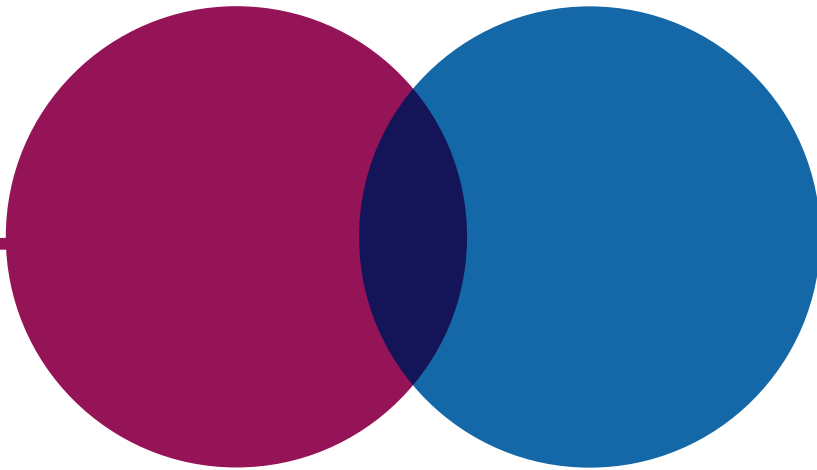




National Audit Office



Developing workforce skills for a strong economy

Department for Education


REPORT

**by the Comptroller
and Auditor General**

SESSION 2022-23

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National Audit Office

Developing workforce skills for a strong economy

Department for Education

Report by the Comptroller and Auditor General

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Gareth Davies
Comptroller and Auditor General
National Audit Office

6 July 2022

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Contents

Key facts 4

Summary 5

Part One

The workforce skills system 14

Part Two

Scale of the workforce
skills challenge 19

Part Three

Government's understanding of
workforce skills needs 32

Part Four

Government's approach to
workforce skills development 42

Appendix One

Our audit approach 55

Appendix Two

Our evidence base 57

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Key facts

£3.9bn

amount that the Department for Education spent on adult education, apprenticeships and other skills programmes in 2021-22

24%

proportion of vacancies in 2019 that employers reported were due to a lack of the required skills, qualifications or experience among applicants

46%

fall in the Further Education Skills Index (government's proxy measure for the impact of the further education system on productivity) from 2012/13 to 2020/21

- 11%** real-terms fall in employers' spending on workforce training per employee from 2011 to 2019
- 4%** proportion of people whose highest qualification by the age of 25 is level 4 or 5 (the level of qualification that usually involves acquiring higher technical skills)
- 1.6 million** number of adults participating in government-funded further education and skills training in 2020/21, compared with 3.2 million in 2010/11
- 280,100** fall in the number of adults participating in government-funded further education and skills training in the most disadvantaged areas of England, from 2015/16 to 2020/21
- 18,700** number of people who enrolled on a free course under the Lifetime Skills Guarantee from April 2021 to April 2022, which was 28% above the Department for Education's planned number
- Five** number of priority sectors to which government appointed a 'sector delivery lead' in autumn 2021 – construction, digital and technology, haulage and logistics, health and social care, and manufacturing
- 7%** rise in the Further Education Skills Index from 2019/20 to 2020/21, which the Department for Education considers was due to learners shifting towards more economically valuable training

Throughout this report, government financial years are written as, for example, '2021-22' and run from 1 April to 31 March; further education sector academic years are written as '2021/22' and run from 1 August to 31 July.

Summary

- 1** In early 2022, the UK workforce comprised around 32.6 million people. Workers require a range of skills to be productive. Technical skills – practical or vocational skills that allow people to complete specific mechanical, information technology, scientific or other job-related tasks – are particularly important in the workplace because they help workers operate more efficiently and effectively.
- 2** The skills system involves government, employers, training providers, local bodies and individuals. Employers play a crucial role in developing workforce skills and stimulating the skills system. They can encourage and support their staff to take up government-funded training opportunities. They also invest in their own training activities, create high-skilled jobs, and offer career progression and other opportunities for those with the appropriate skills.
- 3** Within government, the Department for Education (DfE) leads on skills policy in England and is accountable for securing value for money from much of the funding government provides for skills initiatives. DfE has a priority outcome to “drive economic growth through improving the skills pipeline, levelling up productivity and supporting people to work”. To achieve this outcome, DfE needs the support of other parts of government, specifically the Department for Business, Energy & Industrial Strategy (BEIS), the Department for Digital, Culture, Media & Sport (DCMS), the Department for Levelling Up, Housing & Communities (DLUHC) and the Department for Work & Pensions (DWP).
- 4** In January 2021, DfE published the *Skills for Jobs* white paper. This explained how government would carry out reforms so that the further education system would support people to get the skills that the economy needs throughout their lives, wherever they live in the country. The Skills and Post-16 Education Act 2022 made provisions to implement proposals from the white paper. These include a framework to facilitate stronger employer and provider engagement in local skills systems, and measures to support lifelong learning.
- 5** Government does not have an estimate for its total spending on activities designed to develop workforce skills. DfE’s data indicate that spending on adult education, apprenticeships and other skills programmes has been rising and totalled £3.9 billion in 2021-22. This amount does not include any element of the £6.2 billion spent on learning for 16- to 19-year-olds, which covers both academic learning and skills training, because DfE does not disaggregate the figures.

Focus of our report

6 Government has had an enduring role in supporting workforce skills development, understanding that the market does not supply all the skills the country needs to provide goods and services and enhance productivity and competitive advantage. The funding and attention government gives to this area is continuing to grow.

7 We examined whether government has an effective approach to enhancing workforce skills. Given its responsibilities for leading government's approach to skills, much of our examination focused on DfE's activities, but our work also took us into other departments which play a role in supporting skills development.

8 This report covers:

- the workforce skills system (Part One);
- the scale of the skills challenge that government faces (Part Two);
- government's understanding of workforce skills needs (Part Three); and
- how well government is supporting the development of workforce skills (Part Four).

We set out our audit approach in Appendix One and our evidence base in Appendix Two.

9 Our work covered skills rather than broader issues about the supply of labour. We focused particularly, but not exclusively, on technical skills that people deploy in the workplace, rather than basic skills or skills that are designed to help individuals become more employable. Our work did not cover formal academic education. Our report focuses on workforce skills in England, in line with DfE's responsibilities. However, some of the analysis that we carried out covered the whole of the UK, or combined parts of it, because the data could not be disaggregated between England and the other nations.

Key findings

Scale of the workforce skills challenge

10 Since 2012, the UK has experienced slightly lower workforce productivity growth than comparable nations. The Organisation for Economic Co-operation and Development has highlighted the need for the UK to encourage lifelong learning and promote better skills utilisation, in order to boost growth, productivity and earnings (paragraph 2.3 and Figure 3).

11 Wider economic and societal changes are creating skills shortages and making the skills challenge more acute. A variety of factors bring about changes in the workforce and the skills needed in the labour market. At present, these factors include the following:

- The UK's exit from the European Union has reduced the supply of workers from member states and potentially increased the need for the country to train its own workers, particularly in sectors such as hospitality, transport and storage, manufacturing and construction.
- The requirement to achieve 'net zero' greenhouse gas emissions by 2050 will significantly affect the workforce. For example, the increased production and use of electric vehicles and improving the energy efficiency of heating systems will create new skilled jobs. Research in 2019 estimated that around one in five jobs across the UK (approximately 6.3 million jobs) is likely to be affected by the transition to net zero.
- People aged over 50 made up around one-third of the UK workforce in 2021, compared with one-fifth in the early 1990s, although there are also indications that many older people left the workforce after the end of the COVID-19 furlough scheme. Research suggests that employers are less likely to train older employees than younger employees (paragraphs 2.4 to 2.6, 2.8, 2.9 and 2.11 to 2.13).

12 Employers' spending on workforce training per employee has fallen.

Surveys carried out by DfE indicate that the amount employers in England spent on training per employee dropped in real terms from £1,710 in 2011 to £1,530 in 2019, a fall of 11%. The 2019 survey found that 39% of employers had provided no training in the previous 12 months. Overall, 45% of employers who had provided some training reported that they would have liked to offer more, with the main barriers being an inability to spare more staff time and a lack of funds (paragraphs 2.14 to 2.15, and Figure 5).

13 Adult participation in government-funded further education and skills training has declined significantly, particularly in disadvantaged areas. The number of adult learners fell from 3.2 million in 2010/11 to 1.6 million in 2020/21, a decrease of 48%. Over a shorter timeframe for which consistent data are available, from 2015/16 to 2020/21, the number of participants aged 19 and over in the 20% most disadvantaged areas of England dropped by 39% (280,100 participants). This compared with a 29% decrease in overall adult participation over this shorter period. The largest decline within these disadvantaged areas was for learners aged 50 and over, whose numbers fell by more than half (paragraphs 2.17 and 2.21, and Figures 6 and 8).

14 Largely because of the drop in learner numbers, the government's measure of the impact of the further education system on productivity fell by 46% from 2012/13 to 2020/21. The 'Further Education Skills Index' is government's proxy measure for the impact of the further education system on productivity. Its value is affected by three factors: changes in the number of learners and in achievement rates, and shifts in the 'economic value' of the training carried out. Overall, the Index fell by 46% from 2012/13 to 2020/21. The fall was mainly due to a decrease in the number of learners, which led to a drop in the number of achievers. The largest annual fall in the Index (21%) was in 2019/20, linked to restrictions during the COVID-19 pandemic, but the downward trend was established before then. In 2020/21, the annual change in the Index was a rise of 7%. DfE's analysis has indicated that this increase resulted from learners shifting towards more economically valuable training, with achiever numbers remaining broadly flat (paragraphs 2.22 to 2.24, and Figure 9).

Government's understanding of workforce skills needs

15 DfE has diagnosed that, in order to improve the skills system's contribution to economic performance, more people should undertake higher-quality learning in subjects with the greatest economic value. The workforce is more highly qualified in formal terms than it was in the early 2000s. However, on the basis of analysis, DfE has found that:

- only 4% of people had a level 4 or 5 qualification as their highest level of attainment by the age of 25 (the typical level for acquiring higher technical skills), with a much higher proportion opting to study at degree level (level 6); and
- for all age groups, too much learning is done in subjects that tend to lead to relatively low salary levels.

DfE has concluded that, for the skills system to be more effective, there should be increases in: the number of learners; the number of learners achieving qualifications at higher levels; the proportion of learners doing more economically valuable subjects; and the rigour and quality of learning (paragraphs 3.2 to 3.6, and Figure 11).

16 Government has a reasonably good understanding of current skills needs, based mainly on DfE's regular surveys of employers. Every two years since 2011, DfE has undertaken a survey to collect information on the skills issues that employers face. The most recent full survey was in 2019 and covered employers across England, Northern Ireland and Wales. It found that the sectors with the highest rate of skill-shortage vacancies (vacancies that are hard to fill because of a lack of the required skills, qualifications or experience among applicants) were construction and manufacturing, at 36% of all vacancies for both sectors. Across all sectors, the proportion of skill-shortage vacancies was 24% in 2019. Government also has access to information on occupations with shortages of skilled workers, based on national labour market datasets and evidence from stakeholders (paragraphs 3.7, 3.8 and 3.11, and Figure 12).

17 Government is relying on a number of new arrangements to strengthen its understanding of future skills needs and its plans to address them. In late 2020, government established the Skills and Productivity Board, a committee of academics and business experts, to provide independent evidence-based advice to DfE ministers. In February 2022, DfE announced the creation of a Unit for Future Skills, which supersedes the Skills and Productivity Board. The Unit is a division within DfE, but is intended to work across government and meet the information needs of other departments as well as DfE. The Institute for Apprenticeships and Technical Education plans to draw on the Unit's insights to help its employer-led groups devise new apprenticeships and technical qualifications, and revise existing apprenticeships to reflect future skills needs in their sectors. In 2017, DfE set up skills advisory panels to better understand and address regional and local skills needs, and strengthen the link between employers and skills providers. DfE has decided to replace skills advisory panels with local skills improvement plans (LSIPs), and provision was included in the Skills and Post-16 Education Act 2022. LSIPs are intended to provide a framework to help colleges and other providers reshape what they offer in order to tackle skills mismatches and respond effectively to labour market skills needs. A designated employer representative body will lead the development of the LSIP in each local area. Training providers will have a duty to cooperate in developing the plans and to have regard to these plans when considering their technical education and training offer (paragraphs 3.13 to 3.18).

Government's approach to workforce skills development

18 DfE considers that the skills system will be most effective if it is led by employers, but there is limited assurance that the conditions are in place for this approach to be implemented successfully. DfE's overarching philosophy is to give employers a central role in identifying local and national skills needs, and in developing and designing qualifications and training. In this way, DfE is extending the approach it adopted on apprenticeships, which it believes has transformed the quality and status of these qualifications. Our 2019 report on the apprenticeships programme highlighted there had been improvements in terms of a greater focus on quality and meeting employers' needs, although we also noted concerns about take-up, financial sustainability and impact on productivity. In the *Skills for Jobs* white paper, DfE highlighted the experience of countries it regards as having strong employer-led skills systems, such as Germany and the Netherlands. Extending the employer-led approach beyond apprenticeships to the skills system more widely will rely on employers having the capacity and willingness to become much more involved in developing local plans, designing training content and engaging their employees in that training. From the evidence DfE shared with us, it is unclear what assurance it has that the conditions are in place for the broader employer-led approach to be implemented successfully (paragraphs 4.2 to 4.4).

19 Employers and training providers told us it was hard to navigate government's growing, and sometimes disjointed, set of skills programmes. DfE's programmes include well-established initiatives such as apprenticeships, along with newer interventions such as Skills Bootcamps. Other government departments also run or fund programmes with a skills element. Examples are DWP's Train & Progress initiative for Universal Credit claimants and the new Multiply numeracy programme, which is a priority of DLUHC's UK Shared Prosperity Fund and is led by DfE in England. DfE considers that the range of programmes reflects the diverse needs of employers and learners, but it recognises that there is some duplication between programmes and scope for simplification. Several stakeholders who responded to our consultation told us it is not always clear to employers how the different skills programmes fit together, and the system can seem complicated and difficult to navigate. The three training providers and representative bodies we consulted told us that government's skills interventions can appear disjointed (paragraphs 4.6 to 4.8, 4.10 and 4.17, and Figure 15).

20 DfE is taking steps to encourage and incentivise individuals to develop their skills. The *Skills for Jobs* white paper provided details of a £2.5 billion National Skills Fund, designed to help adults develop their skills. It includes the Lifetime Skills Guarantee, under which adults who do not already have a level 3 qualification may take a free course. From April 2021 to April 2022, 18,700 people enrolled on a course, which was 28% above DfE's planned number. DfE is also working to improve how it communicates with individuals about the skills programmes on offer. In January 2022, it launched two campaigns, one aimed at supporting adults to gain new skills, and the other providing information on the education and training options available for 16- to 18-year-olds (paragraphs 4.15 and 4.16).

21 The *Levelling Up the United Kingdom* white paper includes a 'skills mission', but its aims go only some way towards addressing the decline in participation in skills training. The February 2022 white paper set out the government's plans to address regional and local inequalities. It highlighted that the North East was the lowest performing region in terms of the proportion of the working-age population qualified to at least level 3, with London the highest performing region. In England, the government's aim is that, by 2030, 200,000 more people will successfully complete high-quality skills training annually, including 80,000 more people in the lowest skilled areas. While the definition of 'lowest skilled areas' and 'most disadvantaged areas' is not the same, in terms of numbers, this mission is likely to go only some way to reversing the fall of around 280,000 in learner numbers in the 20% most disadvantaged areas since 2015/16. DfE told us that the skills mission is challenging, and that it is adjusting its delivery plans to make progress by the end of the current Parliament (paragraphs 4.21 to 4.25, and Figure 17).

22 Different parts of government are working together more effectively to coordinate activity on skills, but cross-government arrangements are complex. Since 2020, the Prime Minister has chaired a quarterly jobs and skills stocktake, a Cabinet sub-committee which monitors progress and holds departments to account. In response to the challenges identified in the stocktake, in autumn 2021 government identified five priority sectors: construction, digital and technology, haulage and logistics, health and social care, and manufacturing. For each sector, a senior official in one or more departments acts as the 'sector delivery lead' to coordinate activity. The Green Jobs Delivery Group, which first met in May 2022, is tasked with supporting the delivery of skilled jobs that will support the transition to net zero. There are multiple other ministerial and official groups, including the Labour Market Steering Group, which supports the coordination of labour market and skills policy development. Departments acknowledge that there is scope for cross-government working arrangements to be consolidated (paragraphs 4.26 to 4.30).

23 DfE is managing its own skills activities more strongly as a coherent portfolio, but its metrics do not indicate what level of performance would constitute success for the portfolio as a whole. In late 2020, DfE established a team to enhance the oversight of its portfolio of skills-related activities. It now has a clear purpose for the portfolio, with stronger governance and more rigorous risk management. DfE's approach does not extend to interventions which are led by other departments, so the portfolio does not provide a view of all government activity on skills. DfE has a framework of performance metrics, at both system and programme level. It has defined what success looks like for individual programmes, but at the time of our examination was still working on success measures at system level (paragraphs 4.32 and 4.33).

Conclusion on value for money

24 Having a sufficiently skilled workforce is critical to the country's economic success and to achieving wider government aims such as greater equality of opportunity. Government, led by DfE, has strengthened its approach in recent years. It has taken sensible steps to deepen its understanding, improve its oversight and work more coherently to address this priority.

25 At the same time, the skills challenge that government is facing has grown significantly, with key indicators going in the wrong direction. Employers' investment in workforce training has declined, as have participation in government-funded skills programmes and the programmes' impact on productivity. In addition, wider changes in the labour market are intensifying the challenge. Government therefore needs to be much more effective than it has been in the past at helping to provide the skills the country needs. DfE is staking its success on a more employer-led system but, from the evidence we have seen, it is unclear whether the conditions are in place for this to be implemented successfully, in particular whether employers are ready to engage to the extent that will be needed to achieve a step-change in performance. As a result, there is a risk that, despite government's greater activity and good intent, its approach may be no more successful than previous interventions in supporting workforce skills development.

Recommendations

26 We recommend that government, led by DfE and with support from relevant departments, should take the following actions:

- a** Develop a strategy and supporting implementation plan for achieving its objectives on workforce skills, building on the approach set out in the *Skills for Jobs* white paper. This should set out:
 - how different parts of the system, and different programmes, will interact with each other to make a coherent whole;
 - how central and local government will work together to support skills development in local places;
 - different ‘user journeys’, and how employers and individuals will be incentivised to develop skills and engage with the skills system;
 - the risks and opportunities that could affect government’s ambitions; and
 - the full set of metrics that government will use to monitor progress.
- b** Strengthen oversight of government’s portfolio of skills initiatives by regular reporting against performance metrics from across departments to the Labour Market Steering Group; and clarifying how different cross-government forums fit together. DfE should work with the Cabinet Office in particular on this area.
- c** Consider specific issues relating to older workers who form a growing proportion of the workforce, including current and future skills gaps, barriers to participation in skills training and how these barriers could be addressed. DfE should work with DWP in particular on this area.
- d** Work with mayoral combined authorities and other local bodies to establish how it can achieve the 2030 Levelling Up skills mission most effectively, and report regularly on whether it is on track. DfE should work with DLUHC in particular on this area.
- e** Support the Unit for Future Skills to focus on the most important areas of forecasting and assess whether the Unit is effectively influencing stakeholders to use the intelligence and insights it generates.

Part One

The workforce skills system

1.1 This part of the report sets out information about workforce skills and government policy on supporting the development of these skills.

The UK workforce

1.2 From January to March 2022, around 32.6 million people aged 16 and over were employed in the UK. This represented an employment rate of 75.7%. Among the rest of the adult population, around 1.3 million (3.7%) were unemployed and 8.8 million (21.4%) were classified as economically inactive.¹

Workforce skills

1.3 Workers require a range of skills to be productive. Technical skills – practical or vocational skills that allow people to complete specific mechanical, information technology, scientific or other job-related tasks – are particularly important in the workplace because they help workers operate more efficiently and effectively. However, government has noted that the country’s skills system has been more efficient at producing graduates than helping people get the technical skills that employers want.

1.4 Acquiring skills that can be deployed in the workplace may involve people studying for formal qualifications, as well as doing less formal on-the-job training. Qualifications are available at nine levels, ranging from basic skills to doctorates (**Figure 1**). This report relates mainly, but not exclusively, to higher technical qualifications at levels 4 and 5.

Government policy

1.5 Government has had an enduring role in supporting workforce skills development, understanding that the market does not supply all the skills the country needs to provide goods and services and enhance productivity and competitive advantage. Government also recognises that developing skills supports wider policy priorities such as improving life chances and social mobility.

¹ Office for National Statistics, *Employment in the UK*, May 2022. People classified as ‘economically inactive’ are those not in employment who have not been seeking work within the last four weeks and/or are unable to start work within the next two weeks.

Figure 1
Qualification levels in England, as at 2022

Qualifications are available at nine levels

Qualification level	Description
Entry-level	Basic functional skills.
Level 1	Lower-grade GCSEs and a range of essential skills qualifications.
Level 2	Higher-grade GCSEs, intermediate apprenticeships and equivalent certificates, vocational qualifications and diplomas.
Level 3	A levels, T levels, advanced apprenticeships and equivalent certificates, vocational qualifications and diplomas.
Level 4	Certificates of higher education, higher apprenticeships and equivalent certificates, vocational qualifications and diplomas.
Level 5	Foundation degrees and equivalent certificates, vocational qualifications and diplomas.
Level 6	Honours degrees, degree apprenticeships and equivalent certificates, vocational qualifications and diplomas.
Level 7	Master's degrees and equivalent postgraduate-level certificates, vocational qualifications and diplomas.
Level 8	Doctorates and equivalent awards, certificates and diplomas.

Source: National Audit Office summary of government information

1.6 Government policy has evolved over recent years, particularly in response to major events such as the UK's exit from the European Union and the COVID-19 pandemic. The main outputs that document policy over the past five years are as follows:

- **Industrial Strategy 2017:**² This white paper explained that the country faced challenges in meeting its business needs for talent, skills and labour, and emphasised the need to narrow disparities between communities in skills and education. It set an ambition to ensure that everyone could improve their skills throughout their lives, increasing their earning power and opportunities for better jobs.
- **A Plan for Jobs 2020:**³ This policy paper set out how government would support economic recovery from the COVID-19 pandemic. It included plans to expand programmes designed to help people build the skills they need to get into work, such as funding for traineeships, alongside further support for apprenticeships, which enable people to work while training.

² HM Government, *Industrial Strategy: Building a Britain fit for the future*, November 2017.

³ HM Treasury, *A Plan for Jobs 2020*, July 2020.

- **Skills for Jobs 2021:**⁴ This white paper explained how government would carry out reforms so that the further education system would support people to get the skills that the economy needs throughout their lives, wherever they live in the country. The government intended that the great majority of post-16 technical education and training would be aligned to employer-led standards by 2030, in line with what had already been done on the apprenticeships programme.
- **Net Zero Strategy 2021:**⁵ In 2019, Parliament passed legislation requiring the government to achieve net zero greenhouse gas emissions by 2050.⁶ This strategy set out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target. It included a section on green jobs, skills and industries.
- **Levelling Up the United Kingdom 2022:**⁷ This white paper set out how the government intended to tackle geographic disparities and spread opportunity more equally across the UK. It laid out 12 'missions' to be achieved by 2030, including one to increase the number of people successfully completing high-quality skills training.
- **Skills and Post-16 Education Act 2022:** Among other things, this legislation implemented proposals from the *Skills for Jobs* white paper. The provisions include a framework to facilitate stronger employer and provider engagement in local skills systems, measures to support lifelong learning, and extended powers for the Secretary of State to intervene when colleges are failing to deliver good outcomes.

Responsibilities for workforce skills

1.7 Within government, the Department for Education (DfE) leads on skills policy in England and is accountable for securing value for money from much of the funding that government provides for skills initiatives. DfE's July 2021 Outcome Delivery Plan included a priority outcome to "drive economic growth through improving the skills pipeline, levelling up productivity and supporting people to work".⁸ To achieve this outcome, DfE needs the support of other parts of government, specifically the Department for Business, Energy & Industrial Strategy, the Department for Digital, Culture, Media & Sport, the Department for Levelling Up, Housing & Communities and the Department for Work & Pensions.

4 Department for Education, *Skills for Jobs: Lifelong Learning for Opportunity and Growth*, January 2021.

5 HM Government, *Net Zero Strategy: Build Back Greener*, October 2021.

6 Net zero means that the UK's total greenhouse gas emissions should be equal to or less than the emissions the UK removes from the atmosphere either by the natural environment or carbon capture technologies.

7 HM Government, *Levelling Up the United Kingdom*, February 2022.

8 Department for Education, *DfE Outcome Delivery Plan: 2021 to 2022*, July 2021.

1.8 DfE has published an accountability statement for the apprenticeships programme.⁹ This sets out the responsibilities of each organisation with a role in regulating the apprenticeships system. There is no comparable statement for the skills system as a whole.

1.9 The skills system also involves a range of other players, including employers, colleges and commercial training providers, local bodies and individuals (**Figure 2** overleaf). Employers play a crucial role in developing workforce skills and stimulating the skills system. They can encourage and support their staff to take up government-funded training opportunities. They also invest in their own training activities, create high-skilled jobs, and offer career progression and other opportunities for those with the appropriate skills.

Government spending

1.10 Government does not have an estimate for how much it spends in total on activities designed to develop workforce skills. Elements of this spending, particularly by departments other than DfE, form part of wider programmes, and the figures are not disaggregated.

1.11 DfE's data indicate that it spent £3.9 billion in 2021-22 on adult education, apprenticeships and other skills programmes. This amount does not include any element of the £6.2 billion spent on learning for 16- to 19-year-olds, which covers both academic learning and skills training, because DfE does not disaggregate the figures. DfE's spending is covered in more detail in Part Four of this report.

9 Department for Education, *Apprenticeships Accountability Statement*, updated April 2021.

Figure 2
Main bodies involved in developing workforce skills in England

The skills system is complex, requiring government departments and other bodies to work together effectively

Central government bodies

<p>HM Treasury. Leads on economic policy and agrees funding settlements with other government departments.</p>	<p>Department for Education (DfE). Leads on government skills policy in England. Responsible for improving the skills pipeline, levelling up productivity and supporting people to work. Accountable for securing value for money from much of government's funding for skills initiatives.</p>	<p>Cabinet Office. Through the Prime Minister's Delivery Unit, supports the oversight of jobs and skills issues.</p>
<p>Department for Business, Energy & Industrial Strategy. Leads government's relations with businesses. Leads for government on the Green Jobs Delivery Group. Provides the sector delivery lead for the construction sector, and the joint sector delivery lead for the manufacturing sector.</p>	<p>Institute for Apprenticeships and Technical Education. An executive non-departmental public body, sponsored by DfE. Works with employers in developing and updating apprenticeships and technical qualifications.</p>	<p>Department for Work & Pensions. Responsible for employment support programmes and work preparation activity for benefits claimants.</p>
<p>Department for Digital, Culture, Media & Sport. Responsible for supporting the development of digital and cyber security skills. Provides the sector delivery lead for the digital sector.</p>	<p>Ofsted. Inspects training providers and provides assurance about the quality of skills training.</p>	<p>Department for Levelling Up, Housing & Communities. Provides funding for local skills initiatives.</p>

Local bodies

<p>Local enterprise partnerships. Work with local authorities and businesses to help create jobs and improve workforce skills within their local areas.</p>	<p>Mayoral combined authorities and the Greater London Authority. Allocate devolved adult education funding in their areas. Provide skills support through the UK Shared Prosperity Fund.</p>	<p>Employer representative bodies such as local chambers of commerce. Lead the development of local skills improvement plans, working with training providers.</p>
<p>Training providers comprising further education colleges and commercial providers. Provide vocational courses and the off-the-job training element of apprenticeships.</p>	<p>Individual learners. Engage in learning via their school or college, as part of seeking a job, general skills development or lifelong learning.</p>	

Frontline bodies or people

<p>Employers. Support employees to develop their skills through on-the-job training, sponsorship of training courses, and participation in programmes such as apprenticeships.</p>	<p>Employees. Engage in training provided by their employer, or by government via their employer.</p>
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○ Lead government department for skills

Part Two

Scale of the workforce skills challenge

2.1 This part of the report covers the scale of the workforce skills challenge, including trends in employers' workforce training and in adult participation in government-funded training.

Productivity in the UK

2.2 A country's prosperity depends largely on its ability to raise productivity. The education level of the workforce, and how effectively skills are used in the workplace, are considered important factors in determining productivity levels.

2.3 Since 2012, the UK has experienced slightly lower workforce productivity growth than comparable nations (**Figure 3** overleaf). The Organisation for Economic Co-operation and Development has highlighted a particular need for the UK to encourage lifelong learning and promote better skills utilisation, in order to boost growth, productivity and earnings.¹⁰

Economic and societal factors

2.4 A variety of factors bring about changes in the workforce and the skills needed in the labour market. This section outlines key factors that the skills system currently has to respond to in order to ensure that the domestic workforce is equipped to meet the country's needs.

Exit from the European Union

2.5 The UK's exit from the European Union (EU) has reduced the supply of workers from member states, and potentially increased the need for the country to train its own workers. The number of EU nationals employed in the UK fell by 4.0% from September 2020 to September 2021.¹¹ This decrease was higher than the 1.5% fall in the total number of people employed in the UK over the same period.

¹⁰ Organisation for Economic Co-operation and Development, *Getting Skills Right: United Kingdom*, November 2017.

¹¹ Office for National Statistics, *Changing trends and recent shortages in the labour market, UK: 2016 to 2021*, December 2021.

Figure 3
Workforce productivity in the UK compared with the G7 average, 2000 to 2020

Since 2012, growth in workforce productivity in the UK has been slightly lower than the G7 average



Notes

- 1 Workforce productivity is measured by Gross Domestic Product (GDP) per hour worked. It is indexed to a value of 100 in 2015 for both the UK and the G7 average.
- 2 The G7 countries are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

Source: National Audit Office analysis of Organisation for Economic Co-operation and Development data

2.6 The impact of leaving the EU has varied between different sectors of the economy. For example, hospitality, transport and storage, manufacturing and construction have been particularly affected because they depended more heavily on EU nationals. The Migration Advisory Committee has made recommendations to government on how the migration system could be adjusted to tackle skills shortages.¹² However, in many sectors, more training of domestic workers may also be required to help fill the gaps.

COVID-19 pandemic

2.7 The COVID-19 pandemic coincided with changes in the size of the UK workforce, particularly in certain industries. The workforce of most industries decreased from December 2019 to December 2021, in some cases reversing growth over the preceding two years. The most significant reduction (16%) was in agriculture, forestry and fishing (**Figure 4** overleaf). The workforce of a smaller number of industries grew over the period. If these changes were sustained, there would be significant skills and training implications for many industries.

Net zero

2.8 Achieving net zero by 2050 will involve economy-wide changes with considerable skills implications. For example, the increased production and use of electric vehicles and improving the energy efficiency of heating systems will create new skilled jobs, such as in electric vehicle and battery manufacturing and in heat pump installation.

2.9 Research in 2019 estimated that around one in five jobs across the UK (approximately 6.3 million jobs) is likely to be affected by the transition to a net zero economy.¹³ The construction sector is expected to have the highest proportion of jobs that could require reskilling (30%), followed by transport and storage (26%) and manufacturing (17%).

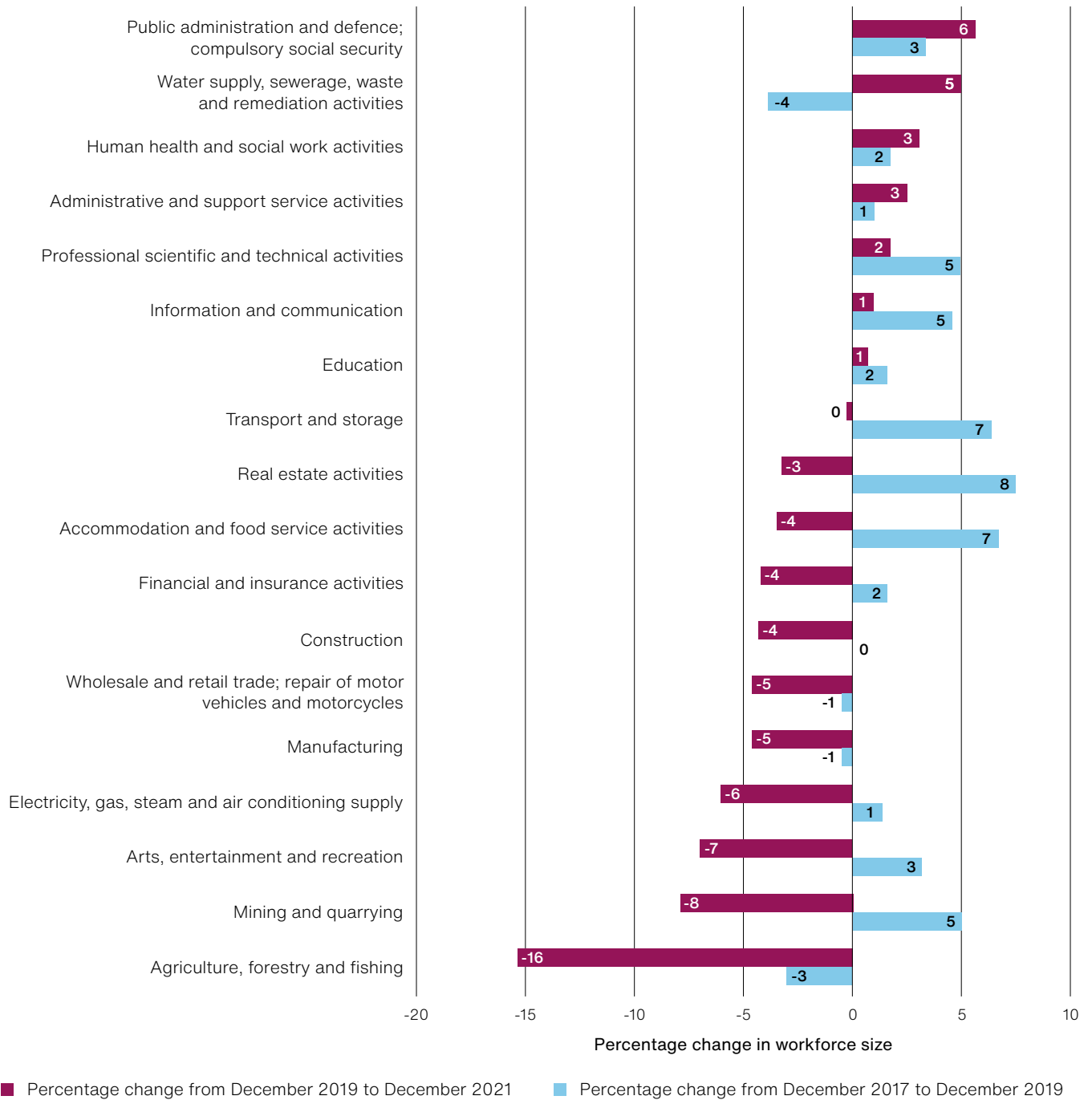
¹² The Migration Advisory Committee is a non-departmental public body, sponsored by the Home Office, that provides independent advice to government on migration issues.

¹³ Grantham Research Institute on Climate Change and the Environment, *Investing in a just transition in the UK*, February 2019.

Figure 4

Percentage change in workforce size by industry in the UK, December 2017 to December 2021

The COVID-19 pandemic coincided with changes in the workforce size of many industries



Notes

- 1 Workforce size is the total of employee jobs, self-employment jobs, HM forces personnel and government-supported trainees.
- 2 Data labels are rounded to the nearest whole percentage.

Source: National Audit Office analysis of Office for National Statistics data

Technological changes

2.10 Artificial intelligence and other technological advances are expected to change the structure of the labour market significantly, increasing the need for workers to be reskilled or upskilled. Research for the Department for Business, Energy & Industrial Strategy in 2021 suggested that around 7% of existing jobs in the UK were likely to face a high probability of automation over the following five years, with the percentage rising to nearly 30% after 20 years.¹⁴ The research projected that the health and social care sector would see the largest gains in employment and also rising skills shortages; sectors such as wholesale and retail, finance and public administration, and transport were expected to face employment losses.

Ageing population

2.11 The ageing population has implications for the make-up and training of the workforce. People aged over 50 comprised around one-third of the UK workforce in 2021, compared with one-fifth in the early 1990s.¹⁵

2.12 Academic research has indicated that employers are less likely to train older employees than younger employees, as they expect the former to remain in their jobs for a shorter period of time.¹⁶ A 2020 report by the Centre for Ageing Better suggested that, following the COVID-19 pandemic, people aged 50 and over who lose their jobs will be at greater risk of becoming long-term unemployed than younger people.¹⁷ It concluded that government should invest in training that is tailored to older workers' needs to help them to move back into work.

2.13 In November 2021, the Centre for Ageing Better also raised concerns that many older people had left the workforce following the end of the COVID-19 furlough scheme. It noted that 180,000 fewer people aged 50 and over were in work in autumn 2021 than before the pandemic.

¹⁴ Department for Business, Energy & Industrial Strategy, *The Potential Impact of Artificial Intelligence on UK Employment and the Demand for Skills*, research report (prepared by PwC), August 2021.

¹⁵ Office for National Statistics, *Employment, unemployment and economic inactivity by age group (seasonally adjusted)*, April 2022 data release.

¹⁶ Kühn S., Milasi S., Yoon S., *Population ageing and future labour market challenges*, March 2018.

¹⁷ Centre for Ageing Better, *A mid-life employment crisis: How COVID-19 will affect the job prospects of older workers*, August 2020.

Employers' workforce training

2.14 Employers' spending on workforce training per employee, and the total number of training days that they provide, has declined. Evidence from the Department for Education's (DfE's) employer skills surveys indicates that:¹⁸

- the total amount that employers in England spent on training increased in real terms from £38.8 billion in 2011 to £39.2 billion in 2019, a rise of 1%. However, the amount spent per employee dropped in real terms from £1,710 in 2011 to £1,530 in 2019, a fall of 11% (**Figure 5**); and
- the total number of training and development days provided by employers in England in the 12 months before the survey fell from 97 million in 2011 to 92 million in 2019. The number of training days per employee decreased from 4.3 in 2011 to 3.6 in 2019.

2.15 DfE's 2019 employer skills survey provided insights about the barriers to employers providing training or offering as much training as they would like. Overall, 45% of employers who had provided some training in the 12 months before the survey reported that they would have liked to offer more than they had funded or arranged. The main barriers for these employers were not being able to spare more staff time and a lack of funds. Nearly two-fifths of employers (39%) had provided no training in the 12 months before the survey. The most common reason employers gave for this was that they considered their staff were fully proficient in their jobs and therefore did not require training.

Figure 5

Employers' spending on workforce training in England, 2011 to 2019

Employers' total spending on training increased slightly, but spending per employee fell from £1,710 to £1,530 in real terms over the period

	2011	2013	2015	2017	2019
Total spending on training (£bn)	38.8	36.2	38.9	39.1	39.2
Spending per employee (£)	1,710	1,590	1,660	1,600	1,530

Notes

- 1 Values are shown at 2019 prices. We adjusted the cash values for earlier years using the Consumer Price Index as a measure of inflation (Office for National Statistics, *Consumer price inflation tables 2020, 2020*, Table 20a).
- 2 Spending per employee is rounded to the nearest £10.

Source: National Audit Office analysis of Department for Education data, employer skills surveys 2011 to 2019

¹⁸ DfE has carried out an employer skills survey every two years since 2011. More information about the survey is in paragraph 3.7.

2.16 As might be expected, the COVID-19 pandemic appears to have amplified the decline in workforce training, especially among smaller and medium-sized businesses. According to an employer ‘pulse’ survey that DfE conducted between July and November 2021, the number of people trained fell from 15.2 million in 2019 to 13.3 million in 2021. Overall, 52% of the total workforce were trained in 2021, the lowest proportion since DfE’s first employer skills survey in 2011. Organisations with 250 or more employees reported that they had trained 62% of their workforce in the 12 months before the survey, compared with, for example, 45% for organisations with five to 24 employees.

Participation in government-funded further education and skills training

2.17 Adult participation in government-funded further education (FE) and skills training in England declined significantly from 2010/11 to 2020/21.¹⁹ DfE uses participation in FE and skills training as one of its key performance measures, but has not indicated what level would represent success. The number of participants fell from 3.2 million in 2010/11 to 1.6 million in 2020/21, a decrease of 48% (**Figure 6** overleaf).

2.18 Participation trends have varied for different types of learning. For adult apprenticeships, participation grew by 54% from 2010/11 to 2016/17, when the apprenticeship levy was introduced.²⁰ The trend then reversed in 2017/18 and 2018/19, with a 19% fall in participation over the two years. After this, participation started slowly increasing again. Adult participation in both community learning²¹ and general education and training²² fell from 2012/13 to 2020/21 by 64% and 51% respectively (Figure 6).

Diversity of participants

2.19 The proportion of people participating in FE and skills training who are from ethnic minority backgrounds has increased. Although the number of ethnic minority participants fell overall from 2016/17 to 2020/21, the rate of decrease was lower than that for total participation. As a result, the proportion of ethnic minority participants rose from 21.6% in 2016/17 to 24.2% in 2020/21 (**Figure 7** on page 27). This figure is significantly higher than the proportion of the working-age ethnic minority population in England, which was 14.9% in the 2011 census (the most recent census data available).

19 Adult participation covers people aged 19 and over.

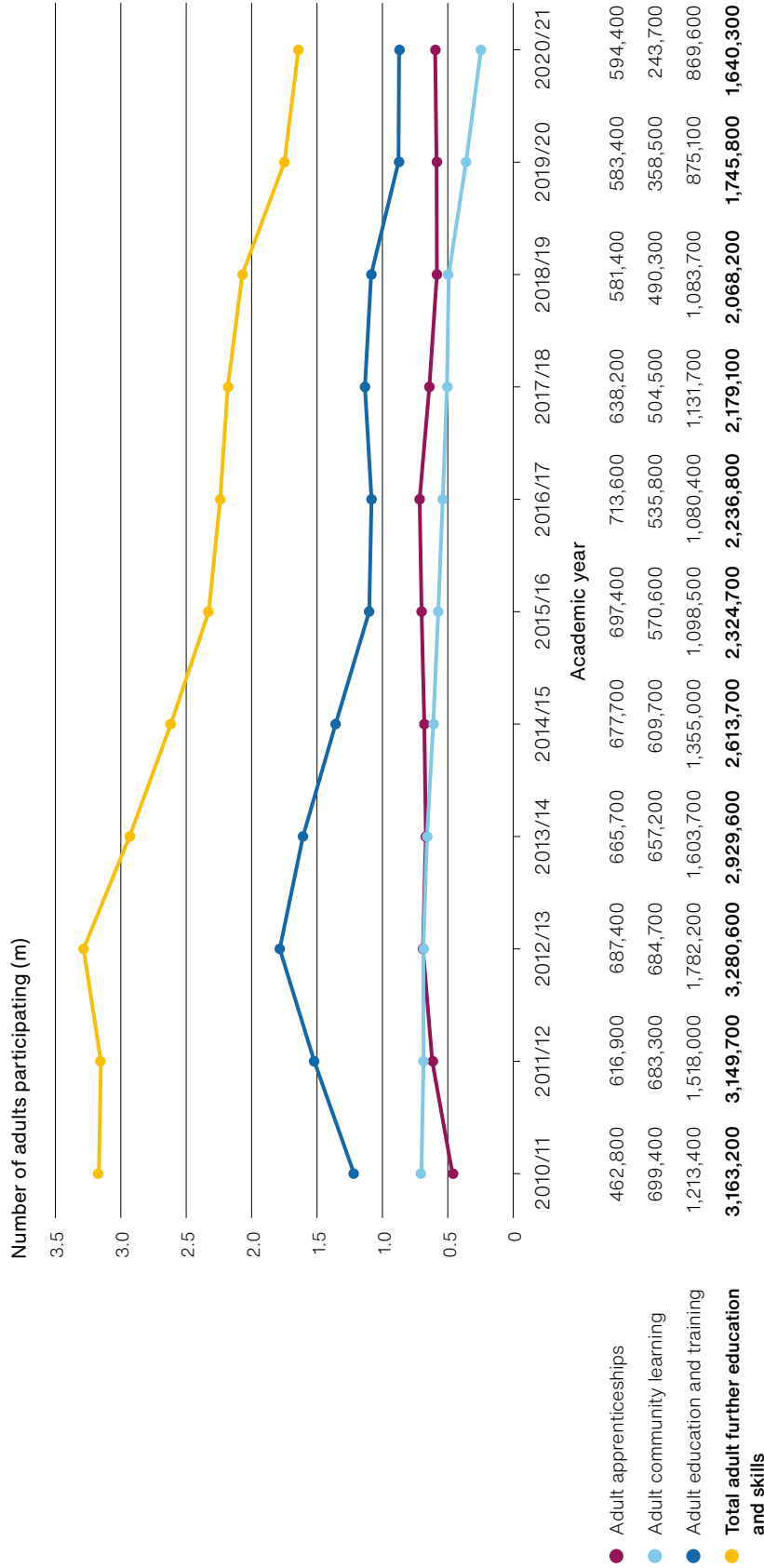
20 In April 2017, government introduced a 0.5% levy for employers with a pay bill of more than £3 million. In England, levy-paying employers can use this money, plus a government top-up, to pay for apprenticeship training and assessment.

21 Community learning includes a wide range of non-formal courses such as personal development, IT courses, employability skills, and activities to promote civic engagement and community development.

22 General education and training includes classroom-based adult further education that is not classed as apprenticeships, community learning or workplace learning.

Figure 6 Adult participation in government-funded further education and skills training in England, 2010/11 to 2020/21

Total participation levels nearly halved during the period, from 3.2 million to 1.6 million adults



Notes

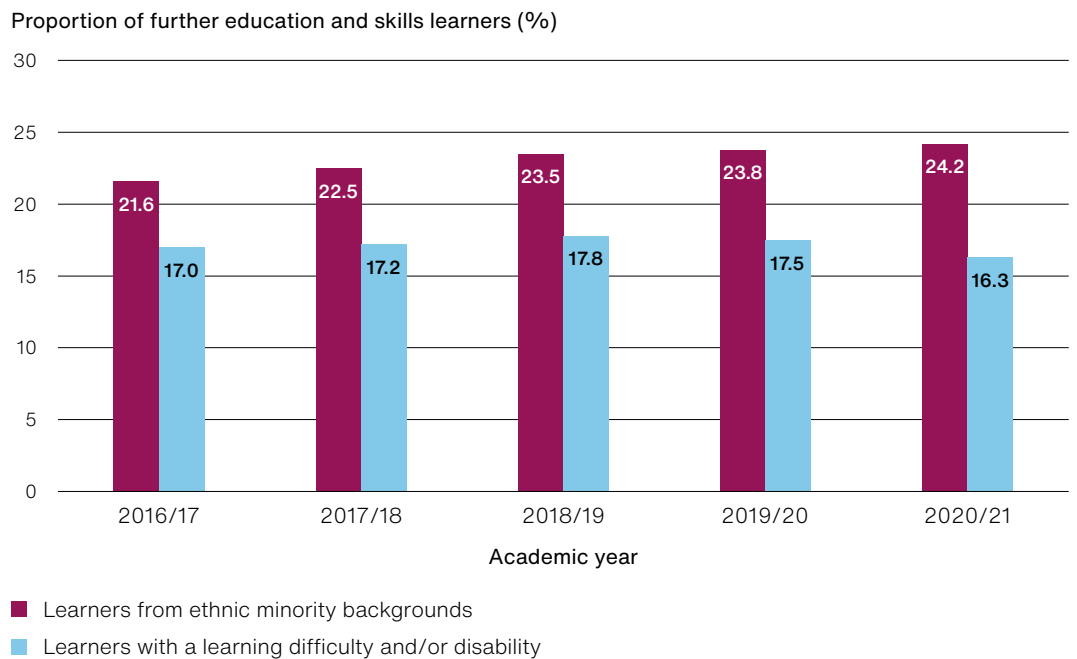
- 1 Number of adults participating is the count of learners who participated at any point during the stated academic year. Learners who undertook more than one course appear only once in the total.
- 2 Total participation for 2010/11 to 2013/14 is more than the sum of the three elements shown. This is because, in these years, other government-funded adult further education and skills programmes were available.
- 3 Numbers of adults participating are rounded to the nearest 100.

Source: National Audit Office analysis of Department for Education data

Figure 7

Proportion of further education and skills learners from selected demographic groups in England, 2016/17 to 2020/21

The proportion of learners from ethnic minority backgrounds increased over the period, while the proportion with a learning difficulty and/or disability fell in 2019/20 and 2020/21 after increasing from 2016/17 to 2018/19



Notes

- 1 Learners declare for themselves their ethnic background and whether they have a learning difficulty and/or disability.
- 2 Percentages represent those learners whose characteristics are known. 'Not known/not provided' categories are excluded from the calculation.

Source: National Audit Office analysis of Department for Education data

2.20 Participants with a learning difficulty and/or disability are under-represented in FE and skills training. The proportion of learners who considered themselves to have a learning difficulty and/or disability increased from 17.0% in 2016/17 to 17.8% in 2018/19, but fell to 16.3% in 2020/21 (Figure 7). For comparison, in 2020-21, 21% of working-age adults in the UK reported that they had a disability.²³

²³ Department for Work & Pensions, *Family Resources Survey: financial year 2020 to 2021*, March 2022. This survey is designed to be representative of all private households in the UK. It does not separately identify the number of working-age adults reporting a disability in England.

Participants in disadvantaged areas

2.21 Participation in FE and skills training among learners in the 20% most disadvantaged areas has fallen more than overall participation. DfE's July 2021 Outcome Delivery Plan included two relevant performance metrics: the number of FE and skills learners aged 19 and over, and the number aged 25 and over, in the 20% most disadvantaged areas of England.²⁴ From 2015/16 to 2020/21, participation in these areas dropped by 39% (280,100 participants) for those aged 19 and over, and by 40% for those aged 25 and over. These reductions compared with a 29% decrease in overall adult participation over the same period. The largest decline within the 20% most disadvantaged areas was for those aged 50 and over, with the number of learners falling by more than half (**Figure 8**).

Impact of skills training on productivity

2.22 DfE uses the FE Skills Index as a proxy measure for the impact of the FE system on productivity. The Index works by estimating the 'value-added' for all adult learners and apprentices in England who have successfully completed their training during the year. Its value is affected by three factors: changes in the number of learners and in achievement rates,²⁵ and shifts in the mix of learning towards more (or less) 'economically valuable' training (based on earnings returns).

2.23 Overall, the Index fell from 100 in 2012/13, the base year, to 54 in 2020/21, a decrease of 46% (**Figure 9** on page 30). This meant that the FE system was estimated as having a declining impact on productivity. The fall in the Index from 2012/13 to 2019/20 can mainly be attributed to a decrease in the number of learners, which led to a reduction in the number of achievers.

2.24 The largest annual fall in the Index (21%) was in 2019/20, with restrictions during the COVID-19 pandemic causing a reduction in the number of both learners and achievers, but the downward trend was established before then. In 2020/21, the Index rose by 7%. DfE's analysis has indicated that this increase resulted from learners shifting towards more economically valuable training, with achiever numbers remaining broadly flat.

Insights on the construction and digital sectors

2.25 **Figure 10** on page 31 shows insights relating to the scale of the workforce skills challenge that we derived from our examinations of the construction and digital sectors.

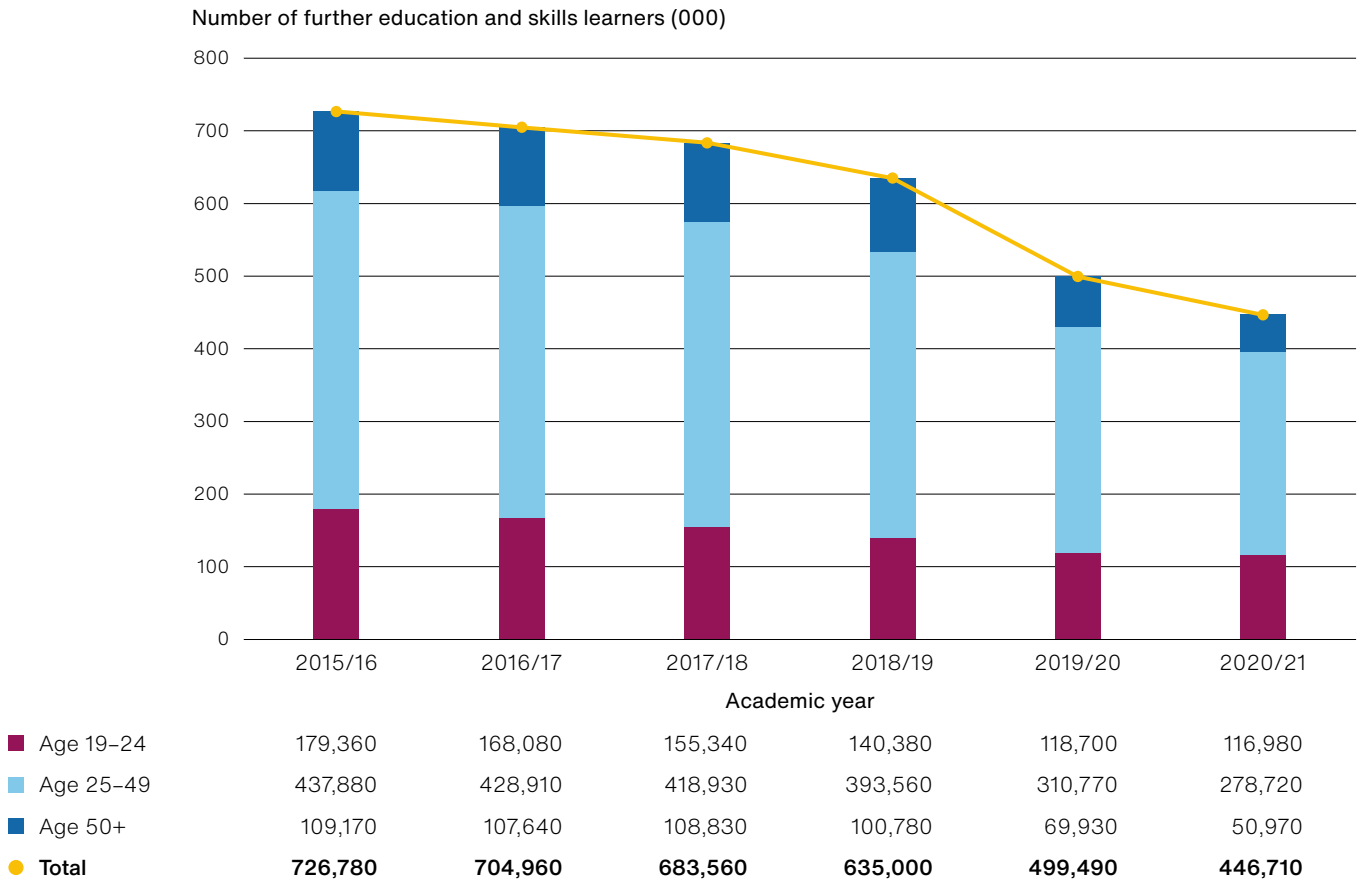
²⁴ Disadvantaged areas are defined based on the Indices of Multiple Deprivation quintiles, published by the Department for Levelling Up, Housing & Communities.

²⁵ Achievement rates can be calculated at qualification or programme level. They show how many learners who started a qualification or programme went on to complete it successfully.

Figure 8

Number of further education and skills learners in the 20% most disadvantaged areas in England, by age group, 2015/16 to 2020/21

The total number of learners in the most disadvantaged areas fell by 39% over the period, from 726,800 to 446,700



Notes

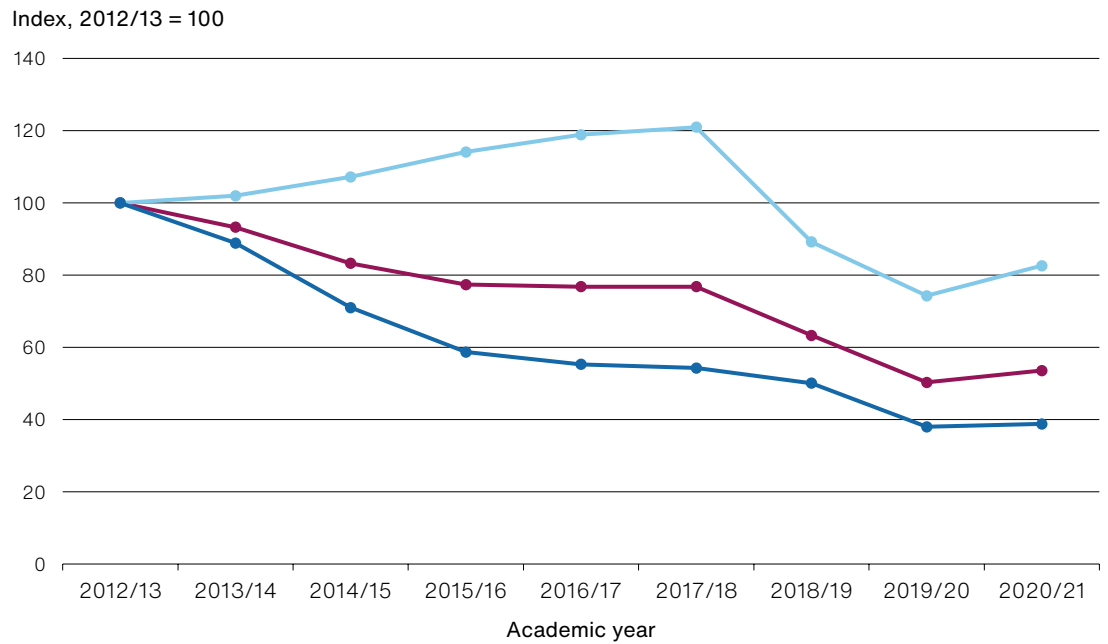
- 1 Numbers of learners are rounded to the nearest 10.
- 2 Numbers of learners for each age group may not sum to the total due to rounding and the age of some learners being unknown.
- 3 The classification of areas as more or less disadvantaged is based on the Indices of Multiple Deprivation (IMD), published by the Department for Levelling Up, Housing & Communities. IMD quintiles from 2015/16 to 2018/19 are based on the 2015 IMD rank of the learner's home postcode, and IMD quintiles for 2019/20 are based on the 2019 IMD rank of the learner's home postcode.

Source: National Audit Office analysis of Department for Education data

Figure 9

Further Education (FE) Skills Index for England by type of provision, 2012/13 to 2020/21

Overall, the Index fell by 46% over the period from 100 to 54, meaning that the FE system was estimated as having a declining impact on productivity



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
● Total	100.0	93.3	83.3	77.4	76.8	76.8	63.3	50.3	53.6
● Apprenticeships	100.0	102.0	107.2	114.1	118.9	121.0	89.2	74.3	82.6
● Classroom-based training	100.0	88.9	71.0	58.7	55.3	54.3	50.1	38.0	38.8

Notes

- 1 The Index measures the impact of the FE system on productivity. It works by estimating the 'value-added' for all adult learners and apprentices in England who have successfully completed their training during the year.
- 2 The Index uses 2012/13 as its base year.

Source: National Audit Office analysis of Department for Education data

Figure 10

Insights from our examinations of the construction and digital sectors:
Scale of the workforce skills challenge

Construction sector

- The number of migrant workers in the UK construction industry fell by 8.3% in 2020, with 25,000 fewer people working in the sector than in 2019. There is a need to train more domestic workers to fill these gaps.
- An assessment to inform the Prime Minister's jobs and skills stocktake in December 2021 noted that construction has a relatively high proportion of older workers (38% are aged over 50), who will need to be replaced when they retire. The workforce also lacks diversity – for example, 14% are women (only 2% for technical roles on site).
- The construction sector is not always seen as an attractive place, due to the nature of site working, employment arrangements and the cyclical nature of work.
- The Department for Business, Energy & Industrial Strategy has identified that a lack of certainty over longer-term demand for construction projects can mean that employers are unable or reluctant to recruit and develop workers.

Digital sector

- Demand for specialist digital skills outpaces supply. A 2019 report by the Confederation of British Industry found that 58% of the firms surveyed said that they would need significantly more digital skills in the next five years.
- An assessment to inform the Prime Minister's jobs and skills stocktake in December 2021 noted that the workforce has increased in size but remains male-dominated, with women representing 17% of those in digital jobs in 2019/20. Around 40% of jobs were concentrated in London and the South East. The Department for Digital, Culture, Media & Sport has identified that a more diverse workforce would give the sector access to a wider range of skills, ideas and experiences.

Source: National Audit Office, based on interviews with government departments and document review

Part Three

Government's understanding of workforce skills needs

3.1 This part of the report covers the Department for Education's (DfE's) analysis of current skills levels and needs, and arrangements for predicting future skills needs.

Current skills levels

3.2 The workforce is more highly qualified in formal terms than it was in the early 2000s. DfE has used the Annual Population Survey to assess the formal qualifications that the working-age population (those aged 16 to 64) in Great Britain have acquired.²⁶ This analysis showed that, in 2004, 50% of the population had GCSEs or below as their highest qualification, while 18% held a degree or equivalent. By 2019, 37% had GCSEs or below as their highest qualification, while the proportion with a degree or equivalent had risen to 33%.

3.3 However, there is a major gap in the number of people with level 4 and 5 qualifications as their highest level of attainment. In 2021, DfE carried out longitudinal analysis, based on people who took GCSEs in England in 2007/08. It estimated that around one-third of this group had a highest qualification equivalent to A levels (level 3) by the age of 25, and a similar proportion had a degree-level qualification (level 6). But just 4% of people had level 4 or 5 as their highest qualification – the type of qualification that usually involves acquiring higher technical skills (**Figure 11**).

3.4 When developing its plans for skills reform in 2020, DfE assessed the long-term earnings of people who had pursued different qualifications. It found that:

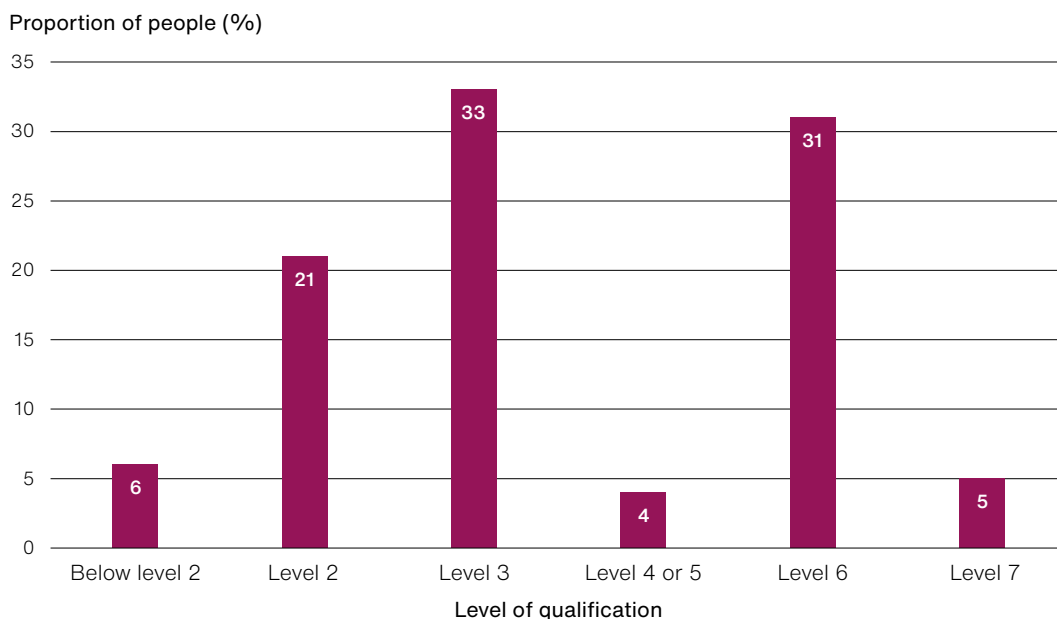
- level 4 and 5 qualifications are linked with enhanced earnings; and
- for all age groups, too much learning is done in subjects that tend to lead to relatively low salary levels.

26 The Annual Population Survey is a survey of households in Great Britain conducted by the Office for National Statistics. The topics covered include qualifications, employment and unemployment, and job-related training.

Figure 11

Highest level of qualification achieved by the age of 25 in England, as estimated in 2021

A small proportion of people had achieved level 4 or 5 as their highest qualification – the type of qualification that usually involves acquiring higher technical skills

**Note**

1 These data are for England, based on the cohort of people who took GCSEs in the 2007/08 school year.

Source: National Audit Office analysis of Department for Education data, *Longitudinal Educational Outcomes study 2021*

3.5 In the *Skills for Jobs* white paper, DfE also referenced a paper from the Centre for Vocational Education Research (CVER), which emphasised the initial economic value of higher technical qualifications compared with degrees.²⁷ DfE quoted CVER's finding that men with a higher technical qualification at level 4 earned on average £5,100 more per year at age 30, and women with a higher technical qualification at level 5 earned £2,700 more per year at age 30, than those with a degree.

3.6 DfE has concluded that, in order to improve the skills system's contribution to economic performance, more people should undertake higher-quality learning in subjects with the greatest economic value. It determined that this ambition would be achieved by increasing: the number of learners; the number of learners achieving qualifications at higher levels; the proportion of learners doing more economically valuable subjects; and the rigour and quality of learning.

²⁷ Centre for Vocational Education Research, *Post-18 Education: Who is Taking Different Routes and How Much do they Earn?*, September 2020.

Analysing current skills needs

3.7 Every two years since 2011, DfE has undertaken a survey to collect information on the skills issues that employers face. In 2019, the survey comprised more than 81,000 telephone interviews with employers in the commercial, public and charitable sectors across England, Northern Ireland and Wales.²⁸

3.8 Some of the 2019 survey's main findings were as follows:

- 5% of employers had 'skill-shortage vacancies' (vacancies that are hard to fill because of a lack of the required skills, qualifications or experience among applicants), and 13% of employers had skills gaps among their workforce.
- Skill-shortage vacancies were most prevalent in construction and manufacturing, where 36% of vacancies were proving hard to fill compared with the average of 24% (**Figure 12**).
- 84% of skill-shortage vacancies were at least partially caused by a lack of technical or practical skills, often a lack of specialist skills or knowledge needed to perform the role.
- The most common actions that establishments took to overcome skill-shortage vacancies were using new recruitment methods or channels and increasing advertising or recruitment spending (37% of establishments in both cases).
- Nearly one in five establishments reported that they either had apprentices or offered apprenticeships but did not have any apprentices undertaking one. The likelihood of offering apprenticeships increased with the size of organisation and over time. In 2019, 80% of large establishments (with 250 or more staff) reported that they offered apprenticeships, compared with 59% in 2014. The proportion of the smallest establishments (with two to four employees) offering apprenticeships increased slightly, from 9% in 2014 to 10% in 2019; for employers with five to 24 employees, there was a larger increase, from 18% in 2014 to 25% in 2019.

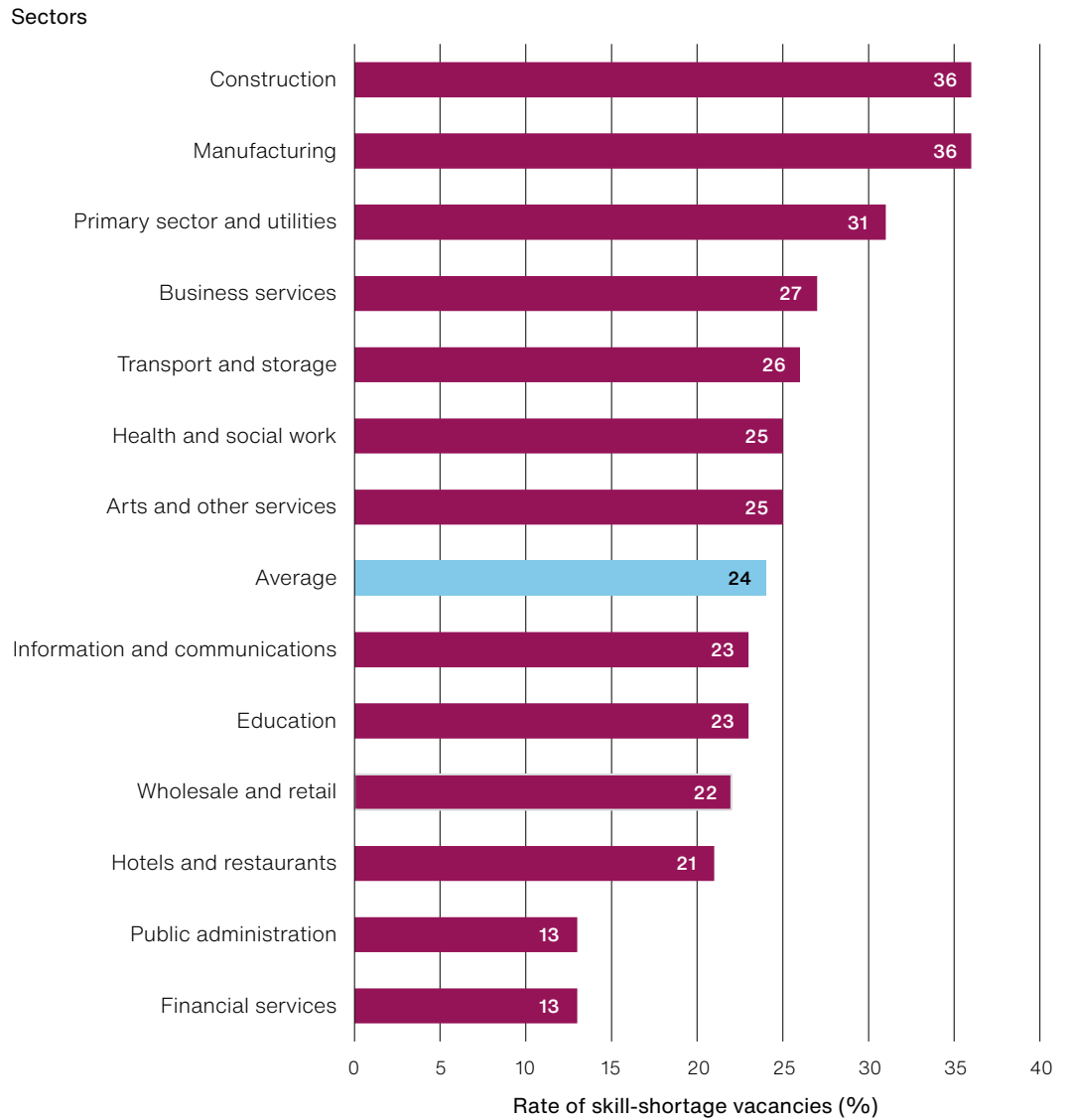
3.9 Successive employer skills surveys suggest the number of skill-shortage vacancies in England grew from 77,000 in 2011 to 199,000 in 2019, a rise of 158%. By 2019, around one-quarter of all vacancies were skill-shortage vacancies (**Figure 13** on page 36).

²⁸ Department for Education, *Employer Skills Survey 2019: Summary Report*, November 2020. The 2019 survey is the most recent full survey due to the COVID-19 pandemic.

Figure 12

Rate of skill-shortage vacancies in England, Northern Ireland and Wales in 2019, by sector

The construction and manufacturing sectors had the highest rate of skill-shortage vacancies



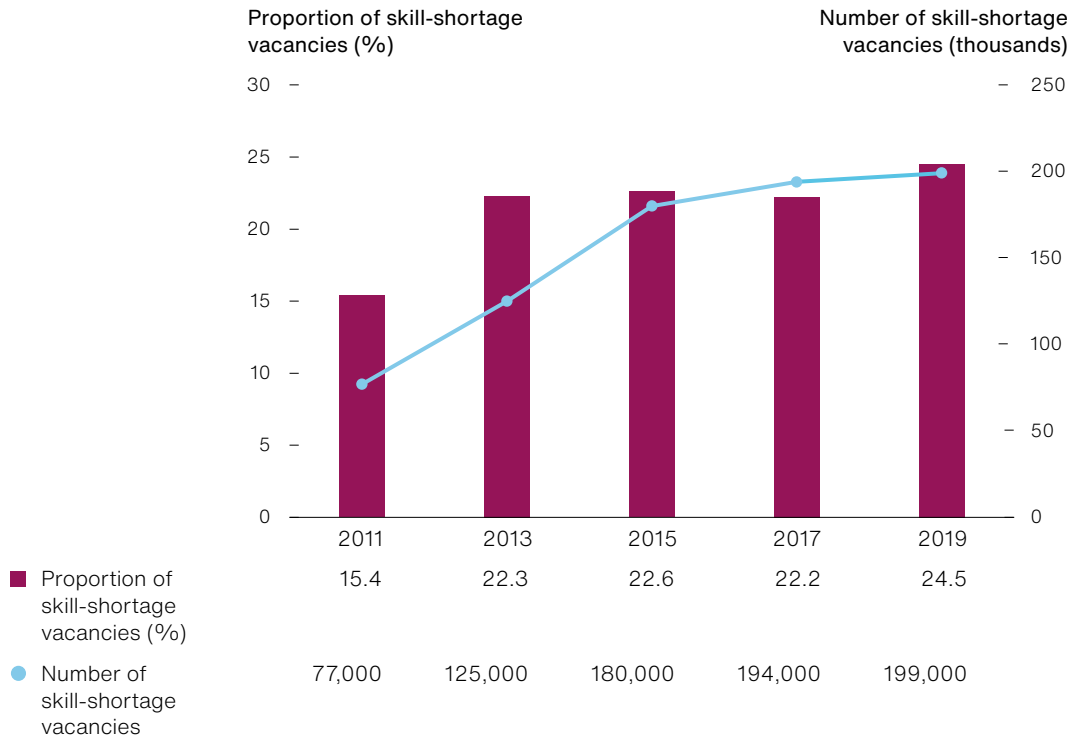
Notes

- 1 Skill-shortage vacancies are vacancies that are hard to fill because of a lack of the required skills, qualifications or experience among applicants.
- 2 The classification of sectors is based on the UK Standard Industrial Classification of Economic Activities 2007.
- 3 Primary sector includes agriculture, forestry and fishing, and mining and quarrying.
- 4 Figures are based on responses from employers in England, Northern Ireland and Wales to the Department for Education's 2019 employer skills survey. The 2019 survey is the most recent full survey due to the COVID-19 pandemic.

Source: National Audit Office analysis of Department for Education data, employer skills survey 2019

Figure 13
Skill-shortage vacancies in England, 2011 to 2019

In 2019, around a quarter of all vacancies were skill-shortage vacancies



Notes

- 1 Skill-shortage vacancies are vacancies that are hard to fill because of a lack of the required skills, qualifications or experience among applicants.
- 2 Figures are based on responses from employers in England to the Department for Education’s 2019 employer skills survey. The 2019 survey is the most recent full survey due to the COVID-19 pandemic.
- 3 Numbers of skill-shortage vacancies are rounded to the nearest thousand.

Source: National Audit Office analysis of Department for Education data, employer skills survey 2019

3.10 In 2021, recognising the ongoing challenges posed by the COVID-19 pandemic, DfE conducted a smaller survey of 5,000 employers, aiming to cover many of the usual topics in a lighter-touch way. One of the survey’s findings was that 48% of employers had funded or arranged training for any employees over the previous 12 months. This proportion was substantially lower than in earlier employer skills surveys (61% in 2019, and 66% in both 2015 and 2017).

3.11 The Migration Advisory Committee also generates information on occupations experiencing shortages of skilled workers, using national labour market datasets and evidence from stakeholders. This information is used to make recommendations to government about which occupations should be listed on the ‘shortage occupation list’. In February 2022, there were 30 occupations on the list – for these occupations, people can qualify for a skilled worker visa even though they earn less than the usual UK salary rate for the occupation. The occupations ranged broadly, from various types of engineers and IT professionals to vets and roles in the performing arts.

Predicting future skills needs

Central arrangements

3.12 DfE has commissioned research to forecast future skills needs. The most recent research was published in 2020 and presented projections to 2027.²⁹ It updated previous projections by the UK Commission for Employment and Skills, which the government closed in March 2017.³⁰ The research used a macroeconomic model to project the likely future size and shape of the labour market, and employment prospects including by industry and occupation. The findings included that:

- business and some other service activities, including professional services, scientific research and development, and information technology, were expected to see the strongest rates of job growth;
- many parts of the service sector, such as distribution and finance and insurance, would experience reduced demand for labour due to technological and other innovations;
- there would be a projected net combined growth of nearly two million jobs for managers, professionals and associate professionals between 2017 and 2027; and
- 55% of jobs were expected to be held by people qualified at level 4 and above by 2027.

The research report noted that the projections were subject to a number of risks and uncertainties. Most notable among them was the impact of the UK leaving the European Union on barriers to trade and the movement of people.

²⁹ Department for Education, *Working Futures 2017-2027: Long-run labour market and skills projections for the UK*, February 2020. The research was carried out by the Institute for Employment Research, University of Warwick, and Cambridge Econometrics.

³⁰ The UK Commission for Employment and Skills was a non-departmental public body that worked with industry and government on skills and employment issues.

3.13 In late 2020, government established the Skills and Productivity Board, a committee of academics and business experts. The Board's role was to provide independent evidence-based advice to DfE ministers on matters relating to skills and their contribution to productivity. In spring 2022, it produced several reports on current and future skills needs. Among the Board's many findings were that:

- across all occupations, communication and digital and data skills are expected to be the most important in the future, based on projections of occupation sizes in 2027;
- government has better measures of skills in demand than skills in supply, so the priority should be to improve its understanding of supply; and
- better matching between the demand and supply of skills will make only a modest contribution to levelling up in areas where the demand is for relatively low-level skills; the quality of production and of jobs will need to be improved.

3.14 In February 2022, DfE announced the creation of a Unit for Future Skills. The Unit supersedes the Skills and Productivity Board, which was dissolved in May 2022. The Unit's role is to look at data and evidence on where skills gaps exist and in what industries. DfE told us, however, that it was finding it difficult to recruit staff for the Unit because of a shortage of analytical skills in the public sector.

3.15 The Unit for Future Skills is a division within DfE, but is intended to work across government and meet the information needs of other departments as well as DfE. It will examine the interaction between the jobs and skills markets, and work with the Office for National Statistics to produce better data on skills demand. The Institute for Apprenticeships and Technical Education plans to draw on the Unit's insights to help its employer-led groups devise new apprenticeships and technical qualifications, and revise existing apprenticeships to reflect future skills needs in their sectors. DfE also intends that the Unit will engage with businesses and training providers to establish what additional data analysis they would find helpful.

3.16 Government has specific arrangements to assess the skills needed to support the transition to net zero. In November 2020, ministers from the Department for Business, Energy & Industrial Strategy and DfE convened the Green Jobs Taskforce, with members from industry, trade unions, and the education and skills sector. The role of the Taskforce is to provide advice on how to realise the UK's ambitions for green jobs. Its July 2021 report emphasised that, to address future and current skills gaps, the skills, knowledge and behaviours required for people to move into green jobs should be embedded into the curricula of relevant subjects at all stages in the learning cycle.

Local arrangements

3.17 In 2017, DfE set up skills advisory panels to better understand and address regional and local skills needs. The panels were local partnerships that aimed to strengthen the link between employers and skills providers. There were 36 panels across England, established within mayoral combined authorities, the Greater London Authority and local enterprise partnerships (LEPs).

3.18 DfE has decided to replace the skills advisory panels with local skills improvement plans (LSIPs), and provision was included in the Skills and Post-16 Education Act 2022. LSIPs are intended to provide a framework to help colleges and other training providers reshape what they offer in order to tackle skills mismatches and respond to labour market skills needs. A designated employer representative body will lead the development of the LSIP in each local area, in accordance with statutory guidance. Training providers will have a duty to cooperate with employer representative bodies in developing the plans and to have regard to these plans when considering their post-16 technical education and training offer.

3.19 DfE piloted LSIPs in eight areas from July 2021. The pilots were conducted at county or regional level, and the employer representative body was the relevant chamber of commerce. DfE considers that LSIPs will be more valuable than the outputs of the skills advisory panels, because the approach is more employer-driven and long-term, and because the statutory duties involved will provide stronger incentives for collaborative working.

3.20 DfE has also introduced a new Strategic Development Fund to support the transition to LSIPs. The Fund provides programme and capital funding to enable local areas to reshape their teaching and training provision and update their facilities. The Fund was piloted in 2021-22 alongside the LSIP pilots. In 2022-23, the Fund is worth £92 million, and collaborations of further education providers may each bid for up to £2.75 million.

3.21 In April 2022, DfE received an interim evaluation of the pilots of LSIPs and the Strategic Development Fund. The findings of the evaluation included that the pilots had been successful in fostering an environment of collaboration among key stakeholders, and a wider range of stakeholders had been engaged in assessing priority needs. However, the evaluation emphasised that, without good partnership working measures in place, there was a risk that key activities such as employer engagement would overlap with the work of LEPs and mayoral combined authorities. It also noted that currently there was not enough evidence to demonstrate whether or not the pilots had been able to align technical education and training provision with local labour market needs.

Insights on the construction and digital sectors

3.22 Figure 14 shows insights relating to government's understanding of workforce skills needs that we derived from our examinations of the construction and digital sectors.

Figure 14

Insights from our examinations of the construction and digital sectors:
Government's understanding of workforce skills needs

Construction sector**Current skills:**

- In April 2022, there were 46,000 construction vacancies, according to Office for National Statistics data.
- In June 2022, the Construction Industry Training Board forecast that UK construction output would grow at an average annual rate of 3.2% a year from 2022 to 2026, meaning the industry would need to recruit an additional 266,000 workers, or 53,200 a year. It found that the occupations with the largest recruitment requirements relative to numbers employed were: plant operatives, civil engineers, architects, labourers, bricklayers, and wood trades and interior fit-out.

Future skills:

- Changes in technology and working practices mean there will be an increased need for digital skills, and for existing workers to develop a broader skill set or to retrain.
- The transition to a net zero economy by 2050 will require new skills to adapt to greener methods of construction and new technologies such as biofuels and heat pumps. Research in 2019 estimated that 30% of jobs in the construction sector could require reskilling.¹

Digital sector**Current skills:**

- The Department for Digital, Culture, Media & Sport (DCMS) found that at least 82% of jobs advertised online in 2018 needed some digital skills. However, around 36% of working adults lack the essential digital skills needed for work.
- In 2016, the gap in digital skills was estimated to be costing the UK economy around £63 billion per year in lost additional GDP, according to a report by the House of Commons Science and Technology Committee.² DCMS considers that this cost is likely to have increased.
- The sector has specific shortages in cyber, artificial intelligence and data skills.

Future skills:

- DCMS expects digital skills gaps to widen substantially, with automation increasing demand for technology-related roles such as software developers and artificial intelligence, and for cyber security skills.
- Basic digital skills are predicted to be the area with the largest shortage. Reskilling the existing workforce is expected to be the major challenge between now and 2030.
- On more advanced digital skills, DCMS has forecast that, in the period to 2024, roles in productivity software, programming, data analysis, digital marketing and customer relations management will be in greatest demand.

Notes

- 1 Grantham Research Institute on Climate Change and the Environment, *Investing in a just transition in the UK*, February 2019.
- 2 HC Science and Technology Committee, *Digital Skills Crisis*, Second Report of Session 2016-17, HC 270, June 2016.

Source: National Audit Office, based on interviews with government departments and document review

Part Four

Government's approach to workforce skills development

4.1 This part of the report examines government's approach to supporting the development of workforce skills, given what it understands about the scale of the challenge and skills needs.

Evidence base for government's approach

4.2 The Department for Education's (DfE's) overarching philosophy is to put employers at the heart of the skills system, specifically by giving them a central role in identifying local and national skills needs, and in developing and designing qualifications and training. The 2021 *Skills for Jobs* white paper outlined how DfE intended to extend the approach it had adopted on apprenticeships to the skills system more generally. In recent years, the learning content of each apprenticeship has been updated to a new 'standard', designed by a group of employers from the relevant sector. The standards set out the knowledge, skills and behaviours that apprentices need to acquire. DfE believes that the change to employer-led standards has transformed the quality and status of apprenticeships.

4.3 Our 2019 report on the apprenticeships programme highlighted there had been improvements in terms of a greater focus on quality and meeting employers' needs, although we also noted concerns about take-up, financial sustainability and impact on productivity.³¹ Extending the employer-led approach beyond apprenticeships to the skills system more widely will rely on employers having the capacity and willingness to become much more involved in developing local plans, designing training content and engaging their employees in that training. From the evidence DfE shared with us, it is unclear what assurance it has that the conditions are in place for the broader employer-led approach to be implemented successfully.

³¹ Comptroller and Auditor General, *The apprenticeships programme*, Session 2017–2019, HC 1987, National Audit Office, March 2019.

4.4 In the *Skills for Jobs* white paper, DfE also highlighted the experience of countries that it regards as having strong employer-led skills systems, such as Germany and the Netherlands, where a national network of chambers of commerce works with further education providers to co-design and co-deliver the curriculum. DfE told us that it also used lessons from previous government initiatives, such as Individual Learning Accounts and Train to Gain, to inform the approach set out in the white paper. However, it did not provide us with documentary evidence to demonstrate these lessons.

4.5 To inform its 2021 Spending Review bid, DfE reviewed its value-for-money assessments, and the quality of the underpinning evidence, for existing spending on skills programmes. It considered value for money by looking at the impact of funding on ‘economic value added’, which it defined as the extent to which a programme increased employment and wages (and thereby productivity). It also took account of additional objectives, such as the impact of programmes on disadvantaged learners. DfE’s analysis generally showed that its more established programmes offered good value for money, with this conclusion founded on a strong evidence base. Newer programmes could not be supported by robust evidence about value for money. DfE concluded that it should take a ‘test and learn’ approach, and be cautious about rapidly scaling up these programmes until it had a better understanding of their value.

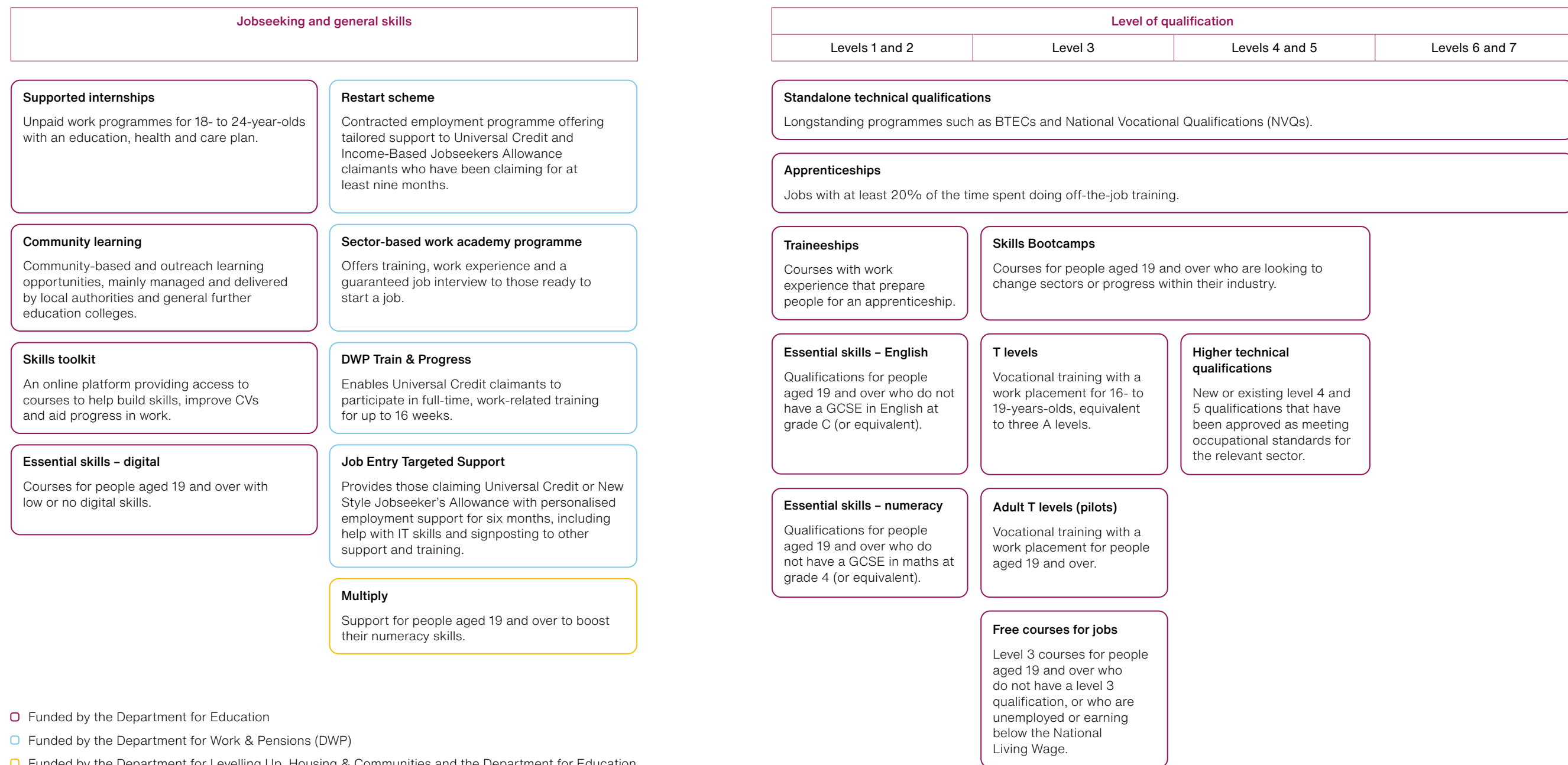
Government’s workforce skills programmes

4.6 DfE offers a range of programmes to support workforce skills development (**Figure 15** on pages 44 to 45). These include well-established programmes such as apprenticeships, which offer learning at a wide range of skill levels, along with newer initiatives such as Skills Bootcamps. At the time of our work, DfE was planning to introduce further measures, including piloting T levels for adults to establish whether they are viable.

4.7 Other government departments, in particular the Department for Work & Pensions (DWP), run or fund programmes that contain a skills element (Figure 15). For example, DWP has introduced the Train & Progress initiative, which aims to reinforce the importance of Universal Credit claimants engaging with work coaches to identify and address their skills needs, and enables claimants to participate in full-time, work-related training for up to 16 weeks. DWP also offers the Job Entry Targeted Support programme, which includes help with IT skills and directs people to other skills support and training. The Department for Levelling Up, Housing & Communities (DLUHC) funds the UK Shared Prosperity Fund, which supports local authorities to invest in employment and skills provision. The Multiply programme is a priority of the UK Shared Prosperity Fund, and offers free numeracy training for adults. It is led by DfE in England.

Figure 15
Main government workforce skills programmes, as at June 2022

Government runs or funds a complex and sometimes overlapping set of skills initiatives



Source: National Audit Office analysis of government information

4.8 The growing volume of government activity has created a complex and sometimes overlapping set of initiatives. DfE considers that the range reflects the diverse needs of employers and learners, but it recognises that there is some duplication between programmes and scope for simplification. For example, the Essential skills – numeracy and Multiply programmes both aim to build people’s numeracy skills. DfE is also working to streamline, and improve the quality of, the technical qualifications on offer at level 3 and below.

4.9 DfE’s data indicate that it spent £3.9 billion on adult education, apprenticeships and other skills programmes in 2021-22 (**Figure 16**). This total is 26% higher in cash terms than the £3.1 billion it spent in 2018-19. Within this overall increase, the trend for different programmes has varied. Spending on apprenticeships, for example, grew by almost 41% over the period. By contrast, adult education budget spending fell slightly, although the drop was more than offset by spending through the National Skills Fund. Programme spending on T levels fell in 2020-21 and 2021-22. This spending does not include the core funding that follows the learners. DfE told us that the decrease was largely due to a reduction in spending on industry placements, including during the COVID-19 pandemic.

Engagement with key stakeholders

Employers

4.10 Several stakeholders who responded to our consultation told us it is not always clear to employers how the different skills programmes fit together, and the system can seem complicated and difficult to navigate, with many competing and overlapping programmes, each with their own eligibility criteria and incentives for taking part. They said that the complexity of the system may dissuade employers, particularly smaller businesses, from engaging.

4.11 The Department for Business, Energy & Industrial Strategy (BEIS) leads government’s relations with businesses generally, and DfE takes the lead on skills specifically. Other departments take the lead in engaging with employers in particular sectors. The Institute for Apprenticeships and Technical Education (IfATE) also plays an important role in working with employers to develop occupational standards, which set out the knowledge, skills and behaviours required for a person to be competent in a particular role. IfATE will only recommend apprenticeships and other technical qualifications for funding if their design meets the relevant occupational standard.

Figure 16

Spending on the Department for Education's (DfE's) main skills programmes, 2018-19 to 2021-22

DfE spent £3.9 billion on adult education, apprenticeships and other skills programmes in 2021-22

Programme	2018-19	2019-20	2020-21	2021-22
	(£m)	(£m)	(£m)	(£m)
Apprenticeships	1,744.9	1,930.9	1,873.0	2,455.2
Adult education budget	1,344.2	1,304.2	1,362.5	1,311.6
National Skills Fund: Level 3 – free courses for jobs	0	0	0	52.2
National Skills Fund: Skills Bootcamps	0.1	7.4	12.4	32.0
Traineeships	0	0	6.4	25.9
Higher technical qualifications	0	0.1	0.2	8.3
T levels	6.4	14.9	11.1	4.5
Total	3,095.6	3,257.5	3,265.6	3,889.7

Notes

- 1 Spending is in cash terms. Capital and administration spending is not included.
- 2 This Figure excludes spending on 'learning for 16- to 19-year-olds' (which amounted to £6.2 billion in 2021-22) because DfE does not disaggregate the total for this category between academic learning and skills training.
- 3 Spending on traineeships for 16- to 19-year-olds is included within 'learning for 16- to 19-year-olds', and so is not presented in the Figure.
- 4 The stated spending on T levels is programme spending, which covers elements such as industry placements and communications campaigns, but not the core funding that follows the learner because this is included within 'learning for 16- to 19-year-olds'.

Source: National Audit Office analysis of Department for Education data

4.12 Government's engagement with employers about skills is largely intended to raise awareness of the available programmes, and help develop programmes that are higher-quality and more responsive to employers' needs. Government knows that employers' spending on workforce training has fallen (paragraph 2.14), but has not made clear to what extent it is seeking to influence employers to invest more in developing the skills of their own workforces.

4.13 DfE told us that it is developing an employer engagement strategy to improve how it communicates with and influences employers to increase take-up of relevant skills programmes. It would like to improve engagement with small and medium-sized enterprises, who may find it harder to engage as they do not have the resources of larger employers. DfE told us that it is aiming to achieve a notable improvement in employer engagement by spring 2023.

4.14 In January 2022, DfE launched the *Join the Skills Revolution* campaign to explain the range of training and employment schemes on offer. It is creating new webpages to help businesses find relevant schemes. At the time of our work, these pages were being developed, with guidance on apprenticeships more advanced than information on other programmes.

Individual learners

4.15 DfE is taking steps to incentivise individuals to develop their workplace skills, and to improve communication with potential learners. The *Skills for Jobs* white paper provided details of a £2.5 billion National Skills Fund, designed to help adults develop their skills. Key parts of the Fund are:

- the Lifetime Skills Guarantee, which was launched in April 2021 as part of the government's measures to help the country recover from the COVID-19 pandemic. Under the Guarantee, adults who do not already have a level 3 qualification may take one of around 400 free courses across 19 sectors. By April 2022, 18,700 people had enrolled on a course, which was 28% above DfE's planned number; and
- Skills Bootcamps, which are courses lasting up to 16 weeks for people aged 19 and over who are looking to change sectors or progress in their current industry. The courses are designed to help people develop sector-specific skills, and where relevant they provide a fast-track route to an interview with a local employer. By April 2022, 24,500 people had started a Skills Bootcamp, which was 9% above DfE's planned trajectory.

4.16 DfE is working to improve how it communicates with individuals about the skills programmes on offer. In January 2022, it launched the *Skills for Life* campaign to support adults to gain new skills. The campaign website brings together information on skills initiatives for adults and aims to support learners to find the right training opportunities for them. Alongside this, DfE launched the *Get the Jump* campaign, bringing together information on the education and training options available for 16- to 18-year-olds. While these campaigns provide information about the range of potential qualifications, it is less clear how they contribute to DfE's priority of incentivising people to pursue qualifications and subjects associated with higher long-term earnings.

Training providers

4.17 The three training providers and representative bodies we consulted told us that government’s skills interventions can appear disjointed. Their concerns included that the variety of schemes launched in quick succession had challenged employers and put some off from taking part.

4.18 DfE does not have a separate strategy for engaging with training providers about workforce skills development. However, as part of its strategy to improve communication with individuals, it has given providers a communications toolkit to help them engage with prospective learners about the Lifetime Skills Guarantee.

4.19 DfE’s reforms to the skills system are intended to make training providers more responsive to the needs of their local economy, and to help them operate more effectively. It is developing accountability arrangements aimed at ensuring that providers are contributing to actions they have agreed in the new local skills improvement plans. DfE also intends to intervene quickly and decisively in cases where colleges are not delivering effectively or where local providers are consistently unable to deliver the skills priorities for their area.

Targeting of skills programmes

4.20 Skills programmes do not generally focus on particular groups of people or geographic areas, although some monitor participation for certain groups or areas. Our 2019 report on the apprenticeships programme noted that DfE had a series of diversity targets for widening participation (covering ethnicity, learning difficulties, disabilities and health problems, and socio-economic disadvantage). However, these targets were not particularly stretching.³²

4.21 The government outlined its plans to address regional and local inequalities in the February 2022 *Levelling Up the United Kingdom* white paper. On skills, the white paper highlighted that the North East was the lowest performing region in terms of the proportion of the working-age population qualified to at least level 3, with London the highest performing region. The East Midlands had the largest variation within a region.

4.22 The white paper’s skills mission states that the number of people successfully completing high-quality skills training will have significantly increased in every area of the UK by 2030; in England, this will lead to 200,000 more people successfully completing high-quality skills training annually, including 80,000 more people completing courses in the lowest skilled areas. DfE has defined the ‘lowest skilled areas’ as the bottom third of local authorities when ranked according to the proportion of the adult population who hold at least a level 3 qualification. These areas are concentrated in the east of England, parts of the north of England and the West Midlands (**Figure 17** overleaf).

³² See footnote 31.

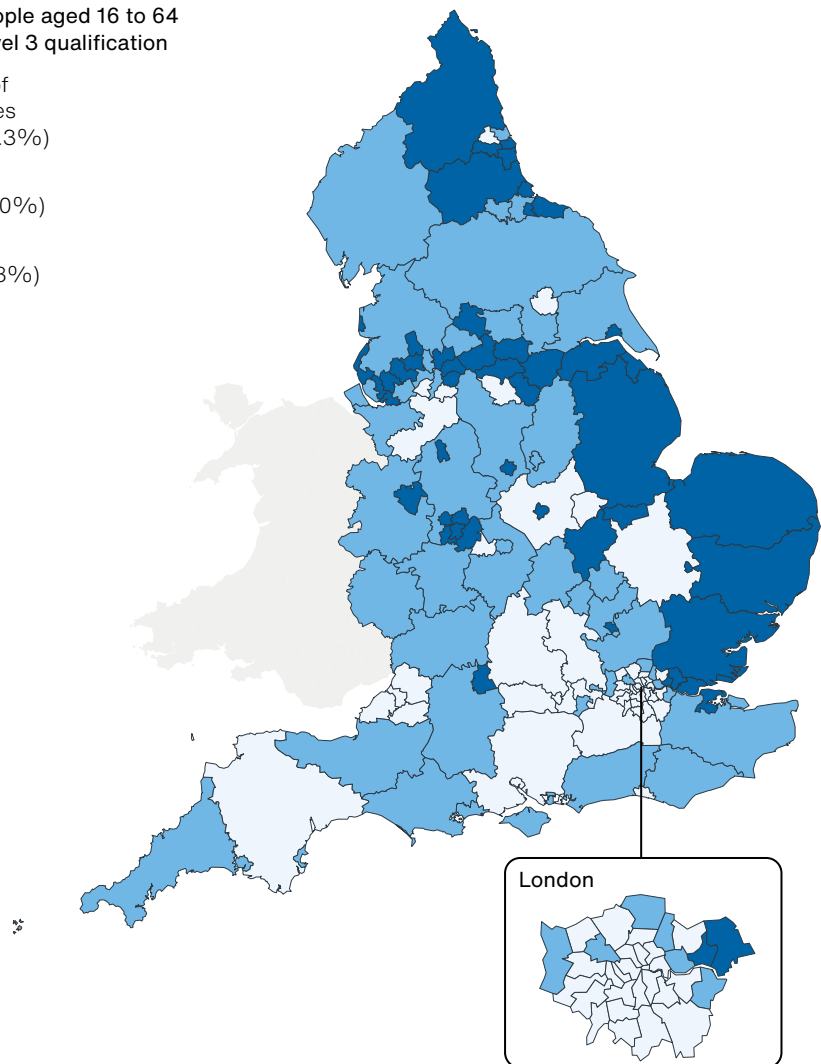
Figure 17

Proportion of the working age population with at least a level 3 qualification, by local authority in England

The lowest skilled areas, which have the smallest proportion of people with at least a level 3 qualification, are concentrated in the east of England, parts of the north of England and the West Midlands

Proportion of people aged 16 to 64 with at least a level 3 qualification

- Bottom third of local authorities (36.9% to 53.3%)
- Middle third (53.4% to 61.0%)
- Top third (61.1% to 94.8%)
- No data



Notes

- 1 The map shows the proportion of 16- to 64-year-olds with at least a level 3 qualification, such as an A level, T level or advanced apprenticeship.
- 2 The proportion is based on the average of a three-year period (2017, 2018 and 2019).
- 3 The map is based on counties and unitary authorities (upper-tier local authorities) at December 2021.
- 4 We divided upper-tier local authorities into three equal count categories based on the proportion of people aged 16 to 64 with at least a level 3 qualification. The lowest skilled areas are the bottom third of local authorities, as defined by the government’s Levelling Up skills mission.
- 5 City of London has a very small sample size relative to other local authorities and the highest proportion (94.8%) of 16- to 64-year-olds with at least a level 3 qualification.

4.23 While DfE's definition of lowest skilled areas is not the same as 'most disadvantaged areas', in terms of numbers, the skills mission is likely to go only some way to reversing the fall of around 280,000 in learner numbers in the 20% most disadvantaged areas from 2015/16 to 2020/21 (see Figure 8 on page 29). DfE told us, however, that its reforms to align skills training with employer-led standards should mean that the quality of training is higher than it was previously.

4.24 At the time of our work, DfE was developing its plans for taking forward the skills mission, including setting up governance arrangements, defining what 'high-quality skills training' means, and engaging with stakeholders such as local government and training providers. A key question for DfE to decide is which types of training should count towards achieving the mission.

4.25 DfE told us that the skills mission is challenging. It said that it is adjusting its delivery plans to make progress by the end of the current Parliament, and will continue to consider how best to achieve the mission by the 2030 deadline.

Cross-government working

4.26 Workforce skills has become a higher-priority issue, and different parts of government are working together more effectively to coordinate activity and monitor progress. A variety of cross-government groupings are in place to join up the delivery of skills policy. The Labour Market Steering Group is chaired jointly by DWP and DfE. Its purpose includes supporting the coordination of labour market and skills policy development, and it is an important mechanism for collaboration and information-sharing. There are a number of other ministerial and official groups, as well as regular meetings at senior level between departments.

4.27 There are specific cross-government working arrangements to support the transition to net zero. May 2022 saw the first meeting of the Green Jobs Delivery Group, comprising ministers from a number of government departments, industry representatives and other stakeholders. Its role is to support delivery of up to 480,000 skilled jobs by 2030 that will contribute to the government's net zero strategy.

4.28 DfE highlighted to us that its relationship with DWP is particularly strong and well-established. DWP told us that its Train & Progress initiative and the sector-based work academy programme, which gives people the chance to learn new skills and gain experience of working in a particular industry, illustrate how it is working effectively with DfE to help benefit claimants access training to improve their job prospects. However, departments also acknowledge that there is scope for cross-government working arrangements to be consolidated. Many of the stakeholders we consulted also commented that it is not easy to understand the responsibilities of different government bodies and how these fit together.

4.29 Since 2020, the Prime Minister has chaired a quarterly jobs and skills stocktake. This is a Cabinet sub-committee which monitors progress and holds relevant departments to account. The Prime Minister's Delivery Unit told us the stocktake is particularly valuable because it provides a consolidated view of all the major outputs within the jobs and skills systems, and prompts more evidence-based discussions.

4.30 In response to the challenges identified in the jobs and skills stocktake, government identified five priority sectors in autumn 2021. It prioritised these sectors because they have: high volumes of vacancies which are expected to increase and a high proportion of vacancies due to skills shortages; long-term structural barriers that prevent effective recruitment and retention; and long-term opportunities to provide a large number of green jobs. The sectors are construction, digital and technology, haulage and logistics, health and social care, and manufacturing. For each sector, a senior official in one or more departments acts as the 'sector delivery lead'. The leads meet regularly as a cross-government board with the Prime Minister's Delivery Unit to coordinate government activity.

4.31 Each lead department produced sector workforce assessments by April 2022. DfE's analysts supported this work. Sector leads are responsible for working with other departments and industry to identify the actions needed. For example, the assessment for the digital sector found that take-up for level 3 cyber skills training was lower than expected, so DfE and the Department for Digital, Culture, Media & Sport are working together to make the offer to learners more accessible. The next stage of the sector leads' work is to start delivering the agreed interventions and develop performance metrics and success criteria for each sector.

DfE's management of its portfolio of skills programmes

4.32 DfE has improved how it manages its portfolio of skills programmes. In late 2020, it established a team to enhance the oversight of its skills-related activities. We reviewed DfE's approach against the principles in our *Framework to review portfolios*, and found that DfE had set up a clear purpose for the portfolio, with stronger governance and more rigorous risk management. DfE's portfolio management covers only its own skills programmes.³³ The team does not provide equivalent governance and oversight for the interventions led by other departments, so the portfolio does not provide a complete overview of all government activity on skills.

4.33 DfE has a framework of performance metrics for its portfolio of skills programmes. The framework includes system-level measures, such as participation in further education and skills training by adults aged 19 and over, and measures for individual programmes, such as the number of apprenticeship starts. DfE is continuing to refine the metrics where it has identified gaps. For example, at the time of our work, it was developing a metric on the number of people starting and achieving a level 4 or 5 qualification. The most recent set of metrics for 2022/23 defines what level of performance would constitute success for individual programmes, and the *Levelling Up the United Kingdom* white paper defined success for the skills mission. However, at the time of our work, DfE was still working on system-level success measures for the skills portfolio as a whole.

4.34 In June 2022, performance information for DfE's skills programmes indicated a mixed picture, particularly in the short term. For example, it showed continuing strong uptake of free courses at level 3 under the Lifetime Skills Guarantee. It also noted that delivery of the second year of T levels was going well, and that almost 18,000 starts were planned for the new academic year in September 2022. However, the performance information indicated that apprenticeship achievements were 15% below the planned trajectory, and traineeship starts were 26% below the planned trajectory. It also stated that delivery prospects on the Multiply programme remained very challenging.

Insights on the construction and digital sectors

4.35 **Figure 18** overleaf shows insights relating to government's approach to workforce skills development that we derived from our examinations of the construction and digital sectors.

33 National Audit Office, *Good practice guide: Framework to review portfolios*, January 2022.

Figure 18

Insights from our examinations of the construction and digital sectors:
Government's approach to workforce skills development

Construction sector

- The Department for Business, Energy & Industrial Strategy (BEIS) provides the sector delivery lead for construction. BEIS told us that arrangements are well developed compared with other sectors, as it is using the existing mechanism of the Construction Skills Delivery Group, which it co-leads with the Department for Education (DfE), to support the work.
- The Construction Skills Delivery Group was already working on bringing industry together and improving employer engagement. Around 99% of the 403,000 firms in the construction sector are small to medium-sized enterprises, and it can be a challenge to engage with these firms to encourage participation in training.
- An assessment to inform the Prime Minister's jobs and skills stocktake in December 2021 identified current and future skills challenges, and improvements needed to the evidence base on workforce data.
- BEIS is also the lead government department for net zero. It has established the Green Jobs Delivery Group and is working jointly with DfE and the Department for Work & Pensions (DWP) on the workforce skills needed to support the transition to net zero.

Digital sector

- The Department for Digital, Culture, Media & Sport (DCMS) provides the sector delivery lead for digital. As part of this work, DCMS has launched the Digital Skills Council, which will work with industry to support the growth of the digital workforce and help improve collaboration between industry and government.
- DCMS works directly to address critical technical skills gaps identified in the National Data Strategy, the National Artificial Intelligence Strategy and the National Cyber Strategy. DCMS funds interventions such as artificial intelligence courses, Cyber First training and specialist bootcamps for digital skills, and it works with the National Cyber Security Council.
- An assessment to inform the Prime Minister's jobs and skills stocktake in December 2021 identified digital skills challenges across all five of the priority sectors, as well as a need for more information on skills gaps and private sector training provision, and evidence on the effectiveness of initiatives.
- DWP is identifying claimants who do not have essential digital skills and referring them to skills provision, such as relevant Skills Bootcamps.
- DCMS is working with DfE on wider digital skills provision, including improving and increasing computing education in schools. However, it will take time for this to feed through into the workforce.

Source: National Audit Office, based on interviews with government departments and document review

Appendix One

Our audit approach

1 This report examines the government's approach to enhancing workforce skills in England to support a strong economy. Enhancing the skills of the workforce is crucial for the country's economic growth and improved productivity in the workplace.

2 The report covers:

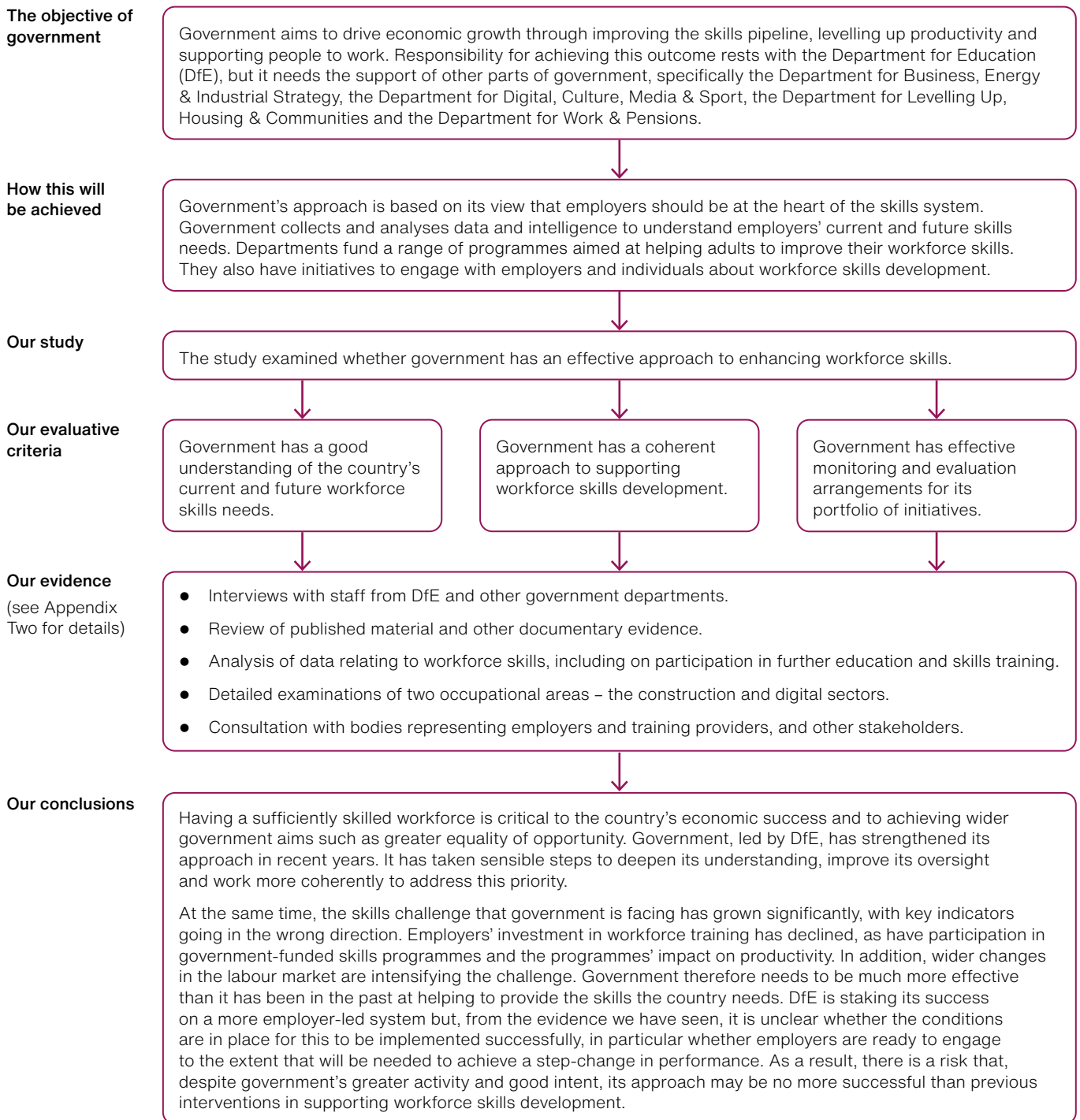
- the workforce skills system;
- the scale of the workforce skills challenge;
- government's understanding of workforce skills needs; and
- government's approach to workforce skills development.

3 Our work covered skills rather than broader issues about the supply of labour. The report relates mainly, but not exclusively, to technical skills that are deployed in the workplace, rather than basic skills or skills that are designed to help an individual become employable. We did not examine the quality of further education and skills training. Our work did not cover formal academic education.

4 We applied an analytical framework with evaluative criteria that considered what arrangements would be optimal for achieving value for money. By 'optimal' we mean the most desirable possible, while acknowledging expressed or implied restrictions or constraints.

5 Our audit approach is summarised in **Figure 19** overleaf. Our evidence base is described in Appendix Two.

Figure 19
Our audit approach



Appendix Two

Our evidence base

1 We reached our independent conclusions on whether government has an effective approach to enhancing workforce skills in England, after analysing evidence collected between January and June 2022.

2 Our report focuses on workforce skills in England, in line with the responsibilities of the Department for Education (DfE). However, some of the analysis that we carried out covered the whole of the UK, or combined parts of it, because the data could not be disaggregated between England and the other nations.

3 We interviewed staff from DfE on its leadership of government skills policy. The main topics that we covered were: DfE's ambitions for the skills system and the skills reform programme; its portfolio and risk management approach; evaluation arrangements for its interventions; arrangements for collaboration and cross-government working with other departments involved in supporting the development of workforce skills; and its response to the Levelling Up skills mission.

4 We interviewed staff from other government departments with responsibilities for enhancing workforce skills. The departments were the Department for Business, Energy & Industrial Strategy (BEIS), the Department for Digital, Culture, Media & Sport (DCMS), the Department for Levelling Up, Housing & Communities (DLUHC) and the Department for Work & Pensions (DWP). These interviews covered: arrangements for collaboration and cross-government working; the departments' specific skills interventions and their engagement with employers and other stakeholders; the support provided to individuals and businesses in deprived areas; and evaluation arrangements for their interventions.

5 We also interviewed members of the Skills and Productivity Board. These interviews covered the Board's activities and advice to DfE on the subjects it was charged with examining.

6 We interviewed staff from HM Treasury about funding for workforce skills interventions, the performance and value for money of the interventions, and risks to delivery. We also interviewed staff from the Prime Minister's Delivery Unit, part of the Cabinet Office, about the role of the Prime Minister's jobs and skills stocktake and its work with sector delivery leads.

7 We interviewed staff from Ofsted about its role in inspecting training and skills provision, and broader issues about government's role in supporting workforce skills development. We interviewed staff from the Institute for Apprenticeships and Technical Education about its strategy and delivery plan, the performance of the apprenticeships programme, and its engagement with employers about skills needs and priorities for apprenticeships and technical education.

8 We reviewed published and unpublished departmental documents. We used this information to understand: departments' strategies and aims for enhancing workforce skills; the supporting evidence for the initiatives they were piloting or had in place; their engagement with employers, training providers, local bodies and individuals; arrangements for cross-government working; and how they monitored and evaluated performance. The documents we reviewed included material relating to:

- strategies, objectives and priorities for developing workforce skills, including DfE's *Skills for Jobs* white paper, the *Levelling Up the United Kingdom* white paper, DfE's Outcome Delivery Plan and the Skills and Post-16 Education Act 2022;
- assessments of workforce skills levels and needs, including DfE's employer skills surveys;
- cross-departmental working arrangements;
- the evidence base for initiatives;
- business cases, assessments and selection processes for the range of DfE's interventions;
- risk registers and risk management approaches for DfE's interventions;
- performance data on skills interventions; and
- evaluation strategy and outcomes.

9 We reviewed published documents from a range of bodies. We used this information to understand factors that affect the current skills system. The main bodies were: the Centre for Ageing Better; Grantham Research Institute on Climate Change and the Environment; the Migration Advisory Committee; and the Organisation for Economic Co-operation and Development.

10 We analysed a range of data relating to workforce skills.

- **Workforce productivity**

We analysed data from the Organisation for Economic Co-operation and Development on Gross Domestic Product (GDP) per hour worked to measure workforce productivity from 2000 to 2020. GDP per hour worked was indexed to a value of 100 in 2015 for both the UK and the G7 average.

- **Industry sector data on changes in workforce size and skill-shortage vacancies**

We used data from the Office for National Statistics to calculate percentage changes in workforce size by industry in the UK. We examined data from before the COVID-19 pandemic (from December 2017 to December 2019) and during/after the COVID-19 pandemic (December 2019 to December 2021) to indicate the potential impact of the pandemic on different industries.

We used data from DfE's 2019 employer skills survey to establish the proportion of skill-shortage vacancies by sector. These data covered England, Northern Ireland and Wales.

- **Employers' spending on training**

We analysed data on employers' spending on workforce training from 2011 to 2019. We used 2011 as the starting point for our analysis as DfE carried out its first employer skills survey in this year. We analysed data on total spending and spending per employee in England. We converted these data into real terms using Consumer Price Inflation (CPI) tables published by the Office for National Statistics. Real-terms values are at 2019 prices.

- **Adult participation in further education (FE) and skills training**

We analysed data on adult participation in FE and skills training from 2010/11 to 2020/21. DfE publishes data on government-funded FE and skills participation for each academic year. We used 2010/11 as the starting point for our analysis to show long-term trends in participation.

- **Demographic breakdowns of participation in FE and skills training**

We used DfE's published data on the demographic characteristics of adults participating in FE and skills training from 2016/17 to 2020/21. We used 2016/17 as the starting point for our analysis as this is the year when DfE started publishing data on the demographic characteristics of adult learners. Demographic characteristics are based on self-declaration by the learner. We calculated the proportion of learners from ethnic minority backgrounds and those with a learning difficulty and/or disability to show how the proportions have changed over time. To calculate the proportion of learners, we included only those whose characteristics were known, following DfE's methodology. We excluded a small proportion of learners who did not declare their ethnic background or status with regard to learning difficulties and/or disabilities.

- **Disadvantage profiling of participation in FE and skills training**

We analysed DfE's published data on the number of FE and skills learners in the 20% most disadvantaged areas from 2015/16 to 2020/21. We used 2015/16 as the starting point for our analysis to be consistent with the data presented in DfE's July 2021 Outcome Delivery Plan. We divided the learners by age group to enable comparisons between those groups over time. We classified areas as more or less disadvantaged based on the Indices of Multiple Deprivation, published by DLUHC.

- **Outcome data, including the FE Skills Index and qualification levels attained**

DfE uses the FE Skills Index as a proxy measure for the impact of the FE system on productivity. We focused on how the Index changed from 2012/13 (its base year) to 2020/21, and how the different types of learning provision (apprenticeships and classroom-based training) have affected the value of the Index.

We used DfE data to show the estimated highest level of qualification achieved by the age of 25 in England, based on the cohort of people who took GCSEs in the 2007/08 school year.

We analysed DfE data on the skills levels of the working-age population (those aged 16 to 64) in England from 2017 to 2019. Skills levels are determined for each local authority based on the proportion of the population who hold at least a level 3 qualification. DfE publishes these data at upper-tier local authority level. We separated upper-tier local authorities into three equal-count categories. The bottom third of local authorities which DfE defines as the 'lowest skilled areas' are 50 local authorities for which the proportion of the population with at least a level 3 qualification ranged from 36.9% to 53.3%. The middle third are 51 local authorities for which the proportion of the population with at least a level 3 qualification ranged from 53.4% to 61.0%. The top third are 50 local authorities for which the proportion of the population with at least a level 3 qualification ranged from 61.1% to 94.8%.

- **DfE's spending data on skills programmes**

We analysed data from 2018-19 to 2021-22. There are two main limitations associated with these data. Firstly, spending categorised as 'learning for 16- to 19-year-olds' includes spending on academic learning, which is not normally considered part of skills-related learning. We therefore excluded this line of spending from our analysis. Secondly, spending on traineeships for 16- to 19-year-olds and core funding for T levels are both included in 'learning for 16- to 19-year-olds'. We therefore also excluded them from our analysis.

11 We invited stakeholders to respond to a consultation exercise. We asked stakeholders for their views, and any supporting evidence they had, on the following issues:

- whether government has a good understanding of the key skills that are, or will be, needed in the workforce;
- whether there is clarity on government's role with regard to workforce skills, and the responsibilities and accountabilities across government;
- whether government bodies engage effectively with stakeholders on workforce skills issues;
- how well government supports and incentivises individuals to develop their skills;
- how well government encourages and incentivises employers to develop the skills of their workforce;
- to what extent government support for workforce skills development is directed at individuals in disadvantaged groups and employers in deprived local areas; and
- how government could improve the effectiveness of its interventions to enhance workforce skills.

12 We selected stakeholders to capture a range of perspectives on workforce skills. We identified stakeholders through desk research and discussions with DfE. We met, or received written responses, from:

- Association of Colleges;
- Association of Employment and Learning Providers;
- British Retail Consortium;
- City & Guilds Group;
- Federation of Small Businesses;
- Institute for Employment Studies;
- Learning and Work Institute;
- LEP Network;
- Local Government Association;
- Newcastle College Group;
- Organisation for Economic Co-operation and Development (Local Employment and Economic Development programme); and
- WorldSkills UK.

We invited the Confederation of British Industry to provide a written response to our consultation questions. However, it explained that, due to time constraints and other priorities, it was unable to do so.

13 We completed in-depth examinations of two occupational areas – the construction and digital sectors. We used these to illustrate, with specific examples, the scale of the workforce skills challenge, government's understanding of skills needs and government's approach to workforce skills development. Our work involved document review and discussions about workforce skills issues with the relevant sector delivery leads. We also spoke to staff from BEIS and the chair of the Construction Skills Delivery Group with regard to the construction sector, and staff from DCMS and representatives from the Lloyds Banking Group (which is involved in commissioning work on digital skills on behalf of DfE) with regard to the digital sector.

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