



House of Commons  
Committee of Public Accounts

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# Delivering STEM skills for the economy

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**Forty-Seventh Report of Session 2017–19**

*Report, together with formal minutes relating  
to the report*

*Ordered by the House of Commons  
to be printed 13 June 2018*

## The Committee of Public Accounts

The Committee of Public Accounts is appointed by the House of Commons to examine “the accounts showing the appropriation of the sums granted by Parliament to meet the public expenditure, and of such other accounts laid before Parliament as the committee may think fit” (Standing Order No. 148).

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### Publication

Committee reports are published on the [Committee's website](#) and in print by Order of the House.

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### Committee staff

The current staff of the Committee are Richard Cooke (Clerk), Dominic Stockbridge (Second Clerk), Hannah Wentworth (Chair Support), Zainab Balogun, Carolyn Bowes and Kutumya Kibedi (Committee Assistants), and Tim Bowden (Media Officer).

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## Summary

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STEM skills are crucial for the UK's productivity, and a shortage of STEM skills in the workforce is one of our key economic problems. The future workforce relies on many more children and young people being encouraged to take STEM subjects and enter STEM careers. Government is not well placed to understand the extent of the challenge and ensure the supply of STEM skills, especially in the context of withdrawal from the European Union. In particular, there remains a need to address marked gender imbalances in several areas of STEM learning and work—demonstrated, for example, by the fact that only 8% of STEM apprenticeship starts are undertaken by women. The quality of careers advice in schools is patchy at best, perpetuating misconceptions about STEM careers. In addition, the way that schools are funded will restrict the likelihood of pupils moving to other, more STEM-focused learning providers, such as the new institutes of technology. To make better-informed decisions, departments also need to tackle the apparent lack of industry and commercial experience on their STEM boards and working groups.

## Introduction

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STEM stands for science, technology, engineering and mathematics. In education, it means the study of these subjects, either exclusively or in combination. In employment, it refers to work that involves the application of STEM knowledge and skills, an appropriate qualification in a STEM subject, or a particular industry or sector, such as pharmaceuticals, construction or aerospace. Since the early 2000s, there have been growing concerns about the supply of STEM skills in the workforce, focusing on achieving increased productivity and economic growth in an era of rapid technological change. Exit from the European Union could also affect the availability in the workforce of people with the requisite STEM skills. Responsibility in government is spread across a number of departments. The Department for Education (DfE) is responsible for the main learning routes—schools, colleges, apprenticeships and higher education institutions—and is also responsible for generating research on skills needs. The Department for Business, Energy & Industrial Strategy (BEIS) develops insights into key business sectors, and leads a STEM inspiration programme, encouraging young people to consider STEM careers. Other departments also play an important role. Between them, government departments spent almost £1 billion between 2007 and 2017 on initiatives to encourage more take-up of STEM subjects.

## Conclusions and recommendations

1. **BEIS and DfE do not currently have sufficient understanding of what specific skills businesses really need or how Brexit will affect the already difficult task of ensuring the supply of STEM skills in the workforce.** There is no universal definition of what should be counted as a STEM subject or job, which makes it difficult for government to clearly understand what STEM skills are needed. As technology advances, the skills required of the workforce change, but the pace of change means that skills development often lags behind. DfE is conducting an employer skills survey, which is expected to provide a more detailed picture of skills supply and demand, but the results are not due to be published until summer 2018. The departments' lack of urgency is also demonstrated by their heavy reliance on the work of the Migration Advisory Committee, which is due to report on European workers in the UK labour market in September 2018, and has been asked to address the issue of the number of visas available for highly skilled migrants. We are also concerned that BEIS is uncertain about whether the public sector pay cap is restricting organisations' ability to recruit workers from overseas with the skills needed to help deliver major infrastructure projects.

**Recommendation:** *Following publication of the Migration Advisory Committee report in September 2018, BEIS and DfE should, within six months, set out the further steps they will take to ensure that STEM skills shortages are addressed.*

2. **We remain to be convinced that the proposed Skills Advisory Panels will properly understand national and global skills issues.** The UK Commission for Employment and Skills, the main body previously responsible for producing strategic information on skills supply, closed in early 2017, creating a vacuum in terms of government labour market intelligence. DfE is setting up Skills Advisory Panels (SAPs), which will work with Local Enterprise Partnerships (LEPs) to better understand regional and local skills needs. This Committee has previously reported its concerns about LEPs' variable capacity and capability. DfE plans to establish an initial group of seven SAPs in 2018, and intends to evaluate their success in summer 2019. Given the nature of the market for high-level STEM skills, we are sceptical as to whether SAPs will be sufficiently aware of national and global skills supply issues to carry out their responsibilities effectively.

**Recommendation:** *DfE should set out what specific steps it will take to ensure that SAPs are sufficiently aware of national and global skills supply issues to be fully effective.*

3. **We are concerned that government STEM boards and working groups do not include enough practical industry or commercial experience to spot key problems and deliver effective solutions.** We recognise that government is taking some steps to address the long-standing lack of co-ordination on STEM issues. In the last year, DfE has set up a cross-government STEM group, and the Department also has an internal STEM board, whose role is to consider STEM issues across the education pipeline. However, these groups are generally staffed by policy experts, and DfE does not know which of the group members has any practical experience—for example,

through working in industry. As such, the groups may be missing crucial knowledge of STEM issues, which could stop them from being sufficiently responsive to the changing demands of employers.

**Recommendation:** *By summer 2018, the departments should review the membership of all STEM boards and working groups, and address any shortfalls in expertise—for example, in industry knowledge or experience in STEM learning and work.*

4. **DfE does not know whether people given financial incentives to undertake teacher training are remaining in the profession.** In 2016, the Committee expressed concern that DfE did not know what proportion of those receiving bursaries and other financial incentives to enter teacher training (particularly in STEM subjects) actually went on to qualify and teach in that subject. The Department undertook to examine the issue as a matter of urgency, and conclude on the value for money of the bursary scheme by April 2018. While the Department has examined the impact of financial incentives on the number of applications for teacher training, it still does not know how long the successful applicants stay in the teaching profession, and therefore cannot say whether these incentives are achieving the desired outcomes.

**Recommendation:** *DfE must identify as soon as possible whether financial incentives for teacher training have delivered value for money, and report its findings to the Committee as promised.*

5. **The departments are making insufficient progress in addressing the gender imbalance in many areas of STEM learning and work, which is particularly troubling given the Committee's previous concerns.** When the Committee examined the apprenticeships programme in late 2016, it recommended that DfE should set up performance measures for the programme that included whether it is delivering improved access to under-represented groups across all occupations. Performance measures have been established for the number of black and minority ethnic apprentices and those with learning disabilities. DfE did not introduce a target relating to female apprentices, because it was satisfied with the fact that women made up over 50% of apprenticeship starts overall. But only 8% of STEM apprenticeship starts are undertaken by women. The gender imbalance is also apparent for A levels, where women and girls are well represented in biology, but little progress has been made in increasing the numbers in subjects like computing and physics.

**Recommendation:** *By the end of 2018, the departments should establish, and start to monitor progress against, specific targets relating to the involvement of girls and women in key STEM learning programmes such as apprenticeships.*

6. **We are concerned about the quality of careers advice in our schools and colleges.** It is clear that many young people perceive STEM subjects to be too challenging, and conclude that STEM-related careers are therefore not suitable for them. Government's efforts to boost STEM skills in the workplace will fail if these perceptions continue and not enough children choose to study STEM subjects. DfE's December 2017 careers strategy acknowledges a significant gap in the quality of careers advice in schools. In response, the Department has asked the Careers & Enterprise Company

to focus particularly on STEM when producing toolkits on what works. Careers guidance is one of many elements that Ofsted may examine when inspecting secondary schools. But Ofsted does not give those schools an explicit rating that indicates the quality of careers guidance offered.

**Recommendation:** *DfE should make better use of data on career destinations and salaries to incentivise young people to work towards careers in particular STEM sectors where there is higher need. As part of its plans to improve the quality of careers advice, DfE should work with Ofsted to consider rating the quality of advice provided in schools.*

7. **The current education funding model will make it difficult for new types of learning institution, such as institutes of technology, to establish themselves.** Schools are funded per pupil and so have a clear financial incentive to retain their existing students, rather than encouraging them to move to learning institutions that provide vocational skills. In addition, many parents and young people regard academic learning as inherently superior to the acquisition of vocational skills. The new institutes of technology are intended to provide an alternative offer from that delivered by school sixth forms, but they will face a major challenge to persuade pupils to leave the school environment. University technology colleges (UTCs) are a case in point; they have been in existence since 2010 but many have struggled to attract enough students to be financially viable. DfE risks wasting time, effort and money if it does not learn lessons quickly from past initiatives.

**Recommendation:** *As a matter of urgency, DfE needs to develop a clearer plan for how new types of learning institution, such as the institutes of technology, will attract the numbers of students they need to be viable.*

8. **The departments have allowed poor quality provision—especially in apprenticeships—to continue for too long without being addressed.** Many of the old-style apprenticeship frameworks delivered poorly designed and inadequate programmes of learning for several years. Some stakeholders have claimed that a significant proportion of the programmes of learning do not constitute real apprenticeships. The Department is introducing new, employer-designed standards, which are meant to represent more relevant and better quality packages of learning for apprentices. Good monitoring systems are required to ensure that current and future apprenticeships are of the required quality. Ofsted will play an important role in assessing the quality of apprenticeship programmes being delivered by individual providers, but it is unclear whether DfE has systems in place to identify poor quality provision in a timely way and take appropriate action.

**Recommendation:** *DfE should ensure it has effective monitoring systems in place to quickly identify apprenticeship programmes that are not fit-for-purpose, along with poor quality provision, and the action it will take in each case.*

# 1 Understanding the nature of the STEM skills challenge

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1. On the basis of a report by the Comptroller and Auditor General, we took evidence from the Department for Education (DfE) and the Department for Business, Energy and Industrial Strategy (BEIS).<sup>1</sup>

2. STEM stands for science, technology, engineering and mathematics. In education, it means the study of these subjects, either exclusively or in combination. In employment, STEM refers to a job that requires the application of science, technology, engineering and mathematics skills or a qualification in a relevant subject, or that is located in a particular industry or sector, such as pharmaceuticals, construction or aerospace. However, there is no universal definition of what should be counted as a STEM subject or job.<sup>2</sup>

3. Since the early 2000s, there have been growing concerns about the supply of STEM skills in the workforce, focusing on achieving increased productivity and economic growth in an era of rapid technological change. The November 2017 policy paper, *Industrial Strategy: Building a Britain fit for the future* stated that “... we need to tackle particular shortages of STEM skills”. Exit from the European Union could also affect the availability in the workforce of people with the requisite STEM skills.<sup>3</sup>

4. There is no unified government STEM skills programme, and responsibility for the provision of different elements is spread across a number of departments. The Department for Education (DfE) is responsible for the main learning routes—schools, colleges, apprenticeships and higher education institutions—and is also responsible for generating research on skills needs. The Department for Business, Energy & Industrial Strategy (BEIS) develops insights into key business sectors, and leads a STEM inspiration programme, encouraging young people to consider STEM careers. Other departments also play an important role. Between them, the departments spent almost £1 billion between 2007 and 2017 on initiatives to encourage more take-up of STEM subjects.<sup>4</sup>

## Ensuring an adequate supply of STEM skills now and after exit from the European Union

5. Estimates of the nature of STEM skills shortages vary widely according to which definition, dataset and methodology are used. These estimates are largely based on employer surveys, together with modelling of educational and occupational data, which in itself can be problematic due to the unpredictable impact of technological changes relevant to many STEM occupations.<sup>5</sup> Overall, the requirement to use technology is becoming more common in many jobs. The emphasis on digital skills, for example, is as important today as literacy skills were in earlier times.<sup>6</sup> As technology advances, the skills profile of the workforce needs to change in parallel. But we are concerned that the provision of suitably

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1 Report by Comptroller and Auditor General, [Delivering STEM \(science, technology, engineering and mathematics\) skills for the economy](#), Session 2017–19, HC 716, 17 January 2018

2 [C&AG's Report](#), paras 1.1–1.2

3 [C&AG's Report](#), paras 1.4–1.5, 1.7

4 [C&AG's Report](#), paras 2, 1.8, 1.11

5 [C&AG's Report](#), para 2.13

6 Q 10

skilled people is lagging behind the technological needs of businesses.<sup>7</sup> DfE is currently conducting an employer skills survey, the results of which are due to be published in summer 2018. It expects the survey to provide more detailed intelligence than is currently available on skills needs in individual sectors.<sup>8</sup>

6. The impact of exit from the EU on the availability of STEM skills is difficult to predict, with some major science and engineering bodies believing that it could reduce the availability of those skills. This makes the UK skills picture highly sensitive to any changes that might arise.<sup>9</sup> BEIS and DfE are involved in cross-government work to assess the wider impacts of exiting the EU, but they appear to be heavily reliant on the work of the independent Migration Advisory Committee (MAC).<sup>10</sup>

7. The MAC's responsibilities include taking a view on the alignment of the skills of the current workforce with the future needs of the industrial strategy. BEIS told us that it is waiting keenly to review the MAC's report on the current and future impact on the whole economy of European Economic Area workers across all sectors and regions, which is due to be published in September 2018.<sup>11</sup> BEIS explained that the MAC has also been asked to address the issue of the number of visas being made available for highly-skilled (Tier 1) migrants.<sup>12</sup>

8. We asked whether BEIS recognises the problems that public bodies face when trying to deliver major infrastructure projects. It seems apparent that they sometimes struggle to recruit workers from the EU, and when looking further afield they find that potential workers cannot obtain the necessary visa. We were concerned that the public sector pay cap may be having a negative impact on these bodies' ability to recruit. BEIS explained that it was not aware of this being a particular problem, but would make enquiries about it.<sup>13</sup>

## Skills Advisory Panel

9. The UK Commission for Employment and Skills, the main body responsible for producing strategic information on skills supply, closed in early 2017.<sup>14</sup> This created a temporary vacuum in terms of government's labour market intelligence.<sup>15</sup> We understand that DfE is currently setting up Skills Advisory Panels (SAPs), which will work with Local Enterprise Partnerships (LEPs) and combined authorities to better understand employers' regional and local skills needs.<sup>16</sup> We are concerned that LEPs are not best placed to take on this task, given that this Committee has previously reported on LEPs, and found that they vary significantly in their capacity and capability.<sup>17</sup>

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7 Q 32

8 Q 127

9 Q 120; [C&AG's Report](#), paras 1.7, 2.23

10 Qq 34, 37, 119, 124, 127

11 Qq 40, 124, 127

12 Q 37

13 Qq 36, 128

14 [C&AG's Report](#), para 2.4

15 Q 140

16 Q 141; [C&AG's Report](#), para 2.22

17 Committee of Public Accounts, [Cities and local growth](#), Sixth Report of Session 2016–17, July 2016

10. DfE plans to establish seven SAPs in 2018. Where it is clear that a SAP does not have the required capability, DfE told us it would share good practice from elsewhere to help it derive a better sense of the skills needs of the local economy. The Department intends to evaluate the success of this initial group of seven SAPs in summer 2019.<sup>18</sup> Given the complex and international nature of the market for high-level STEM skills, we consider there is a real risk that SAPs will not be sufficiently aware of national and global skills supply issues to carry out their responsibilities effectively.<sup>19</sup>

### STEM boards and working groups

11. DfE has appointed a single lead for STEM issues, along with a departmental STEM Programme Board that aims to facilitate a more joined-up approach both within the Department and across government.<sup>20</sup> DfE told us that, while it was formulating the industrial strategy, it became clear that a working group would need to be established in order to integrate all STEM-related activities across government. DfE now chairs that group, which includes representative from BEIS, HM Treasury, the Department for Transport, Research Councils and others.<sup>21</sup>

12. Whilst on the surface these are positive developments, they will need to be properly organised to ensure they function effectively. There have been previous attempts to establish cross-departmental STEM governance bodies or working groups, but none have lasted long enough to have a meaningful impact.<sup>22</sup>

13. We asked DfE whether the members of the cross-government STEM group have relevant skills and experience. DfE told us that they are a mixed range of civil servants, with policy expertise in their respective areas. However, it could not tell us whether any of them have worked in industry, science or technology. We consider that any lack of practical knowledge and experience of STEM issues could stop the cross-government group from being fully effective.<sup>23</sup>

### Incentives to undertake teacher training

14. DfE offers increased payments to trainee teachers in a range of high-demand subjects. For example, for the academic year 2018–19 DfE will offer up to £28,000 of additional funding for trainee teachers in physics, chemistry and computing, and up to £26,000 for trainees in biology. It has also introduced a total payment of up to £32,000 to mathematics trainees.<sup>24</sup>

15. In 2016, this Committee expressed concern that DfE did not know what proportion of those receiving bursaries and other financial incentives to enter teacher training actually went on to qualify and teach in that subject, and therefore whether the arrangements were delivering value for money. Given the large sums of public money involved, DfE was asked to evaluate properly, as a matter of urgency, whether bursaries and other similar payments lead to more, better quality teachers in classrooms, including whether the money could

18 Qq 141–142

19 Qq 29, 32, 63, 104, 136

20 [C&AG's Report](#), para 2.7

21 Qq 72, 136–137

22 [C&AG's Report](#), para 2.7

23 Qq 138–140

24 [C&AG's Report](#), para 3.7

be more effectively spent in other ways, such as on retention measures.<sup>25</sup> DfE agreed to examine this issue and conclude on the value for money of the arrangements by April 2018.<sup>26</sup>

16. DfE told us it had only partially completed this work. It had examined the impact of financial incentives on the number of applications for teacher training, but it still did not know how long the successful applicants stay in the teaching profession, and therefore whether these incentives offer value for money overall.<sup>27</sup>

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25 Committee of Public Accounts, [Training new teachers](#), Third Report of Session 2016–17, June 2016

26 Qq 105–106; Treasury Minutes, [Government responses to the Committee of Public Accounts on the Thirty seventh and the Thirty Ninth reports from Session 2015–16; and the First to the Thirteenth reports from Session 2016–17](#), Cm 9351, November 2016 (pages 26–27)

27 Q 105

## 2 Delivering the right STEM learning and skills

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### Encouraging women into STEM learning and work

17. Girls and women are under-represented in most STEM subject areas at every stage of the STEM skills pipeline. For example, while girls made up 61.8% of A level entries in biology in 2016/17, they represented just 9.4% of entries in computing, 21.2% in physics and 39% in mathematics. In addition, only 8% of STEM apprenticeships starts are undertaken by girls and women, despite making up over 50% of apprenticeships starts overall.<sup>28</sup>

18. When this Committee examined the apprenticeships programme in late 2016, it recommended that the Department for Education (DfE) should set up performance measures for the programme beyond the overall target of achieving 3 million new apprenticeship starts by 2020, including whether the programme is delivering improved access to under-represented groups across all occupations.<sup>29</sup> There are now performance measures relating to black and minority ethnic apprentices and those with learning disabilities. We were concerned that DfE had decided not to set a numerical target relating to female apprentices, because it was content with the fact that women make up over 50% of apprenticeship starts overall, but had apparently not probed beyond that headline figure to consider what kinds of apprenticeships women were typically undertaking.<sup>30</sup>

19. DfE agreed that the gender imbalance is a serious problem, although it suggested that the level of gender differentiation is lower in England than in the OECD as a whole.<sup>31</sup> DfE explained that it is working to increase the number of women apprentices, sector by sector and employer by employer. It also explained that it has achieved an 18% increase in the number of women doing science and mathematics A level over the last seven years.<sup>32</sup>

### Carers Advice

20. DfE's December 2017 careers strategy stated that many children believe STEM subjects are too challenging or not suitable for them. If these children do not study STEM subjects, they are unlikely to move on to a career that requires STEM skills. It is concerning that the careers strategy acknowledges a significant gap in the quality of careers advice in schools. DfE told us that it plans to improve the careers infrastructure, in particular by ensuring that a member of the senior management team in every school has specific responsibility for careers advice. Funding is also required for careers hubs in parts of the country that suffer from an absence of good quality support. With particular regard to STEM subjects, DfE has asked the Careers & Enterprise Company to focus on STEM when producing its toolkits on "what works".<sup>33</sup>

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28 [C&AG's Report](#), para 14

29 Committee of Public Accounts, [The apprenticeships programme](#), Twenty-eighth Report of Session 2016–17, November 2016

30 Qq 53, 55, 57, 66; Department for Education, [Apprenticeship Reform Programme: Benefits Realisation](#), March 2017 (para 56)

31 Q 61

32 Qq 57, 60, 99

33 Qq 99–100

21. Ofsted inspectors may examine the careers guidance offered by secondary schools, as evidence to support a key judgement on pupils' personal development, behaviour and welfare.<sup>34</sup> We asked DfE if the Ofsted inspection regime might be changed, so that schools receive a more explicit judgment on the quality of careers advice that they provide. DfE told us there are no immediate plans to amend Ofsted's inspection framework, which is next due for formal renewal in 2019.<sup>35</sup>

## New types of learning institution

22. Schools have a clear financial incentive to retain their existing students rather than allowing them to move to learning institutions that provide vocational skills, because funding follows the student. This funding model does not serve DfE well when it attempts to establish new types of learning institution.<sup>36</sup> One of DfE's current proposals is for institutes of technology, which will be regional bodies set up through partnerships between local employers and education providers.<sup>37</sup> DfE explained that these institutes are intended to address a problem in the market, which is an absence of high-quality technical skills being taught post-16. As such, the institutes should provide an alternative offer from that delivered by school sixth forms.<sup>38</sup>

23. The involvement of employers from the outset should help the institutes of technology to align provision with local skills needs.<sup>39</sup> However, they are still likely to face a major challenge to persuade pupils to leave the school environment, not least because many parents and young people regard academic learning as superior to the acquisition of vocational skills.<sup>40</sup>

24. DfE risks wasting effort and money if it does not learn lessons from past initiatives, such as university technical colleges (UTCs). They have been in existence from 2010 onwards, but many have struggled to attract enough students to be financially viable, and some have already closed. DfE explained that UTCs have faced a particular challenge in designing a curriculum for 14- to 18-year-olds, because they are looking to take on students who are halfway through their secondary education.<sup>41</sup>

## Improving the quality of skills programmes

25. The Richard review of apprenticeships in 2012 identified that many existing apprenticeship frameworks did not have a sufficient focus on quality, and that employers were not sufficiently involved in influencing the off-the-job learning that their apprentices undertook.<sup>42</sup> In response, DfE has been introducing new apprenticeship standards, which are designed by employers and include a stipulation that apprentices should spend 20% of their time doing off-the-job training. There are currently over 280 new standards in place, of which 141 cover STEM-related job roles. We asked DfE whether the pace of change was sufficiently fast to provide the high-quality apprenticeships that are needed. DfE conceded

34 Ofsted, [School inspection handbook](#), April 2018, pages 56–57, 70–72

35 Q 103

36 Q 108

37 [C&AG's Report](#), para 4.5

38 Q 115

39 [C&AG's Report](#), para 4.5

40 Qq 111

41 Qq 107–109

42 Q 49

that the standards are not being introduced as quickly as it had hoped, but explained that it is crucial for the employers involved in designing each standard to take the time to ensure it meets their needs.<sup>43</sup>

26. A report from the Reform think-tank found that almost 40% of the ‘apprenticeship standards’ approved by government since 2012 did not reach the historical or international definition of an apprenticeship.<sup>44</sup> There is an increasing number of reports highlighting apprenticeships in job roles such as serving food and working in a hotel which, although valuable in themselves, do not necessarily seem appropriate to be framed as an apprenticeship.<sup>45</sup>

27. DfE explained that most of the apprenticeships referred to in the Reform report would have been the old-style frameworks, rather than the new standards which represent a much higher quality product.<sup>46</sup> DfE accepted that it is important to ensure that every apprentice is doing a “real” apprenticeship, with the appropriate amount of good quality off-the-job learning. This learning can be relevant to the tasks that the apprentice is doing today, but also to future tasks.<sup>47</sup>

28. DfE acknowledged that the old-style apprenticeship frameworks made it possible to offer low quality programmes of learning, some of which should not constitute an apprenticeship. DfE’s ongoing challenge is to ensure that this is not the case with the new apprenticeship standards, and Ofsted will continue to play its traditional role of assessing the quality of training being delivered. But it is concerning that frameworks will continue to be offered for some time, until the full set of new apprenticeship standards has been introduced.<sup>48</sup>

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43 Qq 46–47

44 Reform, [The great training robbery: Assessing the first year of the apprenticeship levy](#), April 2018, pages 4–5

45 Qq 48, 50

46 Q 48

47 Q 51

48 Qq 47, 51

# Formal minutes

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**Wednesday 13 June 2018**

Members present:

Meg Hillier, in the Chair

Sir Geoffrey Clifton-Brown	Shabana Mahmood
Chris Evans	Layla Moran
Caroline Flint	Anne Marie Morris
Luke Graham	Lee Rowley

Draft Report (*Delivering STEM skills for the economy*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 28 read and agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

Summary agreed to.

*Resolved*, That the Report be the Forty-seventh of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Monday 18 June 2018 at 2.30pm]

## Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

**Wednesday 18 April 2018**

*Question number*

**Jonathan Slater**, Permanent Secretary, **Paul Kett**, Director General for Education Standards, Department for Education, **Alex Chisholm**, Permanent Secretary, and **Professor John Loughhead**, Chief Scientific Adviser, Department for Business, Energy and Industrial Strategy

[Q1-148](#)

## Published written evidence

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The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

DSS numbers are generated by the evidence processing system and so may not be complete.

- 1 ASPIRES 2 Project, UCL Institute of Education ([DSS0002](#))
- 2 Creative Skillset ([DSS0003](#))
- 3 EngineeringUK ([DSS0006](#))
- 4 Institution Of Engineering and Technology ([DSS0001](#))
- 5 Royal Academy of Engineering ([DSS0009](#))
- 6 Royal Society of Chemistry ([DSS0010](#))
- 7 The Academy of Medical Sciences ([DSS0008](#))
- 8 The Association of the British Pharmaceutical Industry ([DSS0004](#))
- 9 The British Academy ([DSS0005](#))
- 10 The Recruitment & Employment Confederation ([DSS0007](#))

## List of Reports from the Committee during the current session

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All publications from the Committee are available on the [publications page](#) of the Committee's website. The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2017–19

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Second Report	Brexit and the future of Customs	HC 401 (Cm 9565)
Third Report	Hinkley Point C	HC 393 (Cm 9565)
Fourth Report	Clinical correspondence handling at NHS Shared Business Services	HC 396 (Cm 9575)
Fifth Report	Managing the costs of clinical negligence in hospital trusts	HC 397 (Cm 9575)
Sixth Report	The growing threat of online fraud	HC 399 (Cm 9575)
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