

2019



Teacher Labour Market in England

Annual Report 2019

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“It is clear we need to encourage more teachers to stay, and offer those who have left teaching the prospect of an exciting, rewarding and manageable career that they want to return to. This will, in turn, undoubtedly make it a profession that new recruits want to be a part of too.”

Carole Willis, Chief Executive,
National Foundation for
Educational Research

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 response to the growing teacher supply challenge, the Department for Education (DfE) published its [teacher recruitment and retention strategy](#) in January 2019. The strategy outlines the key areas where focus, reform and investment can have an impact on improving teacher recruitment and retention. The stated aim of the strategy is to ensure that careers in teaching are attractive, sustainable and rewarding.

NFER’s first annual report on the state of the teacher workforce measures the key indicators of the teacher labour market and teachers’ working conditions. We present data from a range of sources, which together highlight the trends that describe the current teacher supply situation and how it has changed over time. Teachers’ working conditions are a fundamental lever to effecting change over teacher recruitment and retention, so we also present data on teachers’ working conditions and how they compare to similar individuals in other professional occupations.

This report summarises the state of the teacher workforce using the most recent available data when the strategy was published. In future reports we will update the summary using the latest available data, measuring changes in these key indicators of teacher supply and working conditions. We aim to monitor the progress the school system is making towards meeting the teacher supply challenge over the next decade.



 **Key findings**

The secondary school system is facing a substantial teacher supply challenge over the next decade, which requires urgent action.

The DfE forecasts that secondary schools will need 15,000 more teachers between 2018 and 2025 to meet a 15 per cent rise in pupil numbers. Yet teacher numbers have been falling, due to increasing numbers of teachers leaving the state sector and insufficient numbers entering the secondary sector. The number of in-year vacancies and temporarily-filled posts, one measure of potential shortages, has doubled between 2010/11 and 2017/18.

Teacher supply in the primary school system has increased to meet rising demand over the last decade.

The DfE forecasts that primary schools will need to maintain teacher numbers over the next decade, by ensuring the numbers entering keep up with those leaving. However, the primary leaving rate has risen between 2011/12 and 2017/18 and the number of vacancies has increased, suggesting a risk of there being some supply challenges ahead.

Retention rates of early-career teachers (between two and five years into their careers) have dropped significantly between 2012 and 2018.

These are the critical years where the right development opportunities, nurture and support can make or break a teaching career. The Government's Early Career Framework, which includes time off timetable for second-year teachers for professional development and mentor support, is a promising development.

There are acute challenges in the recruitment and retention of teachers in long-standing shortage subjects such as physics, maths, modern foreign languages and chemistry.

These issues require a targeted approach. The Government's plan to spread out training bursary payments for shortage subjects during the first five years of teachers' careers is welcome. Moving from a one-off lump sum for entering training to a smaller up-front payment and retention payments in the third and fifth years of teaching is likely to encourage more teachers to stay in the state sector for longer.

Alternative sources of teacher supply, such as returners and overseas-trained teachers, have not increased in spite of the growing supply challenge.

The number of returners entering the state sector has remained flat at around 13,000-15,000 per year between 2011/12 and 2017/18. The number of Qualified Teacher Status (QTS) awards to overseas trained teachers fell in 2017/18, particularly from countries in the European Economic Area. This may be caused by the UK's forthcoming departure from the European Union (EU) and may signify a downward trend in interest towards moving to the UK to teach. The Government's strategy confirms that the Migration Advisory Committee will consider extending the teacher occupations that are on the Shortage Occupation List beyond maths, physics, general science, computing and Mandarin.

Teachers work longer hours in a typical working week than similar people in other professional occupations.

While their working hours averaged over the whole year are similar to those in other professions, working intensively over fewer weeks of the year leads to a poorer work-life balance and higher stress levels among teachers. Two out of five teachers (41 per cent) are dissatisfied with their amount of leisure time, compared to 32 per cent of similar professionals. One in five teachers (20 per cent) feel tense about their job most or all of the time, compared to 13 per cent of similar professionals. Reducing teachers' unnecessary workload presents the biggest potential area for improving retention.

Teachers' mean pay in real terms is lower than similar individuals in other professional occupations, but median pay is similar between the two groups.

In other words, the pay of a typical teacher is similar to that of a typical professional, but pay compression within teaching and more higher-earners in other professions means that the mean pay of teachers is lower. The pay of both groups has fallen in real terms between 2010/11 and 2017/18: teachers' average pay has fallen by 12 per cent in real terms since 2010 (although part of this may be explained by changes in the composition of each group, i.e. the average teacher in 2018 is younger and less experienced than the average teacher in 2011). Ensuring that teacher pay is competitive with other professionals should be a key objective to support recruitment and retention (of early career teachers in particular).

There is more unmet demand for part-time working among full-time teachers than there is for similar professionals.

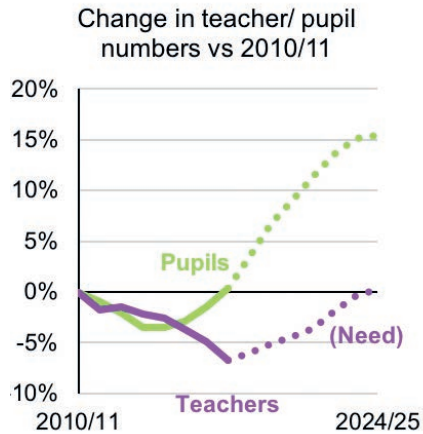
Around a quarter of full-time teachers (23 per cent) would like to reduce their working hours even if it means less pay, compared to 17 per cent of similar professionals. Part of this pattern may reflect teachers' unmanageable workload. Schools (particularly secondaries) improving the part-time and flexible working opportunities available to their staff is likely to help retain teachers who would otherwise leave and encourage more returners back to the state sector.

Teaching's traditional 'recession-proof' advantage over other professions has eroded over time due to a relatively strong graduate labour market.

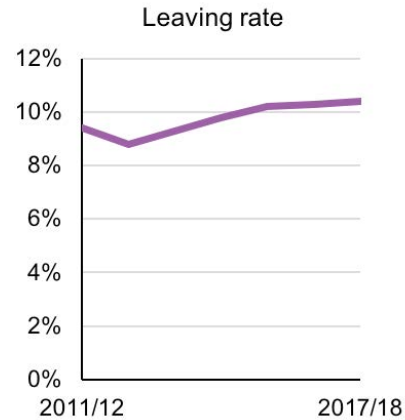
The proportion of teachers reporting low job security has remained very low (around five per cent) and stable since 2010/11, compared to the level of insecurity among similar professionals, which has fallen from 14 per cent in 2010/11 to 9 per cent in 2017/18. The job security of alternative careers is likely to influence those who are deciding whether or not to enter teaching.

Urgent action needed

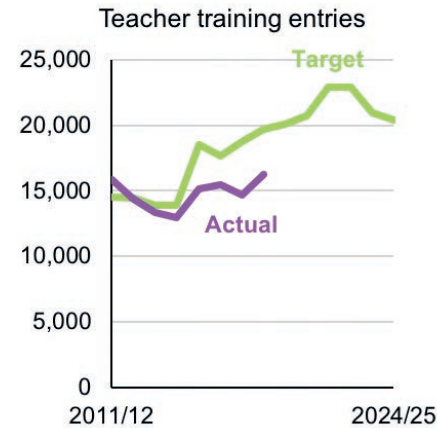
Secondary school teacher labour market



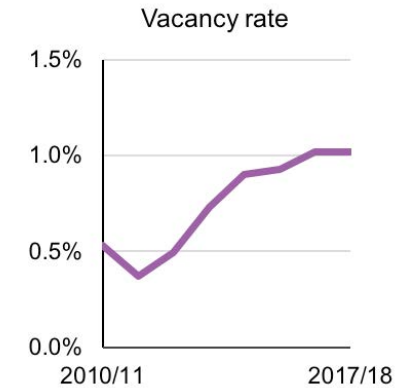
Source: Pupil projections, SWC, TSM



Source: School Workforce Census



Source: ITT Census, TSM



Source: School Workforce Census

Demand for teachers

The number of secondary teachers has fallen since 2010. This was in line with falling pupil numbers up until 2015, but pupil numbers have increased since then. The DfE forecasts that secondary schools will need 15,000 more teachers between 2018 and 2025 to meet a 15 per cent rise in pupil numbers.

Teacher retention

Retaining more current teachers would help supply by reducing the number of new teachers needed to replace them and meet growing demand. Retaining teachers also holds on to their expertise that they have gained through experience. However, the rate of secondary teachers leaving the state sector has increased in recent years, particularly for working-age teachers.

Entry into teacher training

Targets for the required number of secondary teacher trainees have been missed for six years in a row. Increasing numbers of pupils means the trainee target is forecast to continue rising until 2023. The risk of teacher supply getting further behind is high. The system needs more recruitment into training to meet the growing need for teachers.

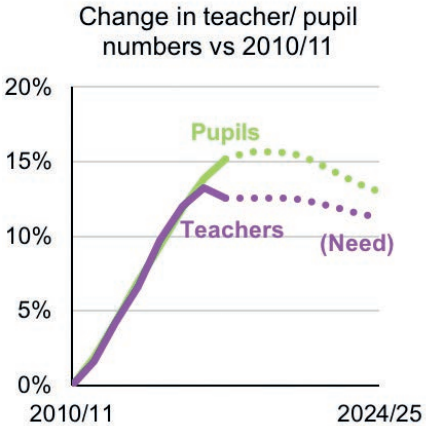
Teacher shortages

Years of under-recruitment and rising leaving rates mean schools have found it more difficult to recruit the teachers they need. Shortages are difficult to measure using the available data, but one proxy measure is vacancies and temporarily-filled teaching posts as a proportion of the number of teachers. The secondary vacancy rate has doubled since 2010, suggesting teacher shortages are biting.

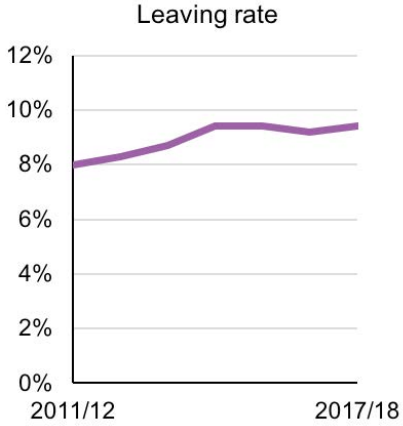


Stable situation with some risks

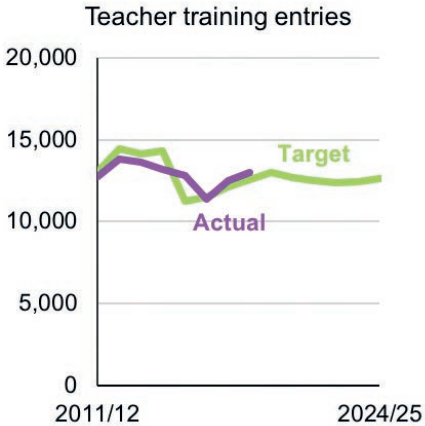
Primary school teacher labour market



Source: Pupil projections, SWC, TSM



Source: School Workforce Census



Source: ITT Census, TSM



Source: School Workforce Census

Demand for teachers

The number of primary teachers grew between 2010 and 2017, in line with rising pupil numbers. As pupil numbers are forecast to plateau, the forecast number of teachers required between 2018 and 2025 is flat. The number of teachers fell in 2017/18 despite slight pupil growth, which could reflect funding constraints or slight teacher under-supply.

Teacher retention

The rate of primary teachers leaving the state sector has increased in recent years, particularly for working-age teachers. Reversing this trend would make it easier for primary recruitment targets to continue being met and retain the expertise of experienced teachers in the classroom, rather than relying more heavily on newly qualified teachers.

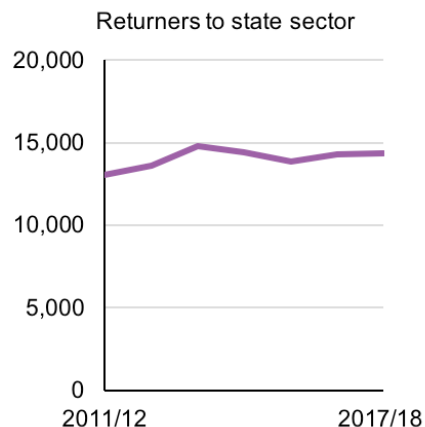
Entry into teacher training

Primary teacher training targets have generally been met over the last decade. The data shown is only postgraduate recruitment: additional entry from undergraduate teacher training, which mostly trains primary teachers, has also helped primary meet its targets. Flat pupil number growth means future entry targets are also flat, suggesting primary should have few recruitment issues.

Teacher shortages

Despite a relatively strong recruitment and retention picture in primary schools overall, the rate of vacancies and temporarily-filled posts has increased since 2010. This may indicate that some shortages are emerging: the seemingly adequate quantity of primary teachers may not be reflected in the quality of teachers in the market.

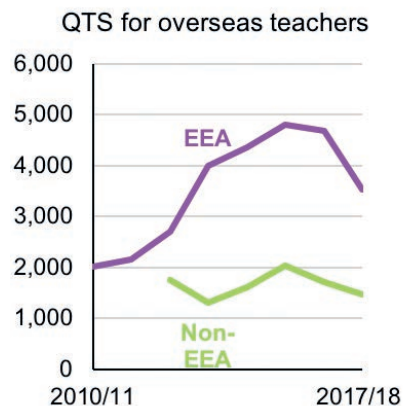
Alternative sources of supply



Source: School Workforce Census

Returners to teaching

Teachers returning to the state sector (primary and secondary) represent a potential source of teachers to fill supply gaps due to under-recruitment to teacher training. However, the number of returners has increased only slightly since 2011, despite policy interventions offering support. Making the teaching career offer more sustainable may attract more returners in future.

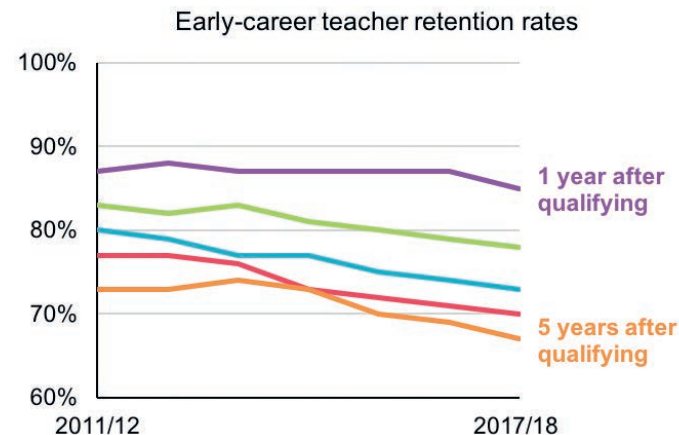


Source: ITT Census

QTS for overseas teachers

The number of Qualified Teacher Status (QTS) awards to teachers trained overseas rose rapidly from 2011 to 2016, but has since fallen, particularly from countries in the European Economic Area. This is likely to reflect the UK being a less attractive destination following the EU referendum. Awards from non-EEA countries have been stable. However, not all awards result in a teacher entering teaching in England.

Early-career teacher retention

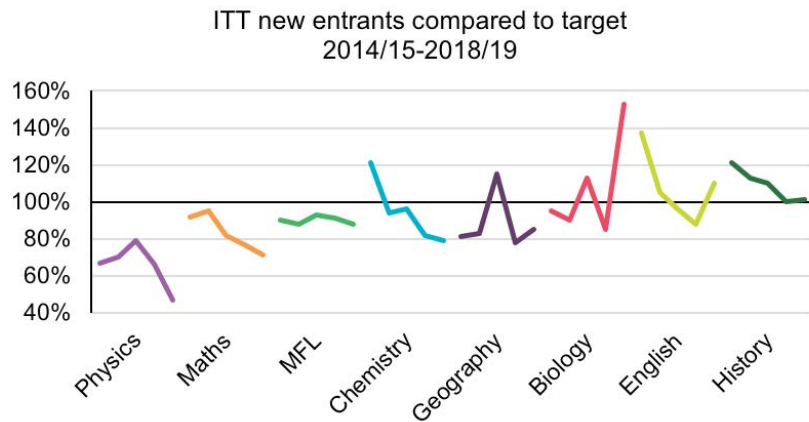


Source: School Workforce Census

Retention of early-career teachers

The retention rates of early-career teachers (ECTs) have fallen considerably between 2012 and 2018. Around 87 per cent of teachers who enter teaching remain in the state sector at the end of their first year. This remained stable between 2012 and 2017, but dropped to 85 per cent in 2018. Retention rates of teachers between two and five years into their careers have dropped significantly between 2012 and 2018. These are the critical years where the right development opportunities, nurture and support can make or break a teaching career. The Government's Early Career Framework is a package aimed at improving ECT retention, including time off timetable to pursue professional development and support from a trained mentor. This is a promising development, but the quality of implementation will be crucial to its success in retaining teachers.

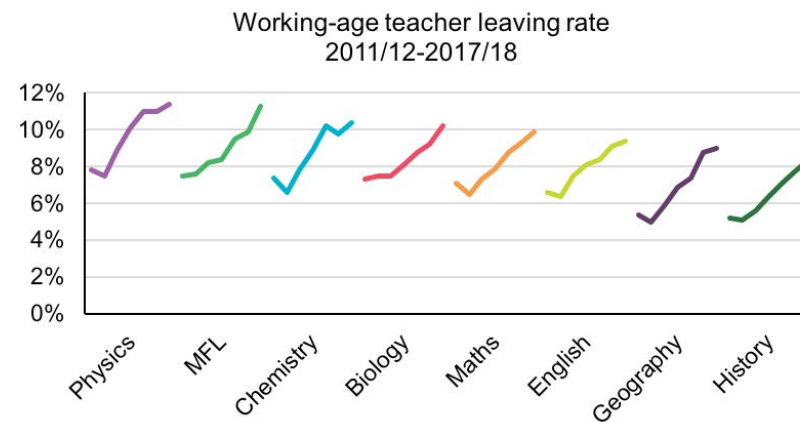
Recruitment and retention trends by secondary EBacc subjects



Source: ITT census

Initial teacher training new entrants by subject

Overall, recruitment to secondary teacher training is below the target necessary for maintaining supply. The situation varies considerably between different EBacc subjects, and it is subjects with long-standing supply issues that are struggling most. Recruitment to teacher training in Physics in 2018/19 is more than 50 per cent below the numbers required to maintain supply, and Maths and Modern Foreign Languages (MFL) have also regularly been below target. Bursaries of up to £30,000 are offered for training in these subjects to attract applicants, but they do not seem to be attracting enough trainees to meet demand.

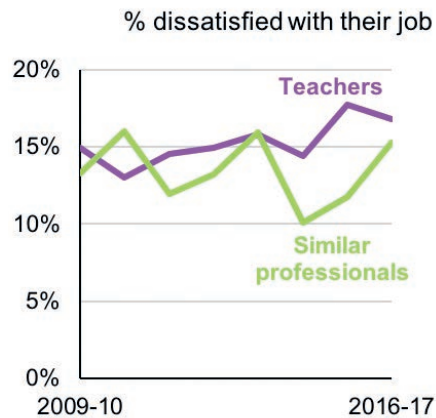


Source: School Workforce Census

Working-age teacher leaving rates by subject

The rate of secondary teachers leaving teaching in the state sector has risen since 2012: particularly for working-age teachers and offset by a falling retirement rate. This trend is seen across all subjects. However, rates of state-sector teachers leaving differs considerably between EBacc subjects, from a relatively low 8.3 per cent for History teachers in 2017/18 to a relatively high 11.4 per cent of Physics teachers. High leaving rates exacerbate supply gaps in long-standing shortage subjects such as Maths, MFL and Sciences. The Government has committed to changing bursary payments for shortage subjects so that some of the bursary is contingent on staying in the state sector, rather than just being paid for training.

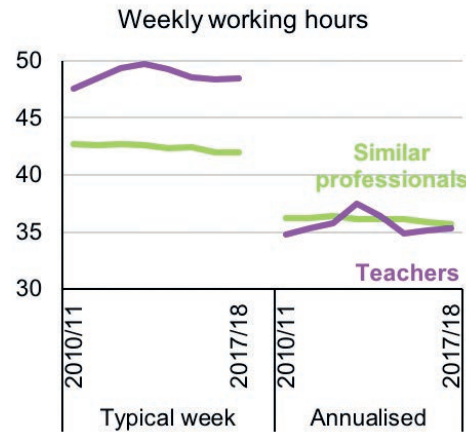
Teachers' working conditions: satisfaction, stress and working hours



Source: Understanding Society

Job satisfaction

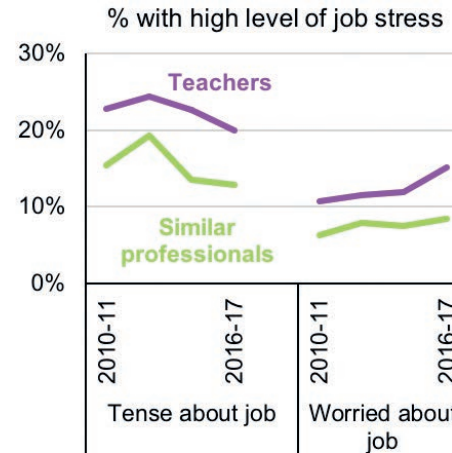
Job satisfaction is a key factor for retention: teachers who are satisfied and motivated are more likely to stay. The share of teachers with low job satisfaction, an indicator of increased risk of leaving, is broadly similar to other professionals and hasn't increased significantly since 2010. Nonetheless, there remains room to improve teachers' job satisfaction.



Source: Labour Force Survey

Teachers' working hours

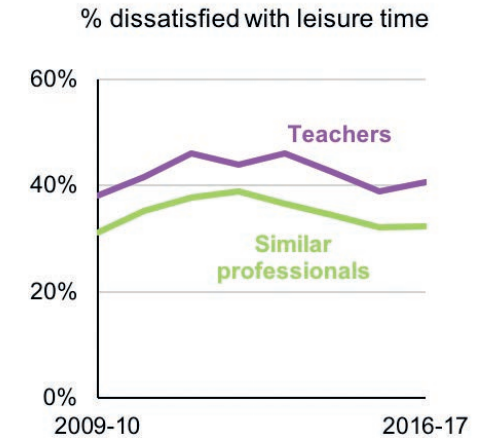
Teachers' working hours are higher than other professionals during a typical working week (i.e. term time for teachers). This is driven by high teacher workload. The school holidays mean when averaged over the whole year, working hours are similar to other professionals. However, teachers work intensively over fewer weeks in the year, which can have negative consequences for health and well-being.



Source: Understanding Society

Job-related stress

Job-related stress is higher among teachers than other professionals, particularly the proportion of teachers feeling 'tense' or 'worried' about their job most or all of the time. Teaching needs to be an attractive and rewarding profession to retain staff over the long term.

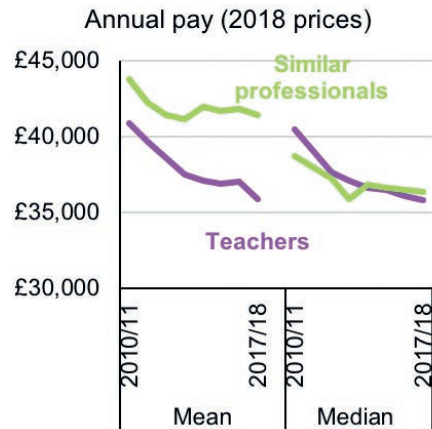


Source: Understanding Society

Teachers' work-life balance

Teachers' work-life balance can be compromised by long working hours during term time. More teachers report low satisfaction with their amount of leisure time than similar professionals. While this has improved for both groups in the last few years, reducing teachers' workload is likely to improve their work-life balance and hence retention.

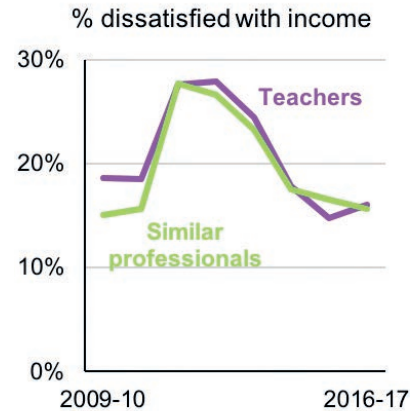
Teachers' working conditions: pay, part-time and job security



Source: Labour Force Survey

Teachers' pay

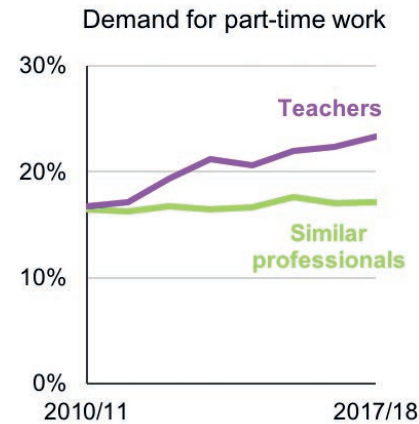
Teachers' pay has, on average, fallen by 12 per cent since 2010, due to public sector pay restraint, compared to a fall of only 5 per cent among similar professionals. Teachers' pay needs to be competitive with other professions to attract graduates, yet the gap in mean pay between teaching and other professionals has widened since 2014. However, typical (median) teacher pay has remained similar to other professionals. This data does not include the 2018/19 teacher pay increase and may also be explained by changes in the composition of each group, i.e. the average teacher in 2018 is younger and less experienced than the average teacher in 2011.



Source: Labour Force Survey

Teachers' income satisfaction

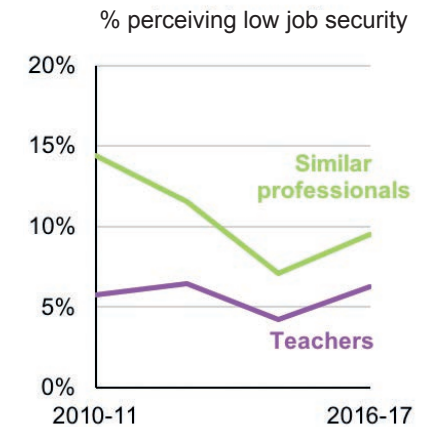
Teachers' income satisfaction is similar to the level among other professionals. Teachers' decisions to stay in teaching are relatively unresponsive to levels of pay. However, pay can have an important influence on those considering entering teaching and on early-career teachers, particularly in subjects with well-paid alternatives outside teaching, such as science and maths teachers.



Source: Understanding Society

Part-time and flexible working

Part-time and flexible working is important for retaining teachers, particularly at certain times of their careers such as when having children, or later in their careers. Since 2011 the number of full-time teachers who would prefer part-time work has increased, whereas the trend has been stable among other professionals. Teacher retention is likely to be improved by incorporating greater flexibility into the teaching career offer.



Source: Understanding Society

High job security

High job security has always been an important feature of the 'recession-proof' teaching career offer. However, the strength of the wider labour market has improved since 2010, eroding this relative advantage. The job security of alternative careers can have a big influence on those who are deciding whether or not to enter teaching.



Data and methodology appendix

Data sources

Pupil projections. Department for Education, National Pupil Projections. Available: <https://www.gov.uk/government/collections/statistics-pupil-projections>

School Workforce Census. Department for Education, School Workforce in England. Available: <https://www.gov.uk/government/collections/statistics-school-workforce>

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Understanding Society. University of Essex. Institute for Social and Economic Research, NatCen Social Research, Kantar Public. (2018). Understanding Society: Waves 1-8, 2009-2017 and Harmonised BHPS: Waves 1-18, 1991-2009. [data collection]. 11th Edition. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-12>

Teacher labour market measures

Demand for teachers. *Source: Pupil projections, School Workforce Census and Teacher Supply Model (TSM).* Change in the number of pupils and teachers in the state school sector by phase, compared to the level in 2010/11. Pupil projections show current forecasts of pupil numbers in the future: primary projections are based on assumptions about birth rates. Forecast of teachers needed from the TSM: the model assumes that, for an increase in the pupil population of 1 per cent, the pupil:teacher ratio will increase by 0.5 percentage points for the primary phase and 0.6 percentage points for the secondary phase.

Entry into teaching. *Source: ITT Census and Teacher Supply Model.* Number of postgraduate teacher training entries by phase and the target number of teacher trainees required to meet teacher demand. Note: Teach First is included in ITT census and targets from 2015/16.

Teacher retention. *Source: School Workforce Census.* The rate of teachers leaving the state sector by phase. This includes working-age teachers leaving teaching in the state sector and retiring teachers. However, teachers who are counted as having left could still be teaching in another country, in further education or in the independent sector.

Teacher shortages. *Source: School Workforce Census.* The number of teacher vacancies and temporarily-filled posts by phase, as a proportion of all teaching posts. It is an imperfect proxy for teacher shortages. Having an open vacancy or a temporarily-filled post in November (during the first term of the school year, which is when the vacancy data is collected) may be an indication of teaching roles that were not able to be filled during the main recruitment round in the spring and summer. However, there are cases where shortages may not show up in vacancy data (e.g. if school leaders reluctantly fill a post with a teacher they regard as less than ideal) and other cases where vacancies may not necessarily indicate a shortage (e.g. filling a non-critical need, such as a secondary school looking to hire a teacher for a future additional course offer).

Returners to teaching. *Source: School Workforce Census.* The number of teachers returning to the state sector: starting a role in the state sector, having previously held a role in a state sector school. Limitations: recent data split by phase is not published by DfE.

QTS for overseas-trained teachers. *Source: ITT Census.* Number of Qualified Teacher Status awards to teachers trained overseas. Limitations: the figure does not measure the number of teachers gaining QTS by transfer and then entering teaching in the state sector: this would be lower than the number of QTS awards. The figures also do not include foreign nationals training within the English ITT system.

Early-career retention rates. *Source: School Workforce Census.* Proportion of teachers remaining in state-sector teaching after a given number of years since first entering after gaining QTS.

Initial teacher training new entrants by subject. *Source: ITT Census.* Number of secondary teacher trainees entering the state sector by subject. Subject refers to the subject studied towards in teacher training.

Working-age teacher leaving rates by subject. *Source: School Workforce Census.* Number of secondary teachers leaving the state sector by subject. Subject refers to the subject the teacher teaches: where a teacher teaches more than one subject, they are split proportionally between those subjects.

Teacher working conditions measures

Job satisfaction. *Source: Understanding Society.* Proportion reporting a low level of job satisfaction, by wave: individual responded 'completely dissatisfied', 'mostly dissatisfied' or 'somewhat dissatisfied' on seven-point scale.

Job-related stress. *Source: Understanding Society.* Proportion reporting high levels of job-related stress, by wave: individual responded 'most of the time' or 'all the time' to feeling tense and worried about their job, on a five-point scale.

Teachers' working hours. *Source: Labour Force Survey.* Average number of reported working hours in a usual working week and annualised working week (average across reported working hours during the reference week – the week before the interview), by academic year (July-June). Full-time employees only.

Teachers' work-life balance. *Source: Understanding Society.* Proportion reporting low levels of satisfaction with amount of leisure time, by wave: individual responded 'completely dissatisfied', 'mostly dissatisfied' or 'somewhat dissatisfied' on a seven-point scale.

Teachers' pay. *Source: Labour Force Survey.* Average and median annual pay of full-time employees, by academic year (July-June). Figures are in real terms: adjusted for inflation using the CPI and reported in 2018 prices.

Teachers' income satisfaction. *Source: Understanding Society.* Proportion reporting low income satisfaction, by wave: individual responded 'completely dissatisfied', 'mostly dissatisfied' or 'somewhat dissatisfied' on a seven-point scale.

Part-time and flexible working. *Source: Labour Force Survey.* Proportion of full-time employees who would prefer to work fewer hours, even if it meant less pay, by academic year (July-June).

Job security. *Source: Understanding Society.* Proportion reporting job insecurity, by wave: individual responded 'very likely to lose job in the next year' or 'likely to lose job in the next year' on a four-point scale.

Definition of teachers in survey datasets

In the Labour Force Survey and Understanding Society data, we define our sample of teachers as teachers employed in England's state-funded schools. Specifically we define our sample as:

- Industry = "Primary education" or "General secondary education"
- Occupation = "Primary and nursery education teaching professionals" or "Secondary education teaching professionals" or "Special needs education teaching professionals" or "Senior professionals of educational establishments"
- Country of work = "England"
- Sector = "Public".



Methodology for identifying 'similar professionals'

The aim of our analysis of teachers' working conditions is three-fold, to measure how:

1. teachers' working conditions have changed over time
2. teachers' working conditions compare to those in other professions
3. the difference in working conditions between teachers and other professionals has changed over time.

Comparing teachers to all employees in professional occupations in a meaningful way is challenging because the two groups are likely to differ in a number of important ways. They may be different because people with different characteristics or motivations select to go into different occupations. No comparison of different occupations should therefore be interpreted as the *effect* of entering that profession, although working conditions, and employees' perceptions of them, can be influenced by entering that occupation rather than another.

We have aimed to improve the comparability of our analysis as much as we can. Instead of comparing all teachers to all employees in professional occupations, we derive a group of professionals with similar characteristics to teachers. The group includes professionals from the private and public sector, including scientists, researchers, engineers, IT professionals, health and nursing professionals, lawyers, accountants, statisticians, economists, social workers, librarians, and journalists. We use an identical methodology for our comparisons using the Labour Force Survey (LFS) and Understanding Society (USoc) data.

First, we identify all individuals across all waves/years coded as having a professional occupation according to their Standard Occupational Classification (SOC) code. We use the SOC 2010 definition in the LFS. For the USoc data, SOC 2010 was not available for early waves, so we amend the SOC 2000 codes to match the definitions used in SOC 2010 as far as possible, for consistency with the LFS. We remove those employed in the wider education sector, and those employed outside England from the 'other professionals' group.

Second, we re-weight the 'other professionals' group so that the distribution of gender, age, region and highest qualification is the same among the teachers and the group of 'other professionals'. We use a technique called *entropy balancing*, to re-weight the 'other professionals' group within each wave and derive a 'similar professionals' group. We also separately derive a group of 'full-time similar professionals', which have similar characteristics to full-time teachers.

This re-weighting approach does not remove all the underlying differences in characteristics and motivations between teachers and 'other professionals'. However, it minimises the risk that any observed differences in working conditions are driven by differences in the distribution of gender, age, region and highest qualification between the two groups.

Evidence for excellence in education

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