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Introduction

The recruitment, development and retention of teachers and school leaders is a crucial underpinning for a successful education system. However, England’s school system faces a substantial and growing challenge of ensuring there are sufficient numbers of high-quality teachers employed in schools. Meeting this supply challenge is necessary for the school system to deliver a high-quality education for all children and young people.

In January 2019, the Department for Education (DfE) published its teacher recruitment and retention strategy. The strategy outlines the key policy areas the Department intends to focus reform and investment on. The aim of the strategy is to ensure that careers in teaching are attractive, sustainable and rewarding, and thereby improve teacher recruitment and retention.

NFER’s annual Teacher Labour Market report aims to monitor the progress the school system is making towards meeting the teacher supply challenge by measuring the key indicators and trends of teacher supply and working conditions.

We analyse DfE census data on teacher recruitment and retention to assess the current state of the teacher labour market. We also present new analysis of the latest data on teachers’ working conditions, and how they compare to similar individuals in other professions, from the Labour Force Survey (LFS) and UK Household Longitudinal Study (UKHLS).

Recruitment and retention trends suggest that teacher supply in England is very likely to remain an important issue over the next few years. There are some early signs of progress, but the trends are a sharp reminder that the profession is facing many challenges attracting and keeping teachers in our schools.

Jack Worth, NFER
School Workforce Lead
TEACHER SUPPLY AND SHORTAGES

Secondary teacher supply/shortages
- Recruitment to ITT vs target (19/20)
- Shortage subject recruitment (19/20)
- Retention rate (18/19)
- Vacancies (18/19)
- Class sizes (18/19)

Primary teacher supply/shortages
- Recruitment to ITT vs target (19/20)
- Retention rate (18/19)
- Vacancies (18/19)
- Class sizes (18/19)

Alternative sources of supply
- Returners (18/19)
- QTS for overseas teachers (18/19)

Early-career teacher retention
- NQT- year 2 (18/19)
- Year 2-3 (18/19)
- Year 3-4 (18/19)
- Year 4-5 (18/19)

TEACHER WORKING CONDITIONS

Workload
- Full-time working hours (18/19)
- Desire to reduce hours (18/19)

Pay
- Real-terms gross pay (18/19)
- Income satisfaction (17/18)

Part-time (PT) working - primary
- Working PT (18/19)
- Demand to work PT (18/19)

PT working - secondary
- Working PT (18/19)
- Demand to work PT (18/19)

Satisfaction
- Job satisfaction (17/18)
- Work-related stress (16/17)
- Job security (16/17)
- Life satisfaction (17/18)
Teachers’ term-time working hours are lower in 2018/19
Our estimates using data from the LFS show that teachers work longer term-time hours than other professionals in a typical week. However, the data suggests that teachers’ working hours have reduced, as did the 2019 Teacher Workload Survey. This suggests that policy action to reduce teacher workload is seeing some success, which may lead to improved retention in future. Fewer teachers also report that they would prefer to work shorter hours than they currently do, which may suggest that some teachers’ perceptions of their work-life balance are improving.

Secondary teacher training entry remains below target
Despite the number of entries to postgraduate secondary teacher training increasing in 2019/20 compared to the year before, secondary recruitment remains substantially below the numbers required to meet demand. The recruitment situation has significantly worsened for perennial shortage subjects such as physics, maths, modern foreign languages (MFL) and chemistry, while being healthy in biology, history and English. Under-recruitment is likely to lead to increasing shortages. Secondary class sizes are rising: the proportion of pupils in classes of more than 30 has risen from 9.4 per cent in 2013/14 to 13 per cent in 2018/19.

Teacher retention rates have improved slightly in 2018/19
Retaining more teachers means fewer new teachers would be required to meet recruitment needs. The leaving rate has fallen by 0.5 percentage points in 2018/19. While this may seem small, it represents 1,350 teachers, which represents nearly half of the under-recruitment to initial teacher training (ITT) in 2019/20. Sustaining higher retention rates, or improving them further, could make future recruitment targets easier to meet and ease supply pressures.

Median teacher pay remains in line with pay in other professions
DfE’s proposed pay increases for 2020/21 are likely to keep pay in line with similar professionals. The DfE’s changes also target higher pay increases at early-career teachers (ECTs), with lower pay increases for experienced teachers. This could have a negative impact on experienced teacher retention, but as ECTs have the highest leaving rates and are most responsive to pay differentials, this is probably a calculated risk that is worth taking. London’s schools face more significant supply challenges than other areas. However, DfE proposes to reduce London’s starting salary premium, which risks exacerbating this.

Fewer NQTs are being retained into their second year
The retention rate of newly qualified teachers (NQTs) into their second year of teaching has continued to fall, as has the rate for second years going into their third year, while the retention rates of other groups of ECTs have stabilised. The expectation of mentoring and workload support through the Early Career Framework may help to retain these groups once rolled out nationally from September 2021. Substantially above-inflation pay increases targeted at ECTs are also likely to improve retention.

Language teacher supply is highly reliant on European nationals
The number of European Economic Area (EEA) nationals being awarded qualified teacher status (QTS) in England has reduced further in 2018/19, which may be a sign that the UK is a less attractive destination following the 2016 EU referendum. While the proportion of EEA nationals training in the ITT system has remained stable since 2016, creating future barriers to EEA nationals training to teach in the English ITT sector would pose a significant risk to teacher supply for modern foreign languages, where EEA nationals represent 30 per cent of trainees.
Secondary school teacher labour market

The labour market for secondary teachers faces a substantial and growing challenge of ensuring adequate supply. The challenge is intensified by increasing pupil numbers, which are set to continue growing by a further 11 per cent between 2018/19 and 2023/24.

The number of postgraduate ITT entries has increased in 2019/20, but remains well below the target for adequate supply

The overall number of trainees entering secondary ITT increased in 2019/20, as it had in the previous year. However, ITT entry remains below the target set by the teacher supply model (TSM), by 15 per cent in 2019/20 compared to 17 per cent in 2018/19. The forecast for future ITT entry remains around 20,000 per year as pupil numbers are forecast to continue increasing.

The leaving rate among secondary teachers improved in 2018/19

While more teachers entered the secondary sector in 2018/19 than left, there are not enough to meet the additional demand from growing pupil numbers, which is likely to be leading to an increase in teacher shortages (see page 9). Reducing the number of teachers leaving the profession could help to alleviate the supply challenge by reducing the number of new entrants required to meet demand.

The rate of teachers leaving teaching in state-sector secondary schools fell from 10.4 per cent in 2017/18 to 9.9 per cent in 2018/19, which represents around 1,350 fewer teachers leaving compared to the previous year. Retaining more teachers means fewer new teachers are needed to meet recruitment needs: 1,350 teachers represents nearly half of the under-recruitment to ITT in 2019/20. Recent policy changes, such as increasing teacher pay above inflation and initiatives to reduce workload, may have contributed to improved retention, as well as external factors such as conditions in the wider labour market.
Primary school teacher labour market

At a national level, the labour market for primary teachers appears to be relatively healthy. The number of trainees is largely meeting demand, although ITT entry in 2019/20 was just below target.

Postgraduate primary ITT entry is generally meeting targets

Entry to primary ITT in 2019/20 was just four per cent below the government’s target, having been three per cent above target in the previous two years. The forecast for future ITT entry is lower than in 2019/20, mostly because primary pupil numbers are forecast to fall slightly over the next eight years.

Unlike in the secondary sector, primary teacher training has a large number of undergraduate trainees as well as postgraduate trainees. The number of primary undergraduate trainees has fallen from 7,352 who were due to enter teaching in 2016/17 to 4,615 due to enter in 2020/21. However, the number of primary undergraduate trainees due to enter teaching in 2021/22 has risen by 397 to 5,012, which also partly explains why fewer postgraduate trainees are likely to be needed in future years.

The leaving rate among primary teachers improved in 2018/19

The primary teacher leaving rate also decreased this year, from 9.6 per cent in 2017/18 to 9.3 per cent in 2018/19. It remains in line with the approximate level since 2010/11 of between 8 and 10 per cent, but the lower rate represents around 850 fewer teachers leaving than last year. This difference helps to keep the requirement for new trainees lower than it otherwise would be. The rate of primary teachers leaving the state sector is lower than the secondary rate.

Sources: ITT census, Teacher Supply Model.

Sources: School Workforce in England: November 2018.
Alternative sources of teacher supply

While ITT is the largest single source of new teachers into the sector, there are a number of other sources of teachers that could help increase supply.

Returners

There are 260,000 qualified ex-teachers who have previously taught in the state sector, 87,000 of whom are under age 40. Each year around 16,000 returners re-enter teaching in the state-sector, but the numbers have not increased significantly in the last six years, in contrast to the number of new trainees. Programmes aimed at increasing the number of returners have not seen much success (Buchanan et al., 2018). However, teacher pay increases and measures to reduce workload and improve flexible working may encourage more returners to enter in future.

QTS awards for overseas teachers

Teachers who have qualified in EEA countries can apply to be awarded QTS in England, enabling their qualifications to be recognised. However, not all awards result in teachers entering teaching in England. The number of EEA-trained teachers gaining QTS increased from 2010/11 to 2015/16, but has decreased since. This may reflect the UK being a less attractive destination following the EU referendum. The number of QTS awards for teachers from applicable non-EEA countries (Australia, New Zealand, USA and Canada) has remained stable over time.

However, data on the nationality of trainees shows that the number of EEA nationals training in the English ITT system have, in fact, very slightly increased since 2016. EEA nationals represent around five per cent of all trainees, and non-EEA nationals another two per cent. Almost a third of trainees in MFL are EEA nationals. Creating future barriers to EEA nationals training to teach in England would therefore pose a major risk to future supply of MFL teachers into the system.
Teacher shortages

The impact of national-level teacher recruitment and retention trends on school operations is challenging to measure accurately using existing administrative data. However, proxy measures that are available appear to show that shortages seem to have increased over the last five years, particularly in secondary schools, which is consistent with national recruitment and retention trends.

**Secondary class sizes have been rising since 2013/14**

The average class size in secondary schools has risen from 20.1 in 2013/14 to 21.7 in 2018/19. At the same time the proportion of pupils in classes of more than 30 has increased from 9.4 per cent to 13 per cent. Under-supply of teachers is likely to be a significant factor behind this trend, which is likely to continue as under-recruitment to ITT in 2019/20 feeds through next year.

The proportion of primary pupils in classes larger than 30 has remained stable in recent years. While the proportion has been higher in primary than secondary since 2010/11, the two have the same proportion (13 per cent) in 2018/19.

**The number of secondary unfilled teaching posts have also risen**

The number of vacancies and temporarily-filled posts as a proportion of all teaching staff has also risen steadily in secondary schools, from 0.3 per cent in 2011/12 to 0.9 per cent in 2018/19. The rate of unfilled posts in primary schools was rising slightly until 2016/17, and has fallen over the last two years. Primary and secondary trends in recruitment and retention suggest that this divergence may continue in the next few years. It may also be the case that secondary schools increasingly mitigate supply issues through other measures, such as curriculum changes.

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![Proportion of pupils in classes with more than 30 pupils (%)](source)
![Rate of vacancies and temporarily-filled posts (%)](source)

Source: Schools, pupils and their characteristics: January 2019.
Focus on: early-career teachers (ECTs)

The first few years of a teacher’s career are critical years when the right development opportunities, nurture and support can make or break a sustained future career. ECTs were a major focus in DfE’s recruitment and retention strategy and continue to be a group of major policy focus.

Retention rates continued to fall for NQTs and second year teachers in 2018/19, but are relatively stable for other ECTs

The data on ECT retention unsurprisingly shows that the longer teachers spend in the profession, the less likely they are to leave. In other words, teachers are more likely to leave between their NQT and their second year in teaching than they are between their second and third year, and so on. However, the data shows that an increasing number of NQTs are being lost from cohorts in the year immediately after their first year, as are second-year teachers. In contrast, retention rates of third- and fourth-year teachers have been largely stable over the last two or three years.

DfE’s Early Career Framework (ECF) aims to target these specific groups with additional time off timetable, curricula and training materials and mentor support. The ECF early roll-out will begin in selected areas in 2020, with a national roll-out from 2021. The prospect of this support in teachers’ first two years could help to reduce the increasing rate of teachers leaving at this point in their careers.

Proposed changes to the teacher pay structure for 2020/21 are set to increase the pay of NQTs by 6.7 per cent and increase second-year teachers’ pay by 5.8 per cent. This could also improve retention among NQTs, and ECTs more generally.

Note: Measures the net change in the proportion of a qualifying cohort of teachers that are in service from one year to the next. For example, 85.1 per cent of the cohort that qualified in 2016 were in service in November 2017 and 77.5 per cent were in service in November 2018. Therefore, between their second year and third year, the proportion of the cohort in service reduced by 7.6 percentage points. The measure is not a ‘leaving rate’: while it includes teachers from the cohort of NQTs who left in that year, it also nets out those from the cohort who return to, or enter, service in that year.
**Focus on: shortage subjects**

Teacher supply challenges are particularly acute in long-standing secondary shortage subjects such as sciences and maths. Under-recruitment to ITT in these subjects is translating into increasing rates of vacancies and temporarily-filled posts.

**ITT recruitment in shortage subjects is increasingly below target**

Recruitment to ITT in 2019/20 is further below target in physics, maths, MFL and chemistry compared to previous years, compounding existing under-supply. In contrast, recruitment to English and history ITT has remained at or above target. Recruitment of science teachers overall has been bolstered in the last two years by more than 50 per cent over-recruitment of biology teachers.

**Maths and sciences have a high rate of unfilled teaching posts**

Rates of unfilled teaching posts (either vacant or temporarily-filled at the time of the November census) are higher than average in maths and sciences, which reflects the greater recruitment challenges faced in these subjects.

Deteriorations in ITT recruitment for maths, sciences and MFL may lead to increasing numbers of unfilled posts in future years. However, schools may mitigate under-supply in other ways, such as curriculum changes (e.g., increasing entry to double science GCSE rather than individual sciences). The rate of unfilled MFL posts is lower than maths and sciences and similar to history, even though recruitment to ITT in MFL has been persistently below target. Despite the relative importance of MFL GCSEs in the Progress 8 accountability measure, MFL GCSE entries have been falling as a proportion of total entries over the last five years (Ofqual, 2019). Schools therefore seem not to be expanding (even reducing) their MFL curriculum offer to pupils, perhaps because doing so risks failing to recruit a suitable teacher.
Teacher workload

Unmanageable workload is consistently the most-cited reason ex-teachers give for why they left the profession, so trends in workload may predict the direction that teacher retention may go in future. Reducing teacher workload has been a major focus for DfE.

**Teachers’ working hours have reduced in 2018/19, but term-time hours remain higher than in other professions**

The DfE Teacher Workload Survey, published in October 2019, found that full-time teacher working hours fell from 56.7 in 2016 to 52.9 in 2019 (Walker et al., 2019). Other data sources such as the LFS and OECD’s TALIS survey did not find a similar fall in working hours, but both only measured up to 2017/18 (Jerrim and Sims, 2019). Our latest analysis of LFS data corroborates that there was a fall in working hours in 2018/19. Full-time teacher working hours in a usual (term-time) working week are down to 48.3 hours from 49.3 the previous year. Another LFS measure – hours worked in the previous week, where the individual was scheduled to work Monday-Friday and had no sick days – also fell from 48.2 hours last year to 46.8 hours in 2018/19 (see data appendix).

This may be emerging evidence that the substantial joint campaign launched by DfE, Ofsted and teaching unions in March 2018, which aimed to reduce teacher workload, is having some success. However, teachers still work longer hours in term time compared to other professionals during a normal working week. While some progress appears to have been made, continued progress is needed to make teaching a more sustainable profession.

**The number of teachers wanting to reduce their working hours has also fallen slightly**

More than half of full-time teachers report that they would like to work fewer hours than they currently do, compared to just under half of full-time similar professionals. However, the proportion of full-time teachers wanting to reduce their working hours has fallen from 63 per cent in 2017/18 to 57 per cent in 2018/19. This suggests that teachers’ perceptions of their workload may also be improving.
Teachers' dissatisfaction with their amount of leisure time remains higher than in other professions

Teachers’ long term-time working hours can compromise their ability to achieve a good work-life balance. UKHLS data shows that a greater proportion of teachers report being dissatisfied with their amount of leisure time compared to similar professionals up to 2017/18. Data on leisure time satisfaction for 2018/19, which will be released next year, may reveal that teachers’ lower working hours in 2018/19 translate into teachers’ perceptions of their work-life balance having improved.

Teacher autonomy affects how workload feels, and is lower than among similar professionals

Workload is often conceptualised simply as the number of hours teachers work, but the DfE recruitment and retention strategy states that ‘[workload] is also about teachers feeling in control of their work’ (DfE, 2019). NFER’s recent research on teachers’ sense of professional autonomy shows that autonomy is a key part of the relationship between unmanageable workload, job satisfaction and retention (Worth and Van den Brande, 2020). Increasing teacher autonomy could lead to more teachers finding their workload manageable, increased job satisfaction and improved retention.

UKHLS data up to 2016/17 shows that while teachers have a relatively high level of influence over the pace at which they work, how they do their work, what tasks they do and the order in which they carry out tasks, their self-reported autonomy is lower than among similar professionals. The level of autonomy reported in both groups has not significantly changed since at least 2010/11. Next year’s UKHLS data release will show whether teacher autonomy has changed between 2016/17 and 2018/19.

Source: UK Household Longitudinal Study.
Teacher pay

In a competitive graduate labour market, it is important that teachers’ pay remains at least broadly commensurate with the pay on offer in other professions, to recruit and retain sufficient numbers of high-quality teachers.

Median teacher pay remains in line with pay in other professions

The median pay of teachers remains in line with the median pay of similar professionals. The mean pay of teachers is below that of professionals, due to fewer very high salaries. However, the median is a better measure of ‘typical’ pay. The median teacher and similar professional both have lower real-terms pay than in 2010/11, due to inflation rising faster than pay. Part of this fall is likely to be driven by changes in the composition of the teacher workforce, which is also reflected in the professional workforce through our matching methodology (see separate methodology appendix). For example, fewer teachers and professionals in 2018/19 are age 50 and over, who tend to have above-average salaries, compared to 2010/11.

Teachers have similar income satisfaction to other professionals

The proportion of teachers with low income satisfaction remains at a similar level to the proportion among similar professionals. The rate of dissatisfaction grew during the period of public sector pay freezes, which saw teachers’ real-terms pay decrease due to inflation. However, since the public sector freeze was ended in 2013/14 – initially with a series of one per cent increases – the proportion has decreased steadily. In 2016/17 and 2017/18 the proportion with low income satisfaction has been around 20 per cent. Our monitoring will use next year’s UKHLS data release to test whether the 2018/19 above-inflation teacher pay rise reduced teachers’ dissatisfaction to a lower level.

Source: Labour Force Survey.

Source: UK Household Longitudinal Study.
Proposed changes to the teacher pay structure target larger increases at early-career teachers

DfE has suggested a number of significant changes to the shape of the teacher pay structure, which are currently being considered by the School Teachers’ Review Body. The proposals include re-introducing advisory pay spine points and raising teacher starting salaries to £30,000 by 2022/23. This change requires the starting salary to rise by around 7 per cent per year. However, raising all salaries by 7 per cent in 2020/21 would not be possible while keeping within the DfE’s intended overall pay bill cap of three per cent.

The consequence of these policy aims and affordability constraints is graded pay increases that award lower pay increases to more experienced teachers. DfE’s preferred option is to apply a 6.7 per cent increase to NQT pay and a 2.5 per cent increase for teachers at the top of the main pay scale and on the upper pay scale. The figure shows that applying these rates of increase for the next three years means starting salaries can reach £30,000 by 2022/23. It involves flattening the pay progression structure, which could impact on more experienced teachers’ decisions to leave. However, research tends to show that pay is not the main reason why most (experienced) teachers leave. Targeting pay increases at the group of teachers who have the highest leaving rates and are most responsive to pay differentials is therefore a calculated risk that is probably worth taking.

The DfE’s preferred pay changes would reduce the Inner London starting salary premium from 25 per cent to 19 per cent by 2022/23 and the Outer London premium from 16 to 14 per cent. NFER research shows that London schools struggle more with recruitment and retention, and cost of living is a significant factor (Worth et al. 2017). This pay structure change risks exacerbating the supply challenges faced by London schools.
Job and overall life satisfaction

Job satisfaction is a key factor associated with retention, so monitoring trends in teachers’ job satisfaction is important for assessing what might happen to retention trends in future. Teacher well-being is also an area of increasing policy focus.

**Teachers are more likely to have low job satisfaction than other professionals, but the difference is not statistically significant**

The proportion of teachers who report being dissatisfied with their job, which is particularly associated with a higher propensity to leave teaching in future, is slightly higher than among similar professionals, but the difference is not statistically significant. The trend for teachers in recent years has been very stable, which is consistent with the trends in leaving rates.

UKHLS data up to 2016/17, which we reported last year, showed that teachers have significantly higher job-related stress than other professionals, but also higher job security. Next year’s UKHLS data release will show whether these trends have changed from 2016/17 to 2018/19.

**Teachers are no more likely to have low overall life satisfaction than similar professionals.**

This is consistent with other recent research, which shows that teachers have similar levels of well-being and incidences of mental health problems compared to those in other professions (see, for example, Jerrim et al., 2020). While teacher well-being is, in itself, important for policymakers to consider, it is far less associated with patterns in retention. The proportion of teachers with low life satisfaction increased from 11 per cent in 2016/17 to 15 per cent in 2017/18, but the increase is not statistically significant.

Source: UK Household Longitudinal Study.
Part-time and flexible working

Increasing the opportunities for part-time and flexible working in schools is an important policy focus, as it is associated with teacher retention and can be a barrier for potential returning teachers.

The proportion of secondary teachers working part time is rising, but is still below similar professionals

Teacher data from the School Workforce Census shows that the proportion of secondary teachers working part time has been steadily rising, from 17 per cent in 2010/11 to 20 per cent in 2018/19. LFS estimates of the proportion of similar professionals working part time shows that the proportion is higher than among secondary teachers. In contrast, the proportions of primary teachers and similar professionals working part time are similar at around 27 per cent. NFER research has shown that there is a particular lack of part-time and flexible working opportunities for secondary teachers (Sharp et al., 2019).

Unmet demand for part-time working among full-time secondary teachers has fallen in 2018/19

Between 2011/12 and 2017/18 the proportion of teachers who would prefer to reduce their working hours even if it meant less pay (a proxy for unmet demand for working part-time) increased, from 17 per cent to 26 per cent. The proportion fell in 2018/19 to 21 per cent, but remains above the 17 per cent rate among similar professionals.

This fall may reflect the demand for part-time and flexible working increasingly being met by secondary schools. However, it is also consistent with the reductions in working hours and the proportion wanting to reduce their overall working hours reported above, so may also partly reflect reduced teacher workload.

Source: Labour Force Survey (dotted line: School Workforce Census).


List of data sources

A separate methodology appendix has been published alongside this report, which is available at www.nfer.ac.uk/tlm2020. An accompanying spreadsheet presenting additional data and, where not presented in the report, breakdowns by primary and secondary teachers is also published on the same page.

The following data sources were used to inform this research report:


• UK Household Longitudinal Study (Understanding Society). More information: www.understandingsociety.ac.uk