Guide to the collection and dissemination of school staffing data from the annual November School Workforce Census

Quality and methodology information document

June 2019
# Contents

1. Summary 4
   1.1 National Statistics compliance 5
2. Data sources 6
3. Data collection, processing and cleaning 9
4. Production of the statistical publication 13
   4.1 Updates to previous years data 13
   4.2 Size of the schools’ workforce 14
   4.3 Characteristics of the school workforce 16
   4.4 Entrants and leavers 17
   Chart A: Changes in FTE of qualified teachers and the effects of changes in working pattern, 2011 to 2018 19
   4.5 Entrants and Leavers - Change in Methodology 19
   Chart B: Comparison of methodologies used for qualified entrants to teaching 20
   Chart C: Comparison of methodologies used for qualified leavers from teaching 21
   4.6 Teacher Retention 21
   Chart D: Published retention rates in 2017 and retention rates using the new methodology in 2018, teachers who qualified in 2000 22
   4.7 Teachers’ average salaries 23
   4.8 Teachers’ qualifications and curriculum taught 24
   4.9 Teacher vacancies and temporarily filled posts 26
   4.10 Teacher sickness absence 26
   4.11 Teacher disability 27
   4.12 Pupil teacher and pupil adult ratios 27
   4.13 Definitions and general notes 28
   4.14 How the Department uses the School Workforce Census 29
4.15 Sub national, school, local authority and region file, data, rounding, suppression and notation conventions.

5. Further information
1. Summary

The Statistical Publication: ‘School Workforce in England: November 2018’ provides the latest information at national and local level on the number and characteristics of teachers and other school staff that work in state funded schools in England.

The publication summarises the information that was collected via the November 2018 School Workforce Census – the ninth running of the ‘census’ – and links data from other sources including teachers’ pension administration data and the Database of Qualified Teachers.

Information is provided in 23 national tables and a file containing figures on a sub-national basis broken down by school, local authority and region. The staff numbers in the local authority and regional files for this year are not comparable with those in previous years publications as they include scaling to account for missing schools on the same basis as the national tables for the first time as described in section 4.2. A file of comparable figures at the local authority and regional level has also been published.

The individual school file gives information from the 2018 School Workforce Census and is not enhanced from other data sources or previous years School Workforce Census data. National, regional and local authority figures have been enhanced from other trusted sources available to the department or previous School Workforce Census’ where it is clear that the data is incomplete. Details of how this has been done is provided in the relevant sections of this document. The publication covers the following broad themes.

| Teacher numbers, characteristics and deployment. | This publication provides time series of teacher numbers in all state funded schools in England. It provides various breakdowns of these; by post held, school type and phase, gender, age, ethnicity, whether they work full/part-time, have Qualified Teacher Status or not etc. |
| Teacher turnover and retention. | This publication shows the number of qualified entrants to teaching (and whether they are new teachers or returners), their propensity to stay, and the numbers of qualified teachers leaving the teaching profession (e.g. through retirement or leaving early). It also shows the number of teachers who change working pattern. |
| Teacher pay. | This publication shows the salaries received (in £5/10 thousand bands) for all teachers and separately for classroom teachers, leadership group teachers, and headteachers. The statistics also provide an age, gender and school type/phase breakdown. Where appropriate, average mean and median salaries are provided for comparison purposes. A summary time series of mean averages on a comparable basis is also provided. |
| Statistics on support staff. | Time series data are also published which show the number of teaching assistants and school support staff employed by all state funded schools. This |
data shows the numbers by post held and has some limited characteristics data e.g. gender and ethnicity.

| Teacher qualifications and curriculum taught. | This publication provides information on the highest post-A-level qualification held by teachers (by teacher grade and school type/phase). Estimates are also provided, based on a large sample of secondary schools, which show the number of teachers by subject, teaching at Key Stage 3-5 and the relevant number of hours taught. The publication also provides estimates of the number/percentage of teachers teaching each subject that have relevant post-A-level qualifications in the subject. Similar data is produced showing the number of hours taught by teachers with relevant post-A-level qualifications in the subject. |
| Teacher vacancies. | This publication shows the number of advertised teaching posts that were either vacant or temporarily filled at the census date in November (Which is mid term). It provides subject level estimates for these posts for secondary schools only. |
| Teacher sickness absence. | This publication shows the number of teachers that have taken sickness absence in the previous academic year and the number of days they were absent. |
| Pupil teacher ratios. | Pupil data from the January 2019 school census is used along with 2018 SWC data to produce pupil teacher ratios and pupil adult ratios (teachers and all classroom-based support) for each school type/phase. |

The latest release updates and supersedes the previous statistical release; the full series can be found on [gov.uk](http://gov.uk).

The school workforce census is the main source of information on the numbers, characteristics and deployment of school staff and it is used to inform policy decisions to improve the standard of education in schools. It is also used by other organisations interested in this subject. For example, data on teacher numbers, patterns of working and the Office of Manpower Economics on behalf of the School Teachers Review Body. See [here](http://here) for further information.

This document aims to provide information on the methodology involved in the production of this data – from collection through to publication – and information relating to the quality of the statistics.

### 1.1 National Statistics compliance

The United Kingdom Statistics Authority designated these statistics as [National Statistics](http://National Statistics) in June 2013 in accordance with the Statistics and Registration Service Act 2007 and
signifying compliance with the Code of Practice for Statistics. Since 2013 the following changes have been made to the publication:

<table>
<thead>
<tr>
<th>Year</th>
<th>Description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Addition of split for academies and LA maintained schools in some tables.</td>
</tr>
<tr>
<td>2015</td>
<td>Aggregation of teacher records to avoid duplicates – one main contract per teacher plus new scaling methodology to estimate for missing schools using average school size.</td>
</tr>
<tr>
<td>2015</td>
<td>Pupil Teacher ratios include teachers without qts.</td>
</tr>
<tr>
<td>2015</td>
<td>New entrant and wastage methodology with source moved to school workforce census linked data from pensions administration database (DTR).</td>
</tr>
<tr>
<td>2015</td>
<td>Addition of newly qualified teacher retention grid.</td>
</tr>
<tr>
<td>2015</td>
<td>Inclusion of unqualified and part-time teachers in pay tables and the updating of methodology to exclude mis-reported salaries.</td>
</tr>
<tr>
<td>2016</td>
<td>Teacher qualifications to include historically recorded qualifications.</td>
</tr>
<tr>
<td>2016</td>
<td>Change to methodology on teacher retirements to use the school workforce census for last school of service instead of pensions administration records.</td>
</tr>
<tr>
<td>2018</td>
<td>Addition of teacher average salary time series table using a consistent methodology.</td>
</tr>
<tr>
<td>2019</td>
<td>Change to entrant and wastage analysis to include schools with a greater than 20 per cent change in teacher numbers year on year.</td>
</tr>
<tr>
<td>2019</td>
<td>Change to sub-national file to include estimates for missing schools at LA and region level.</td>
</tr>
<tr>
<td>2019</td>
<td>Removal of rounding and suppression for the vast majority of both national and sub-national tables following a review in line with DfE’s updated policy.</td>
</tr>
</tbody>
</table>

Further information about the National Statistics code of practice can be found [here](#).

## 2. Data sources

The statistics published in the ‘School Workforce in England’ series of releases are predominantly based on information provided by schools and local authorities as part of the annual School Workforce Census that was introduced in 2010. For this publication most
time series tables that previously included pre-2010 figures, from other non school workforce census sources that preceded it, now start from 2010. If you require pre-2010 figures you should refer to previously published series that can be found on [gov.uk](https://www.gov.uk). Any remaining tables that show longer time series e.g. teacher retention, retirements and out of service teachers are constructed from the data sources that existed at the time linked to the school workforce census as appropriate.

Prior to 2010, some school workforce data was provided by local authorities as part of the Form 618g return and some by schools as part of the pupil level School Census. Other teacher data were contained in separate exercises, for example, data on teacher pay was collected separately as part of the administration of the Teachers’ Pension Scheme. Data on the curriculum taught in secondary schools was collected by surveys once every four or five years. The final statistical release that brought together workforce statistics from the various different data collections is published in the gov.uk archives [here](https://www.gov.uk).

The School Workforce Census was introduced to replace these (and other) collections and designed to ensure data was collected consistently and comprehensively by having all key data items in one single, harmonised exercise. This helped improve the quality and consistency of key school workforce statistics vital for monitoring and evaluating the school workforce; and as a benefit helped reduced the data collection/provision burden on schools.

The census collects information on school staff from all state funded schools in England; including local authority (LA) maintained nursery, primary, secondary and special schools, all academy schools (including free schools, University Technical Colleges, Studio Schools and CTCs) and Pupil Referral Units (PRU). It also collects information from LAs on their centrally employed teachers and school based support staff. Where staff are working in more than one local authority school it is for the local authority to ensure that they are included in the central return unless there is a separate contract with each school. Where a member of staff works in more than one school in a multi-academy trust then it is for each school to record the number of hours worked in that particular school. That a teacher works in more than one school is identified when the department has received the data and the various contracts are aggregated to a single record. This ensures that the correct staffing level is recorded in each individual school in the muti-academy trust. The census does not collect data from independent schools, non-maintained special schools and other further education colleges (FE). Some former FE funded sixth form colleges may be included.

The census collects a broad range of characteristics data, such as gender, age, ethnicity and disability, for all school staff. It also collects contract information such as grade, post or role, qualifications data, pay data and the hours worked of those whose individual level
data is collected. The hours worked, together with the full-time weekly hours, are used to calculate whether staff are full or part-time and for part-time staff their full-time equivalence.

The census collects data individual level data for all types of staff working in schools where they are in regular employment with a contract of 28 days or longer. This includes contracts that were open on the census date and those that were open but ended during the previous academic year. Staff that did not have an open contract recorded on the census date are not included in the in-service figures in the publication, however their information is used in the calculation of teacher sickness absence rates (as these relate to the previous 12 months). Teachers that were employed in schools during the census period that do not have a contract of employment that lasts/will last 28 days or longer are included in an aggregate headcount of occasional teachers.

Individual sickness absence records are also collected for all teachers in service during the 12 months prior to the census date. These records are linked to construct the number of incidences of sickness absence and estimate the total number of days lost to teacher sickness absence. These figures are not available for schools that have opened or converted from a local authority school to an academy during the year.

In addition, for a large proportion of secondary schools (including secondary academy schools), the census collects information on the curriculum taught by teachers to pupils in years 7-13. The curriculum data is only collected from secondary schools that use electronic timetabling software that can produce data in the format required. This means that the number of schools who provide a return can change each year, see the section on ‘Teachers’ qualifications and curriculum taught’ for further details.

The census also collects counts of teacher vacancies and school level aggregate counts of occasional teachers and support staff employed through an Agency/third party service provider. Local authorities also supply data on the number of educational psychologists they employ. However we do not think this shows the true number of educational psychologists as local authorities do not include educational psychologists where the service has been outsourced or where this provision is been shared with other local authorities.

The data collected as part of the administration of the Teachers’ Pension Scheme (known as the Database of Teacher Records, (DTR) and pensioner statistics Penstats) is used in several places within the publication. These datasets are used to derive statistics on the number of qualified teachers that retire in the latest financial year and the type of retirement. It is also used to derive statistics on the number of qualified teachers that are currently out of service and the number of qualified teachers that have no service history (in state funded schools in England).
The DTR is linked to the teacher data from the School Workforce Census using the unique Teacher Reference Number. This dataset is then linked to the Database of Qualified Teachers which holds information on the date that teachers gained their Qualified Teacher Status – and allows us to determine whether new entrants to teaching are Newly Qualified Entrants. The combined dataset is then used to construct the qualified teacher retention matrix in Table 8. The matrix shows the number of teachers that qualify in a year and the number that enter service within the next year and then shows the percentage of teachers that remain in service in each year afterwards.

3. Data collection, processing and cleaning

Figure 1 is a process map that shows how the school workforce data flows from schools and local authorities to the Department. It describes the five stages that the data go through and how the Department supports schools and local authorities in their task of providing high quality data. The first four stages are all internal processes. The census data is not used publicly until the final, fifth stage when it is formally published within the publication.

The school workforce data required from both schools and local authorities is determined in advance of the census in such a way that schools and LAs can engage the suppliers of their management information systems (MIS) with sufficient time to incorporate any new data items (or changes to existing data items) into their local systems. The software suppliers build data extraction routines based on the data requirements set out in the technical specification published by the Department. Typically, a near final version of the technical specification is shared with software suppliers around a year before the next census date. This allows software suppliers the opportunity to see and comment on the data requirement and any changes from the previous year. Their comments and views are taken into account to ensure the Department is asking for data in a way that is straightforward to deliver. A final version of the technical specification is then published for local authorities and software suppliers to see and use. The current technical specification and archived versions are published here.

Figure 1: Description of the data collection process
Deadlines are shown in blue boxes. The stages outlined below are indicated by a pink box.

Stage 1: By census day (usually the third Thursday in November), schools and local authorities should have ensured their management information systems hold accurate details for all their staff in scope of the census. They would then ensure that the information required by the Department (as set out in the published School Workforce Census data requirement) is extracted and uploaded to the Department’s COLLECT system. Schools and LAs will have had the opportunity to test out the quality of their data and the data extraction routines provided by their software suppliers by using the familiarisation version of the Department’s data collection system, COLLECT. The full list of data items collected by the census can be found in the guides provided to schools and LAs.

Stage 2: Once schools and local authorities have successfully loaded their data onto COLLECT they can review and inspect their data. The COLLECT system has a range of checks that it runs on the data: e.g. simple formatting checks, arithmetic checks and validation rules that specific data items must meet. The checks made within COLLECT are contained within the published guides and specifications.

Software suppliers often build these checks into their data extraction routines and/or management information system (MIS) upgrades. The checks within COLLECT will flag up where the data provided has either failed to meet the standards required (an error) or does
not conform to what was expected (a warning). For example, an error would result if no contract information was provided and a warning would result if the date of birth placed the teacher’s age as less than 21 or over 90. The validation checks are reviewed and improved each year, for example, checks to identify schools with very large changes in teacher numbers were introduced. This gave schools an opportunity to say whether the change was real or to resubmit if there had been a data input error. This process helps identify where schools initial returns need attention. Checks and guidance have been continually updated and improved to help schools provide better quality data on the pay of teachers (especially part-time teachers) and whether the data submitted includes a pay award for the current year.

Schools and local authorities then check their data - especially the errors and warnings - to ensure the data is correct and accurately reflects the staffing levels at their school at the time of the census. Changes and/or corrections to the data provided can be done either on-line in COLLECT or within the local MIS system (preferred). If the changes are done locally then the data has to be resubmitted to the Department. Once schools and local authorities have resolved their errors and warnings they approve their data – which signals to the Department that the data can move to the next stage. The COLLECT system also includes credibility reports which have been developed by the Department to ensure that the overall return looks right and is complete. School’s and local authorities are strongly encouraged to run these reports to ensure that the data being submitted is a true reflection of staffing levels and characteristics.

Stage 3: Once the data has been approved for use by schools and local authorities, the Department runs a further set of checks on the data. These checks look within the data to spot any problem areas, for example, where schools have provided substantial numbers of records that are missing particular data items e.g. staff with no contract information and staff whose pay rate is not credible. The results of these checks are provided as feedback to local authorities to help them work with their schools to ensure a complete set of data exists for all schools in their area.

Throughout the first three stages of the collection, the Department operates a helpdesk which staff at schools and local authorities can contact if they are unsure about any aspect of the School Workforce Census. This is the primary route that academy schools use to discuss their queries regarding the data they are submitting. The helpdesk operated throughout the census period, November to December, and throughout the period immediately afterwards when data credibility checking takes place – typically December into January. When this process is completed and both the data supplier and the Department are happy the return is authorised for use.

Stage 4: Once all the school and local authority data has been authorised a final database for the year is created which allows the Department’s statisticians to prepare the information that is to be published. At this stage any data that has been provided and
deemed to be out of scope is removed from the dataset for example teaching staff on zero hour contracts (likely to be a pool of supply teachers that are regularly used by the school but were not actually in service during the time of the census). Any data that has been received but is not required such as contracts before the date that a schools converted to an academy are also removed.

This results in a database containing all contracts for all staff working in all schools for the year. This is added to the database of all contracts in all previous years. This dataset is used to calculate the number of teachers and other school support staff working in each school since the school workforce census began. In addition linking of individual teacher records across the years is done using the individual identification information supplied. This is based on the Teacher Reference Number (TRN) supplemented by NI, names and Date of Birth. This produces a service history for each individual teacher since 2010 to date. All year databases for other modules of the census, absences, curriculum taught, qualifications and vacancies are also produced.

To support the process of linking teacher data across years the School Workforce Census is matched to other administrative data held by the Department. This is to help overcome occasional gaps in the data, for example, where schools have not supplied the TRN for a teacher. A match is made to the Database of Qualified Teachers which contains details of the year that teachers finished their teacher training and gained Qualified Teacher Status (QTS). Where teacher records without QTS recorded have been supplied it can be completed. In addition, the School Workforce Census does not collect the year of qualifying for a teacher, this information is added to the linked teacher dataset so that Newly Qualified Teachers can be identified – which is important for the analysis of teacher flows.

The teacher data from the School Workforce Census is also matched to the Database of Teacher Records which is data collected as part of the administration of the Teachers’ Pension Scheme. This dataset is used to fill gaps in the School Workforce Census. This is important for accurate analysis of entrants and wastage.

The all year contract file is then used as the basis of an aggregated teacher level dataset (a small percentage of teachers have more than one open contract on census day e.g. where they have two distinct roles within a school or work in more than one school). The linked teacher dataset is the main source of data used for publishing statistics on teacher numbers, teacher characteristics as well as entrants to teaching, teachers leaving state funded schools and teacher retention.

The linking of teacher data across years allows for the better identification of poor quality or inconsistent school data. The linked dataset has helped with the identification and removal of duplicate teacher contracts - where they were provided by both a school and a
local authority. It has also supported the identification of individual teachers working in multiple schools.

Stage 5: The publication “School Workforce in England” is the first part of the dissemination process. The release of the publication signals the availability of the data for use by the Department (e.g. Teacher Supply Modelling) and to the general public (e.g. in reply to Freedom of Information (FoI) requests.) and to independent analysts and researchers – who can request specific information.

The second main output produced from the latest data is a large set of school level data which is released as part of the Department’s commitment to release the underlying data used to create all national statistics. The Department releases school level school workforce statistics showing teacher and support staff numbers, staff characteristics, teacher pay and sickness absence and the number of vacant posts. The school data also includes school type and phase and various geographical data e.g. LA, ward and constituency.

4. Production of the statistical publication

The data collected in the latest census is used to update the time series data in the publication and to create the latest snapshot data. The publication uses both linked teacher data as well as single year teacher and support staff data. Although no further data is expected to be received from schools and local authorities, improvements to linked data mean that revisions may made to data previously published.

4.1 Updates to previous years data

In previous years the publication included rounded figures in all national tables and suppressed figures in the school, local authority and regional published file. This year, to aid users of the data, unrounded figures in the national tables and generally unsuppressed figures in the sub-national files have been included. The use of a dataset containing linked data for all years for both teachers and other school support staff (outlined on page 9) means that data for previous years has been revised and is produced on a consistent basis. The linking of data may identify further duplicates or otherwise improve data quality by better quality of, and increased rates of matching across years. This has lead to small changes to data previously published. The following table shows the overall number of teachers and support staff in service between 2010 and 2017 to illustrate the changes that have resulted from the introduction of new and consistent data matching.
Updates to the linked teacher dataset have also been used to revise previously published information on entrants and leavers teaching in state funded schools and on the retention of teachers (Tables 7a, 7b and 8). Updates to the Database of Teacher Records enable better matching to be made and improve the quality of data on new entrants and returners to teaching and provides updates on the number of retirements and deaths in service.

### 4.2 Size of the schools’ workforce

In the publication, Tables 1-3 focus on the size of the workforce in schools; the number of teachers, teaching assistants, school support staff and other staff e.g. short-term ‘occasional’ teachers.

The counts in the publication generally show the number of staff who were in service in a state funded school on census day and who had a contract lasting (or will last) longer than 28 days. Teachers in schools on census day with a contract lasting less than 28 days are recorded as ‘occasional’ teachers. Support staff who have a contract of less than 28 days are not counted unless they are employed by a third party provider.

Full-time and part-time school staff are defined by the proportion of the full-time hours they are employed to work. The preferred measure for the total number in schools is the full-time equivalent (FTE). For example, one full-time teacher and one part-time teacher (that

<table>
<thead>
<tr>
<th>Year</th>
<th>Teachers Revised figures published in June 2019</th>
<th>Teachers Figures published in June 2018</th>
<th>All Support Staff Revised figures published in June 2019</th>
<th>All Support Staff Figures published in June 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>441,400</td>
<td>441,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>439,200</td>
<td>440,000</td>
<td>437,300</td>
<td>437,900</td>
</tr>
<tr>
<td>2012</td>
<td>445,200</td>
<td>445,400</td>
<td>457,700</td>
<td>457,000</td>
</tr>
<tr>
<td>2013</td>
<td>449,600</td>
<td>449,700</td>
<td>472,700</td>
<td>470,600</td>
</tr>
<tr>
<td>2014</td>
<td>455,400</td>
<td>454,900</td>
<td>487,900</td>
<td>487,100</td>
</tr>
<tr>
<td>2015</td>
<td>457,000</td>
<td>456,900</td>
<td>500,600</td>
<td>501,000</td>
</tr>
<tr>
<td>2016</td>
<td>457,300</td>
<td>457,200</td>
<td>500,400</td>
<td>500,600</td>
</tr>
<tr>
<td>2017</td>
<td>452,000</td>
<td>451,900</td>
<td>494,700</td>
<td>495,200</td>
</tr>
</tbody>
</table>
works 50% of a standard year) would be classed as 1.5 FTEs. The same applies to other staff.

The information contained in these tables, for 2010 onwards, is derived in the following way:

- Teacher data are derived from the aggregated linked teacher dataset which covers teachers in service between 2010 and 2018.
- All support staff data are derived from the multi-year contract dataset.

Schools and local authorities provide data on each individual in scope of the census. In the vast majority of cases, those teachers in service on census day have one contract and work in one school. As part of the teacher linking and aggregation process, those teachers with more than one open contract on census day (e.g. working part-time in two schools) have their information combined into one record. For example a teacher who works in more than one school in a multi-academy trust will be recorded by each of the schools in their school workforce census return. When the multiple records are identified by the department these records are aggregated into one of the contract records submitted based on agreed business rules. The highest grade contract record is chosen first or else that contract which has the greatest hours. This aggregation does not affect national level reporting of teacher statistics and the aggregation is not used to provide individual school figures where it might have affected the overall total of teacher numbers working in some schools. Combining teacher data in this way allows the comparison of an individuals data across years and is essential for establishing whether a teacher is in service anywhere in the English schools system each year. The aggregated data therefore forms the basis of the entrants, wastage and retention figures that are published.

The multiple contract data for teaching assistants and school support staff are not aggregated to a single record and therefore the published figures show the total number of people in these groups with open contracts on census day across all schools and roles.

The total number of teachers, teaching assistants and other school support staff are calculated from the data provided to the Department by schools and local authorities. However, in each year there are a small number of schools and local authorities that do not provide a usable census return. To ensure the total number of staff reported in schools is not unduly affected by these missing schools estimates of their impact are made.

For example, in 2018, there were 110 schools that did not supply usable data giving a 99.5% return rate. For these schools it is estimated they employed 2,813 full-time equivalent teachers. To produce this estimate a scaling factor is derived. The scaling factor takes into account the total number of schools per phase, the average number of staff (by type) per phase and the number of missing schools by school phase. The scaling factor is then used to gross up the totals based on received data to produce national estimates.
The overall staff numbers presented in the school level data file differ from the figures presented in the national tables because they have not been adjusted to account for schools that did not make a return or to account for multiple contracts found for the same post or where teachers are in service with more than one employer.

This year the staff numbers in the regional and local authority files include scaling to agree with the national tables for the first time. This scaling is done independently for each local authority area and therefore no scaling is done with respect to any authority where a return was received for every school. Where a local authority has missing schools estimates for the number of staff working in those schools, are in the first instance, based on the numbers reported in the previous year’s census. In a small number of cases, where previous figures are not available, the estimate is based on the average number of staff employed by a school of that type in the same local authority. The characteristics rates and pay information reported at local authority and regional level are based on the information received for the current year only and do not include any estimates. The same is also true of the PTRs, sickness absence and vacancy figures.

4.3 Characteristics of the school workforce

Tables 3 to 6 provide deployment and characteristics data for school staff e.g. full/part-time status, age, gender and ethnicity information for teachers (by grade) and support staff (by role) by school phase. Again, the teacher data is derived from the linked teacher dataset and the support staff data from the multi-year all contract dataset.

Tables 5 and 6 provide statistics based on the headcount of staff; rather than the FTE. For Table 5 where teachers have more than one post in a school, they are counted once under their highest graded post. The post of headteacher is ranked highest and classroom teacher lowest. If the teacher has more than one post at the same grade then only one is counted. There is no natural hierarchy of posts for school support staff and therefore where staff have more than one post they are counted once under each post. Around 10 per cent of support staff have more than one role.

The headcount figures provided in Tables 5 and 6 should not be used as a measure of the overall size of the school workforce, the full-time equivalent figures provided in Tables 1 and 2 should be used instead.

The staff breakdown by type of post, including the grade of teacher, is taken from the information in the post description provided in the contract and not from the additional role information which provides greater detail. The further information available in the role has not been used to decide the post held except for teaching assistants where they were recorded as support staff in the ‘Post description’ field in error. The further breakdown of the role for teaching assistants and support staff provided in Table 2 is provided by the first role descriptor supplied for the contract.
4.4 Entrants and leavers

The teacher flow data (new entrants, retention data, and leavers) published in Table 7a, Table 7b and Table 8 has been produced from the linked aggregated teacher dataset (which brings together the teacher data present in each of the completed censuses) to produce a longitudinal teacher dataset. The longitudinal nature of the teacher dataset makes it possible to track teachers over time. It helps to identify teachers entering and leaving the profession and those remaining in post.

The statistics published show the time series for the number of qualified entrants to, and the number of qualified leavers from, teaching in state-funded schools in each year.

The total number of qualified teacher entrants includes the following groups which are separately identified:

- Newly qualified teachers (NQTs) in their first post: these are NQTs who enter state funded schools after successfully completing initial teacher training in England.
- Qualified teachers who have previously worked in the state-funded sector and are returning to work after a break of more than one year e.g. maternity leave, career breaks.
- Qualified teachers working in a state-funded school for the first time who have previously worked elsewhere; this may include employment in the independent or further education sector, or employment elsewhere in the UK or overseas. This includes two groups, deferred NQTs and those new to the publically funded sector. Deferred NQTs are those who start their first teaching post in the state funded sector one year after qualification. Those new to the publically funded sector are those who start teaching in the state funded sector two or more years after qualifying.

The total number of qualified teachers leaving the profession in a year includes the following groups which are separately identified:

- Qualified teachers retiring; including teachers taking early retirement or who are retiring through ill-health.
- Qualified teachers leaving the profession – “Out of service”. This group will include those leaving the profession entirely but could also include those moving to other UK education sectors and those leaving on career breaks e.g. maternity leave or secondments outside of the school sector. Some of these teachers may re-join a state funded school in England at a later date.
- Teachers who die whilst in service.

The entrants and leavers statistics are calculated by comparing individual level teacher data for two consecutive years and checking whether the teacher is still in service. There are three possible outcomes:
• Teachers present in both years are those who have remained in-service (this will include those teachers who have moved between state-funded schools).

• Teachers present in the first year but not the second year are teachers who are no longer working in state-funded schools.

• Teachers present in the second year but who were not present in the first year are teachers who have started working in state-funded schools (which includes new starters and returners).

The teacher entrants rate is then calculated by dividing the number of entrants by the stock of teachers in the year when they are in service. Similarly, the teacher leavers rate (often referred to as the teacher wastage rate) is calculated by dividing the number of leavers by the stock of teachers in the last year they were in service.

The entrants and leavers numbers are not the only factor affecting FTE numbers of teachers between years. Each year a small number of teachers change working pattern. Around 4% of teachers increase their working hours, either moving from part to full time working or increasing their working hours while remaining part time. Around 5% move from full to part time working or further decrease their part time working hours.

The entrants and leavers rates do not take these changes in working pattern into account, if a teacher changes their working pattern they will not appear in the entrants or leavers figures however the change in their FTE would be accounted for the overall FTE teacher numbers. For example, a teacher who is full time in 2017 would contribute 1 to the FTE teacher numbers, if they move to working 3 days per week in 2018, their contribution to the FTE teacher numbers in 2018 would be 0.6.

For this reason changes in FTE teacher numbers are not wholly accounted for by changes in the FTE numbers of entrants and leavers. As more teachers reduce their working hours, there is a net decrease each year in FTE numbers caused by these changes in working pattern. The chart below shows the effects of changes in working pattern on the FTE change in the number of qualified teachers using 3 different scenarios:

1. The actual change in qualified teachers based on the headline teacher stock numbers

2. The implied change in qualified teachers accounting for just entrants to, and leavers from the profession

3. The implied change in qualified teachers accounting for entrants, leavers, but also data that is published for the first time this year on changes in working pattern

Including the changes in working pattern in assessing FTE changes between years gives a more accurate indication of the actual changes which take place.
In addition to teachers who change their working pattern there is a small number of teachers whose data cannot be matched across years, or who teach in schools where a School Workforce Census return is missing. While these teachers have been accounted for in the scaling process outlined in paragraph 4.2, we cannot determine if these teachers have changed working hours and thus their contribution to the FTE figures. These explains the remaining discrepancy between the blue and grey line in the chart above.

4.5 Entrants and Leavers - Change in Methodology

In 2018, the methodology for identifying entrants to, and leavers from teaching, plus the retention rates changed following an extensive review. Prior to 2018, national level estimates were produced, the steps to produce these national level estimates were:

1. Identify all entrants to, and leavers from teaching.
2. Identify all entrants and leavers who are teaching in schools where there has been a change in qualified teacher headcount of 20% or more and remove these from the estimates.
3. Calculate grossing factors based on the removal of these teachers
4. Apply this grossing factor to the number of teachers remaining to obtain national estimates.

This methodology was originally introduced to account for schools not returning the workforce census or submitting large changes in staff which weren’t deemed credible, and
therefore, leading to teachers being incorrectly identified as entrants or leavers due to them being absent from the data in one year.

The change has been introduced after an extensive review which found that a disproportionate number of teachers in small primary and special schools were excluded when their staffing changes were confirmed as correct during the data collection process. The new methodology brings in data from the Database of Teacher Records to fill in gaps where a school has not returned workforce data. This has allowed us to remove the rule which excludes schools with a staffing change of 20% or more from the analysis. The raw number of entrants and leavers are calculated and the scaling factors applied to them are in line with the scaling factors used to account for missing schools for the school workforce as a whole.

This new methodology has been applied to all previous years data to give a consistent time series. The number of entrants and leavers is generally higher but the trends are similar. Chart B shows the number of entrants, using both the methodology used in 2017 and earlier years and the new methodology introduced for 2018. Chart C shows this comparison for the number of leavers. As with entrants, numbers are slightly higher but the underlying trend is similar.

**Chart B: Comparison of methodologies used for qualified entrants to teaching**
4.6 Teacher Retention

The teacher retention matrix is published in Table 8. This shows the percentage of qualified teachers that enter service in the year after qualifying and that remain in service in each year afterwards. Data for years prior to 2010 used information held in the Database of Teacher Records, (DTR), data available as part of the administration of the Teachers’ Pension Scheme. Data for 2010 and subsequent years uses data primarily from the School Workforce Census with DTR used to fill in for schools not making a School Workforce Census return. The figures shown in the table are split to account for the differing data sources.

In previous years, the retention grid also removed teachers teaching in schools where there has been a change in qualified teacher headcount of 20% or more. As with entrants and leavers figures, this has now been removed and scaling is in line with over FTE teacher numbers.

Chart D shows a comparison of retention rates published in 2017 and the rates published in 2018 based on the new methodology.

The rates for years after the introduction of the School Workforce Census are now higher than published in earlier year’s publications. This is due to better matching rates between DTR data and School Workforce Census data and more matched teachers being included in the calculations once the removal of teachers has been discontinued.
The retention table gives the position for each teacher in the year after they first entered and in each subsequent year. A proportion of these teachers may re-enter service in future years. Teachers are included in retention calculations if they are in service in the year in question, irrespective of this movement. Therefore if a teacher qualifies in 2008, leaves in 2011, then returns in 2014 they will be included in retention figures post 2014 regardless of the break which occurred between 2011 and 2014.

Some teachers may have been in a state funded school particularly in the earlier years of the series which is based on the DTR. The DTR is known to exclude some teachers each year. No estimates have been included to account for this and the table only includes teachers where a definite record of their being in service is present.

The information shown in the teacher retention grid only relates to newly qualified teachers who joined the profession in each year since 1996. The leaving rates included in Table 7b include teachers who have been in service prior to 1996, teachers who are nearing retirement age, and those who are retiring. Therefore, the figures and trends shown in Table 7b are not comparable to those in in Table 8. Table 8 only shows the percentage of newly qualified teachers still teaching after one year or more service. The retention matrix uses the new methodology outlined above in 2018. This means that data presented here will not match to previously published figures.
4.7 Teachers’ average salaries

The statistics on teachers’ salaries have been derived from the all contracts linked teacher contracts dataset. Aggregated linked data as used for teacher numbers in service tables has not been used as this aggregates the information for teachers with multiple contracts to one record of a main contract based on their highest grade. This aggregation would affect the accuracy of the figures published.

For information on school teachers’ pay and conditions (STPCD) please refer to the statutory guidance available at [gov.uk](http://gov.uk).

Tables 9a to 9d provide details on the average salaries of teachers for November 2018. Table 9e shows a time series of average salaries. We now include teachers without qualified teacher status and part-time teachers in average salary calculations, previously published data for years prior to, and including, 2015 included only qualified full-time teachers. Part-time teachers are included as full-time equivalent salaries and included in the averages on a headcount basis.

Some teachers pay details are treated as unknown in the tables. The salary of teachers employed through a third party on a service level agreement is usually unknown to the local authorities and schools and therefore are not reported. Ununknowns also include records where the base salary for the grade in the STPCD for the grade (or slightly lower in the case of academies and free schools) or where it is above an upper limit of £80,000 for classroom grade teachers, £120,000 for deputy and assistant headteachers and £250,000 for head and executive headteachers. In addition a small number of part-time teachers have full-time equivalent (FTE) salaries reported for them rather than the required actual salaries. Part-time salaries from schools where this is found to have occurred are also treated as unknown. The overall number of teachers treated as unknown was 15,107 (3.0%) in 2018 down from 16,718 in 2017 (3.3%).

Additional allowances have been included in the gross salary. Each allowance paid is recorded separately in the census. Where two or more allowances of the same type are noted for a single contract record then the higher amount is taken as the allowance in payment on the census date and included in the gross salary. The only exception is unspecified allowances where the sum of all these is included as representing the amount included in the salary over the course of a year as these are likely to be one-off rather than continuous monthly payments.

When making comparisons of teacher salaries by school phase or type there will be several factors that affect pay to consider. For example, the published data do not take into account factors such as: size of school, location of the school (London has higher pay scales) and the teachers’ experience and the size of school. In addition, in previous years the location
of the growing number of academy schools affected the distribution of average pay statistics. Many of the first group of academy schools were in London and the south east where the pay bands are higher and this was inflating the average pay statistics - making comparisons difficult. A change to a larger more geographically spread group of academies and lower numbers of local authority schools will continue to affect this comparison.

It is possible that not all schools provided the most up to date pay data that took account of any pay awards due at the start of the latest academic year. This timetable is very close to the School Workforce Census collection period and not every school manages to update their management information systems before providing a census return.

### 4.8 Teachers’ qualifications and curriculum taught

Table 10 provides information on teachers’ highest level of post A level qualification. Qualifications information is received for almost all teachers (97.2% in 2018). The percentage of teachers holding a particular level of qualification was derived using a baseline of the total teachers for whom qualifications information was provided. Where a teacher was reported as holding more than one post A level qualification, the qualification level was determined by the highest level, from degree or higher to other qualification at National Qualifications Framework (NQF) level 4 and non-UK qualifications for which an equivalent NQF level was not provided.

Curriculum information was requested from all secondary, middle deemed secondary and all-through schools including relevant academy schools, with timetabling software that interfaces with their Management Information System. This means that the number of schools that provide data can change from year to year. The published tables show the unweighted base that the figures are derived from.

Table 11 is based on the sample of teachers in secondary schools where curriculum data was provided. The data have been weighted and grossed so that all totals presented in the table provide a representative, national picture.

The following table shows how the Table 11 sample has varied over time between 2011 and 2018.

<table>
<thead>
<tr>
<th>Year</th>
<th>The sample size used to construct the headcount of teachers teaching each curriculum subject and the number of hours taught in that subject.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>168,990 secondary school teachers – 77% of all secondary school teachers</td>
</tr>
<tr>
<td>2017</td>
<td>166,513 secondary school teachers – 76% of all secondary school teachers</td>
</tr>
<tr>
<td>2016</td>
<td>166,936 secondary school teachers – 76% of all secondary school teachers.</td>
</tr>
<tr>
<td>2015</td>
<td>172,495 secondary school teachers – 78% of all secondary school teachers.</td>
</tr>
<tr>
<td>2014</td>
<td>176,343 secondary school teachers – 77% of all secondary school teachers.</td>
</tr>
<tr>
<td>2013</td>
<td>175,720 secondary school teachers – 77% of all secondary school teachers.</td>
</tr>
<tr>
<td>Year</td>
<td>The sample size used to construct the headcount of teachers teaching each curriculum subject and the number of hours taught in that subject.</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2012</td>
<td>174,837 secondary school teachers – 75% of all secondary school teachers.</td>
</tr>
<tr>
<td>2011</td>
<td>178,884 secondary school teachers – 79% of all secondary school teachers.</td>
</tr>
</tbody>
</table>

Tables 12 and 13 provide information on the percentage of teachers, and of hours taught by teachers, who hold relevant post A level qualifications by the subject taught. The tables record the highest qualification gained in each subject taught, rather than each qualification. A teacher’s qualification was deemed as ‘relevant’ to the subject taught if the subject of their qualification, reported using the Joint Academic Coding System (JACS), appeared in the list of JACS codes in the Department’s subject mapping. The full mapping used is available on the same web page as this statistical publication.

The subject of a qualification was not received for all the qualifications data submitted and in a small number of other cases the information was incomplete or incorrect. From 2016, all qualifications obtained by teachers have been used, with data collected in previous years being used to fill in any gaps in the current year’s collection. The Database of Qualified Teachers is also used to complete any gaps in teacher qualifications.

In previous years the overall sample size for analysis of the combined qualifications and curriculum data for teachers is lower in Tables 12 and 13 than in Table 11. However the use of all qualifications data has improved the numbers of teachers for whom qualification data is available. The data are weighted and grossed so that all totals presented in the tables provide a representative, national picture.

In Tables 12 and 13 confidence intervals have been calculated around the percentages to show the statistical accuracy of the data, and give a range within which we can be reasonably sure (95 per cent certain) that the true value actually lies.

A change was made, after the November 2011 collection, to the methodology that creates the percentage of qualifications by subject in Tables 12 and 13. This change applies to tables using the November 2012 data and for future tables. Where a teacher is recorded as having a PGCE they must also have a first degree recorded as well to be included in the table as their record of qualifications is not complete without both records. This change might slightly raise the percentage of teachers with a degree in the subject.

Investigations have revealed that there is some bias in the sample of the schools providing data with some regions providing a higher percentage of their schools to the sample than others. These differences may be caused by the different characteristics of schools that can provide information compared with those that cannot.
4.9 Teacher vacancies and temporarily filled posts

Tables 14 and 15 show the total number of vacancies and temporarily filled posts reported by schools. Schools that did not make a return for the vacancy module are judged to have no vacancies. No estimates were made for schools that did not make a census return for November 2018. The small number of these means this will not have a significant impact.

A teacher vacancy refers to a full-time or part-time appointment of at least one term's duration that, on the census date, had been advertised but not filled. Vacancies include those filled on a temporary basis unless filled by someone with a fixed term contract of one term or more.

A temporarily filled post is one where a permanent vacancy is available but it is being filled by a teacher with a contract of at least a term but less than one year's duration. This is irrespective of whether the post has been advertised.

The teacher vacancy rate is the number of vacancies expressed as a percentage of qualified teachers in post e.g. full (or head count number of part-time) regular teachers in (or on secondment from) the relevant phase.

To calculate the secondary school vacancy rates by subject, the percentage of the secondary school curriculum that each subject taught contributes is calculated from the information provided in Table 12. The total number of full-time qualified classroom teachers in service is multiplied by this percentage to find the total number of teachers in post teaching each subject.

4.10 Teacher sickness absence

Teacher sickness absence information was received for around 98 per cent of local authority maintained schools. A local authority was deemed to have made a full return where 90 per cent of schools or more had supplied sickness absence information because small schools may not have had any sickness absence to report. 9 local authorities had less than the required 90 per cent return rate and in these cases estimates based on the national rate were added (to the statistics in Table 16) to account for the schools with missing information. Missing sickness absence data for teachers in schools that did not have a usable return was estimated as the average sickness absence days lost per teacher for schools that made a return.

21 per cent of academy schools did not have a complete teacher sickness absence return because they were not open as an academy school for the full academic year. Teacher sickness absence statistics are based on the absences taken by teachers in the 12 months up to the census date. It did not prove possible to accurately estimate the teacher sickness absences missing for these schools. An estimate based on the average sickness days
taken for all schools where a absence return was made including local authority schools where information for an academy school was not available.

Sickness absence is produced from the total days absent, including half days, for each teacher during the academic year previous to the School Workforce Census collection date. All teachers who are in regular service at any time during the year are included in the calculations. Only those absence periods that ended during the academic year are counted so the total may include absence days from the previous academic year but will not include those at the end of the year if the period of absence is ongoing. Absence days are limited to 195 days for each teacher as this is the maximum number of working days in a single academic year. Non-working days are not included in the figures. Days absence that can be recorded for a part-time teacher are limited to those that they are contracted to teach.

4.11 Teacher disability

Schools are asked to provide information on the number of teachers that record themselves as disabled. However, information on disability was not obtained by schools for 51 per cent of teachers in the November 2018 census. The information provided suggests 1.1 per cent of teachers are disabled, however, this may not truly reflect the real position given the large amount of missing data, and given the low return rate we do not publish this information in the main release.

4.12 Pupil teacher and pupil adult ratios

The pupil teacher ratio (PTR) and the pupil adult ratio (PAR) are calculated using the November teacher and staffing data from the School Workforce Census and the pupil data collected in the following January School Census. Only those schools that provided both pupil and workforce information are included in the figures. The pupil numbers used in the calculation of the PTR statistics include dual registered pupils.

The overall PTR is based on the total FTE number of pupils on roll in all local authority maintained nursery, and all primary and secondary schools and the FTE of all teachers in these schools (including: those on paid employment based routes to qualified teacher status; others without QTS, those on paid absence and any replacements). Special schools and Pupil Referral Units are excluded. Prior to 2010, the PTRs are based on the teacher numbers from the Form 618g survey and the pupil numbers from the school census – both of which were collected in January. The overall PAR also includes support staff excluding administrative, clerical and other auxiliary staff.
4.13 Definitions and general notes

The tables in this publication generally show school staff in five groups: teachers, teaching assistants, school support staff, school auxiliary staff and local authority centrally employed staff. The definitions used with the SWF data published in this publication are described here:

| Notes for teachers and teaching statistics | a) Statistics for teachers include all full and part-time, qualified and unqualified, classroom teachers and school leadership group teachers (Headteachers, Deputy and Assistant Headteachers) unless specified within the tables. |
| | b) The number and characteristics of Leading Practitioners have been incorporated into the statistics on classroom teachers. |
| | c) Advisory Teachers have been included in teacher totals and are included with assistant heads where a grade breakdown has been supplied. |
| | d) Teachers in occasional service are those with a contract of less than one month, 28 days for SWF, and are employed on census day. |
| | e) Teachers employed on service level agreements via teacher employment agencies and other third party suppliers are included in the main count or as in occasional service depending on the length of their contract. |

| Notes on school support staff | a) Statistics for teaching assistants include higher level teaching assistants (HLTA), special needs and minority ethnic pupils support staff and other staff with pupil support roles. |
| | b) Statistics for school support staff refer to non-classroom based school staff such as school secretaries and other clerical staff, bursars, technicians and childcare staff (e.g. a school nurse). |
| | c) Statistics for auxiliary staff (roles which were not collected by the Department prior to November 2010) include catering and school maintenance staff. |
| | d) Third party support staff are not directly employed by the school and are in service on the census date. |
| | e) Centrally employed staff are those employed by the local authority and include the following types of employee: peripatetic teachers; home tutors; and teachers who are employed by education authorities to provide education in institutions other than schools (e.g. hospitals, home tuition, assessment centres and pupil referral units). |

| Notes for teacher sickness absence data | a) Sickness absence periods, and days taken, include all periods of sickness absence leave taken in the academic year for example 1 September 2017 to 31 August 2018. They include any that were ongoing on the 1 September at the beginning of the year and exclude any that were ongoing after the 31 August at the end. |

| Notes on schools | a) Middle schools are classed as deemed, i.e. as either primary or secondary and City Technology Colleges and free schools are included with academy schools. |

In addition, when viewing the tables, please note the following:

| We preserve confidentiality. | The Code of Practice for Official Statistics requires we take reasonable steps to ensure that our published or disseminated statistics protect confidentiality. |
We no longer round the numbers

Departmental policy on rounding in publications has changed. Figures are now provided as unrounded except where it is essential to retain confidentiality where the information is regarded as sensitive for individuals. This is to allow easier further manipulation by users and avoid rounding errors. All national tables are unrounded as it would be extremely difficult to attribute a sensitive characteristic to specific person at this level. The suppression levels for sub-national figures are described in section 4.15 below. Please note that although figures are not rounded this does not mean that the accuracy of any estimates that have been included can be assumed to have improved (for example in the staff numbers, the qualification and curriculum and absence figures). In addition some figures that would be expected to be an integer may be available with decimal places where estimates are included.

We have adopted the following symbols to help with identification.

Symbols are used in the tables as follows:

- . not applicable
- .. not available
- - nil or negligible

### 4.14 How the Department uses the School Workforce Census

The school workforce census data are used in many ways within the Department for Education and its agencies. The main uses are as follows:

<table>
<thead>
<tr>
<th>Production of statistical briefing and analysis on various topics such as…</th>
<th>a) The deployment and qualifications of teachers in schools.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) Analysis of the percentages of lessons taught by teachers with relevant qualifications.</td>
</tr>
<tr>
<td></td>
<td>c) Analysis of teaching vacancies by subject and region.</td>
</tr>
<tr>
<td></td>
<td>d) Assessment of the number of teachers without qualified teacher status.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher demand modelling to estimate changes due to various policies or demographic changes.</th>
<th>a) Demographic pressures and churn in the workforce.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) Impact of policy development on the workforce e.g. curriculum, qualifications etc.</td>
</tr>
<tr>
<td></td>
<td>c) Informs the annual target setting for initial teacher training places via the Teacher Supply Model; helps to ensure a sufficient supply of teachers to schools.</td>
</tr>
<tr>
<td></td>
<td>d) Modelling the number of potential school leadership teachers; to help ensure there are enough school leaders in the system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis of Teacher Pay Costs</th>
<th>a) Provides evidence to support the independent pay review body recommendations.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) Assess impact of proposals for pay and estimate future costs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transparency through publication</th>
<th>a) Through the publication of the annual Statistical First Releases and school level data and through the Performance Tables.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) The data is used to reply to a substantial volume of official correspondence, including Parliamentary Questions and Freedom of Information requests.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School Workforce Census data is sometimes shared with external researchers…</th>
<th>a) Research into the new institutions that are admitting pupils at age 14, including, but not limited to University Technical Colleges and Studio Schools etc., profiling them in terms location, who works in them and which pupils attend them.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) The costs and benefits of different teacher training routes in England.</td>
</tr>
<tr>
<td></td>
<td>c) Modelling teacher supply and retention over time.</td>
</tr>
</tbody>
</table>

…under strict controls.
Some examples have been …

d) Research into differentials in levels of appointment and salary level by demographic sub-groups of the teacher population.

e) Better understanding of the impact of specialist teachers on the uptake of subjects and achievement in subjects.

4.15 Sub national, school, local authority and region file, data, rounding, suppression and notation conventions.

Data conventions.

In 2018 the staff headcount and full-time equivalent numbers in the local authority and regional files match those to be found in the national summary tables for the first time. Therefore the staff numbers in the local authority and regional files are not comparable with those in previous years publications as they include scaling to account for missing schools as described in section 4.2. Other columns in the local authority and regional files are produced on the same lines as and from the same sources as the national tables.

For the schools file adjustments such as deletions for multiple recording of staff have only taken place where more than one contract is identical in the same staff record. In some schools staff may be recorded multiple times in the same or different posts and this may give high staff numbers particularly in the total headcount column. Further deduplication takes place in the data from which the national figures are obtained. In addition no estimates have been included in this school level sheet to account for any school for which information was not supplied. Centrally employed staff are also excluded. As a result any staff totals obtained from this data will not agree with published national, local authority and regional level figures. Other columns have been produced on the same basis as the national totals but the source will be the undeduplicated original.

Rounding and suppression.

For the November 2018 publication there is generally no suppression or rounding of figures in the subnational files. The only exception to this is where suppression is considered essential to avoid the identification of an individual where information may be considered sensitive. For schools, this includes gender, staff sickness absence and salary. Figures in these categories may be considered sensitive and therefore these are suppressed when the information is based on schools with only 1 or 2 teachers.

Missing schools.
For those schools for whom a return is expected but who do not supply data, DNS (for Did Not Submit) is used in all cells in the Staff Numbers, Staff Characteristics, Staff Pay, Staff Absence and Vacancies sections.

**Other cases where information is not available**

Where a school made a return but has no staff in a certain category the relevant cell is set as zero. Where a school provided a return but we were unable to provide the information in the category the cell is set at NA. For example an NA would be used in the teacher sickness absence columns where the school was not open for the full academic year. NA would also be used for a statistic that is not possible to calculate. For example if a school does not have any teaching assistants then the statistic of the percentage of teaching assistants who are male would be set to NA.

In previous years a few multi academy trusts have provided a single federated return for all their schools’ where they were unable to provide individual schools’ returns in the time scales allowed. For 2018 no federated returns have been received and therefore there is no reference to these in the school level file.

## 5. Further information

Further information on the school workforce census is made available via the publication and during year. The Department for Education is only responsible for education in England.

<table>
<thead>
<tr>
<th>School, local authority and regional figures.</th>
<th>School level school workforce data is available within the additional tables published alongside this statistical release. The school data contains a range of information for each school following the same themes as set out in this document. It also includes both local authority and regional level summaries.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The total number of teachers in schools will not sum to the LA, region or national total. This is because the LA and region totals include those employed directly by LAs and the national totals include estimates for missing schools.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Want these figures, related to Performance Tables?</th>
<th>8 school level school workforce indicators are included as part of each year’s School Performance Tables. The indicators include FTE and headcount statistics for the number of teachers, teaching assistants and school support staff, the average salary of teachers and the pupil teacher ratio.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School level school workforce data from November 2017 was included in the latest set of tables which were published at the end of 2018. For the latest School Performance Tables visit here.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Want previously published figures?</th>
<th>The publications relating to the years 2010 to 2017 collections can be found on gov.uk and information published prior to 2010 can be found in the National Archives.</th>
</tr>
</thead>
</table>

31
Want data for Wales, Scotland or Northern Ireland? The School Workforce Census only collects information from schools in England. Education in Wales, Scotland and Northern Ireland is a devolved matter for the Welsh, Scottish and Northern Irish Governments. For information for Wales, Scotland and Northern Ireland, contact the departments below or access their statistics at the following links:

Wales: school.stats@wales.gsi.gov.uk or http://wales.gov.uk/statistics-and-research/schools-census/?skip=1&lang=en

Scotland: school.stats@scotland.gsi.gov.uk or http://www.gov.scot/Topics/Statistics/Browse/School-Education

Northern Ireland: statistics@deni.gov.uk or http://www.deni.gov.uk/index/facts-and-figures-new/education-statistics.htm

For related publications see: Statistics on teacher training and the annual survey of newly qualified teachers can be found on gov.uk. Further analysis of previous School Workforce Census data can be found here.

© Crown copyright 2019

You may re-use this document/publication (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

To view this licence:
visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2
email psi@nationalarchives.gsi.gov.uk

About this publication:
enquiries www.education.gov.uk/contactus
download www.gov.uk/government/publications

Follow us on Twitter: @educationgovuk
Like us on Facebook: facebook.com/educationgovuk