

JOBS AND SKILLS IN LONDON

BUILDING A MORE RESPONSIVE SKILLS SYSTEM IN THE CAPITAL

REPORT

Spencer Thompson, Catherine Colebrook and Izzy Hatfield

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ABOUT THE PROGRAMME

The JPMorgan Chase New Skills at Work programme aims to identify strategies and support solutions that help improve labour market infrastructure and develop the skilled workforce globally. The initiative brings together leading policymakers, academics, business leaders, educators, training providers and nonprofits with the goal of connecting labour market policy with practice, supply with demand and employers with the workforce – all to strengthen the global economy.



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SUMMARY

London has been the engine of UK jobs growth since the recession, accounting for a third of net job creation since 2010. Our analysis suggests that more than a quarter of entry-level vacancies are at a mid-skill level (not requiring a degree, but paying more than the Living Wage Foundation's London living wage). This represents a big opportunity for Londoners currently outside the labour market or working in low-paid roles, if they can gain the skills they need to take up these mid-skilled jobs.

At present, London's labour market and skills system are not facilitating participation and progression to the extent that they could be. In spite of recent rapid jobs growth, London still has a below-average employment rate, relatively low rates of vocational training and in-work progression, and skills shortages in certain mid-skill occupations.

The skills system in London could and should do more to ensure that Londoners have the best possible chance to enter employment and progress in work. The GLA should work to improve the information available to adult learners about the labour market outcomes of learners taking a given course or qualification, and should use its power over further education capital funding to facilitate new courses that meet identified skills needs but which providers are currently reluctant to offer.

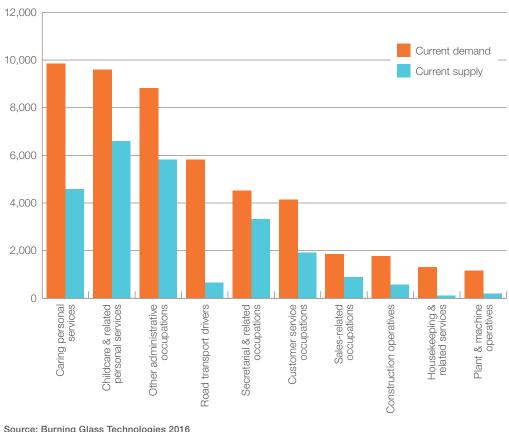
Over the longer term, we recommend that London's devolution deal should give the GLA new powers to vary the funds it gives to adult education providers. The GLA should also be given the capability to shift to a results-based funding model for adult skills in the future, and should begin to investigate now what such an approach might look like.

Key findings

- London has created 760,000 net jobs since 2010. The business services sector has accounted for almost 30 per cent of this growth. A further 15 per cent of jobs have been created within the education, health and care sectors, 13 per cent within the information and communication sector, and 10 per cent within the construction sector.
- London has a reputation as a polarised city, combining a high-skill knowledge
 economy with a prevalence of low-paid, low-skill work. However, our evidence
 suggests that there is robust demand for mid-skilled occupations: in 2014,
 such jobs accounted for 27 per cent of entry-level vacancies.
- Mid-skill occupations are expected to account for around a quarter of all openings between now and 2022. The occupations expected to generate the most new jobs are caring personal services and administrative occupations.
- In several important respects, the functioning of London's labour market could be improved. The city's employment rate remains below the UK average; rates of participation in adult education and apprenticeships are relatively low, as are in-work progression rates; and there is evidence of skills shortages, particularly among certain mid-skill occupations.
- The most acute mid-skills shortages occur in the road transport sector, the caring personal services sector, the childcare and related services sector, and in administrative occupations (see figure S1). Across all mid-skill occupations, we estimate that there is a shortage of 22,000 people annually.

Figure S1 Among London mid-skill occupations, the skills gap is greatest in caring personal services

Current demand (vacancies) and current supply (qualified new-entrants), 2014



Source: Burning Glass Technologies 2016

Key recommendations

In order to boost skills supply in the capital where it is most needed, and generate greater opportunities for Londoners to get on in work, we recommend the following immediate actions:

- The GLA should make radical improvements to the quality and availability of labour market intelligence, with the aim of giving learners and prospective learners better information on both the returns they might expect from different courses and qualifications, and the learning and employment results achieved by individual providers.
- Where a particular qualification or skill-set is identified as being in low supply but high demand, the GLA should work with the London local enterprise partnership (LEP) to use further education capital funding to encourage providers to offer new or expanded courses.
- Although the GLA has no formal control over apprenticeships policy, there is much it could do to drive up the quality and quantity of the apprenticeships that will be provided in London through the apprenticeship levy. First, the GLA should aim to enhance transparency by reporting on the quality of apprenticeships provided by London employers. Second, the GLA should play a coordinating role to ensure that employers are offering sufficient numbers of the apprenticeships London needs given its skills shortages.

As London's skills devolution deal is still being developed, we have two recommendations for the detail of that deal:

- First, the GLA should be given the power to vary the funds it gives to
 adult education providers, to incentivise them to provide the courses and
 qualifications most in demand from employers. The improvements to the quality
 and availability of labour market intelligence described above are a prerequisite
 for this approach to work.
- Over the longer term, and once the quality of labour market data has been proven, the GLA should be given the power to pay providers by results, to strengthen the connection between adult education and the needs of the labour market even further. As a first step in this direction, the GLA should investigate now the possibility of linking funding for providers to learning or labour market outcomes.

1. INTRODUCTION

1.1 Economic and social context

London's economy is booming. Since the financial crisis and end of the subsequent recession, London has led English regions in terms of job creation. The capital contains world-leading clusters in key UK sectors such as finance, legal services, accountancy and the creative industries, and is an important exporter of services internationally. London consistently scores highly in measures of the best cities in the world to do business (PwC 2014), and leads English regions in terms of business creation and survival¹ (ONS 2015a).

London's economic performance creates both opportunities and challenges, for both its labour market and its residents. On the one hand, London's bias towards highly skilled, high-paying work creates significant opportunities for workers in terms of earnings, with median gross hourly pay in the capital 30 per cent higher than the UK as a whole (ONS 2015b). This, combined with London's cultural diversity, leisure and recreation opportunities make the capital a highly desirable place to live and work (GLA 2009).

On the other hand, despite a welcome increase in net jobs growth since the recession, London still lags behind the UK as a whole when it comes to labour market participation, with a lower proportion of working-age residents in work. In addition, the success of London in terms of jobs growth and earnings potential has pushed up the cost of living and reduced living standards. Both housing costs and the rate at which they have increased are greater than elsewhere in the country (GLA 2015), while almost 40 per cent of children in London are in poverty,² primarily as a result of lower employment among mothers and those higher housing costs (CPAG 2015). Other key household costs, such as childcare and transport, are higher in London than elsewhere, further reducing living standards and acting as an additional barrier to participation in the labour market. One estimate suggests the minimum budget necessary for achieving a decent standard of living as a couple with two children is more than 20 per cent higher in London than in the rest of the UK (TfL 2015).

This creates two sets of challenges for London's labour market: how to continue supplying high growth sectors in the capital with the skilled workers they need to succeed and grow,³ and at the same time how to ensure that jobs growth benefits all Londoners by equipping residents with the skills and capabilities they need to succeed in the labour market.

1.2 Policy context

In February 2015, London mayor Boris Johnson stood alongside the chancellor George Osborne to announce a package of measures collectively titled 'a long-term economic plan for London' and covering a range of policy areas, including housing, transport and science investment. Also included was a commitment to give more power to London in order to 'boost skills in the capital' (Osborne 2015).

¹ That is, start-ups net of failure rates.

² That is, living in households with incomes (after housing costs) less than 60 per cent of the median.

³ Recognising the role that domestic and international migration plays in London's labour market.

Since then, work has been ongoing between London and central government to agree to a package of devolved measures – a package that includes skills. While we don't yet know what a devolution deal for skills in London would contain, the process of devolution to other cities and subregions suggests that significant powers over adult education, which includes training for those aged 19-plus, will be devolved, with other powers or funding relating to integrated employment support and apprenticeships likely to be devolved as well (Clayton and McGough 2015).

Another immediate priority for skills policy in London is the commencement of 'area-based reviews' (ABRs) of further education (FE) provision. The ABRs, which will in time cover all areas of England, seek to review all aspects of FE provision against local skills needs. While there is a concern among local policymakers and providers that the ultimate aim of this exercise is to rationalise and reduce provision, there are also reasons to be optimistic about the potential of aligning local skills provision with London's unique economic and labour market position, and thus to engage with the ABRs process.

At the same time, policy announcements at the national level will have an impact in London. The introduction of an apprenticeship levy – a hypothecated tax on the payrolls of large employers to fund apprenticeships – is likely to lead to many employers in London looking either to offer apprenticeships either for the first time or to increase the number they provide already. Elsewhere, the extension of student loans to those undertaking adult further education, introduced in the last parliament, will see individuals increasingly taking on the responsibility for funding their own training.

Common across these policy developments is a desire on the part of national government in the UK to work with regions and cities to improve the functioning of the skills system. And crucial to this effort are attempts to make skills more 'demand-led': responsive to the needs of local labour markets. The prospect of a devolved adult education budget for London, and the process of area-based reviews, offer London the chance to reshape skills provision so that it better serves the unique needs of the capital's employers and its residents in turn.

1.3 Changing skills demand in London and the UK

The labour market in advanced economies such as the UK is often described as going through a process of polarisation, characterised by strong jobs growth at both 'ends' of the labour market – the high-skilled and low-skilled – accompanied by a decline in 'the middle', that is, in the share of jobs paying median wages and requiring mid-level skills. This process, driven by technological change and globalisation, was already underway in the years leading up to the financial crisis and has intensified in the years since (Plunkett and Pessoa 2013). Estimates of employers' future demand for labour suggest that this pattern will continue. Aside from its obvious impact on pay inequality, this trend also makes it harder for workers at the lower end of the occupational ladder to move up, as the mid-skill jobs that are so crucial to progression start to disappear (Thompson and Hatfield 2015).

In many ways, London epitomises these changes. It has large concentrations of economic output and employment in high-skilled sectors, such as finance and professional services, and an equally large reliance on low-skilled employment sectors, such as retail, hospitality and tourism. And compared to other regions, London has experienced a more rapid decline in middle-income sectors, such as manufacturing, which have taken many mid-skilled jobs along with them. These processes have exacerbated and interacted with other trends, such as the increasing return to degree-level qualifications, to produce a level of pay inequality that is greater in London than in any other UK region (ONS 2015b).

However, while it is certainly the case that the capital's labour market has become more polarised over time, there is still sizable demand on the part of London employers for mid-skill workers. While key mid-skill sectors may have shrunk over time, and are forecast to continue to do so, employers nonetheless need a significant number of workers to enter these occupations each year – and much of the time these jobs pay relatively well. Analysis of labour market polarisation tends to focus on net measures of employment change, but this risks missing other relevant labour market dynamics – including the most important: replacement demand. As workers age and retire from mid-skill occupations, many will need to be replaced by younger workers – and this demand will remain even as the sector or occupation as a whole continues to shrink.

1.4 Methodology

This paper analyses the current state of London's labour market, both in terms Londoners finding working and progressing in work, and in terms of the jobs and skills that are in demand by London employers. It attempts to answer the following questions:

- What are the key challenges facing London's labour market?
- What jobs and skills are in demand from employers in London?
- Do current patterns of skills provision effectively meet employers' demand for skills?
- What innovative approaches to city and regional skills policy have been attempted in the UK and internationally that can be applied to London?

Throughout this paper, we make use of the following definition of low-, mid- and high-skilled occupations:

- Low-skilled jobs in London: jobs for which median gross hourly pay is less than the Living Wage Foundation's London living wage, as measured by the 2015 Annual Survey of Hours and Earnings, and which do not require a first degree-level qualification (ONS 2015b).
- Mid-skilled jobs in London: jobs for which median gross hourly pay is higher than the Living Wage Foundation's London living wage, but which do not require a first degree or equivalent higher education qualification.
- **High-skilled jobs in London:** jobs for which median gross hourly pay is greater than the Living Wage Foundation's London living wage, and which do require a first degree or higher qualification.

The annex to this paper contains for detail on our research methodology, the classification of occupations, and sources for qualification requirements, individuals' labour market activity, employers' demand for labour and skills, and skills provision.

Where the Work is

Our analysis of mid-skilled vacancies draws upon the data underlying Where the Work is, a free-to-use dashboard that provides comprehensive and detailed data on labour market demand, the potential salary benefits and likely levels of competition for entry-level mid-skilled positions across the UK.

Visit http://www.wheretheworkis.org

2. LONDON'S LABOUR MARKET

2.1 Jobs growth since the recession

London is undergoing a jobs boom. After losing 210,000 jobs as a result of the 2008–09 recession – a fall of 4 per cent overall – the capital added 760,000 net new jobs between the start of 2010 and September 2015. London's labour market grew over this period by 16 per cent, more than twice as fast as the UK as a whole, and the capital accounted for almost one-third of all net UK job creation – which is all the more impressive given that London makes up only 17 per cent of total UK employment (ONS 2015d).

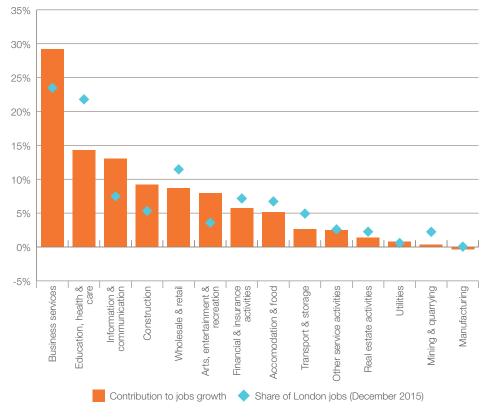
London's recent labour market growth does not just represent a return to the long-term trend – it surpasses it by a sizable margin. In the five years leading up to the recession, London's labour market grew by an average of 1.3 per cent a year; over the past five years, by contrast, this growth rate has more than doubled to 2.8 per cent a year (ibid).

London's key growth sectors

London's labour market performance in recent years has been powered by a number of key sectors (as figure 2.1 shows).

Figure 2.1
Business services account for the largest part of jobs growth in London, and the largest share of all London jobs
Sector contributions to total jobs growth in London (March 2010). Sector bases

Sector contributions to total jobs growth in London (March 2010 – September 2015) and share of current employment (at December 2015)



Source: IPPR calculations using ONS 2015d

Despite London's reputation as an international hub for financial services, far more important for jobs growth since the recession has been the wider business services sector, which includes professional activities, such as legal and accountancy services, as well as support service activity, such as temp agencies. Together, business services account for almost 30 per cent of net jobs growth in London. The capital has long been a global leader in high-value business services, with over half of its output accounted for by these sectors, and relative to the rest of the country they are particularly concentrated in London, which has specialised in these areas (GLA 2013a).

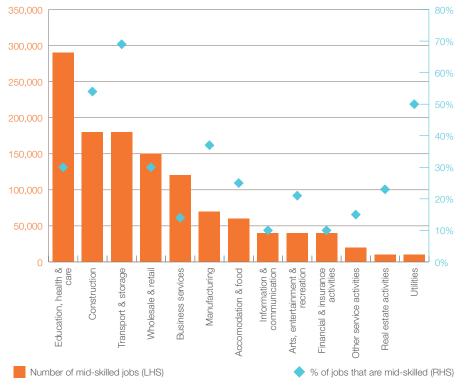
Other key sectors include education, health and care, which account for close to 15 per cent of London's jobs growth over the last five years, driven by a growing population of children and older adults. The construction sector has rebounded, accounting for almost 10 per cent of jobs growth over this period. And London has cemented its position as a global leader in the digital economy: it is ranked best in Europe for technology start-up and scale-up businesses (Nesta 2015), and the information and communication sector has accounted for 13 per cent of jobs growth since 2010. Together, these sectors have account for three-quarters of net jobs growth in the capital (ONS 2015d).

Growth in mid-skill jobs

Of all of the jobs growth seen in London, a sizable proportion is at mid-skill levels. Around 30 per cent of jobs growth since 2011 – or 220,000 jobs – has been in mid-skill positions: those where median hourly earnings are greater than the Living Wage Foundation's London living wage but which do not generally require a degree (ONS 2015c).

Figure 2.2
The five biggest mid-skill job sectors in London together account for nearly 1 million mid-skill jobs

Number of mid-skilled jobs by sector (left) and proportion of sector jobs that are mid-skilled (right), Q4 2014 – Q3 2015



Source: IPPR calculations using ONS 2015c

This stands in stark contrast to the popular image of London as a highly polarised city, as we described in the previous chapter. Far from being entirely dominated by high-skilled, high-paying jobs and those at the bottom end of the earnings distribution, London has exhibited robust demand for mid-skill occupations. We find that 16 per cent of London employment is in low-skill, 27 per cent in mid-skill and 56 per cent in high-skill positions. Admittedly this is a more polarised pattern than is observed across the UK as a whole – where more than a third of all jobs are at mid-skill level – but it suggests that mid-skill roles still play a major part in London's jobs market (ibid).

Mid-skill jobs, to varying degrees, are important to the growth sectors that we have highlighted already. For instance, 290,000 mid-skill jobs are found in education, health and social care, making up one-quarter of all mid-skilled employment in the capital. The construction sector and transport and storage sector both rely heavily on mid-skilled occupations (as figure 2.2 shows), and both have similarly high numbers of mid-skilled jobs. There are sizable concentrations in the wholesale and retail and business services sectors as well. Together, these five sectors account for over three-quarters of mid-skill employment in London, or 920,000 jobs.

While across London's economy the share of mid-skilled jobs is unchanged at 27 per cent since immediately after the recession, the share of mid-skilled jobs in London's five key growth sectors, taken as a whole, is rising. The proportion of mid-skilled jobs within education, health and care, for instance, rose by three percentage points between 2011 and 2014–15. A similar change took place in construction and in transport and storage. Conversely, the share of mid-skilled jobs in wholesale and retail, and in business services, fell by one and two percentage points respectively (ONS 2015c).

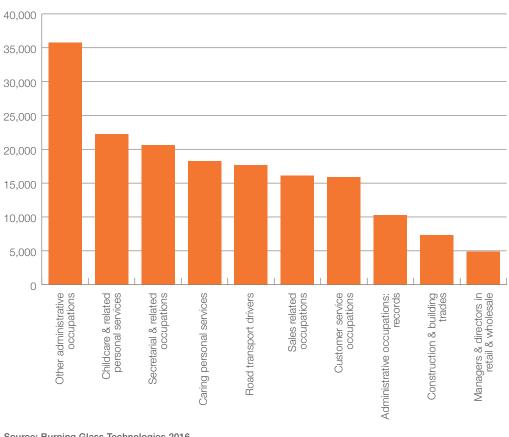
Replacing retiring workers and attracting new entrants

Beyond being important to key growth sectors in London's economy, there is also a need to replace workers expected to retire from mid-skilled jobs in the coming years. Across London's workforce as a whole, 14 per cent of workers are aged over 55. This rises to 18 per cent for mid-skilled workers in the transport and storage sector, 18 per cent in education, health and social care, and 20 per cent in business services employment (ONS 2015c).⁴ Across all mid-skill occupations, it is likely that 15 per cent of workers will need to be replaced due to retirement over the next decade.

In 2015, 760,000 entry-level job vacancies were advertised in London. The majority (58 per cent, or 450,000) were in high-skill occupations, with 220,000 at mid-skill and 99,000 at low-skill level. Figure 2.3 shows the 10 largest mid-skilled occupation groups in the vacancy data, which together account for 76 per cent of mid-skilled entry-level job vacancies.

⁴ The share of older workers in mid-skill occupations in retail and wholesale and in construction are lower than the London average, at 10 and 11 per cent respectively.

Figure 2.3
Top 10 occupation groups by number of entry-level mid-skilled job vacancies, 2014



Source: Burning Glass Technologies 2016

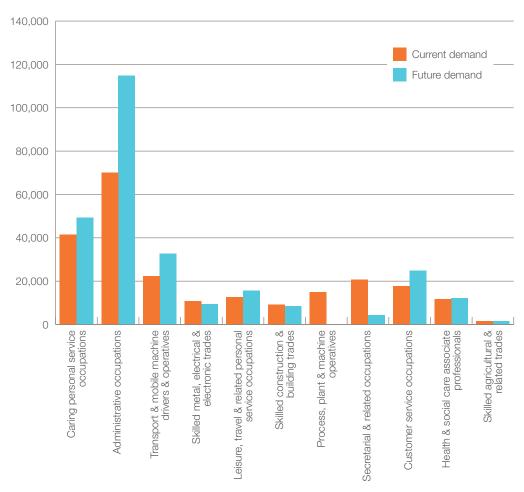
2.2 Future jobs growth

Mid-skilled occupations are expected to account for 24 per cent of all openings between 2015 and 2022. This forecast is based on projecting forward current entry-level vacancy numbers in line with UKCES forecasts of the change in annual entry-level demand over this period (UKCES 2014).

There is expected to be weak demand for three mid-skill occupations – agricultural workers, secretaries and machine operatives – which are expected to have fewer than 5,000 vacancies per year on average between 2015 and 2022. In the electrical and construction trades there are slightly fewer annual openings expected over the course of the next seven years than in 2014. Elsewhere, however, demand is expected to increase strongly in the future: the occupational categories expected to grow particularly quickly include caring and personal services and administrative occupations. This is as a result of both a need to replace older workers currently in those jobs in London, and expanding demand overall. Transport operatives are also likely to experience substantial growth in the number of opportunities available.

The forecast percentage increase in 'annual requirement' for mid-skilled jobs (replacement demand plus expansion demand) has been applied to current vacancy numbers. Calculations use the two-digit SOC code level (see annex for more details).

Figure 2.4 Mid-skilled vacancies in London to 2022 are forecast to grow particularly quickly among caring, administrative and transport operation occupations Demand, 2014 vs average annual demand, 2015–22, selected mid-skilled occupations



Source: Burning Glass Technologies 2016 and UKCES 2014.

Notes: To calculate the average annual future demand between 2015 and 2022, we use UKCES forecasts of net requirement (replacement demand plus expansion demand) which is measured at the two-digit SOC code level. We calculate the percentage change in the net requirement between 2014 and the average expected net requirement over the period 2015–22, and apply the same change to the number of vacancies in 2014 to predict the average annual number of vacancies between 2015 and 2022. The UKCES forecasts that the process, plant and machine operatives occupation will have a negative net requirement, which indicates that the occupational sector is likely to shrink, which is why it is forecast to have zero demand on average between 2015 and 2022.

2.3 High-growth sectors

Education, health and care

The education, health and care sectors together account for 18 per cent of workforce jobs in London (ONS 2015d): 8 per cent of jobs are in education and 10 per cent are in health and care. These sectors have expanded considerably since the recession, with education growing by 7 per cent and health and care by 5 per cent since the start of 2010 (ibid). Within these sectors, 30 per cent of jobs are at mid-skill level.

Of these, the most prevalent (accounting for more than 70 per cent of all midskill occupations in these sectors) are **childcare and related personal services** (including nursery nurses, childminders and teaching assistants) and **caring personal services** (including healthcare assistants and care workers).

Table 2.1Headline figures on key health and care occupations in London, 2014

	Childcare and related services	Caring personal services
Number of jobs	130,000	110,000
Number of vacancies (entry-level)	22,000	18,000
Median hourly pay	£9.27	£9.50
Average starting salary (entry-level)	£21,500	£20,600

Source: Burning Glass Technologies 2016 and IPPR calculations based on ONS 2015b and 2015c

These two occupational groups are growing for several reasons. First, London's population is rising, and the age structure of that population is such that demand for these positions is likely to grow. On the one hand, the number of children aged 0–14 is expected to increase by 9 per cent between 2015 and 2020, which is a faster rate of growth than is forecast for England as a whole, at 6 per cent (ONS 2014a). On the other, the number of older Londoners is also expected to rise, with growth of 9 per cent in the number of over-75s and 20 per cent in the number of over-90s forecast for the remainder of the decade (ibid). These two demographic trends create a sizable and growing need for workers in occupations relating to the provision of care for the young and for the elderly.

In addition, 'paraprofessional' roles such as teaching and healthcare assistants have become increasingly important to the delivery of public services. Estimates suggest the number of teaching assistants in England has tripled since 2000, now outnumbering teachers in nursery and primary schools (Sharples et al 2015). The initial impetus behind the increase in the number of teaching assistants was the need to reduce teachers' workloads, and to provide additional time to pupils with special educational needs and from low-income backgrounds. Similarly, healthcare assistants now comprise one-third of the care workforce in hospitals, increasingly taking on tasks traditionally delivered by registered nurses (Cavendish 2013).

Government efforts to increase childcare provision and take-up have contributed to a rise in employment among parents with young children, and in turn to an increase in the size of the childcare and early-years workforce in recent years. The need for childcare workers is likely to grow further over the coming years, as the UK government plans to double the number of free childcare hours available to parents.

Qualifications requirements are also increasing in these occupations. Almost three-quarters of the early-years workforce now holds a qualification at NVQ level 3 or higher, a 12 per cent increase since 2005 (Kalitowski 2016). Qualifications are available to teaching assistants to gain skills while on the job (NCS 2016). Assistant practitioners – higher-level healthcare assistants – are expected to grow in number, and those planning to move into these roles often take a foundation degree at level 4 (Miller et al 2015).

We find that half of those progressing from childcare and related occupations move into higher-skilled professional teaching and education roles, with a further 10 per cent moving into welfare roles, such as youth/community work and family support. Of those who progress from caring and personal services occupations, more than one-third move into nursing and midwifery roles, 16 per cent into welfare roles and 7 per cent into social work occupations (calculations based on ONS 2015f).

Because of the age profile of professionals in these sectors, there are also likely to be significant opportunities for progression: we estimate that 17 per cent of nurses and midwives in London, and 14 per cent of teachers, are aged over 55 (ONS 2015c).

Construction

London's construction sector accounts for 5 per cent of total jobs in the capital (ONS 2015d). Since the recession, when the sector lost 40,000 jobs over a three-year period, the number of jobs in construction in London has grown by more than 30 per cent. More than half (54 per cent) of jobs in construction are at mid-skill level; the most prevalent mid-skill occupations (together accounting for 73 per cent of all mid-skill occupations in the sector) are **construction and building trades**, including carpenters, joiners, plumbers, bricklayers, and **electrical and electronic trades**, including electricians and telecommunication engineers.

Table 2.2Headline figures on key construction and trades occupations in London, 2014

	Construction and building trades	Electrical and electronic trades
Number of jobs	130,000	60,000
Number of vacancies (entry-level)	7,000	4,000
Median hourly pay	£17.97	£15.73
Average starting salary (entry-level)	N/A*	£28,000

Source: Burning Glass Technologies 2016 and IPPR calculations based on ONS 2015b and 2015c * Data not available for construction and building trade starting salaries due to sample size.

Demand for construction workers is growing because of the rapid rebound seen in the capital's construction sector. Construction output grew by 45 per cent between 2010 and 2015 (ONS 2015g), and estimates suggest that output will increase by a further 3 per cent a year between 2015 and 2019 (CITB 2015).

This has created both considerable demand for construction workers and significant skill shortages. The Construction Industry Training Board (CITB) estimates that employment in construction trades in London will need to increase by 12.8 per cent by 2019, equivalent to more than 2,000 new workers annually (ibid). The CITB has identified particularly severe shortages of glaziers, plasterers and building envelope specialists, while the Federation of Master Builders has found that over half of construction firms report shortages of carpenters and 60 per cent report shortages of bricklayers (FMB 2015).

Ensuring London's residents are able to benefit from the revival of construction activity in the capital should be a priority for the mayor of London, as well as construction firms and other partners. Work in construction in London is particularly characterised by fixed-term project working and inward commuting, with one estimate suggesting that only 46 per cent of an average London construction firm's workers are 'local' (GLA 2013b).

Apprenticeships have historically been commonplace in the construction sector, but according to the latest data only 2.8 per cent of London apprenticeship starts – or 2,600 in total – are in construction (BIS 2015a), with little increase in the proportion of construction employers taking on apprenticeships in recent years (CITB 2014). Employers report that this is due to difficulties in providing training, including related costs, the amount of staff time involved, and a lack of knowledge about provision and course availability (CITB 2011).

For those that do work in construction, there are progression routes available. For skilled construction tradespeople, almost half move into either production manager/director roles or the engineering professions (ONS 2015f). Electricians tend to move into engineering roles, with many also transitioning into advanced information technology profession positions.

Progression opportunities are likely to increase as a result of the age profile of workers in the sector, as 10 per cent of those currently in mid-skilled positions in London's construction sector are aged over 55, and are therefore more likely to retire within the next decade. Among those in electrical roles this rises to 20 per cent (ONS 2015c).

Transport and storage

London's transport and storage sector has accounted for 5 per cent of jobs in the capital since 2010 (ONS 2015d). Sixty-nine per cent of all jobs in the transport and storage sector are in mid-skilled roles; the most prevalent mid-skill occupations (together accounting for 60 per cent of all mid-skill occupations in the sector) are **road transport drivers**, including large goods and van drivers, bus and coach drivers and taxi/cab drivers and chauffeurs, and **leisure and travel service**, which includes air and rail travel assistants.

Table 2.3
Headline figures on key transport and travel occupations in London, 2014

	Road transport drivers	Leisure and travel service
Number of jobs	130,000	50,000
Number of vacancies (entry-level)	18,000	1,500
Median hourly pay	£12.46	£13.54
Average starting salary (entry-level)	£22,600	£21,600

Source: Burning Glass Technologies 2016 and IPPR calculations based on ONS 2015b and 2015c

London is a key national transport centre. It has the UK's only hub airport, Heathrow, which combines with London's other air links to service two-thirds of the UK's air passengers. Three-quarters of the UK's rail journeys start or end in London, and London and surrounding regions account for almost one-third of road traffic in England (LCC 2012). While this presents challenges in terms of road congestion, rail overcrowding, and service quality in air and rail travel, it also creates significant opportunities in terms of related mid-skill vacancies.

A key area of opportunity is among road transport drivers, with evidence suggesting there is a shortage in both the UK and London. One recent report found that 10-per-cent growth in the industry's requirement for driving staff was causing more than half of recruiters in the industry to experience low or very low candidate availability (Comensura 2015). Key barriers to recruitment include a lack of experience among qualified candidates, rising pay expectations in the sector, and the recent introduction of a certificate of professional competence required for all lorry, bus and coach drivers (ibid). Official statistics show that only 30,000 of these certificates were issued in the UK across 2014/15, despite there being 156,000 entry-level vacancies for road transport drivers over the same period. In addition, the adoption of high-tech logistics technologies across the sector has created a need for drivers to attain bespoke technical knowledge too (DVSA 2015).

While not offering as many vacancies, occupations in leisure and travel services are particularly important in London, given its role as a rail and air transport hub. Several factors are likely to increase demand for workers in these roles in the coming years, including key infrastructure projects such as Crossrail, the potential for a third runway at Heathrow, and continued forecast growth in traveller numbers across London's air and rail transport network (LCC 2012).

Those progressing from leisure and travel services roles become sales and marketing associate professionals, customer service managers, and finance administrators (ONS 2015g).

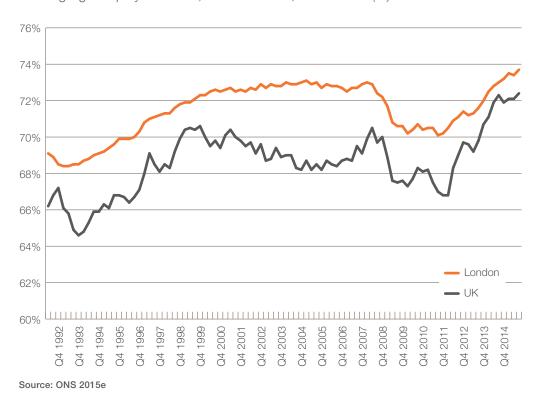
In common with other growth sectors featured in this report, transport has an ageing workforce, with 17 per cent of workers in London aged over 55. Among road transport drivers, this rises to 23 per cent (ONS 2015c).

3. LONDON'S LABOUR MARKET CHALLENGES

3.1 Closing the employment rate gap: London versus the UK average

Despite London's stellar jobs growth in recent years, the capital's employment rate⁵ has been consistently below the average for UK as a whole. While the gap has narrowed in recent years (see figure 3.1), there remains a 1.3 percentage point difference. This translates into around 100,000 Londoners who could be in work if London's employment rate matched that of the UK.

Figure 3.1
Despite recent gains, the employment rate in London remains lower than the UK rate Working-age employment rate, London vs UK, 1992–2015 (%)



Related to this, London also has higher rates of unemployment (6.4 versus 5.4 per cent) and economic inactivity (22.6 versus 22.0 per cent) than the UK as a whole. When factoring in the strong performance of London's economy in terms of job creation over recent years, the fact that it underperforms on employment is even more concerning.⁶

⁵ That is, the proportion of working-age individuals who have a job.

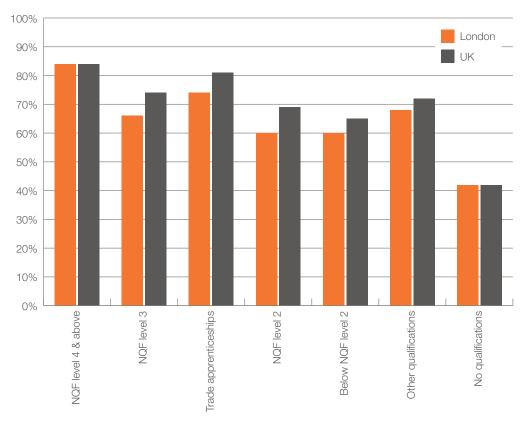
⁶ This contrast would be even more stark if London was excluded from the UK data.

There are two factors that explain London's poor employment performance in this respect. First, a larger share of London's population is from the particular demographic groupings that tend to have weaker labour market attachment - that is, more people in London are from groups that are generally less likely to find and keep a job. For example, individuals who self-identify as being of black or minority ethnicity (BME) have a lower employment rate (62 per cent) than those who identify as white, in both London and the UK. But because they make up a much larger share of London's population - at 40 per cent, versus 13 per cent in the UK - this has a greater impact on the headline employment rate in the capital (ONS 2015c).

Second, several key demographic groups perform less well in London than they do elsewhere. For example, the employment rate of mothers with dependent children is substantially lower: those with children below school age (0-4) have an employment rate of just 52 per cent in London versus 60 per cent in the UK as a whole, while for mothers with children of school-age or older (5-19) the employment rates are 68 per cent in London versus 76 per cent across the UK (ONS 2015c). This is at least partly attributable to the high cost and low availability of childcare, both of which have been shown to be barriers to employment in London (Rutter 2015).

Similarly, Londoners with qualifications below NQF level 4 (which is broadly equivalent to a foundation degree) have a lower employment rate in London than their counterparts elsewhere in the UK (see figure 3.2).

Figure 3.2 Employment among those with qualifications below level 4 is lower in London than across the UK as a whole Employment rates by qualification level, London vs UK, Q3 2014 - Q2 2015 (%)



Source: ONS 2015c

While the employment of those at NQF level 4 is the same, there are sizable gaps for those with qualifications at a lower level. For example, the employment rate of those with a level 3 qualification (broadly equivalent to A-levels) is 66 per cent in London versus 74 per cent in the UK as a whole (ONS 2015c). These gaps are likely to be both because of London's relative orientation towards higher skilled work, for which qualifications approaching degree-level are required, and because those with level 4 qualifications or above make up almost half the working-age population in London (versus 36 per cent in the UK), potentially leading to a relatively more competitive labour market for those with lower levels of educational attainment.

3.2 Broadening the scope for labour market progression

The opportunity to progress in work is particularly important in London. In terms of income, London has higher levels of pay inequality than other UK regions, with those in the top 10 per cent earning 7.8 times the annual gross salaries of those in the bottom 10 per cent, while the equivalent ratio for the UK as a whole is smaller, at 6.8 times (ONS 2015b). On the other side of the equation, London also has high poverty rates, with 27 per cent of the population living in households with incomes after housing costs less than 60 per cent of the median, versus 21 per cent in the UK as a whole (DWP 2015). This is largely due to a combination of higher housing costs and fewer dual-earning families. As a result, the opportunity to progress to higher-skilled, higher-paying occupations is critical to mitigating the worst instances of inequality and poverty. But, in both London and the UK, significant numbers of workers are stuck in low-paid jobs with little evidence of progression.

London is a poor performer on progression out of low-skilled roles when compared to other regions, and especially when considering the large number of opportunities at these levels of skill in London. Based on our definitions of low, mid and high-skilled occupations (see the annex for details), 3.1 per cent of London residents in low-skilled occupations progressed to a mid-skilled occupation on average per quarter between 2011 and 2015, lower than the rate of progression in the UK as a whole (3.5 per cent). Progression from low- to high-skilled occupations is slightly better in London (at 1.6 per cent) than the UK average (1.3 per cent).

Improved rates of progression out of low-wage work are likely to improve overall labour market participation, since low-wage workers are more likely to leave employment than those in higher-skilled occupations, both in London, where 4.1 per cent of those in low-skilled occupations leave employment every quarter, and across the UK as a whole (3.6 per cent).⁷

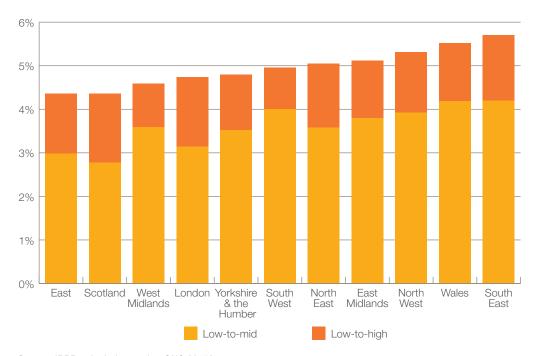
Both in London and across the country, workers with higher-level qualifications are far more likely to progress than those holding qualifications at lower levels: around 11 per cent of those with a qualification at level 4 or higher progress each quarter, versus only 5 per cent of those with lower-level qualifications (level 3 and below).

Finally, most workers progressing in London do so with their current employer: 79 per cent progress internally while the remainder move firms. International evidence suggests that a greater number of in-work progression opportunities is associated with a higher overall rate of progression (Thompson and Hatfield 2015).

⁷ As a proportion of all those either leaving employment, remaining in low-skilled work, or progressing.

Figure 3.3 Workers in low-skilled occupations are less likely to progress to higher-skilled roles in London than in most other regions

Progression rates between quarters by region and by skill level progressed to, 2011–2015



Source: IPPR calculations using ONS 2015f

Note: Denominator is all low-skilled workers in the first quarter of each wave.

Table 3.1 shows the distribution of moves from low- to mid-skilled work by occupation, listing in order of importance the 10 most important occupational groups for progression (accounting for two-thirds of all moves from low- to mid-skill jobs), as well as the proportion of vacancies they account for.

Table 3.1 Key occupations for low- to mid-skilled progression in London

	Proportion of low- to mid-skilled job progressions	Proportion of mid- skilled vacancies
Customer service occupations	10.0%	7.3%
Managers in hospitality and leisure services	9.0%	1.9%
Other administrative occupations	7.4%	16.4%
Road transport drivers	6.6%	8.1%
Secretarial and related occupations	5.4%	9.5%
Construction and building trades	5.4%	3.4%
Elementary administration occupations	5.3%	2.0%
Housekeeping and related services	5.3%	1.4%
Sales supervisors	5.0%	0.6%
Construction operatives	4.9%	1.5%

Source: IPPR calculations using ONS 2015c and Burning Glass Technologies 2016

This shows that some occupations have a disproportionate role in low- to mid-skilled progression, relative to the number of vacancies available, such as managers in hospitality and leisure, which accounts for 9 per cent of low- to midskill progressions but less than 2 per cent of vacancies, suggesting that most progression happens via internal promotion. Other occupations are conspicuously absent from this list, suggesting fewer in-work progression opportunities. Administrative occupations and secretarial roles, for example, together account for only 13 per cent of progression moves but a guarter of all mid-skilled entrylevel vacancies.

3.3 Meeting London's demand for high-level skills

More than half of London's vacancies (56 per cent) are in occupations that generally require education at degree level or higher. Forecasts of labour market demand suggest that this pattern will become even more pronounced in the coming years, with almost two-thirds of job openings occurring in highly skilled occupations within a decade (UKCES 2014).

This has striking implications for the pattern of qualifications demand in London's labour market. By the UKCES estimation, two-thirds of jobs in 2022 will require qualifications at degree level or higher (equivalent to NVQ level 4 or above), with 22 per cent requiring qualifications at levels 2 and 3 (five good GCSEs or A-levels respectively), and only 12 per cent at lower levels.

How does this compare to current patterns of qualification attainment in London? Currently, 57 per cent of those who work in London hold a qualification at level 4 or above, while this proportion is 49 per cent among all those who live in London (ONS 2015c).

Under the assumption that all those currently working and aged 60-64 will be retired by 2022, and if current patterns of qualification attainment hold at younger ages, London faces a challenge over the next seven years in terms of providing enough jobs for those residents with qualifications below degree level. We estimate that 1.7 million London residents will hold a qualification at NVQ level 2 or 3, but only 1.2 million jobs will require qualifications at the level. Similarly, 1.4 million will hold qualifications below NVQ level 2, but only 0.7 million jobs will require such a low level of training. This is before considering London's role as a source of work for those living outside the capital, which increases the effective scarcity of jobs at lower skill levels.

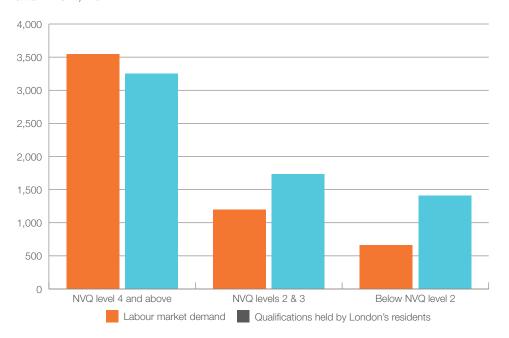
Expanding the regional supply of high-level skills could be achieved in three ways:

- by increasing the educational attainment of education leavers
- through domestic and international inward migration of degree-level workers
- by increasing the qualifications and progression rates of those currently holding low-level qualifications.

While the already-rising rates of educational attainment among younger entrants to the labour market will be part of the solution, it is striking that – even when considering just those older individuals expected to still be of working age in 2022 - there is still a surplus of lower-level qualifications. For example, 1 million people aged 30+ are expected to hold qualifications below level 2 in 2022, but only 0.7 million jobs are expected to require qualifications at this level. This implies that there is an important role for adult education and training in fostering qualifications attainment among workers who are already in the labour market. This is likely to include both an expanded role for part-time higher education for older workers, and new qualifications and routes into work among London's high-skilled jobs.

Figure 3.4 Demand for higher-level qualifications is expected to exceed the supply among London residents

Forecast distribution of qualifications, labour market demand vs London residents' attainment, 2022



Source: IPPR calculations using ONS 2014a, ONS 2015c and UKCES 2014 Notes: 'Other qualifications' are included in below-level-2 category. Demand data assumes all workers currently aged 60-64 retire; qualifications among those aged 30-59 reflect those of younger five-year age band; qualifications among those aged 15-29 reflect current patterns.

Currently, labour market progression plays a limited role in filling high-skilled vacancies. Of those who entered a high-skilled occupation in London between 2011 and 2015, fewer than 9 per cent were in a lower-skilled role and held qualifications below degree level. The majority (more than two-thirds) moved 'across' from other high-skilled occupations, and the remainder progressed from a lower-skilled job or worklessness but held degree-level qualifications (ONS 2015c).

3.4 Reversing low and falling participation in adult education and lifelong learning

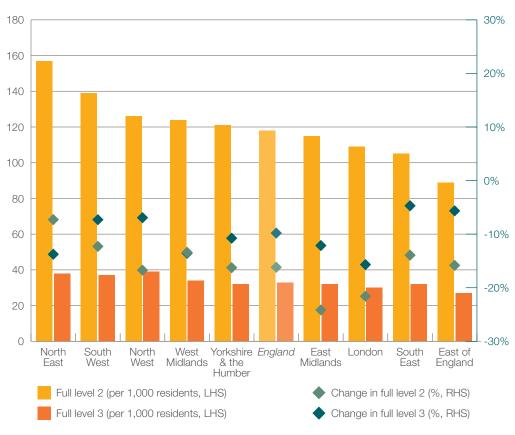
London performs poorly on participation in publicly funded adult skills training compared to most other regions.8 For example, in 2013–14, just 109 per 1,000 residents with qualifications below level 2 participated in level 2 training. This is the third lowest rate of participation among English regions. Participation in level 3 training among those with qualifications below level 3 is similarly poor, with just 30 per 1,000 residents participating – again, this is the third lowest level among English regions.

In addition, while participation in adult skills provision has fallen across all regions in recent years, the decline in London has been more marked than elsewhere, with 8 per cent fewer people participating across all qualification levels in 2014–15 compared with 2011-12, including a fall of 22 per cent at level 2 and of 16 per cent at level 3 (see figure 3.5). Other than the East Midlands, this is the largest decline of any English region.

This section uses data from BIS 2015a and BIS 2015b unless otherwise noted.

Figure 3.5 Adult education participation is lower in London than in most English regions, and has fallen further than all but one other region

Adult education participation by region: number per 1,000 residents with lower-level qualifications, 2014–15 (left) and change, 2011–12 to 2014–15 (right)



Source: BIS 2015b

Participation in adult skills training has been undermined across all regions by cuts to the skills budget, which at an England level fell from almost £4 billion in 2009/10 to less than £3 billion in 2013/14. This has necessarily reduced the number of learners who can be funded. One estimate suggests that the number of learners in England funded from the adult skills budget fell by three-quarters of a million between 2008/09 and 2013/14, with spending per head of population declining by 50 per cent between 2009/10 and 2013/14 (Wolf 2015).

The way in which the UK government has saved money on the adult skills budget is likely to have exacerbated this decline. Eligibility requirements for learners have been tightened: previously, the system provided full funding for over-24s at level 2 and 50 per cent funding at levels 3 and 4; now, it provides 50 per cent funding at level 2 and a system of loans at level 3 (Mulheirn and Springford 2012). The introduction of advanced learning loans led to a fall of over 20 per cent in the number of learners aged 24+ on eligible courses between 2012/13 and 2013/14, with the largest proportionate decline occurring in greater London (AoC 2013).

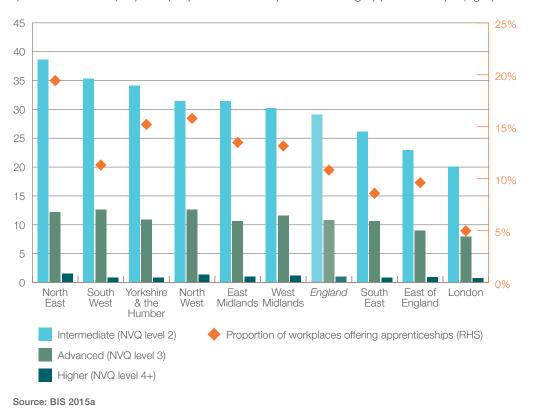
London is also lagging behind when it comes to apprenticeships. Partly because of the nature of the capital's sectoral mix, London has both a much lower adult apprenticeship participation rate than other English regions, and a smaller proportion of firms offering adult apprenticeships (see figure 3.6). The pattern

across the country is for the majority of apprenticeships to be at lower skill levels: intermediate apprenticeships (generally at NVQ level 2) show the highest participation rates in all English regions, followed by advanced apprenticeships (generally at NVQ level 3) and a much smaller number of higher apprenticeships (generally at level 4 and higher).

Figure 3.6

London is worst among English regions in terms of participation in adult apprenticeships and the proportion of firms offering apprenticeships

Adult apprenticeship participation by region, 2014–15: number per 1,000 residents by qualification level (left) and proportion of workplaces offering apprenticeships (right)



While apprenticeships should generally be targeted at school-leavers and young people in general (Dolphin 2014), the fact that London scores poorly on both measures of participation – on adult apprenticeships and adult education – indicates that the capital's skills system is failing to adequately upskill its workingage population.

3.5 Filling the large and growing skills gaps in key mid-skill occupations

One of the most frequently voiced criticisms of successive adult skills regimes in England is that they have been insufficiently responsive to the needs of the economy, with the mix and volume of qualifications poorly linked to employers' demand for those qualifications. While there have been many attempts to make adult skills policy more demand-led, it remains a perennial concern.

In order to test the extent to which the supply of qualifications maps onto labour market demand, we have used data on entry-level job vacancies alongside matched qualifications supply data among adult learners to assess those occupations that

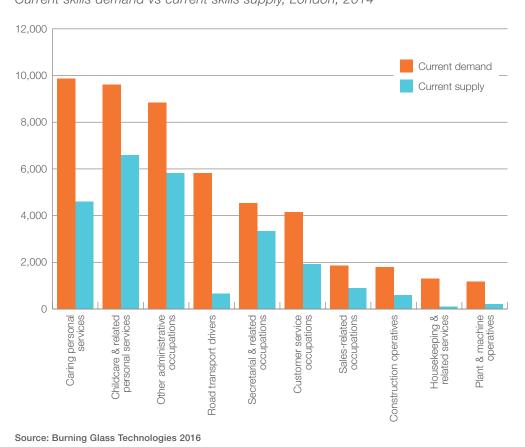
are under or oversupplied by the particular mix of adult skills learning outcomes in London. Because we have matched qualification subject areas to occupations, this analysis involves some double-counting of learners, as one learner may achieve learning outcomes/qualifications in several subject areas.

Figure 3.7 shows current supply and current demand for the 10 mid-skilled occupations with the greatest demand–supply gap. Together, these 10 occupations account for two-thirds of all mid-skilled vacancies. The greatest gaps occur in **caring personal services**, where supply equates to less than half of the 10,000 entry-level workers currently required, and **road transport drivers**, where 6,000 vacancies are currently being advertised to fewer than 1,000 potential applicants. Other large gaps are observed in childcare services occupations, other administrative occupations and customer services occupations. Across all mid-skilled occupations, we estimate there is an aggregate gap between skills demand and supply of 22,000 people annually.

Figure 3.7

Demand for skills outstrips supply across many mid-skill occupations: these are the 10 where the gap is biggest

Current skills demand vs current skills supply, London, 2014



Using forecast demand for occupations (measured using the two-digit SOC code level), figure 3.8 shows how current supply of adult skills qualifications compares with current and future demand for entry-level workers in each mid-skilled occupational group, to 2022. This tells us to what extent maintaining current levels of qualification supply can be expected to match with expected future vacancies (although we should not discount the fact that future qualifications may be different in terms of volume and composition).

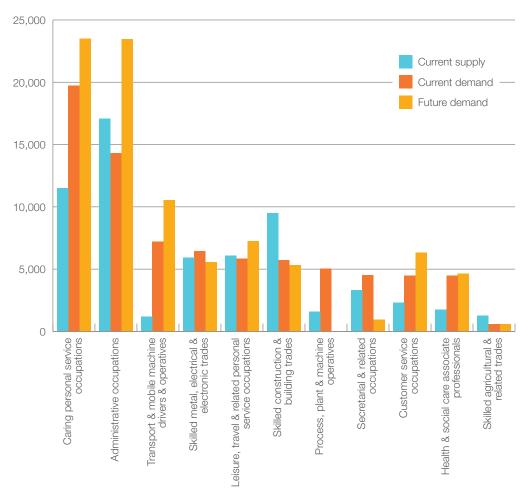
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This analysis paints a mixed picture, with some occupations being well-served by the volume of adult qualifications currently being provided: skills supply in skilled metal and electrical trades, for example, appears to be balanced well against both current and future demand. In others, there is clearly an oversupply, such as in skilled construction trades.

Figure 3.8

Future demand is expected to be well served by current levels of qualification attainment in some sectors, but in others there may be considerable undersupply or oversupply

Current qualifications supply (2014) vs current qualifications demand (2014) vs future qualifications demand (annual expected average, 2015–22) entry-level workers, London



Source: Burning Glass Technologies 2016 and UKCES 2014

Notes: To calculate the average annual future demand between 2015 and 2022, we use UKCES forecasts of net requirement (replacement demand plus expansion demand) which is measured at the two-digit SOC code level. We calculate the percentage change in the net requirement between 2014 and the average expected net requirement over the period 2015–22, and apply the same change to the number of vacancies in 2014 to predict the average annual number of vacancies between 2015 and 2022. The UKCES forecasts that the process, plant and machine operatives occupation will have a negative net requirement, which indicates that the occupational sector is likely to shrink, which is why it is forecast to have zero demand on average between 2015 and 2022.

The occupations with the largest expected undersupply are **caring personal services**, where current rates of qualification achievement suggest that half as many skilled workers will be supplied as will be required; **administrative**

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occupations, where qualification levels are currently broadly in balance with demand but are expected to move towards undersupply over the coming years; and **transport and mobile machine operatives**, which are smaller in terms of the number of opportunities, but are currently undersupplied and are expected to be drastically so in the future.

It is important to note that London's system of skills provision is not the only source of labour for entry-level occupations. Domestic and international immigration in particular provides a source of skilled labour for growing occupations in London. London accounted for almost one-third (32 per cent) of international migration into the UK in the year to June 2015 (ONS 2015h), and the second highest level of domestic inwards migration of any region or nation in the UK (after Scotland) (ONS 2014b). But, given that one of the primary goals of adult education and lifelong learning policy is to support adults into work and to progress in work, our findings suggest that there is scope to reorient adult learning in London towards those occupations where there are greater opportunities now and in the future, in order to support working-age residents in London to compete in what is a highly competitive labour market.

3.6 Conclusions: London's labour market challenges

London faces a set of severe labour market challenges. Given the wealth of job opportunities available in the capital, it should be of concern to policymakers that its employment rate remains below the UK average and that rates of inwork progression are lower than most other UK regions and nations. Many of the opportunities available are in high-skilled occupations, and the evidence suggests that London's qualification profile is not geared towards meeting this demand over the medium-term. Lastly, below degree level, there are issues in terms of how well London's adult skills system is supplying employers with the composition of skills that are in demand.

⁹ Although it should be noted there is a higher level of out-migration from London as well, meaning the capital is losing eight residents per thousand (ibid).

4. HOW ARE SKILLS SYSTEMS IN THE UK AND INTERNATIONALLY **BECOMING MORE RESPONSIVE?**

4.1 The rationale for a publicly funded skills system

Adult participation in training and lifelong learning, whether funded and delivered by an employer or through public provision, is associated with higher individual earnings and positive employment effects (Thompson and Hatfield 2015). As such, promoting participation and quality in adult learning has been a key objective of government policy in England for many years.

The provision of publicly funded adult education – defined as fully or partly publicly funded learning outside of higher education among those aged 19 and older - has three core aims:

- It offers a 'second chance' route through which to gain low-level and baseline qualifications, in order to support individuals' attachment to the labour market.
- It provides more advanced occupational and sector-specific education and training to those who already hold low-level qualifications but who would like to enter or progress in a particular role (BIS 2015c).
- It provides wider economic benefits. Skills policy has increasingly been seen as a key plank of industrial policy in England, supporting the economy through a combination of upskilling the population at large, as well as supplying employers with particular skills that are in demand. The current UK government's approach to raising productivity prioritises investment in skills as a mechanism through which to raise productivity, for example (HMT 2015a).

The justification for public funding on skills is well established. Employers, left to their own devices, do not train enough. Individual workers are mobile and may move between employers, and so any particular firm cannot guarantee that it will be able to fully recoup any investment in training through higher productivity among its own workforce. This leads to employers offering too little training, and where they do train it leads them to provide training that is highly specific to their own firm and thus less easily transferable to another employer (Brunello and De Paola 2004).

The evidence suggests that employers in England train their staff less than they used to. The number of hours spent training in the workplace fell by 50 per cent in the 15 years to 2013, and there has been an associated fall in employer spending on training (Green et al 2013). In London, just under half of those who are employed participate in work-related education and training (ONS 2015c), but participation varies by the skill-level of the job, with those in high-skilled work more likely to participate than those employed in mid- and low-skilled jobs (49 per cent versus 45 and 43 per cent respectively) (ibid). In addition, surveys of London's employers find that they offer fewer training days per employee than in other regions, and although they are more likely to have vacancies, they also have a greater proportion of employees whose skills are not utilised to their full capacity (UKCES 2013).

Workers themselves are unlikely to provide their own training. While it may make sound economic sense for individuals to invest in their own skills, there is a variety of reasons why they do not do so in sufficient numbers. This includes the cost

of training, information failures that prevent individuals from knowing the return they can expect on their investment, and behavioural factors that mean, even where the cost can be met and the returns known, many will still not participate in training. Together, this set of trends justifies a public role in adult education, either through lowering the cost of training to employers or funding individuals to pursue qualifications themselves outside of the workplace.

4.2 The shape of the current skills system

As it is currently structured, the majority of adult education funding is in three streams:

- Adult entitlements to education: Adults have an entitlement to adult education, although this varies by the level of educational attainment of the individual and their age. A learner who does not hold a full level 2 qualification will have qualifications at that level fully funded up to the age of 23. Those who either hold a full level 2 qualification or are aged over 23 will receive co-funding, and thus have to pay part of the cost themselves. A similar pattern applies for full level 3 qualifications, but those aged over 23 must take out a loan to study.
- Adult apprenticeships: The government also funds training tied to apprenticeships, with the level of funding varying by age. There is additional funding available to employers who take on an apprentice aged 16–24 or have fewer than 50 employees, through the apprenticeship grant for employers (AGE). From April 2017, funding for apprenticeships will move to an employer levy system, with employers paying a 3 per cent levy on wage bills over £3 million. All employers will be eligible to receive co-funding for apprenticeships under this system, receiving £2 of government funding for every £1 spent, up to a government contribution cap that varies by the type of apprenticeship offered.
- Advanced learning loans: These are loans to individuals to cover all or part (if co-funded) of the cost of their entitlement to adult education; they operate on a similar basis to higher education loans, with repayments made after an individual passes an earnings threshold. Advanced learning loans are only available for level 3 and 4 courses taken at approved providers, and for those aged over 24.

In 2015/16, it is estimated that approximately $\mathfrak{L}2.5$ billion will be spent on adult skills in England, of which approximately $\mathfrak{L}500$ million will go on advanced learning loans, $\mathfrak{L}800$ million on apprenticeships, and the remainder on other programmes (Pearson 2015). This is used to fund both college-based and independent private providers of qualifications. When the apprenticeship levy is introduced in 2017 it is expected that $\mathfrak{L}2.5$ billion will be raised and spent in England (Delebarre 2016).

While varying between different funding streams, the funding available to institutions providing qualifications is determined by a range of factors, including the level and length of provision and a weighting according to the cost of the subject area of the qualification in terms of equipment and so on. There is also 'area uplift', based on where the qualification is delivered, in order to reflect the higher cost of provision in areas such as London. Finally, there is an achievement element which is paid upon successful attainment of the qualification, and a (lower) job outcome payment if a learner leaves earlier in order to enter work (Pearson 2015).

There are no precise figures available for the proportion of the adult skills budget that is spent within London. This is partly because many providers are headquartered in London but provide training throughout England. One estimate found that £381 million of the total adult skills budget was spent in London via colleges in 2012/13, although this is likely to have changed significantly in the years since due to changes in policy, not least an overall reduction in spending on adult skills (Krasnowski and Vaid 2012).

Adult skills policy, outside of a few small revenue streams, is not devolved to London, being instead set and administered at a national (England) level, with funding flowing from the Skills Funding Agency to individual providers. Subnational government in London and elsewhere has argued that devolving powers over skills would allow them to better serve the needs of their local economy and populations, and indeed skills policy broadly defined has been at the forefront of recent efforts to devolve power to English city-regions and LEPs through the city deals and local growth deals process (discussed in greater detail below).

More recently, in the March 2016 budget it was announced that, from the 2018/19 financial year, any area with a devolved mayor and any devolved adult skills arrangement will have access to the full adult skills budget as part of an unringfenced single pot of local funding (which also includes transport funding and the local growth fund allocation) (HMT 2016). While few details are available at this stage, this shift would indicate that policymakers in London will, from 2018/19, have considerable scope to reshape the provision of adult education in the area. In addition, the November 2015 spending review committed to cash-terms protection for the $\mathfrak{L}1.5$ billion core adult skills budget (that is, funding for qualifications outside advanced learning loans and adult apprenticeships) (HMT 2015b). This means that, while funding is likely to fall on a per-head basis and in real terms, the money available to London in a devolved skills system will be shielded from further cuts to central government spending.

4.3 Issues with the current national skills system

The current pattern of qualifications supplied by providers in London is a poor fit with employer demand; training participation rates are low and falling faster in London; and participation in adult education, at least within colleges, does not appear to generate better employment outcomes than in other regions, despite the strength of London's labour market.

Why is the supply of qualifications so poorly matched with demand – not just in London, but across England? The weak links between skills supply and labour market demand in England have been the subject of much debate. In short, there is a lack of adequate feedback mechanisms within the adult skills system of the kind that would lead to high demand for certain sectors and occupations being reflected in the volume and composition of learning being undertaken.

With particular reference to qualifications funded from the adult education budget, it has been argued that the current system has poor links with demand for the following reasons:

- Weak incentives for providers: Under the current funding model, providers are incentivised to deliver adult education at volume, being paid for course completions. While providers can receive a payment for job outcomes, this is half the value of completion payments and only applies to eligible unemployed learners. Other desirable outcomes for learners, such as in-work progression, are not recognised at all. It has been argued that a greater emphasis on work-related outcomes or on delivering qualifications in areas of labour market need could shift the balance of incentives towards demand-linked provision (Foster et al 2014). In particular, the lack of an element within funding formulae that reflects local labour market need has been cited as a barrier towards shifting providers' behaviour (London Councils 2013).
- Staff and capital costs: Evidence from London providers suggests that in order to run courses and provide qualifications that are linked to employer demand, providers would have to take on significant financial risk by investing in new facilities or by employing staff with the expertise and credibility to work with employers (SQW 2015).

- **Linkages with employers:** Providers are increasingly attempting to work with employers to design bespoke training programs, but may encounter weak engagement (ibid). While employers are taking on more of a role in designing and delivering adult learning, especially through apprenticeships, there are few formal avenues through which employers can collaborate with providers, and existing attempts to embed this in the skills system, such as the creation of Sector Skills Councils, suffered from a lack of engagement (Lanning and Lawton 2012).
- Provision of information: There is a lack of relevant labour market information available. For providers, there is little information available on which skills and qualifications are currently or expected to be in high demand from employers, making it difficult for them to plan provision accordingly. For learners, there is little provision of information on the expected labour market returns to different qualifications, meaning their learning choices are similarly not fully informed about demand.¹⁰

Recent attempts to reform skills policy have prioritised an 'employer-led' approach to skills provision. This can be seen in the creation of the apprenticeship levy, which will see employers taking more control over the funding of apprenticeships, the new apprenticeship standards – which require several employers to work together to design the content of apprenticeships, and the role of local enterprise partnerships (LEPs) in the devolution of skills (discussed further below). While efforts to engage employers in the content and delivery of adult skills are welcome, there is a danger in giving employers too much say in skills. Employer-commissioned or delivered training may service the needs of individual employers, but will not necessarily ensure learners gain the skills needed to succeed in other firms and sectors, and therefore may not be a good reflection of wider skills demand (Mulheirn and Springford 2012).

4.4 Devolution of skills policy

Across the UK and internationally, subnational government at a regional and city level has increasingly attempted to make lifelong learning and adult education funding and provision more responsive to the labour market.

Over the last parliament, the ongoing process of city and local growth deals has seen new powers handed to local areas in a range of policy areas, with skills at the forefront. In a review of existing city and local growth deals, Clayton and McGough (2015) find that they share several common approaches in seeking to better align skills provision with demand:

- **Use of funding mechanisms:** Several areas have changed how providers are funded in order to increase provision of courses linked to skills needs. Examples include Sheffield, where providers will receive an incentive of £1,000 per learner for key courses, and Stoke and Staffordshire, where the LEP will be able to withhold up to 5 per cent of funding from providers who are not delivering on their identified skills priorities. In the North East and Hull and the Humber LEPs, providers will be rewarded for performance against job outcomes and learning progression.
- Strengthening partnership working: Through the city deals process, local areas have increased their activity working with training providers and other agencies such as Jobcentre Plus, higher education institutions and work programme providers. Local control over funding and delivery has provided an incentive for different partners to work together. In Birmingham, for example, nine colleges now work together to coordinate careers advice and preparation for work training.

¹⁰ To help plug this information gap, IPPR, together with Burning Glass Technologies, has produced Where the Work is, a free online dashboard of job vacancies and skills data for the UK and its nations and regions. See note on p8 or: www.wheretheworkis.org

- Employer engagement: Similarly, the prospect of influence over how skills funding is spent has led to greater engagement from employers, with many local areas reporting that engagement with businesses is now easier. This engagement has been fostered through the use of brokerage models, as in the Leeds city region and in Sheffield, identifying skills needs in order to steer the commissioning of training organisations providing apprenticeships. In Manchester, employers have been involved in designing apprenticeship frameworks through the Greater Manchester employer and skills board.
- Use of labour market intelligence: While most areas feel their use of labour market intelligence could be improved, there has been interesting developments in how areas have used data to inform decision-making. In Stoke-on-Trent and Staffordshire, the Education Trust an alliance of providers, councils and employers reviews local labour market trends and uses a 'red/amber/green' framework to rank skills that are in the highest demand. Other areas have commissioned research on local skills needs, or started to collect and integrate information from provider organisations.

Clayton and McGough also identify where city and local growth deals have fallen short. It is notable that only two areas – Sheffield and Greater Manchester, the two city-regions that secured more wide-ranging devolution deals – have been given wide-ranging control over the level of funding available to different types of learners, sizes of businesses and subject areas. Elsewhere, funding has only been devolved in order to deliver defined policy objectives and pilot programmes. There were also specific aspects of demand-led skills systems that were not as prominent in the deals, including funding for in-depth careers guidance for learners, making full use of advance labour market intelligence techniques, and raising levels of integration between skills funding and employment support.

4.5 International examples of demand-led skills policy

The emphasis in English skills devolution on shifting funding, strengthening links between employers, providers and local government, and making better use of labour market information is in line with recent innovative approaches to skills policy internationally. Particularly in English-speaking countries, skills systems have attempted to shift towards demand-led approaches through a number of methods.

Michigan skills alliances

The US state of Michigan has faced severe labour market challenges in recent decades, bearing the brunt of continued offshoring of manufacturing from the US to lower-income countries. This trend, combined with Michigan's aging workforce, led policymakers in the state to identify new and existing growth sectors and offer substantial policy support to train workers to enter roles in these emerging clusters. In order to enable this approach, more than 40 regional skills alliances were developed, beginning in 2004, with the goal of aligning training efforts with labour market need in particular sectors (see Schmuecker et al 2013).

Key features of these alliances include:

- Customised training solutions: Skills alliances work with employers to develop and design customised training programmes meeting particular industry-wide skills needs, connecting them with community colleges and training providers to deliver the programmes.
- Little new funding: While the initial process of setting up the alliances was supported by start-up grants, the subsequent emphasis has been on collaboration and partnership working, as well as leveraging funding from private sources, federal grants programmes and funding from charitable trusts.
- Using labour market information and employer engagement to develop a shared understanding of the skills needs in a particular industry.

Creating career ladders for low- and middle-income occupations, to assist
workers already in these industries to advance and unemployed workers to (re)
enter and progress.

New York career pathways

A more recent example is the attempt by New York City to shift the emphasis of its workforce development system away from job-first employment support towards a system-wide framework of career pathways in particular occupations and sectors, developed in collaboration with industries (see NYC 2015).

In addition to shifting spending towards training in particular sectors, other key aspects of the strategy include:

- Industry partnerships in six sectors: These include sectors facing skills gaps, such as healthcare and technology; those that are smaller in scale but offer good pay and advancement prospects, such as construction and industry; and those that are high volume but low pay, such as retail and hospitality, where the focus is on raising job quality. The role of these partnerships is to develop curricula and programmes with both employers and training providers.
- Integration of different agencies providing employment and skills support in order to create occupational pathways, including those delivering back-to-work support and others that offer occupation-specific training.
- Provision of 'bridge' programmes that prepare those with baseline qualifications (such as a high school diploma) for more advanced occupation-specific training.
- A greater emphasis on sector-specific training, aimed at three different target groups: those looking for their first entry-level job, those looking to change careers, and those attempting to advance within their current sector.

British Columbia Skills for Jobs Blueprint

The Canadian province of British Columbia published its 'Skills for Jobs Blueprint', a provincial plan for demand-led workforce investment, in 2014 (WorkBC 2014). The package covers both higher education and other post-secondary education, and includes several policies designed to link the provision of post-secondary education to demand in the province's economy:

- Targeting student financial aid (such as student loan forgiveness) to study
 programmes aligned with high-demand occupations, as well as providing grant
 funding for student relocation and equipment in high-demand occupations and
 grants for course completion.
- Over time, shifting operating grants for institutions so that a greater proportion
 is linked to the provision of programmes in target occupations and linked to
 measurable outcomes (such as provision provided for school-leavers and
 aboriginal communities). The plan states that after three years a quarter of
 operating grants will be linked to demand in this way, with redirection of funds
 if student demand is less than anticipated or if particular programmes do not
 meet measurable outcomes.
- Reducing waiting lists for training places in 'critical' occupations, through a targeted fund to scale-up provision linked to these occupations.
- Greater provision of information to prospective learners about waiting lists and vacancies for training places.
- Targeting capital spending for post-secondary education institutions to pay for infrastructure and equipment linked to the most in-demand occupations.
- Formalising the role of sector advisory councils as industry forums providing advice that validates labour market projections and guidance on how to use public spending to respond to skills gaps.

Queensland Skills Plan

In 2006, the government of Queensland, Australia, launched the Queensland Skills Plan, a key aim of which was to increase industry participation and investment in workforce development (see OECD 2012). Aspects of the plan included:

- Before and during the implementation of the plan, 23 skills formation strategies
 were established across industries. The strategies are developed by several
 stakeholders, including industry, providers and government, who together
 analyse the problem of skills both from a supply perspective and in terms of
 workforce management and organisational issues.
- A strategic investment fund was created in order to prioritise training in industries facing skill shortages through a lack of clear pathways into those roles or structural changes to the industry and business models.
- An evaluation of the success of the plan found a reduction in the level of skill shortage levels between 2007 and 2010, as well as greater rates of employer satisfaction with the Queensland skills system.

4.6 Conclusions: the characteristics of responsive skills systems

In England and internationally, skills systems are reforming to become more responsive to the needs of local and regional labour markets. London's skill system needs to undertake a similar transition, enabled by the prospect of devolution of adult education powers to the capital.

Key aspects of responsive, devolved skills systems include:

- directing funding towards programmes and qualifications that align with current and expected labour market needs
- information for learners on the labour market returns to qualifications, in terms of employment and earnings
- partnership arrangements between policymakers, education and training providers and employers to plan provision in line with labour market demand.

A more responsive system of adult skills would involve learners having access to the information needed to better make decisions about which qualifications they should undertake, and providers being rewarded for providing qualifications that are better aligned with labour market needs. The current national system of adult skills does not deliver this: information in weak and incentives for providers bear no relation to local labour market needs.

5. BUILDING A STRONGER SKILLS SYSTEM FOR LONDON: CONCLUSIONS AND RECOMMENDATIONS

In the context of skills provision and funding, there are limits to the extent to which skills policy should be locally determined, as opposed to being set at a national level. Because labour is mobile across regions and nations, there is a need to ensure qualifications gained in London remain 'portable' from place to place, through nationally recognised qualifications. This does not preclude the possibility that programmes can be developed that package together nationally recognised qualifications, but we do not recommend that new qualifications should be developed that are specific to London. Instead, we argue that the funding rates attached to existing qualifications should vary to reflect demand in London.

5.1 Short-term changes

1. The GLA should provide high-quality labour market intelligence to inform learners' decision-making

In recent years, the quality of labour market information available to higher education students has improved greatly, with universities now required to publish 'key information sets' of data, such as occupational and employment destinations of graduates and starting salaries related to courses on an institution-by-institution basis. London should look to instigate a similar model of labour market information to extend this approach to wider adult skills provision.

One challenge that is frequently cited as a barrier to greater provision of information in further education is the cost and difficulty of surveying course leavers (Foster et al 2014). London should therefore look to work with the Department for Business, Innovation and Skills (BIS), which has begun to collect similar data. This BIS dataset provides information on learners' destinations – in terms of earnings, employment and benefit receipt – by linking the administrative data that providers are obliged to collect with data from HM Revenue and Customs on earnings and employment. This data should be provided on a London-wide basis through an online portal, at a provider and course level.

2. The GLA should use capital funding to reduce the risk to providers of setting up new courses or expanding existing ones, where there is an identified labour market need

We know from providers that the current funding system presents a barrier to setting up or expanding course provision (SQW 2015). The London LEP already has the capability to vary further education capital funding, but we believe the GLA could do more to work with the LEP to ensure that those funding allocations play more of a 'derisking' role where employer demand for a particular skill is high.

Decisions about which qualifications should be made eligible would be made in partnership between employers, providers, London boroughs, the London LEP and other relevant stakeholders, either at a London-wide level or using the multi-

borough groupings delivering the area-based reviews. This decision-making process should be supported by a three-stage assessment of current and forecast labour market demand versus supply, the capacity of providers to increase provision of earmarked qualifications, and their sensitivity to declining learner numbers in deprioritised qualifications.

3. The GLA should work to drive up the quality, quantity and relevance of apprenticeships

London is unlikely to gain any direct control over the funding, content and design of apprenticeships taking place in the capital. This is because employers are being increasingly privileged in the design of apprenticeship standards, the replacement for apprenticeship frameworks that will set out the content and skills required of apprentices in different job roles. Each of these standards must be developed by employer groups.

In addition, by the end of this parliament funding for apprenticeships will be entirely comprised of employer contributions through the apprenticeship levy, which can then be spent on apprenticeships with a top-up from the state. The apprenticeship levy will lead to many of London's large public-sector employers paying substantial sums into the levy, and having a strong incentive to increase the number of eligible apprenticeships they offer in order to make full use of their levy payments. At the same time, public-sector employers of more than 250 staff are likely to receive ambitious targets for the number of apprentices they must employ as part of the UK government's drive to increase the number of apprentices in that sector.

There is a valid concern that these two developments will lead to public-sector employers using their apprenticeship levy payments to fund training they are already providing, such as low-level induction and health and safety training, or to take on a majority of apprentices in low-skilled roles with little opportunity for skills acquisition and progression. There is a similar risk that private-sector employers will respond to the apprenticeship levy by creating large numbers of low-quality apprenticeships, or that the apprenticeships created will not map onto the genuine skills needs of London.

The GLA can take several steps to reduce these risks and ensure the apprenticeship levy delivers the best possible outcomes for London employers and Londoners themselves. First, it should work to create transparency, by reporting on the quality of apprenticeships offered by London's employers and by creating a London apprenticeships 'kitemark' that employers have to earn. Second, it could play a coordinating role, by identifying the apprenticeships London most needs and then encouraging employers to provide them.

5.2 Longer-term reforms

From 2017, London is likely to gain control over the adult education budget, giving policymakers additional levers to adjust the level of funding attached to particular qualifications and the potential to make more radical changes to how adult education is funded.

The overarching aim of the new, devolved skills system in London should be to achieve higher rates of participation in adult education in London, combined with greater alignment between the behaviour of learners and providers on the one hand, and current and expected labour market demand on the other. This would support people who are either out of work or in low-paid work to gain qualifications that are valued in the labour market, supporting greater progression and employment, as well as better serving London's employers.

4. London should be given the power to vary adult skills funding in line with employer demand for skills

The particular qualifications identified as being in demand should receive enhanced funding, and this should be paid for by deprioritising (and lowering funding to providers for) courses that display poorer labour market returns. The precise balance of these top-ups and reductions should be set at a level that influences individual and provider behaviour. Channels for enhanced funding could include writing off a proportion of an individual's fees for those courses or advanced learning loans, or increasing the rates paid to providers for particular qualifications.

There are several potential objections to taking a demand-led approach to education funding. For example, it could be argued that the data on employer demand for skills is insufficiently reliable to form a solid basis for funding decisions. It is true that, in order for a market-driven funding approach to work well, the quality and availability of labour market microdata needs to improve. But with the development by BIS of new outcomes data (as described above), there is the potential to create a high-quality, reliable dataset for London. We recommend that this data set should be developed before provider funding is linked to employer demand, and that the specific funding criteria should be developed as a collaborative endeavour involving providers, boroughs and the London LEP, as well as the GLA.

Another potential objection to varying course funding according to demand is that it risks providing what employers need now rather than what they will need in the future. Our analysis suggests that it is possible to identify the sort of skills likely to be in high demand within London over the next five years (for example, as set out in chapter 2). Therefore, to counter this risk, we recommend that any funding decisions should take into account expected future jobs growth as well as current demand.

5. The GLA should explore more radical options for results-based funding of adult skills

In the short and medium term, this variation of funding according to demand will serve to shift provision towards the needs of London's labour market. However, as policymakers in London build their capacity to shape the capital's skills system, they should explore more radical options for funding adult skills.

One way to make the skills system even more responsive would be to fund providers according to the outcomes learners achieve beyond simple attainment of qualifications, whether in terms of leaving benefits, entering employment or progressing in education or earnings. Providers could be funded either by the outcomes of each individual, or by measuring a provider's overall performance. Such a shift would be supported by ongoing efforts by national government to better measure the outcomes of individuals engaged in adult learning (BIS 2015).

The experience of payment by results in other contexts, such as the Department for Work and Pensions' work programme, illustrates that there are significant risks attached to such an approach. In particular, there is a risk that providers could encourage learners to take courses that are most likely to achieve particular outcomes, but which are not necessarily in the best interests of either the learner or London employers. This risk could be mitigated in several ways. First, improving information for learners (in the way we recommend above) would allow individuals to make informed choices about the courses they should take. Second, the roll-out of a results-based approach to funding could be phased, with only a fraction of the funding for a given qualification being determined in this way. The GLA could then keep under close review the impact this reform has on providers' behaviour. It could also trial different rates for target groups, such as those who are out of work and those currently in employment.

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ANNEX: METHODOLOGY

Throughout this paper, we make use of the following definitions of low-, mid- and high-skilled occupations:

- Low-skilled jobs in London: jobs for which median gross hourly pay is less than the Living Wage Foundation's London living wage, as measured by the 2015 Annual Survey of Hours and Earnings, and which do not require a first degree-level qualification (ONS 2015b).
- Mid-skilled jobs in London: jobs for which median gross hourly pay is higher than the Living Wage Foundation's London living wage, but which do not require a first degree or equivalent higher education qualification.
- High-skilled jobs in London: jobs for which median gross hourly pay is greater than the Living Wage Foundation's London living wage, and which do require a first degree or higher qualification.

Classification of occupations

In order to ascertain whether a particular occupation requires a first degree, we make use of two sources. We use the Labour Force Survey (Q1 2011 – Q2 2015) to measure what proportion of workers currently in that occupation possess a qualification of at least first degree level (ONS 2015c). If more than 30 per cent of those currently employed hold a degree, we record that occupation as high-skilled. We then check these results against the standard occupational classification manual published by the Office for National Statistics (ONS), which sets out normal qualification requirements for each occupation that the ONS records. On this measure, our two sources agree: none of the occupations that we have identified through the Labour Force Survey as having less than 30 per cent of current workers qualified to degree level is regarded by the ONS as requiring a qualification at degree level or above.

Because occupations can be classified at differing levels of detail, and data sources differ in the extent to which their occupational data is disaggregated, we repeat this process at three different levels of detail, using the standard occupational classification (SOC) coding frame at a two-digit (least detailed), three-digit and four-digit level (most detailed). The results in this paper, unless noted, are at three-digit occupational level.¹²

Median hourly pay

Some occupations are not classifiable according to the definitions above because their sample size within the Annual Survey of Hours and Earnings is too small to allow for median hourly pay to be measured. This may be because they make up too small a proportion of London's labour market, or because they are dominated by self-employed workers, for whom hourly earnings are not recorded. All in all, we estimate that (at a three-digit level) less than 1 per cent of employed Londoners work in these occupations.

¹¹ See: http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-1-structure-and-descriptions-of-unit-groups/index.html#5

¹² For the full set of occupations, see: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dev3/ONS_SOC_hierarchy_view.html

Labour market activity

In order to measure the labour market activity of individuals, we use the ONS Labour Force Survey (ONS 2015c), making use of both snapshot data and its two-quarter longitudinal dataset to measure how workers move into and between jobs. In both cases, we aggregate quarterly releases of the survey from 2011 through to 2015 in order to increase the sample size for analysis at a London level.

Employer demand

In order to measure employers' demand for workers in particular occupations, we make use of the dataset of online job vacancies posted in 2014, provided to IPPR by Burning Glass Technologies (BGT). This dataset aggregates almost a million job vacancies posted in London in 2014, providing information on the occupation and sector of the vacancy as well as the qualifications and skills required in the role. Since online vacancies tend to be biased towards high-skilled occupations, and many jobs towards the bottom of the skill distribution are not advertised online at all, this data has been normalised in line with Labour Force Survey data to better reflect the real distribution of vacancies.

We have also carried out analysis of the UK Commission on Employment and Skills Working Futures dataset, which provides estimates of how demand for occupations will change between 2015 and 2022 (UKCES 2012).

Skills provision

In order to analyse current adult skills provision, we use a combination of published data on adult skills participation, attainment and outcomes, as well as data provided by the Skills Funding Agency on learning outcomes in 2013/14 among learners who live in London, split by sector subject area (SSA). This is then matched to occupations using the Labour Force Survey, which records the SSA of an individual's highest vocational qualification, in order to 'match' skills provision with the qualifications held in a particular occupation.