While the UK has seen its number of available workforce vacancies grow by almost half in two years, employers are experiencing great difficulty recruiting skilled personnel. Not only are skills shortages apparent, but skills gaps are also occurring, and at the same time many employees are overqualified.

There have, however, never been a greater number of highly-educated individuals in the UK. This would suggest that a skills surplus should be apparent. This briefing suggests that the extent of perceived skills shortages is due to both a failure to teach all the required skills, and a failure to use existing skills as efficiently as possible.

To overcome this problem we suggest that the government should focus on its current population to meet its workforce needs. The further empowerment of women, the continuous training of older workers, better collaboration between businesses and the promotion of apprenticeships would lead to a better balance between skill supply and demand.

**Extent of shortages**

The UK has seen its number of available workforce vacancies grow to 928,000 in 2015 — an increase of 42 per cent in two years. Employers have, however, claimed that it has been impossible to fill 23 per cent of these free positions due to skills shortages. Skills shortages occur when firms cannot find applicants with the required skills, the right qualifications, or the level of experience the company is looking for. The question is whether the required skills really do not exist, or whether current circumstances make it difficult to recognise and efficiently use existing skills. This briefing argues that the extent of shortages is the result of both factors.

The UK has experienced a strong shift towards higher education over the last ten years. The percentage of highly-educated individuals increased from 26.8 per cent to 37.5 per cent between 2003 and 2013, and is projected to reach 46.5 per cent by 2020. At the same time the percentage of low-educated workers declined from 34.1 per cent to 23.4 per cent, with a predicted further decrease to 16.9 per cent by 2020. This would suggest that a skills surplus should be apparent, rather than a shortage.

Yet surveys show that employers do not find the right skills in candidates they interview. The following skills shortages are most frequently recorded:

- **A lack of interpersonal skills.** On the one hand, this concerns the ability to prioritise tasks and to exercise efficient time management. On the other hand, it concerns soft skills, such as those required to deal well with customers.

- **A lack of operational and analytical skills.** This includes a lack of basic IT skills, and difficulty handling complex analytical tasks.
While skills shortages are experienced in many sectors, the following industries face the most difficulty when recruiting skilled workers:

- **Skilled trades** face the highest density of skill-shortage vacancies. This includes construction-related trades, such as plumbing, engineering and building.
- The **IT sector** is evolving quickly. Web developers in particular are in high demand.
- Industries that rely on graduates with a science, technology, engineering or mathematics background state there are not enough suitable candidates to meet their employment requirements.
- Applicants for **managerial positions** are often lacking in appropriate skills and experience. The same applies to jobs requiring a **professional with a specific set of skills**.

While a mismatch between available workers and open vacancies is problematic, 15 per cent of employers have reported that they also face a skills gap within their companies. This problem arises when employees are not proficient at their role, making it difficult for a business to meet its objectives.

Finally, it has been identified that many employees have skills that are underused in the jobs they hold. There are many reasons for this. Certain jobs have relatively few higher-level positions, preventing employees from progressing to higher-skilled positions. However, a commonly-cited reason for staying in easy jobs is a lack of interest in taking up a higher level role, or

---

**Reasons for shortages**

**Further education**

Even though the number of university graduates in the UK has increased, there is no guarantee that these individuals are equipped with the skills that are in demand. In fact, such an increase in the number of graduates is causing problems:

- **It affects the entry requirements that are set for jobs.** Many businesses have started requiring degree qualifications for jobs that were traditionally non-graduate roles. This means that many people must obtain an academic qualification in order to enter the labour market. However, a degree does not necessarily equip a person with the skills obtainable via an apprenticeship.

- **It leads to a greater number of overqualified employees.** Their expertise does not match the wages they receive, making it difficult for them to pay off their student loans.

A third of all employers have employees whose skills are underused. There are many reasons for this. Certain jobs have relatively few higher-level positions, preventing employees from progressing to higher-skilled positions. However, a commonly-cited reason for staying in easy jobs is a lack of interest in taking up a higher level role, or
refraining from doing so due to the inconveniences, such as longer working hours, that might accompany such a career progression.\textsuperscript{15}

**Digital illiteracy**

The UK currently has the largest Internet-based economy in the world.\textsuperscript{16} As the number of digital opportunities keeps growing, the number of digital illiterates becomes increasingly problematic. It is assumed that children born today are digital natives, but that many of those who are already in the workforce are not as computer-savvy.\textsuperscript{17} As a result, a skills gap occurs. This, however, is not the only problem. Currently, thousands of young people grow up without the digital literacy skills they need to find a job.\textsuperscript{18}

**Gender imbalance**

Gender imbalances are visible in various sectors, with men dominating the technology industry, for instance, even though women are more likely to hold degree qualifications.\textsuperscript{19,20} Given that boys and girls perform equally well in science courses on average, such an imbalance is not due to gender-specific skills.\textsuperscript{21,22} We must therefore examine why so few women choose these career paths.

Only 20 per cent of all students studying physics at school are girls. At the same time, girls are 2.5 times more likely to pursue an A-level in physics when they are enrolled in a single-sex school.\textsuperscript{23} It is thought that a likely cause of girls’ relative avoidance of physics is the idea that science and engineering are subjects for boys.\textsuperscript{24} Girls are comparatively less aware of their gender, and of the stigmas surrounding genders, in an all-female setting.\textsuperscript{25}

This suggests a likelihood that more women will show an interest in the science and technology sectors if such a career path is seen as suitable for both genders alike. To change the current perception, the positive contributions of women in science should be highlighted.\textsuperscript{26} Positive connotations of women with science will likely trigger women with scientific interests to pursue them.

**Remedial strategy**

The UK can eliminate its skills shortages by focusing on its current population. It has been argued that the UK should seek to attract skilled migrants to fill open vacancies.\textsuperscript{27} While this may seem sensible, it will add more people to an already overpopulated country, and cause part of the current population to remain unemployed or underemployed when this is unnecessary. To efficiently employ the capacities of the current population, the government should adopt the following approaches.

1. **Further education**

**Collaboration**

In 2013, 74 per cent of surveyed education providers believed that their graduates were well equipped for the labour market. Only 35 per cent of employers agreed.\textsuperscript{28} Moreover, employers do
not show enough interest in the education sector.\textsuperscript{29} This shows that the ideas and expectations of the two parties do not match. Closer collaboration between the two will give educators a better understanding of what today’s businesses need, whilst employers can advise and guide students in the choices that will affect their future careers.

It was assumed in the past that a bachelor’s degree would provide an individual with enough training for a career; but today a degree is expected to remain up to date for only about five years.\textsuperscript{30} This shows that employees need to continuously enhance their skills. While employers are increasingly happy to create training opportunities, a common complaint is that the training on offer is not in line with what is needed.\textsuperscript{31} If education institutes have better access to information about current demands for skills, this problem can be overcome.\textsuperscript{32}

**Apprenticeships**

Since an increased number of highly-qualified individuals does not fully tackle the problem of skills shortages, it seems that focus should be placed on desirable skills rather than on qualifications per se. Certain skills cannot be obtained through academia; therefore, students should be encouraged to consider other options, such as apprenticeships.

- 76 per cent of employers who have taken on apprentices believe that their firm’s productivity has increased as a result. Moreover, 80 per cent have found it easier to retain employees.\textsuperscript{33}
- Apprentices are paid a salary during their apprenticeships, and the government pays companies for their training. As such, the system is affordable for all parties involved. It has been estimated that the organisational net benefits generated by apprentices totalled £1.8 billion in the years 2012/2013.\textsuperscript{34}
- While the number of apprenticeships has increased in the UK in the past couple of years, this has mainly happened in sectors that face no significant skills shortage, such as the hairdressing industry.\textsuperscript{35} Promoting the practice in the building sector, and the technology and engineering industries, should be prioritised.
- Promoting traineeships and vocational training as a route to getting into an apprenticeship will make it easier for individuals who have not received higher education to progress to higher-skilled jobs.\textsuperscript{36} This, in turn, will allow a greater percentage of the current population to work, reducing the need to look for new workers from outside the UK.
- Other developed countries such as Germany and the Netherlands have a strong apprenticeship system, and show a smoother transition from school to work among youth.\textsuperscript{37}

Altogether, the idea that academia is the only way forward must be abandoned, while apprenticeships should be promoted as a viable and valuable alternative.
2. Combatting digital illiteracy

In order to combat digital illiteracy it is necessary to ensure access to computers. Utilising computers from an early age in the education system will guarantee that children grow up as ‘digital natives’. Moreover, subsidising access to computers and the Internet outside school will give children who grow up in poverty a chance to develop digital literacy. This will improve their employment prospects as they grow up.

At the same time, it is important to invest in extensive and continuous training for employees who did not grow up in the digital age. This would reduce the digital skills gap many companies face today. It is necessary, furthermore, that teachers keep their digital knowledge up to date, to prevent a situation in which students have more knowledge than their teachers.38

3. Empowerment of women

Given that skills shortages are projected to increase in the science and technology sectors, and there is a disproportionate lack of female involvement in these sectors, it is sensible to place a focus on the empowerment of women.39 Specifically, the commonly-held assumptions that science and IT are not for women should be challenged more strongly.

Moreover, as previously stated, many employees stay in jobs that don’t match their skills due to the inconvenience that accompanies a move to a more suitable job. To overcome this problem, jobs that require highly-skilled individuals should be made more attractive, so that inconvenience is no reason to decline roles. Unattractive work hours were listed as one of the inconveniences.40 With the majority of caring and domestic responsibilities still falling upon the shoulders of women, it is especially important to make it easier for women to find feasible jobs that are suitable for their skills level.41,42 This could be achieved by creating more part-time jobs, for example, or by facilitating better childminding services.

Conclusion

While the number of available vacancies on the UK’s job market has increased in the past couple of years, many jobs cannot be filled due to skills shortages. At the same time, more people than ever before are highly qualified. This suggests that qualifications are not the problem. Instead, a low supply of required skills is the issue here.

The government should aim to tackle this problem by focusing on its current population, as opposed to looking for skilled migrants. To achieve this, education providers and businesses should collaborate to ensure that supply and demand are more in line with one another. Moreover, an attitudinal change concerning further education is required. University should no longer be seen as the superior option. Vocational training followed by a good apprenticeship should be promoted as an equally valuable alternative. At the same time, businesses should lower the entry qualification levels for jobs which traditionally required no degrees.
It is also important to combat digital illiteracy to allow the UK’s technical economy to flourish and to ensure that no child is excluded from the job market due to the circumstances in which he or she is born.

Lastly, it is important to focus on the empowerment of women. The lack of women in the technical industries is a result of the commonly-accepted notion that science is a man’s occupation. This notion is a construct rather than a fact, and should be challenged.

5 http://www.theguardian.com/business/2015/feb/10/uk-plumbers-builders-engineers-skill-crisis-economy
6 http://www.telegraph.co.uk/finance/jobs/11602670/Here-are-the-workers-most-in-demand-in-the-UK.html
7 https://yougov.co.uk/news/2013/10/11/uk-skills-gap-stem-subject/
13 https://www.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2014/02/26/higher-skilled-workers-under-used-in-uk-economy-finds-cipd.aspx
14 https://www.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2014/02/26/higher-skilled-workers-under-used-in-uk-economy-finds-cipd-report.aspx
19 http://www.theinquirer.net/inquirer/news/2431119/the-uk-has-a-12-million-people-sized-technology-skills-gap
22 http://www.sciencefocus.com/news/2014/03/both-genders-think-women-are-bad-basic-math
24 http://www.singlesexschools.org/research-forgirls.htm
25 https://gsa.uk.com/2015/11/girls-in-science/
27 http://www.ft.com/cms/s/0/e997205a-2879-11e3-a035-00144feab7de.html#axzz3zZNchEB5
Skills shortages in the United Kingdom

28 http://www.bbc.co.uk/news/education-25714313
29 http://www.bbc.co.uk/news/education-25714313
30 https://hbr.org/2012/09/mind-the-skills-gap
31
32 http://skills.oecd.org/hotissues/skillsshortages.html
33 http://www.skillstraininguk.com/docs/E-Benefits%20of%20Apprenticeships.pdf
34 https://www.aat.org.uk/sites/default/files/assets/The_Value_of_Apprentices.pdf