.1	04/04/2016	06/10/2017	New housing, Public Non-housing, Private Industrial
85	New Build & Refurb Framework	Swale	13.1	09/11/2016	09/11/2020	New housing
86	3 Poultry Houses	Ashford	13.0	22/02/2018	21/02/2019	Private Industrial
87	200 Houses/Flats	Rother	12.7	28/02/2018	28/03/2019	New housing, Infrastructure
88	Light Industry & Warehouse	Dartford	12.7	17/01/2018	17/07/2018	Private Industrial
89	School Science & Technology/Sixth Form Centre Building	Sevenoaks	12.5	01/08/2016	06/04/2018	Public Non-housing
90	158 Houses & 2 Flats	Wealden	12.0	09/04/2018	06/05/2019	New housing
91	74 Sheltered Housing Units	Tonbridge & Malling	12.0	10/10/2016	02/03/2018	New housing
92	School	Dover	11.9	25/01/2016	22/09/2017	Public Non-housing

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
93	154 Houses	Dartford	11.6	07/08/2017	12/08/2019	New housing
94	Care Home	Canterbury	11.4	13/11/2017	15/10/2018	Public Non-housing
95	40 Extra Care Units	Lewes	11.2	01/03/2018	05/03/2020	New housing
96	138 Houses	Dartford	11.2	07/05/2018	07/06/2019	New housing
97	Hospital (Extension/Alterations)	Medway	11.2	31/10/2016	31/07/2018	Public Non-housing
98	261 Residential Units	Ashford	11.1	22/08/2016	19/01/2018	New housing
99	130 Houses & 13 Flats	Maidstone	10.7	13/07/2015	14/07/2017	New housing
100	131 Houses & 11 Flats	Tunbridge Wells	10.7	28/11/2016	25/05/2018	New housing
101	School Building (New/Conversion)	Tonbridge & Malling	10.6	01/09/2016	31/08/2017	Public Non-housing
102	Hotel/Restaurant & Retail Units (New/Alterations)	Canterbury	10.6	13/11/2017	25/06/2018	Private Commercial
103	Airport (Extension/Alterations)	Medway	10.5	14/08/2017	07/05/2018	Infrastructure
104	46 Care Flats & 1 Care Home	Sevenoaks	10.4	16/05/2016	22/12/2017	Public Non-housing
105	Shopping Centre (Extension/Alterations)	Tunbridge Wells	10.3	02/04/2018	02/05/2019	Private Commercial
106	3 Industrial/Storage Units & 1 Restaurant/Takeaway	Dover	10.2	29/04/2018	11/11/2018	Private Industrial, Private Commercial
107	100 Houses & 36 Flats	Medway	10.2	25/09/2017	26/10/2018	New housing
108	School	Gravesham	10.1	01/04/2016	06/07/2018	Public Non-housing
109	Hotel & Restaurant	Swale	10.0	07/07/2017	07/10/2018	Private Commercial
110	54 Houses & 8 Flats/6 Townhouses	Medway	10.0	12/03/2016	12/08/2017	New housing
111	152 Residential/Commercial Units	Swale	10.0	10/10/2017	09/07/2019	Private Commercial, Public Non-

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
						housing, New housing
112	School Extension	Sevenoaks	9.9	25/07/2016	28/07/2017	Public Non-housing
113	18 Industrial/Warehouse Units	Ashford	9.8	20/11/2017	28/05/2018	Private Industrial
114	67 Sheltered Flats	Wealden	9.7	30/01/2017	03/09/2018	New housing
115	91 Houses & 28 Flats	Maidstone	9.7	17/01/2018	17/01/2019	New housing
116	Office/Retail Building	Ashford	9.5	01/02/2017	30/03/2018	Private Commercial
117	38 Flats & 18 Houses	Maidstone	9.3	19/09/2016	19/02/2018	New housing, Private Commercial
118	Distribution Depot (Extension)	Canterbury	9.0	04/12/2017	04/03/2019	Private Industrial
119	126 Houses	Gravesham	8.9	14/08/2017	10/09/2018	New housing, Private Commercial, Public Non-housing
120	109 Houses	Shepway	8.9	17/06/2018	17/07/2019	New housing
121	115 Residential Units	Wealden	8.6	09/01/2017	18/05/2018	New housing
122	104 Residential Units	Sevenoaks	8.5	30/08/2018	27/09/2019	New housing
123	35 Houses & 6 Flats	Ashford	8.5	01/10/2016	31/12/2017	New housing
124	73 Houses & 40 Flats	Lewes	8.5	31/07/2017	27/08/2018	New housing
125	81 Houses & 31 Flats	Ashford	8.4	07/08/2017	03/09/2018	New housing
126	112 Residential Units	Ashford	8.4	16/01/2017	12/02/2018	New housing
127	94 Houses & 16 Flats	Lewes	8.3	14/04/2018	12/05/2019	New housing
128	110 Houses	Wealden	8.3	16/10/2017	12/11/2018	New housing
129	4 Non Food Retail & 1 Restaurant/Take Away	Thanet	8.0	03/07/2017	29/01/2018	Private Industrial, Private Commercial
130	Housing (Refurbishment)	Medway	8.0	04/01/2017	31/03/2018	Housing R&M
131	38 Retirement Flats	Lewes	8.0	25/04/2016	07/08/2017	New housing

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
132	33 Houses & 15 Flats	Tunbridge Wells	8.0	01/03/2016	31/08/2017	New housing
133	44 Flats	Tonbridge & Malling	7.9	01/06/2016	24/11/2017	New housing
134	87 Houses & 9 Flats	Maidstone	7.9	17/06/2018	15/07/2019	New housing
135	119 Houses/Flats	Tunbridge Wells	7.8	20/03/2017	16/04/2018	New housing, Public Non-housing, Private Commercial
136	127 Houses/Flats & 1 Doctors Surgery/Commercial Unit	Shepway	7.8	11/07/2017	11/08/2018	New housing, Public Non-housing
137	28 Flats & 23 Houses	Dartford	7.6	22/05/2017	12/10/2018	New housing
138	Sports Park Centre	Shepway	7.5	04/12/2017	04/03/2019	Private Commercial
139	Hospital	Maidstone	7.5	16/01/2017	26/03/2018	Public Non-housing
140	143 Flats & Hotel/Restaurant	Gravesham	7.2	04/12/2017	10/12/2018	New housing, Private Commercial
141	Leisure/Cinema & Restaurant (Conversion/Alterations)	Dartford	7.1	03/01/2017	04/09/2017	Private Commercial
142	Waterworks	Rother	7.1	01/03/2017	01/09/2018	Infrastructure
143	Research & Development/Industrial Building	Dover	7.1	21/08/2017	21/05/2018	Public Non-housing, Private Industrial
144	School Science Building (Extension/Alterations)	Tonbridge & Malling	7.0	25/09/2017	24/09/2018	Public Non-housing
145	Convertor Station	Thanet	7.0	26/10/2015	24/07/2017	Infrastructure
146	Link Road	Maidstone	7.0	01/10/2018	30/03/2020	Infrastructure
147	Hotel Building	Dover	7.0	03/07/2017	03/07/2018	Private Commercial
148	Windfarm Operations & Maintenance Facility	Lewes	7.0	05/04/2017	19/12/2017	Private Industrial

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
149	Hotel	Ashford	6.9	27/11/2017	09/07/2018	Private Commercial
150	Care Home	Hastings	6.8	17/01/2018	17/02/2019	New housing
151	90 Houses	Ashford	6.8	17/01/2018	17/02/2019	New housing
152	Link Road	Gravesham	6.6	01/06/2016	01/12/2017	Infrastructure
153	Industrial Unit (New/Extension)	Medway	6.6	16/07/2018	21/01/2019	Private Industrial, Infrastructure
154	Incinerator Bottom Ash Recycling Facility	Maidstone	6.6	20/03/2018	11/01/2019	Infrastructure
155	50 Flats	Medway	6.5	11/07/2016	18/09/2017	New housing
156	86 Residential Units	Ashford	6.5	17/01/2018	17/02/2019	New housing
157	Church Hall/Place Of Worship	Sevenoaks	6.2	16/05/2016	17/08/2017	Public Non-housing
158	School (Extension)	Ashford	6.2	03/07/2017	27/07/2018	Public Non-housing
159	School Building	Dover	6.2	01/05/2016	31/07/2017	Public Non-housing
160	58 Houses & 32 Flats	Medway	6.2	17/01/2018	17/02/2019	New housing
161	Elderly Person Home	Sevenoaks	6.0	20/11/2017	17/12/2018	New housing
162	40 Houses & 39 Flats	Dartford	5.9	13/02/2017	12/03/2018	New housing
163	School	Medway	5.6	07/11/2016	25/09/2017	Public Non-housing
164	Enabling Works	Lewes	5.6	11/09/2017	12/03/2018	Infrastructure
165	Recycling Building	Swale	5.6	24/10/2016	25/08/2017	Infrastructure
166	Industrial/Warehouse Unit	Dartford	5.3	27/11/2017	04/06/2018	Private Industrial
167	Airport Airfields	Shepway	5.3	22/05/2017	19/03/2018	Infrastructure
168	Hotel	Sevenoaks	5.3	15/05/2017	14/05/2018	Private Commercial
169	School (Extension/Alterations)	Medway	5.1	07/11/2016	16/10/2017	Public Non-housing
170	Industrial/Office & Retail Units	Medway	5.0	03/07/2017	08/01/2018	Private Industrial, Private

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
						Commercial
171	Distribution Depot Cold Store (Extension)	Tonbridge & Malling	5.0	04/09/2017	02/07/2018	Private Industrial
172	Hotel	Maidstone	5.0	17/01/2018	17/08/2018	Private Commercial
173	Fire Station & Training Facility	Thanet	5.0	08/05/2017	10/08/2018	Public Non-housing
174	Care Home	Swale	5.0	17/01/2018	17/10/2018	Public Non-housing
175	School Building	Tonbridge & Malling	4.9	06/02/2017	24/11/2017	Public Non-housing
176	Car Showroom	Ashford	4.8	25/09/2017	23/04/2018	Private Commercial, Private Industrial
177	Offices/Light Industry/Warehouse (New/Extension)	Wealden	4.7	29/10/2018	29/07/2019	Private Commercial, Private Industrial
178	63 Residential Units	Lewes	4.7	16/10/2017	16/04/2018	New housing
179	Harbour (Extension/Alterations)	Lewes	4.6	09/10/2017	16/07/2018	Infrastructure
180	96 Residential Units	Maidstone	4.6	23/01/2017	31/10/2017	New housing
181	School	Dartford	4.6	04/07/2016	25/08/2017	Public Non-housing
182	Care Home	Maidstone	4.5	16/04/2018	18/01/2019	Public Non-housing
183	5 Retail Units & 1 Supermarket/1 Pub	Maidstone	4.5	26/09/2016	04/08/2017	Private Commercial
184	5 Industrial Units	Dartford	4.5	14/08/2017	19/02/2018	Private Industrial
185	22 Houses & 15 Flats	Sevenoaks	4.3	14/08/2017	14/02/2018	New housing
186	Care Home	Medway	4.3	29/08/2017	29/09/2018	Public Non-housing
187	153 Student Flats	Canterbury	4.2	05/12/2016	28/07/2017	Public Non-housing
188	Sports Pitches/Play Area	Tonbridge & Malling	4.2	09/01/2017	21/08/2017	Infrastructure

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
189	Self-Storage Facility (Extension)	Wealden	4.2	22/01/2018	30/07/2018	Private Industrial
190	Supermarket	Maidstone	4.1	12/02/2018	07/09/2018	Private Commercial
191	Care Home	Ashford	4.1	16/10/2017	16/07/2018	Public Non-housing
192	Hotel (Conversion/Extension)	Maidstone	4.0	13/08/2018	25/03/2019	Private Commercial
193	2 Sparkling Wine Production Buildings	Wealden	4.0	01/05/2017	26/01/2018	Private Industrial
194	Warehouse (Extension)	Ashford	4.0	19/06/2017	26/03/2018	Private Industrial
195	7 Restaurant/Vehicle Centre/Light Industry/Warehouse Units	Canterbury	3.9	27/11/2017	09/07/2018	Private Commercial, Private Industrial
196	Supermarket	Dover	3.8	03/04/2017	09/11/2017	Private Commercial
197	Care Home	Canterbury	3.8	20/11/2017	10/09/2018	Public Non-housing
198	Office Building	Dartford	3.8	31/10/2016	07/07/2017	Private Commercial
199	College Classrooms (Extension)	Swale	3.7	29/05/2017	28/05/2018	Public Non-housing
200	University Building (Extension)	Dartford	3.7	20/03/2017	19/02/2018	Public Non-housing
201	21 Industrial/Warehouse Units (New/Extension)	Rother	3.7	11/09/2017	19/03/2018	Private Industrial
202	5 Supermarket/Retail/Restaurant & Public House Units	Ashford	3.7	17/01/2018	17/08/2018	Private Commercial
203	Finberry Primary School	Ashford	3.5	11/07/2016	31/07/2017	Public Non-housing
204	4 Tennis Courts/Sports & Football Pitch	Thanet	3.5	18/04/2017	20/02/2018	Infrastructure, Infrastructure
205	Highway Works	Ashford	3.5	05/07/2018	21/03/2019	Infrastructure
206	Winery	Rother	3.5	02/10/2017	02/06/2018	Private Industrial, Private Commercial
207	Railway Station Improvements	Shepway	3.4	20/02/2017	31/08/2017	Infrastructure

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
208	Road (Improvements)	Medway	3.4	16/01/2017	31/10/2017	Infrastructure
209	66 Flats & 1 Office	Sevenoaks	3.4	21/08/2017	26/02/2018	New housing, Private Commercial
210	Hotel	Canterbury	3.3	21/01/2018	03/09/2018	Private Commercial
211	3 Industrial/Storage Units	Tonbridge & Malling	3.3	04/09/2017	12/03/2018	Private Industrial
212	64 Flats (Alterations)	Gravesham	3.2	12/06/2017	15/09/2017	Housing R&M
213	Hotel	Hastings	3.2	21/08/2017	02/04/2018	Private Commercial
214	School	Dover	3.1	19/12/2016	15/09/2017	Public Non-housing
215	Supermarket	Shepway	3.1	09/01/2017	28/07/2017	Private Commercial
216	Care Home	Dartford	3.1	04/06/2018	04/03/2019	Public Non-housing
217	4 Restaurants/Cafes	Thanet	3.1	09/04/2018	19/11/2018	Private Commercial
218	University (Extension)	Canterbury	3.0	05/03/2018	26/11/2018	Public Non-housing
219	Supermarket	Wealden	3.0	26/06/2017	05/01/2018	Private Commercial
220	3 Industrial/Office/Storage Units	Gravesham	3.0	10/07/2017	15/01/2018	Private Industrial
221	Shop (Alterations/Refurb)	Thanet	2.9	03/04/2017	07/07/2017	Private Commercial
222	School Multi Use Centre	Medway	2.7	04/12/2017	06/08/2018	Public Non-housing
223	Hospital Emergency Department (Extension/Alterations)	Medway	2.5	30/01/2017	30/07/2017	Public Non-housing
224	School	Thanet	2.2	24/01/2017	06/09/2017	Public Non-housing
225	School Science Classroom (Extension)	Canterbury	1.9	03/07/2017	24/11/2017	Public Non-housing
226	Cold Store Building (New/Extension)	Swale	1.8	16/10/2017	23/04/2018	Private Industrial, Infrastructure, Infrastructure
227	Supermarket (Fit Out)	Medway	1.1	19/06/2017	17/07/2017	Private Commercial

ID	Description	Local Authority	Construction Value	Start Date	End Date	Project Type
228	School (Refurbishment)	Medway	0.6	03/07/2017	18/09/2017	Public Non-housing

Appendix D. LEP and NICP projects in the South East LEP

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

ID	Name	Construction value	Start Date	End Date	Source
1	Southern Water: Sewage Service AMP6	481.2	01/04/2015	01/04/2019	NICP
2	K3 CHP Facility	307.5	01/04/2017	01/04/2018	NICP
3	Highways Maintenance Block Funding (SR10 allocation)	202.1	01/04/2015	01/04/2020	NICP
4	Southern Water: Water Service AMP6	192.5	01/04/2015	01/04/2019	NICP
5	South East Water: Water Service AMP6	145.4	01/04/2015	01/04/2019	NICP
6	Local Enterprise Partnerships Allocation for Transport in Strategic Economic Plans - South East	139.7	01/04/2015	01/04/2020	NICP
7	Southend ABP Ph 2	103.8	16/04/2018	16/07/2028	LEP
8	Rampion	102.6	01/04/2015	01/04/2018	NICP
9	Port of Dover - Western Docks and Marina Areas	98.9	01/04/2015	01/04/2018	NICP
10	A2 off slip at Wincheap	93.7	12/01/2019	02/10/2019	LEP
11	Scottish and Southern Energy Southern (SSES) RIIO	84.1	01/04/2015	01/04/2020	NICP
12	Integrated Transport Block	71.1	01/04/2015	01/04/2020	NICP
13	M25 Junction 30	63.8	01/04/2015	01/04/2016	NICP
14	UK Power Networks - South East (SPN) RIIO	61.1	01/04/2015	01/04/2020	NICP
15	South East Construction programme	51.7	01/04/2015	01/04/2020	NICP
16	A21 Tonbridge to Pembury	42.1	01/04/2015	01/04/2017	NICP
17	South East Development programme	40.4	01/04/2015	01/04/2020	NICP
18	Newhaven Town Centre	39.8	01/01/2019	01/04/2021	LEP
19	National Grid: South East	35.3	01/04/2015	01/04/2020	NICP
20	Fort Halstead	31.9	16/09/2018	16/10/2019	LEP
21	Port of Dover - capital investment plan	30.4	01/04/2015	01/04/2016	NICP
22	Sutton & East Surrey Water: Water Service AMP6	24.8	01/04/2015	01/04/2019	NICP

ID	Name	Construction value	Start Date	End Date	Source
23	Thames Estuary 2100 Programme Phase 1	22.8	01/04/2015	01/04/2020	NICP
24	Successful Growth Locations: Newhaven Economic Zone: Port Access Road, ParkerPen & EastSide	22.0	01/04/2015	01/04/2019	NICP
25	Challenge Fund - South East	18.2	01/04/2015	01/04/2017	NICP
26	Eastside South, Newhaven, commercial floor space	11.7	01/02/2018	01/02/2019	LEP
27	Ashford International Rail	5.5	16/04/2018	16/01/2019	LEP
28	Sussex Traction Power Supply Upgrade	4.6	01/04/2015	01/04/2018	NICP
29	Strood Civic Centre Flood Works	2.8	02/09/2018	11/06/2019	LEP
30	Development including Village Hall and 25 dwellings	2.1	01/04/2020	01/04/2022	LEP
31	26 Residential/Student/tourist Units & Commercial Units	1.9	01/04/2018	01/04/2021	LEP
32	10 dwellings, Northbourne Road, Eastbourne	1.5	01/02/2018	01/03/2019	LEP
33	Sovereign Harbour Community Centre, Eastbourne	1.5	01/11/2017	01/04/2020	LEP
34	5 Commercial Units	1.4	01/04/2018	01/04/2019	LEP
35	School (Extension)	1.2	01/04/2018	01/04/2019	LEP
36	Showroom	0.7	01/04/2019	01/04/2020	LEP
37	Care Home (Extension)	0.7	01/04/2018	01/04/2019	LEP
38	9 Flats & 3 Shops	0.6	01/04/2023	01/04/2024	LEP
39	Office conversion to 11 flats	0.5	01/04/2021	01/04/2022	LEP
40	A2500 Lower Road	0.3	10/09/2018	22/03/2019	LEP
41	Sports Field Facility	0.3	01/04/2018	01/04/2021	LEP
42	Leigh Flood Storage Area	0.2	07/01/2019	09/09/2019	LEP

Appendix E. Region employer operates in, compared with working in

Appendix Table 18: Region/nation employer operates in, compared with region/nation working in currently

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 and 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%

Appendix F. Region/nation of current site in relation to current residence

Appendix Table 14: Region/nation of current site in relation to current residence

Region/nation of current residence	Region/nation currently working in											
	EM %	EE %	GL %	NE %	NW %	NI %	SC %	SE %	SW %	WA %	WM %	YH %
East Midlands	**74**	12	1	1	0	0	0	**9**	*	0	2	7
East of England	2	**63**	13	0	0	0	0	**8**	1	0	1	0
London	0	12	**71**	0	0	0	0	**12**	1	0	0	0
North East	0	2	0	**97**	0	0	0	**0**	0	0	0	5
North West	3	0	0	0	**88**	0	0	**1**	*	5	3	2
Northern Ireland	2	*	0	0	0	**99**	2	**1**	1	1	0	0
Scotland	0	0	1	1	1	0	**96**	**0**	0	0	0	0
South East	**3**	**3**	**12**	**0**	**0**	**0**	**0**	**58**	**7**	**0**	**0**	**0**
South West	*	0	0	0	0	0	0	**8**	**85**	0	5	0
Wales	0	1	0	*	3	0	0	**0**	2	**93**	6	0
West Midlands	7	1	*	1	8	0	0	**1**	2	0	**82**	0
Yorkshire and the Humber	8	1	0	*	1	0	1	**0**	1	0	*	**86**
No permanent address	1	3	2	0	0	1	1	**1**	1	*	*	0
Unweighted bases	275	235	284	314	340	155	314	**306**	364	206	216	291

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%