Written evidence submitted by the Education Policy Institute

What are the main factors leading to difficulties recruiting and retaining qualified teachers?

For some years now, the recruitment and retention of teachers has affected schools' ability to provide pupils with consistent access to high quality education. The DfE forecast that the number of secondary teachers will need to grow by 5,000 between 2020/21 and 2024/25. Unfortunately, recruitment targets are not being met and nearly a third of teachers leave the profession within five years of qualifying. If that persists, there will be fewer teachers than are required and pupil-teacher ratios will continue to rise in secondary schools.[1]

Unsurprisingly, pay strongly influences teacher recruitment and retention. Whether it be the amount they receive in teaching or, importantly, the pay they might receive in occupations outside of teaching, salary plays a significant role when deciding whether to enter, or remain within, the teaching profession.[2] Comparisons with other occupations are particularly salient at the beginning of a teacher's career, because young graduates often have many good job options available to them. In contrast, a senior teacher has invested heavily in their teaching skills and is less likely to switch occupations solely because of differences in pay.

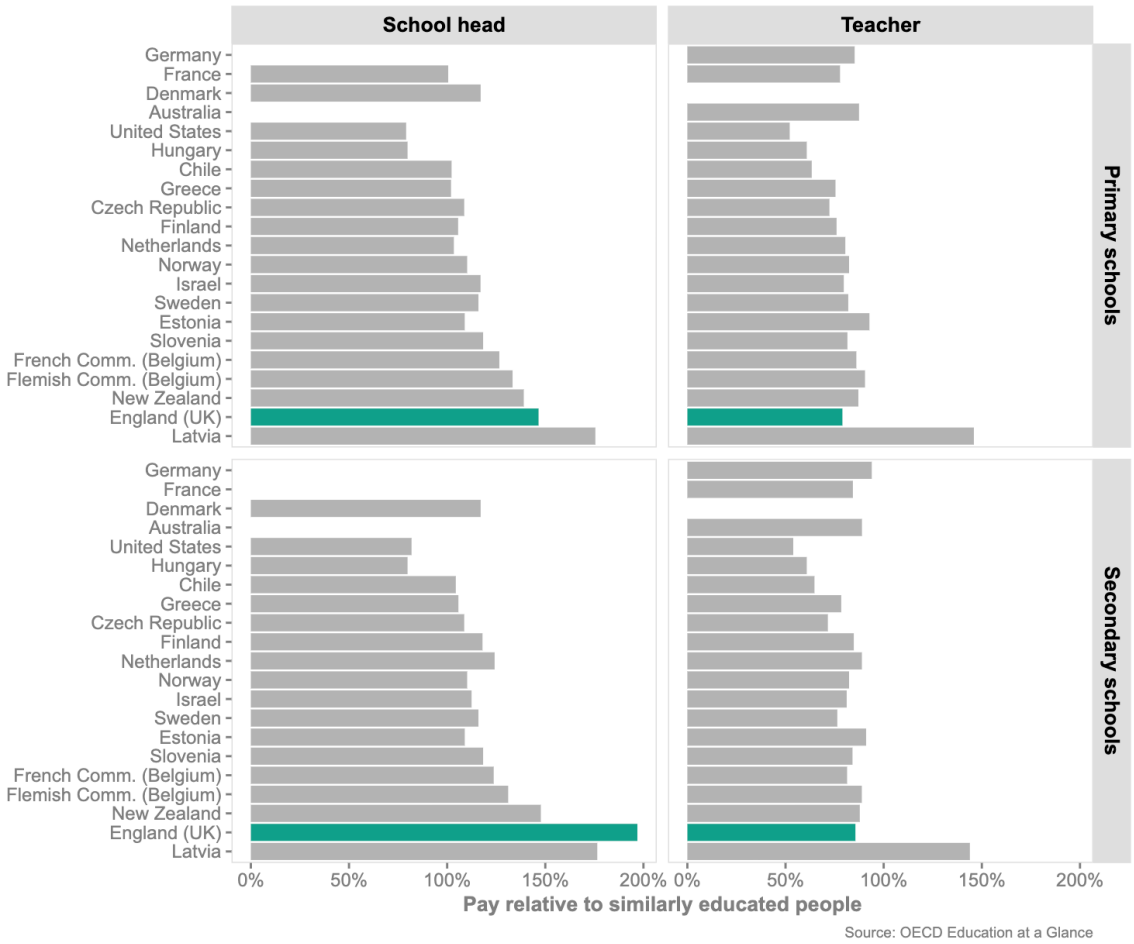
Internationally, England is unusual in having allowed teachers' pay to fall in real terms over the past decade.[3] The IFS calculate that, between 2007 and 2014, teachers' pay fell by 8 per cent after accounting for inflation; across the rest of the economy, average earnings fell by only 6.5 per cent. Since then, earnings for teachers on the main pay scale have risen by between 3 and 5 per cent but they have remained flat on the upper pay scale. In contrast, earnings in the rest of the economy rose by nearly 8 per cent in that time, leaving teachers' pay far less competitive in 2021 than it was 14

[1] James Zuccollo, 'Teachers' Pay in Context', *Education Policy Institute* (blog), 1 July 2022, https://epi.org.uk/publications-and-research/teachers-pay-in-context/.
[2] Peter J. Dolton, 'The Economics of UK Teacher Supply: The Graduate's Decision', *The Economic Journal* 100, no. 400 (1990): 91–104, https://doi.org/10.2307/2234187.
[3] Zuccollo, 'Teachers' Pay in Context'.

years earlier. This means that the real value of the upper pay scale has fallen by 8 per cent and, for teachers on the main pay scale, it has fallen by over 4 per cent.[4]

In comparison to other OECD nations, it leaves England near the bottom of the table for pay growth over the 2010s. The UK is mid-pack for the pay of its classroom teachers (70-80 per cent of average pay for similarly educated people) among OECD nations but pays its head teachers extremely well (150-200 per cent of similarly educated, see Figure 1).[5]

Figure 1 Teachers relative pay across the OECD

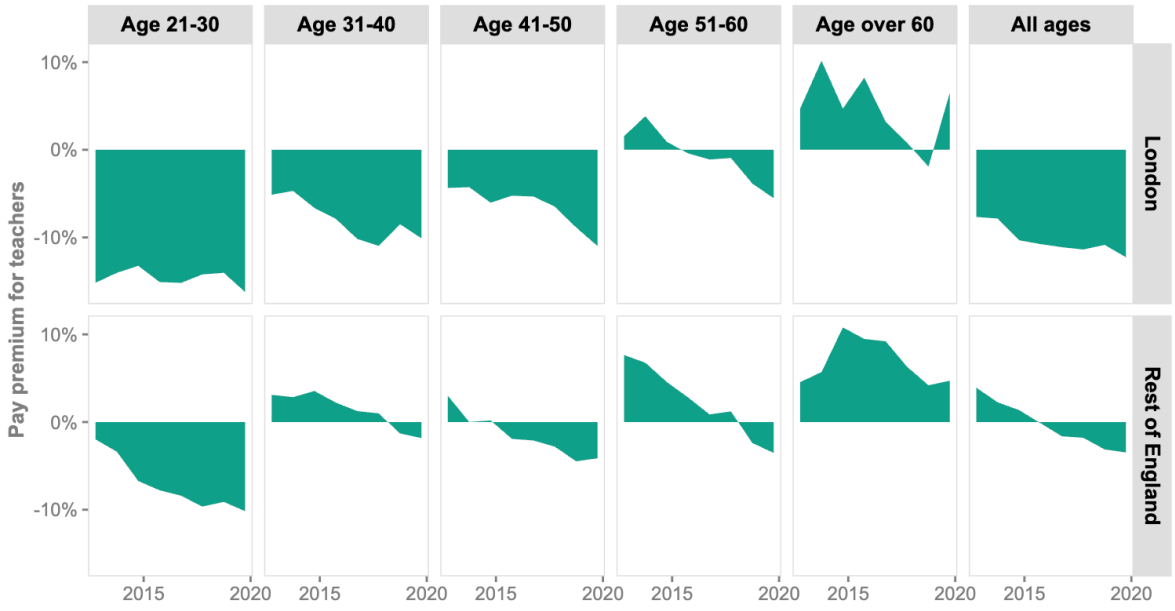


Comparing teaching to other graduate occupations, the STRB found that the earnings of young teachers (under 30) have fallen about 10 per cent behind those of other young professionals, whereas the earnings of experienced teachers are still comparable to those of their professional

[4] Jonathan Cribb and Luke Sibieta, 'The Long, Long Squeeze on Teacher Pay', Institute for Fiscal Studies, 23 July 2021, https://ifs.org.uk/articles/long-long-squeeze-teacher-pay.
[5] OECD, *TALIS 2018 Results (Volume I)* (Paris, France, 2019), https://doi.org/10.1787/1d0bc92a-en.

peers (Figure 2). The differentiated pay increases proposed by the government, which favour early-career teachers, may help mitigate this discrepancy.[6]

Figure 2 Young teachers' pay penalty has been rising



Source: STRB report 2021, Figure 4

International evidence indicates that for every 1 per cent increase in teachers' pay, the number of teachers leaving the profession decreases by about 3 per cent. That means a 5 per cent salary supplement for existing STEM teachers over the past decade might have entirely avoided the present shortage in those subjects, for example.[7]

This is borne out by the initial evaluations of the government's 2019/20-2020/21 retention payments for teachers in shortage subjects. UCL researchers estimate that the payments reduced the chances of a teacher leaving the profession by 23 per cent. They calculate that, for every 100 ECTs, 27 would presently be expected to quit teaching by their third year. Because of the retention policy, 5 of those 27 stayed.[8]

This empirical evidence suggests that pay is not only an extremely important lever for improving recruitment and retention, but it is also one that both schools and the government can use to effect

[6] School Teachers' Review Body, 'School Teachers' Review Body: Thirty-First Report - 2021.', July 2021, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005678/STRB_2021_Web_Accessible.pdf.

[7] Sam Sims, 'What Happens When You Pay Shortage-Subject Teachers More Money? Simulating the Effects of Early-Career Salary Supplements on Teacher Supply in England' (London: The Gatsby Charitable Foundation, November 2017), http://www.gatsby.org.uk/uploads/education/datalab-simulating-the-effect-of-early-career-salary-supplements-on-teacher-supply-in-england.pdf.

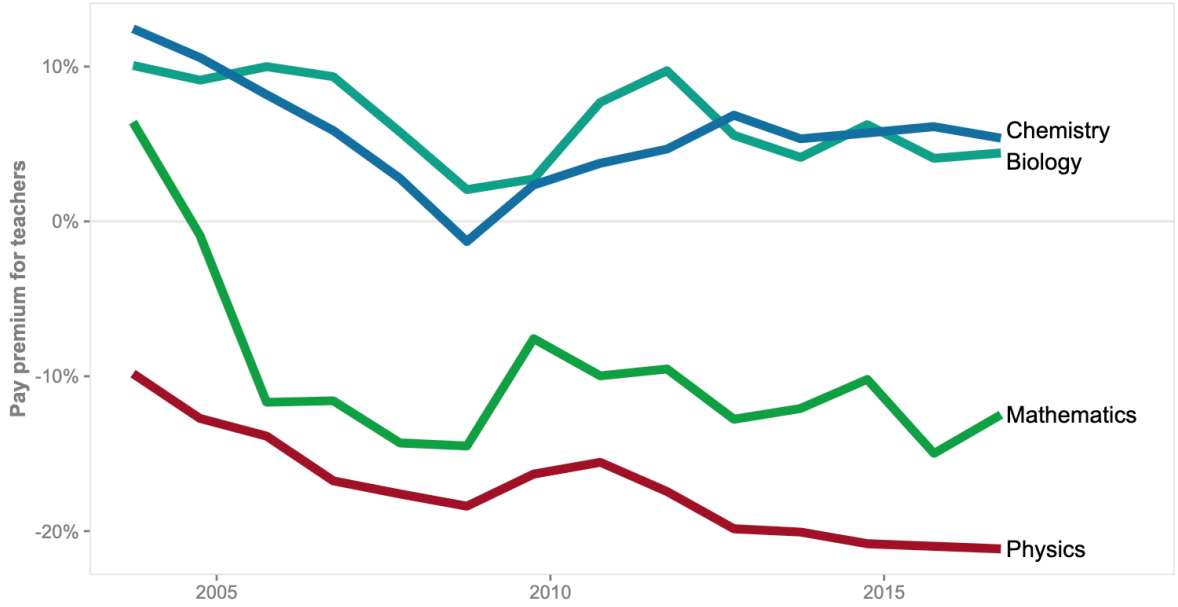
[8] Sam Sims and Asma Benhenda, 'The Effect of Financial Incentives on the Retention of Shortage-Subject Teachers: Evidence from England', Working Paper (London: CEPEO, April 2022).

rapid change. That contrasts with longer-term initiatives to reduce teachers' workload and improve leadership and support. Those remain important, but they take longer to pay off in improved retention and a more positive impression of the profession among potential teachers.

Which subjects are most affected?

The pay penalties experienced by teachers are most significant in shortage subjects like maths, physics, chemistry, and biology (Figure 3). That is largely because graduates with degrees in these subjects typically earn more outside teaching than, for example, graduates in geography and history. To pick one subject as an example, NFER assessed the pay of comparable physics graduates inside and outside teaching and found teachers' starting salaries were 27 per cent lower than the starting salary in other professions. That goes some way to explaining why just 17 per cent of the initial teacher training target was recruited last year in the subject.

Figure 3 Teachers' pay penalty has been rising in shortage subjects



Source: NFER (2022), Assessing the impact of pay and financial incentives in improving shortage subject teacher supply

Similarly, EPI research in 2018 found that maths and most science subjects struggle to attract highly qualified teachers, with as little as half of teachers holding a degree relevant to the subject they teach. Under 50 per cent hold a relevant degree in maths and physics. These subjects, with the lowest proportion of highly qualified teachers, are also those with the greatest recruitment and retention problems.[9]

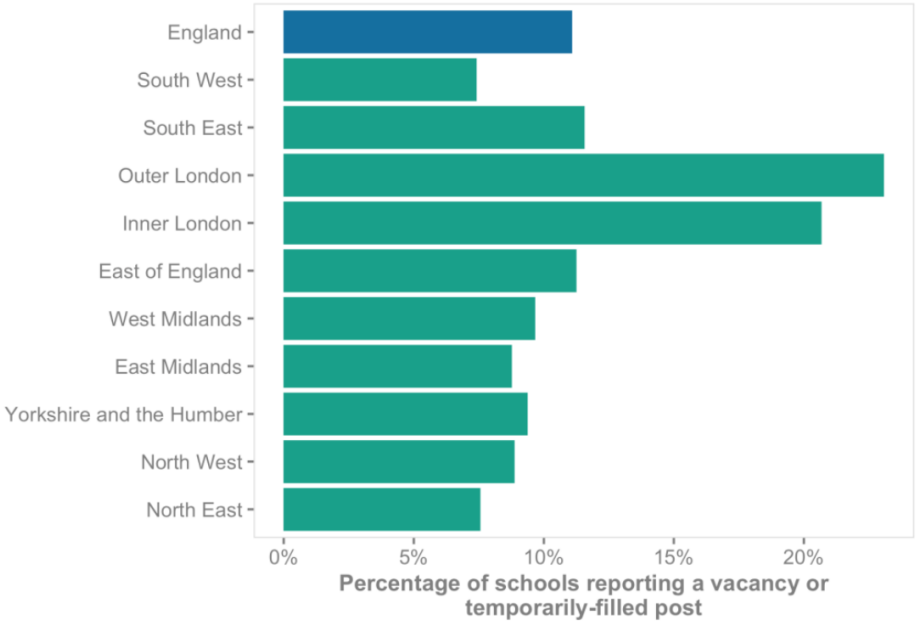
[9] Luke Sibieta, 'The Teacher Labour Market in England: Shortages, Subject Expertise and Incentives' (London: Education Policy Institute, 30 August 2018), https://epi.org.uk/publications-and-research/the-teacher-labour-market-in-england/.

In addition to the differences across subjects, the ITT recruitment data showed that the overall attainment of graduates entering the profession is declining, with 75 per cent holding a first class or 2:1 degree last year, down from 78 per cent in the previous year despite more graduates attaining these grades across the population.[10] It is difficult to measure the quality of applicants to teacher training, but the declining competitiveness of the profession and falling attainment of entrants suggests that teaching may not be attracting the quality of applicants we would hope.

How does the situation differ across the country and across different types of schools and colleges?

Teachers' pay is similar across England, but the earnings of graduates are not. EPI's research found that the variation that does exist because of the pay regions is dwarfed by the much larger differences in non-teaching professionals' pay. For example, in the high-earning regions around London, there are areas where teachers earn over £5,000 per year less than non-teaching professionals. However, in the less affluent area around Penzance and Falmouth, teachers earn £9,000 more than other professionals. Unsurprisingly, over 20 per cent of schools in London report carrying vacancies and temporary appointments into the academic year, but fewer than 10 per cent of schools in the South West have that problem (Figure 4).[11]

Figure 4 Proportion of schools reporting a vacancy or a temporarily filled post



Source: STRB report 2020/21 drawing on analysis of DfE School Workforce in England, November 2018 by the Office of Manpower Economics[14]

[10] Department for Education, 'Initial Teacher Training Census, Academic Year 2022/23', 1 December 2022, https://explore-education-statistics.service.gov.uk/find-statistics/initial-teacher-training-census/2022-23.
[11] Joshua Fullard and James Zuccollo, 'Local Pay and Teacher Retention in England' (London: Education Policy Institute, 20 May 2021), https://epi.org.uk/publications-and-research/local-pay-and-teacher-retention-in-england/.

STRB analysis in 2018 also found that retention rates are far lower in London than in the rest of the country. Five years after graduating, 39 per cent of new teachers who began in London had quit the profession. In contrast, for the rest of England, only 29 per cent were no longer teaching in state-funded schools. These stark differences in pay simply make teaching a less attractive profession to graduates in high-earning areas of the country.

What impact does this have on pupils, particularly disadvantaged pupils and those with SEND?

Teachers' pay in shortage subjects in disadvantaged schools is around £1,500 lower than in the most affluent schools and these schools also often experience greater difficulties in filling teaching posts. Recruitment difficulties often indicate that a school is struggling to attract a high-calibre pool of applicants, which can affect the quality of teaching when schools need to fill positions.

The main reason for lower pay is that the teachers recruited in disadvantaged schools have less experience than those in more affluent schools. It suggests that schools with a disadvantaged pupil intake may not be using the additional funding they receive through the pupil premium to attract more experienced and skilled teachers.

The picture is notably different in London, where disadvantaged schools are on average paying an extra £1,500 per year to teachers in shortage subjects, even after accounting for teacher experience. Pupils eligible for free school meals also typically have better exam performance in London, though the evidence is insufficient to causally relate these phenomena: the 'London effect' has been observed across multiple aspects of education in recent decades.[12]

EPI analysis in 2020 revealed that 22 per cent of schools in the most affluent areas report vacancies or temporarily filled positions – but this increases to around 29 per cent of schools in the most disadvantaged areas outside London and 46 per cent in the most disadvantaged areas inside London. The schools in disadvantaged areas also hire less experienced teachers and those teachers are more likely to be off sick than those in more affluent schools, taking 50 per cent more sick leave on average each year. Across an average secondary school, this equates to about an extra 100 days lost to sickness a year.[13]

[12] Department for Education, 'Examining the London Advantage in Attainment: Evidence from LSYPE' (London: Department for Education, 20 November 2020), https://www.gov.uk/government/publications/examining-the-london-advantage-in-attainment-evidence-from-lsype.
[13] Luke Sibieta, 'Teacher Shortages in England: Analysis and Pay Options' (London: Education Policy Institute, 2 March 2020), https://epi.org.uk/publications-and-research/teacher-shortages-in-england-analysis-and-pay-options/.

A recent report by NFER indicates that the situation may have worsened since the pandemic, with the number of teacher vacancies posted by February of the 2022/23 academic year 93 per cent higher than at the same point in the year prior to the pandemic.[14]

Problems are particularly pronounced in shortage subjects, where many schools struggle to recruit teachers with a degree relevant to the subject they are teaching. In areas outside of London, EPI's research found that just over a third (37 per cent) of maths teachers and just under half (45 per cent) of chemistry teachers in the poorest schools had a relevant degree. In more affluent schools outside of London, the proportions are far higher for maths (51 percent) and chemistry (68 per cent).[15]

What action should the Department take to address the challenges in teacher recruitment and retention?

The Department should focus pay policy on ensuring that teachers' salaries are competitive with alternative graduate occupations, particularly for early-career teachers who are most likely to leave the profession. Specifically, that might include:

- Increasing the level of teachers' pay, particularly among early-career teachers, to restore competitiveness with other graduate occupations.
- Continuing with retention payments for early-career teachers through the levelling-up premium and early-career payments schemes, to mitigate the number of teachers leaving the profession.
- Focus the uplift payments for teaching in challenging areas on the most disadvantaged 20-25 per cent of schools, rather than specific local authorities. This will create an additional incentive to teach at disadvantaged schools and be better targeted than the existing approach, which can exclude schools with high proportions of poorer pupils.
- Ensure schools with large numbers of new teachers (including many disadvantaged schools) receive sufficient resources to pay for their new, higher, starting salaries. This could be achieved through changes to the national funding formula and ensuring that the overall distribution of additional funding for schools remains progressive.
- Reducing the pay gap in high-paying, high-cost, or unattractive areas. The existing London pay regions do not provide enough additional pay support to close the pay gap in London, nor do they cover the other high-paying, high-cost regions of the country, many of which are close to the London area. Reviewing the pay regions will also require reviewing the way the funding formula is adjusted to account for local pay.

[14] Dawson McLean, Jack Worth, and Henry Faulkner-Ellis, 'Teacher Labour Market in England Annual Report 2023' (Slough: NFER, 23 March 2023), https://www.nfer.ac.uk/teacher-labour-market-in-england-annual-report-2023/.
[15] Sibieta, 'The Teacher Labour Market in England'.

What has been the impact of the new bursaries and scholarships announced in October?

It is too soon to say with existing data. However, it is likely that the bursaries will continue to have an effect, which NFER estimate to be a 2.9 per cent increase in teacher training applications for each additional £1,000 of bursary paid.[16]

How well does the current teacher training framework work to prepare new teachers and how could it be improved?

What has been the impact of the Early Career Framework implemented in September 2021?

It is too soon to say whether the ECF has improved recruitment, retention, or teaching quality. Not only is the data not yet available, but the programme is still dealing with implementation challenges. Teacher Tapp's surveys of teachers indicate, for example, that there are too few expert mentors who share a specialism with their mentee, and finding time to dedicate to mentoring and training has proven challenging. In October 2022, their survey revealed that only 10 per cent of ECTs and mentors said the training was a good use of their time. However, the majority remained supportive of the ECF and believed it could be improved.[17] These challenges need to be addressed before researchers can evaluate the impact of the reforms.

Are there ways in which teacher training could be improved to address the challenges in recruitment and retention?

It is difficult to pinpoint the effect of training on teacher retention. In 2020, EPI and Ambition Institute conducted a rapid review of evidence on the impact of professional development. Of 53 randomised control trials we reviewed, only 7 quantified the effect on teachers and only 2 of those assessed retention. Neither found a significant impact.[18]

We also examined two non-experimental studies that addressed retention explicitly. The first found that induction support significantly increased retention and that these effects persisted over the first 5 years of teachers' careers. The analysis was unable to identify which specific forms of support were most effective but concluded that a 'package of supports', including induction training and mentoring, can be of critical influence.

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[16] Jack Worth, Sarah Tang, and Maria Galvis, 'The Impact of Pay and Financial Incentives on Teacher Supply' (Slough: NFER, 23 June 2022), https://www.nfer.ac.uk/the-impact-of-pay-and-financial-incentives-on-teacher-supply/.

[17] Iain Ford, Becky Allen, and Karen Wespieser, 'Early Career Framework: One Year On' (Teacher Tapp, October 2022), https://teachertapp.co.uk/app/uploads/2022/10/2022-10-Early-Career-Framework-TT-Gatsby-Final.pdf.

[18] Harry Fletcher-Wood and James Zuccollo, 'The Effects of High-Quality Professional Development on Teachers and Students: A Rapid Review and Meta-Analysis' (London: Education Policy Institute, February 2020), https://epi.org.uk/publications-and-research/effects-high-quality-professional-development/.

The second studied the effect of science teachers taking part in the National STEM Learning Network. It found a dramatic increase in retention in the profession, particularly among early career teachers.

These are only two studies of two specific interventions, but they indicate that professional development can be the difference between remaining in teaching and leaving the profession for some teachers. However, they do not reveal the critical elements of those programmes that were particularly appealing to teachers.

How does teacher training in England compare internationally, and what are the benefits and disadvantages of the English system?

NO RESPONSE

How do challenges in teacher recruitment, training and retention compare to those being faced in other professions/ sectors of the economy, and is there anything that can be learned from other professions/ sectors of the economy?

NO RESPONSE

What particular challenges exist in teacher recruitment, training and retention for teachers from different demographic backgrounds?

How well does the demographic makeup of the teaching workforce reflect that of the pupils they teach?

Figures from the DfE show that the teaching workforce is disproportionately female and ethnic minorities are also under-represented. In 2021:

- 85.1 per cent of all teachers in state-funded schools in England were white British (of those whose ethnicity was known) – by comparison, 70.8 per cent of the working age population in England was white British at the time of the 2021 Census.
- 92.5 per cent of headteachers were white British.
- 75.7 per cent of teachers were women, and there were more female than male teachers in every ethnic group.

Encouragingly, EPI analysis in 2020 found that the teaching profession has become more representative in England over time.[19] 16.2 per cent of secondary school teachers (up from 13.1 per cent in 2010) and 10.6 per cent of primary school teachers (up from 8.5 per cent in 2010) were from ethnic minority backgrounds, compared to 16 per cent of the population. Progress is welcome, but it is clear that more must be done, particularly in encouraging underrepresented groups into STEM subjects.

However, gender imbalances have increased in the profession. 35.5 per cent of secondary school teachers (down from 37.7 per cent in 2010) and 14.1 per cent of teacher in primary schools (up from 12.7 per cent in 2010 but unchanged since 2016) are male.

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[19] Joshua Fullard, 'Trends in the Diversity of Teachers in England', Education Policy Institute, accessed 11 January 2021, https://epi.org.uk/publications-and-research/diversity-of-teachers/.