

# Factsheet: Demand for Digital specialists

## Introduction

This fact sheet provides an analysis of demand/supply trends for digital specialists in the UK using bespoke data from [ITJobswatch](#) together with supporting information taken from the ONS Annual Population Survey (APS) and the Eurostat ICT usage and e-commerce in enterprises survey.

## Key findings

- On average, there were 163,000 vacancies for digital specialists advertised across the UK during each quarter of 2015.
- Six in ten adverts (61%) for digital specialists in 2015 were based in London or the South East of England.
- As a group, Developers were the most commonly sought digital specialists accounting for just over one quarter (27%) of all jobs advertised.
- At sub-group level, Project Managers and Business Analysts were the most commonly advertised positions within both the permanent and contract markets.
- Agile software development was the process/methodological skill requirement most often required of digital specialists (22% of adverts as a whole) whilst the top digital tools needed were SQL Windows, SQL Server, JavaScript and .NET
- A degree was the most sought qualification in 2015 (featuring in 11% of digital job advert) followed by a Cisco then Microsoft certification.
- The average advertised rates of pay for digital specialists in 2015 were £48,900 per annum for permanent positions and £410 per day for contract jobs.
- There were 109,000 'ready candidates' to take up jobs for digital specialists throughout 2015 - 80,000 digital specialists looking for a new/additional job and 29,000 unemployed digital specialists.
- The shortfall in the number of 'ready candidates' compared with advertised positions was most pronounced in London where there were just 0.4 candidates/job on average during 2015.
- Latest estimates from ONS/Eurostat confirm the prevalence of digital skills shortages in 2015 with an estimated 39% of 'digital recruiters' reporting hard-to-fill vacancies rising to 52% of businesses in the digital sector.

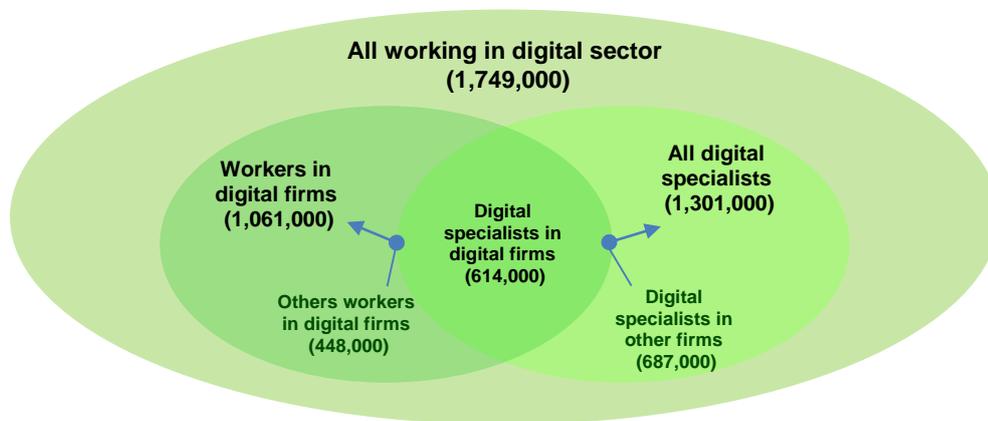
## About the Tech Partnership

The Tech Partnership is a growing network of employers, collaborating to create the skills for the digital economy. It acts for the good of the sector by inspiring young people about technology, accelerating the flow of talented people of all backgrounds into digital careers, and helping companies to develop the digital skills they need for the future.

## 1. Digital industries, digital specialists and the digital sector

Latest estimates from the Office for National Statistics (ONS) show there were approximately 31m people working in the UK in 2015<sup>1</sup> of which 1.75m (6%) were working in the digital sector – 1.1m (61%) within digital businesses (in digital or support roles) and a further 0.65m (39%) working as digital specialists within other parts of the economy.

Figure 1: The digital sector and the digital workforce, 2015



Source: Analysis of data from the ONS Annual Population Survey (APS) undertaken by The Tech Partnership

Employer/workforce characteristics and associated trends for the digital sector are explored in detail within a series of factsheets [published by the Tech Partnership](#) and this report seeks to build on this knowledge base by presenting an in depth analysis of demand/supply trends for digital specialists in the UK using bespoke data from [ITJobswatch](#) together with supporting information taken from the ONS Annual Population Survey (APS) and the Eurostat ICT usage and e-commerce in enterprises survey (known in the UK as the ONS e-commerce survey).

<sup>1</sup> Workforce estimates in this publication supersede those presented within previous factsheets and are not directly compatible due to the utilisation of different ONS datasets

## 1 Demand for digital specialists

### 1.1 Demand overview

There were on average 162,900 vacancies for digital specialists advertised across the UK during each quarter of 2015 – 3% less than the level recorded during the previous year (168,600) though 2% more than the number registered five years earlier in 2010 (159,500).

**Figure 1: Demand for digital specialists by contractual status, 2010-15**



Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

Just under two thirds (66%) of positions advertised for digital specialists in 2015 were for permanent positions and the relative shares of permanent to contract postings has remained at approximately the same level throughout the past five-year period (ranging from a minimum of 64% in 2010 to a maximum of 69% in 2013).

### 1.2 Demand for digital specialists by region

As would be expected, demand for digital specialists is heavily concentrated within London and the South East of England and these two regions together account for approximately 61% of all advertised vacancies for digital specialists. The degree to which these two areas dominate the digital recruitment market is however, much higher than expected, given that only 42% of digital specialists actually worked within these two regions in 2015 and that they are the place of work for just 29% of the UK workforce as a whole.

The proportion of adverts for digital specialists accounted for by firms in London/the South East has, however been in decline in recent years - falling by seven percentage points from a peak of 68% in 2010. Though a fall was apparent within both the permanent and contract markets, the decline in the share of jobs advertised within these regions was slightly more pronounced for contract as opposed to permanent positions (with respective falls of 10 and 7 percentage points respectively).

The fall in the relative share of digital positions accounted for by London/the South East of England in recent years can however, as shown overleaf, be attributed to a fall in demand within the capital itself where advertised positions have declined in number by approximately 16% over the 2010-15 period. In fact, over the past 5 years London was one of only two broad areas in the UK in which a decline in demand for digital specialist was recorded – the other being Northern Ireland where a fall of 58% was observed.

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**Table 1: Demand for digital specialists by UK nation/region, 2010-15**

	2010	2011	2012	2013	2014	2015	Share (2015)	Change (YoY)	Change (5 Yr)
North East	1,000	1,200	1,200	1,000	1,500	1,700	1%	15%	66%
North West	9,400	9,900	10,700	10,000	10,600	10,600	7%	1%	12%
Yorkshire	6,400	7,500	8,400	8,100	10,000	10,000	6%	-0%	56%
East Midlands	4,100	5,100	4,800	4,900	5,300	5,300	3%	0%	28%
West Midlands	5,600	6,700	7,100	7,300	7,800	8,000	5%	3%	43%
East of England	10,100	12,900	12,200	10,200	11,100	10,400	6%	-7%	3%
London	80,400	88,500	77,800	69,700	71,500	67,700	42%	-5%	-16%
South East	28,000	34,900	33,800	30,900	32,600	31,300	19%	-4%	12%
South West	8,200	9,000	8,900	7,900	9,400	9,300	6%	-1%	14%
Wales	1,300	1,700	1,700	1,800	2,100	2,200	1%	7%	64%
Scotland	4,500	6,200	5,900	5,700	6,400	6,300	4%	-2%	39%
Northern Ireland	500	600	500	400	300	200	0%	-30%	-58%
UK	159,500	184,100	173,000	157,800	168,600	162,900	100%	-3%	2%

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

### 1.3 Demand by occupational group

Overall, the main groups of digital specialists required by UK employers in 2015 (and during each of the previous four years) were developers (27% of all positions advertised), analysts (17%), consultants (6%), architects (6%), administrators (3%), managers (2%) and designers (also 2% of the total).

Further sub-division of these groups however reveals the single most commonly advertised position at 'operational level' for digital specialists was – Project Manager – such positions featuring in 6% of all adverts for digital specialists during 2015 (5% of adverts for permanent staff and 9% of contract jobs).

**Figure 2: Top ten digital specialist roles in demand, by nature of employment, 2015**

All digital openings		All permanent openings		All contract openings	
1 - Project Manager	10,400 (6%)	1 - Project Manager	5,600 (5%)	1 - Project Manager	4,800 (9%)
2 - Business Analyst	8,700 (5%)	2 - Business Analyst	4,800 (4%)	2 - Business Analyst	3,900 (7%)
3 - Support Analyst	4,400 (3%)	3 - Support Analyst	3,400 (3%)	3 - Solutions Architect	1,200 (2%)
4 - Support Engineer	4,000 (2%)	4 - Support Engineer	3,000 (3%)	<b>4 - Test Analyst</b>	<b>1,100 (2%)</b>
5 - Web Developer	3,500 (2%)	<b>5 - Web Developer</b>	<b>2,800 (3%)</b>	5 - Support Engineer	1,000 (2%)
6 - Software Engineer	3,300 (2%)	<b>6 - Software Developer</b>	<b>2,700 (3%)</b>	6 - Support Analyst	1,000 (2%)
7 - Solutions Architect	3,200 (2%)	<b>7 - Software Engineer</b>	<b>2,700 (3%)</b>	<b>7 - Service Analyst</b>	<b>900 (2%)</b>
8 - Software Developer	3,100 (2%)	8 - Applications Support	2,200 (2%)	<b>8 - Front End Developer</b>	<b>900 (2%)</b>
9 - Network Engineer	2,900 (2%)	9 - Network Engineer	2,000 (2%)	9 - Network Engineer	900 (2%)
10 - Front End Developer	2,900 (2%)	10 - Solutions Architect	2,000 (2%)	<b>10 - Data Analyst</b>	<b>800 (2%)</b>

Note: Roles in bold are not in the top ten for both the permanent and contract markets

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

Over the past five years, the top ten roles advertised for digital specialists have changed little - Project Managers and Business Analysts have been in the number one and two spot throughout whilst Support Analysts, Support Engineers, Web Developers, Software Engineers and Software Developers have all been in the top ten list throughout the 2010-15 period.

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**Table 2: Change in demand for digital specialists (top ten roles), 2010-15**

	2010	2011	2012	2013	2014	2015	Share (2015)	YoY change	5 Yr change
Project Manager	10,000	11,300	10,700	9,700	10,600	10,400	6%	-2%	4%
Business Analyst	11,400	11,900	9,900	8,400	8,700	8,700	5%	<1%	-24%
Support Analyst	4,500	5,400	4,900	4,300	4,700	4,400	3%	-8%	-3%
Support Engineer	2,600	3,600	3,700	3,600	4,300	4,000	2%	-7%	50%
Web Developer	4,200	5,200	5,200	4,500	4,300	3,500	2%	-19%	-18%
Software Engineer	2,700	3,500	3,900	3,400	3,300	3,300	2%	<-1%	20%
Solutions Architect	2,000	2,500	2,700	2,700	2,900	3,200	2%	11%	60%
Software Developer	2,600	3,300	3,600	3,600	3,600	3,100	2%	-15%	20%
Network Engineer	1,400	2,100	2,400	2,200	2,700	2,900	2%	9%	108%
Front End Developer	1,000	1,500	2,100	2,400	2,800	2,900	2%	4%	199%

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

The top roles also vary little by geography and the top broad groups of digital specialist in demand in each of the UK nations/regions during 2015 were: Developers, Analysts, Architects and Consultants. At sub-group level too, the picture was much the same across the UK though the relative proportion of jobs advertised varies somewhat as illustrated in the table below:

**Figure 3: Top 5 roles advertised for digital specialists by UK nation/region, 2015**

North East			North West			Yorkshire		
Project Manager	80	5%	Project Manager	740	7%	Project Manager	650	7%
Business Analyst	70	5%	Business Analyst	520	5%	Business Analyst	540	6%
Web Developer	60	4%	Web Developer	260	2%	Test Analyst	320	3%
Software Developer	60	4%	Test Analyst	250	2%	Support Analyst	250	3%
Solutions Architect	40	3%	DBA	230	2%	Web Developer	240	3%
East Midlands			West Midlands			East of England		
Project Manager	360	7%	Project Manager	580	7%	Project Manager	640	6%
Business Analyst	290	6%	Business Analyst	400	5%	Business Analyst	420	4%
Software Developer	170	3%	Web Developer	230	3%	Software Engineer	380	4%
Web Developer	160	3%	Software Developer	210	3%	Support Analyst	380	4%
Support Analyst	150	3%	Support Analyst	180	2%	Web Developer	350	3%
London			South East			South West		
Business Analyst	4,120	6%	Project Manager	1,900	6%	Business Analyst	410	5%
Project Manager	4,110	6%	Business Analyst	1,220	4%	Project Manager	490	5%
Support Analyst	1,900	3%	Support Engineer	1,130	4%	Software Engineer	420	5%
Front End Developer	1,470	2%	Web Developer	840	3%	Support Engineer	330	4%
Support Engineer	1,330	2%	Software Engineer	820	3%	Software Developer	300	3%
Wales			Scotland			Northern Ireland		
Business Analyst	120	6%	Project Manager	480	8%	Software Engineer	20	8%
Project Manager	120	6%	Business Analyst	470	8%	Solutions Architect	10	4%
Test Analyst	80	3%	Test Analyst	210	4%	Technical Architect	10	5%
Support Engineer	60	3%	Solutions Architect	110	2%	Network Engineer	10	4%
Network Engineer	60	3%	Software Engineer	120	2%	Software Developer	10	4%

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

## 1.4 Demand by process/methodological skill

During 2015, agile software development was the process/methodological skill requirement most often cited in adverts for digital specialists (22% of adverts as a whole) and this was the case within both the permanent and contract recruitment markets (24% and 18% respectively). Amongst the remaining top ten processes/methodological skills again, there were six that were common to both the permanent and contract markets as illustrated in the table below:

**Figure 4: Top ten process/methodological skills in demand, by nature of employment, 2015**

All digital openings		All permanent openings		All contract openings	
1 - Agile Development*	35,400 (22%)	1 - Agile Development*	25,500 (24%)	1 - Agile Development*	9,900 (18%)
2 - Project Management	15,300 (9%)	2 - Project Management	10,200 (9%)	2 - Project Management	5,100 (9%)
3 - Analytical Skills	12,800 (8%)	3 - Analytical Skills	9,400 (9%)	3 - Stakeholder Management	4,300 (8%)
4 - Scrum	11,500 (7%)	4 - Scrum	8,400 (8%)	4 - Migration	3,600 (7%)
5 - TDD	11,300 (7%)	5 - TDD	8,200 (8%)	5 - Analytical Skills	3,400 (6%)
6 - Stakeholder Management	10,200 (6%)	6 - Software Engineering	6,800 (6%)	6 - Scrum	3,100 (6%)
7 - Business Intelligence	9,400 (6%)	7 - Business Intelligence	6,800 (6%)	7 - TDD	2,900 (5%)
8 - Web Services	9,200 (6%)	8 - Web Services	6,600 (6%)	8 - Business Intelligence	2,600 (5%)
9 - Software Engineering	8,500 (5%)	9 - OO	6,400 (6%)	9 - Web Services	2,600 (5%)
10 - E-Commerce	8,000 (5%)	10 - E-Commerce	6,100 (6%)	10 - E-Commerce	2,000 (4%)

Notes: \* - Abbreviated from Agile Software Development

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

## 1.5 Demand by digital tools

The 'tools' (specific applications, platforms, languages etc.) most often called for within adverts for digital specialists during 2015 were, in order: SQL Windows, SQL Server, JavaScript and .NET and again, these 'core' tools were largely the same for permanent and contract positions and are little changed over the past five years.

**Figure 5: Top ten digital tools in demand, by nature of employment, 2015**

All digital openings		All permanent openings		All contract openings	
1 - SQL	31,400 (19%)	1 - SQL	23,400 (22%)	1 - SQL	8,100 (15%)
2 - Windows	23,900 (15%)	2 - SQL Server	17,700 (16%)	2 - Windows	6,800 (12%)
3 - SQL Server	22,600 (14%)	3 - .NET	17,100 (16%)	3 - Java	5,900 (11%)
4 - JavaScript	22,100 (14%)	4 - Windows	17,100 (16%)	4 - JavaScript	5,300 (10%)
5 - .NET	21,700 (13%)	5 - JavaScript	16,800 (16%)	5 - HTML	5,100 (9%)
6 - Java	20,900 (13%)	6 - C#	16,700 (16%)	6 - Oracle	4,900 (9%)
7 - HTML	20,800 (13%)	7 - HTML	15,700 (15%)	7 - SQL Server	4,900 (9%)
8 - C#	20,700 (13%)	8 - Java	15,000 (14%)	8 - .NET	4,500 (8%)
9 - CSS	17,100 (10%)	9 - CSS	13,100 (12%)	9 - Linux	4,300 (8%)
10 - Linux	15,700 (10%)	10 - Linux	11,300 (11%)	10 - CSS	4,000 (7%)

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

## 1.6 Demand by qualification

A degree is the qualification most often called for in adverts for digital specialists and in total, 11% of all such positions advertised in 2015 cited such a requirement (14% amongst adverts for permanent positions though only 5% of those for contractors). After a degree, the next most commonly requested qualifications were Cisco and then Microsoft awards and, as with the degree requirement, these qualifications were noted as appearing amongst the top five cited in adverts for both permanent and contract positions.

**Figure 6: Top ten qualifications/certifications in demand, by nature of employment, 2015**

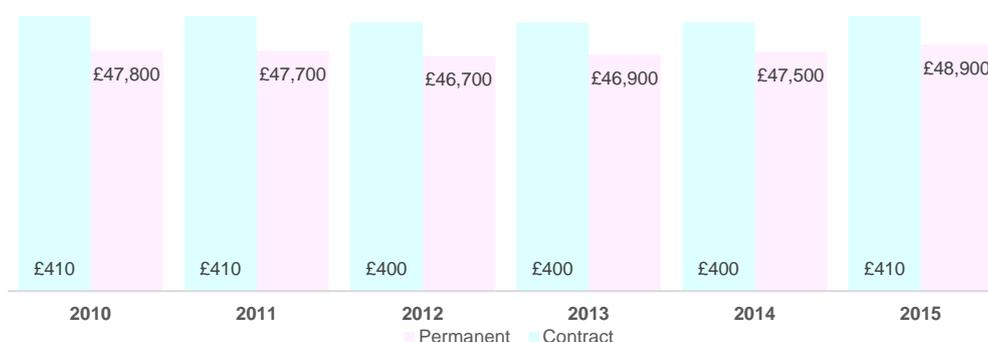
All digital openings		All permanent openings		All contract openings	
1 - Degree	17,500 (11%)	1 - Degree	15,000 (14%)	1 - Degree	2,500 (4%)
2 - Cisco Certification	4,400 (3%)	2 - Microsoft Certification	3,000 (3%)	2 - Cisco Certification	1,000 (2%)
3 - Microsoft Certification	3,700 (2%)	3 - Cisco Certification	3,400 (3%)	3 - ISEB	800 (1%)
4 - ISEB	2,700 (2%)	4 - CCNA	2,000 (2%)	4 - Microsoft Certification	700 (1%)
5 - CCNA	2,500 (2%)	5 - ISEB	1,900 (2%)	5 - CCNP	600 (1%)
6 - CCNP	2,500 (2%)	6 - CCNP	1,900 (2%)	6 - PMI Certification	500 (1%)
7 - MCSE	1,900 (1%)	7 - MCSE	1,600 (1%)	7 - CCNA	500 (1%)
8 - CISSP	1,800 (1%)	8 - CISSP	1,400 (1%)	8 - PRINCE2 Certification	500 (1%)
9 - PMI Certification	1,600 (1%)	9 - ITIL Certification	1,200 (1%)	9 - ISTQB	500 (1%)
10 - ITIL Certification	1,600 (1%)	10 - ISTQB	1,100 (1%)	10 - CISSP	400 (1%)

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

## 1.7 Demand by level of remuneration

The average advertised rate of pay for permanent positions for digital specialists in 2015 was £48,900 per annum whilst the advertised daily rate for digital contractors was £410 per day. In both cases, rates were seen to have increased by approximately 3% on that recorded during the previous year though looking longer term whilst advertised salaries for permanent digital positions were up slightly compared with the level recorded in 2010 (2%), contract rates were associated with a slight decline over the five-year period (i.e. down 1%).

**Figure 7: Advertised rates of pay by nature of employment, 2010-15**



Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

The advertised rates of pay vary substantially across the UK and this was particularly apparent amongst permanent openings for digital specialists - i.e. eight of the twelve UK nations/regions were associated with permanent rates at below 90% of the UK average and overall the average rates varied from £57,000 on average in London to just £37,600 in Wales (i.e. 116% of the UK average to just 77%). The range for contract positions by contrast was slightly smaller (from 76% of the average in Northern Ireland to 109% in London) whilst only three nations/regions were associated with rates below 90% of the UK average.

**Table 3: Average advertised rates of pay for digital specialists, by UK nation/region, 2015**

	2015	Proportion of UK figure	2015	Proportion of UK figure
London	£57,000	116%	£450	109%
England	£49,200	101%	£410	101%
South East	£45,200	92%	£380	93%
East of England	£44,200	90%	£380	93%
Scotland	£43,800	90%	£370	89%
West Midlands	£41,900	86%	£370	90%
North West	£40,800	83%	£390	96%
Yorkshire	£40,800	83%	£370	91%
South West	£40,800	83%	£380	92%
East Midlands	£40,300	82%	£370	90%
Northern Ireland	£39,800	81%	£310	76%
North East	£39,500	81%	£390	96%
Wales	£37,600	77%	£350	86%
<b>UK</b>	<b>£48,900</b>	<b>100%</b>	<b>£410</b>	<b>100%</b>

Source: Analysis of bespoke data from ITJobswatch undertaken by the Tech Partnership

## 2 Candidate supply

Though positions for digital specialists may be filled by people from a variety of different backgrounds, there are two types of candidate in particular that can perhaps be considered as the main source of 'ready candidates' for recruiters (i.e. individuals that can likely be recruited to positions for digital specialists without the need for extensive (re)training/conversion programmes) - firstly digital specialists already in work but seeking a new/additional job, and secondly unemployed digital specialists seeking a return to work. Looking at each of these cases in turn:

### 2.1 Digital job changers

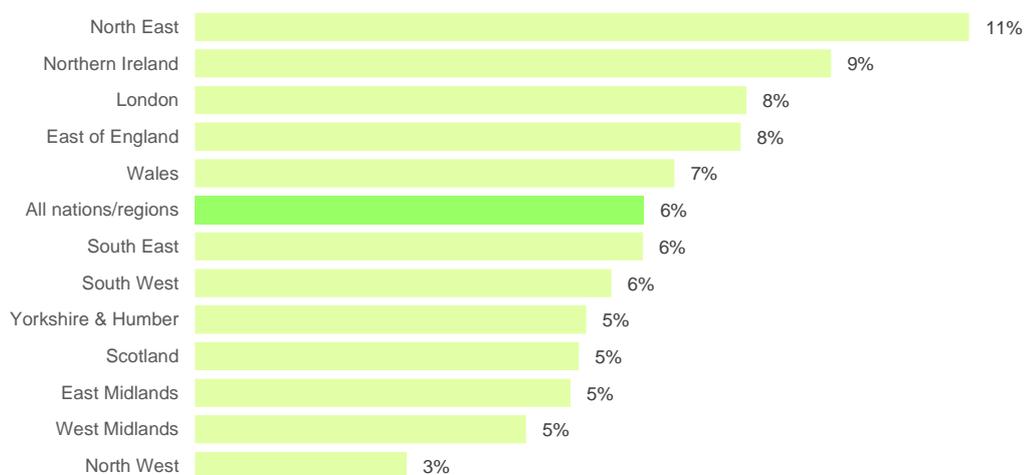
There were, on average, 80,000 digital specialists that were in work but seeking a new/additional job in 2015, that is 6% of the total for the year. Of these, the majority (60,000) were in managerial/ professional roles and the remainder (20,000) working as technicians/engineers and in both instances around nine in ten were looking primarily for a new as opposed to additional position.

Compared with the previous year, the number of digital specialists seeking new/additional jobs was down slightly (-2%) though a notable increase was observed when compared with the level recorded in 2010 (i.e. up 26% from a figure of 63,000). This said, the proportion seeking work has remained much the same at around the 6% mark throughout the period.

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The likelihood that digital specialists were seeking work varied substantially across the UK during 2015 - from 11% of those working in the North East of England to just 3% in the North West. Interestingly the proportion seeking work in London and the South East of England was equal to the national average at 6% in each case.

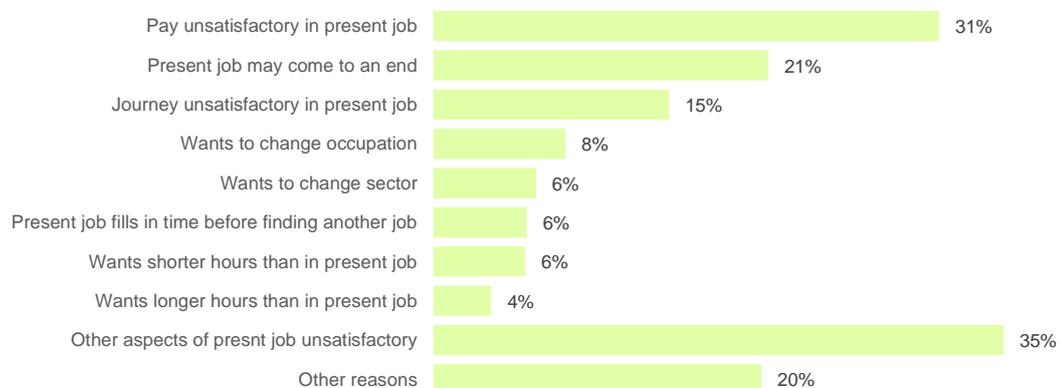
**Figure 8: Proportion of digital specialists seeking new/additional jobs by nation/region, 2015**



Source: Analysis of data from the ONS Annual Population Survey undertaken by the Tech Partnership

When asked why they were seeking work, jobseekers already in digital specialist positions (and seeking a different job) were most likely to state that it was due to unsatisfactory levels of pay (31%). Though a notable proportion (21%) stated that they were seeking work as their current position was coming to an end.

**Figure 9: Main reason for digital specialists seeking new jobs, 2015**

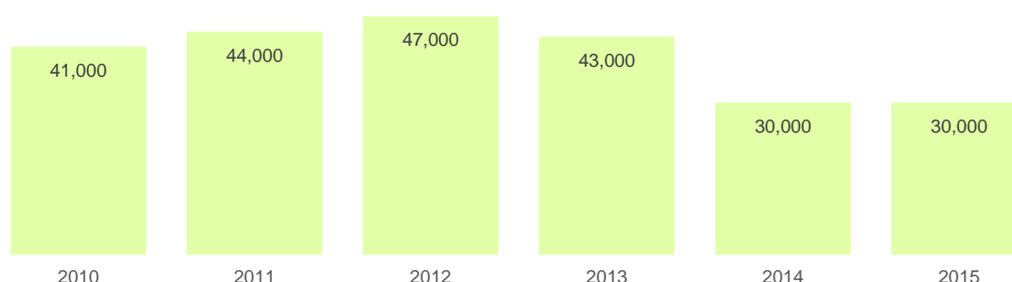


Source: Analysis of data from the ONS Annual Population Survey undertaken by the Tech Partnership

## 2.2 Unemployed digital specialists

According to the International Labour Organisation (ILO) definition of unemployment (broadly those that are unemployed but seeking work), there were 30,000 unemployed digital specialists in the UK on average throughout 2015 (i.e. ILO unemployed and whose previous position was as a digital specialist) - 22,000 digital managers/professionals and 8,000 digital technicians/engineers. The number of unemployed digital specialists was down slightly on the previous year and substantially when compared with the 2010-2013 period when unemployment amongst such occupations was above 40,000 in each year.

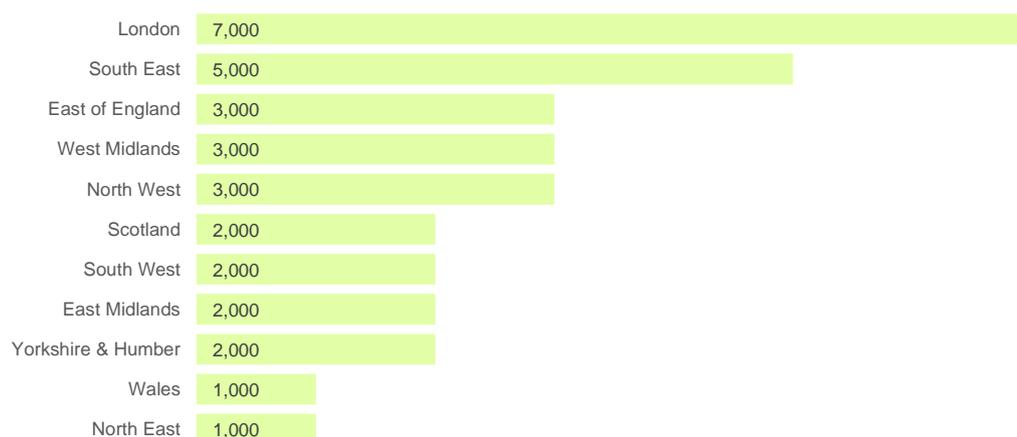
**Figure 10: Unemployed digital specialists, 2010-2015**



Source: Analysis of data from the ONS Annual Population Survey undertaken by the Tech Partnership

By region, London and the South East collectively are estimated to have been home to approximately 12,000 unemployed specialists which, at 39% of the total is notably less than the relative share of digital employment accounted for by these two regions<sup>2</sup>.

**Figure 11: Unemployed digital specialists by UK region, 2015**



Source: Analysis of data from the ONS Annual Population Survey undertaken by the Tech Partnership

<sup>2</sup> Figures are derived from the regional shares for unemployed digital specialists over the 2010-15 period to reduce error margins to acceptable levels.

## 2.3 Demand supply mismatch

By combining the estimates for the number of unemployed digital specialists and the number of digital specialists in work but seeking new/additional employment an indication of the quantity of 'ready candidates' can be obtained which can then be compared with the level of estimated demand to provide an indication of the level of mismatch between the demand and supply of digital specialists in the UK.

As can be seen in the figure below, the results of this analysis show that demand for digital specialists has exceeded the supply of ready candidates during each of the past five years, the shortfall peaking in 2011 at 70,000 positions and reaching 53,000 positions in 2015.

An alternative way of considering the scale of the supply/demand mismatch is to look at the number of ready candidates per advertised vacancy -in this case ranging from 0.62 in 2011 to 0.75 in 2013 and 0.62 during the latest year.

**Figure 12: Digital demand and ready candidate numbers compared, 2010-2015**



Source: Analysis of data from the ONS Annual Population Survey and bespoke data from ITJobswatch undertaken by the Tech Partnership

Using the same methodology to examine the potential mismatch at a regional level shows that whilst North East, East Midlands, East of England and the devolved nations appear to be associated with a larger number of ready candidates than advertised positions, a shortfall was apparent in each of the remaining regions, with London in particular associated with the largest demand/supply mismatch (42,000 positions) and a figure of just 0.4 ready candidates per digital specialist position advertised.

## 2.4 Skills shortages

The most up-to-date estimates for the incidence of digital skills shortages available from recognised public data providers are provided by way of the ONS E-commerce survey which is in turn undertaken as part of a wider EU survey - ICT usage and e-commerce in enterprises. Unfortunately, the survey does not cover the entire economy (i.e. the survey is enterprise based, excludes enterprises with less than 10 staff, and also excludes enterprises within the financial sector - a significant employer of digital specialists).

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Results from the latest ICT usage and e-commerce in enterprise survey show that approximately 22% of UK enterprises had digital specialists in 2015 (see notes for definitions and links) and that 11% of enterprises had recruited or sought 'to recruit personnel for jobs requiring ICT specialist skills'. Of these 39% stated that they had had found it hard to recruit **people with these skills - the same proportion as that recorded during 2014 and 2012** (2013 data not available).

As illustrated in the table below however, digital skills shortages (i.e. hard-to-fill vacancies for digital specialists) were even more commonplace amongst larger enterprises (49% of those recruiting personnel for jobs requiring ICT specialist skills) and those within certain business sectors, notably ICT (digital) businesses (51%) and those concentrating upon businesses 'professional, scientific & technical activities' (47%).

**Table 4: Enterprises employing and/or seeking to recruit digital specialists, 2015**

	With digital specialists	Recruited digital specialists <sup>1</sup>	Hard-to-fill vacancies for digital specialists <sup>2</sup>
<b>All enterprises</b>	<b>22%</b>	<b>11%</b>	<b>39%</b>
SMEs	21%	10%	37%
Large enterprises	76%	52%	49%
Manufacturing	24%	10%	29%
Electricity, gas, steam, air conditioning & water supply	22%	8%	41%
Construction	16%	4%	30%
Wholesale & retail trade; repair of motor vehicles & motorcycles	20%	9%	29%
Transportation & storage	19%	6%	18%
Accommodation	11%	12%	2%
Real estate activities	21%	13%	42%
Professional, scientific & technical activities	30%	17%	47%
Administrative & support service activities	21%	11%	39%
Retail trade	14%	7%	24%
ICT sector	77%	55%	51%

Notes:

1 As a proportion of all businesses

2 As a proportion of businesses that had had recruited or sought 'to recruit personnel for jobs requiring ICT specialist skills'

Source: Analysis of data from the Eurostat ICT usage and e-commerce in enterprises survey, 2015 undertaken by the Tech Partnership

# Factsheet: Demand for Digital specialists

## Notes on data presentation

1. ITJobswatch totals may not always comply as not all advertisements contain job title/ skills/ remuneration or location data. Detailed analysis is generally limited to instances in which 50 or more advertisements have been identified (on average per quarter) containing the measure in question (role/title /skill /region etc.). In certain cases, however (regional analysis/figures for Northern Ireland in particular) figures have been employed where a lower count of vacancies was recorded.
2. APS figures presented in this datasheet have been rounded to the nearest 1,000 (workforce estimates) and nearest £100 (earnings) unless otherwise stated.
3. For APS estimates 'digital specialists' is the collective term given to occupations listed under the following ONS Standard Occupational Classification (SOC2010) codes:

### Digital Directors

1136 - Information Technology and Telecommunications Directors

### Digital Professionals

2133 - IT Specialist Managers

2134 - IT Project & Programme Managers

2135 - IT Business Analysts, Architects and Systems Designers

2136 - Programmers & Software Development professionals

2137 - Web Design & Development professionals

2139 - Information Technology & Telecommunications professionals i.e.

### Digital Technicians

3131 - IT Operations Technicians

3132 - IT User Support Technicians

### Digital Engineers

5242 - Telecommunications Engineers

5245- IT Engineers.

For Eurostat figures the term 'digital specialist' has been applied to data relating to 'ICT specialists' - the two definitions are deemed to be broadly the same (for further details of the Eurostat definition see [ICT specialists - statistics on hard-to-fill vacancies in enterprises](#)).

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