Mainstream state-funded schools: full-time equivalent pupil numbers, actual and projected

The nursery & primary school population has been rising since 2009 and reached 4.64 million in 2018, the final year of actual data. However, the rate of increase is slowing, as the lower number of births in 2013 onwards start to reach school age, and the population is projected to stabilise in 2019 at 4.66 million before starting to fall.

The secondary school population rose to 2.85 million in 2018 and is projected to continue increasing until around 2025, reaching an estimated 3.28 million.

All state funded schools: pupil numbers by age group, actual and projected

The largest age group attending all state-funded schools (including special schools and alternative provision) is those aged 5 to 10. This age range reached 3.90 million pupils in 2018 and is expected to rise slightly to 3.95 million by 2021 before starting a gradual decrease.

In 2018 the were 2.84 million children aged 11 to 15 attending state-funded schools. This age group is projected to increase to 3.22 million by 2023.

The under-5 age group includes 4 year olds in reception year and younger children attending state-funded nurseries and nursery classes in schools. By 2023 there are expected to be 0.84 million pupils under 5 attending state-funded provision.

Lower forecasts compared to previous projections

The 2018 national pupil projections, compared to those produced in 2017, are forecasting a lower increase in the pupil population over the nine years of the projection. This is most notable at primary and nursery level.

In 2017 we were projecting an increase of around 102,000 in the primary and nursery school population over the projection period, to 4.68 million by 2026. This year, however, the projection estimates there will be a decrease of 112,000 between 2018 and 2027, to 4.52 million. This is because of lower projected births which then feed into lower numbers starting school.
About this release

This Official Statistics release provides national projections for the number of pupils in schools in England by type of school and age group. It provides overall figures by main school type, and also more detailed figures for the first four years of the projection by age group and school type.

Alternative pupil projection totals by age group are also provided based on variant population scenarios such as high migration or low fertility.

The projections are based on the mid-2016 ONS national population projections published in October 2017, ONS monthly births data up to and including 2016 and School Census data up to and including January 2018. ONS’s principal projections are used for the main pupil projections and their variant projections are used as a base for the variant pupil projection figures.

In this publication

The following documents are included as part of this release:

National tables (Excel .xlsx)

Underlying data (open format .csv and metadata .txt)

An accompanying quality and methodology information document provides information on the data source, the coverage and quality and explains the methodology used in producing the data.

Future publications

These pupil projections are based on ONS’s national population projections, which are produced once every two years. The second pupil projection using each ONS set is effectively an update of the previous year’s projection, with an added year of actual data, rather than a new projection in its own right. The data detailed in this publication is from a full new projection based on the ONS mid-2016 national population projections.

The department is considering whether publishing the intermediate results (that is, those which do not include a new ONS population projection) is of value given that the key input will not have changed. We will be conducting some analysis around this question over the coming months and would appreciate any views on the possibility of only publishing pupil projection every two years, when the pupil projections are based on new ONS population projections.

If you have any opinions on this we would like to hear them on PupilPopulation.projections@education.gov.uk

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1. National pupil projection results

Early years

The overall population of under 5 year olds in state-funded schools is projected to decrease very gradually over the projection period, from a full-time equivalent of 859,000 in 2018 to 836,000 in 2023. The drop is primarily due to the lower number of births in 2013 and 2014 and subsequent reductions in ONS’s projections for future births.

The under 5 population includes 4 year olds in reception classes, which virtually all eligible children attend. However, this age group also has a high proportion of pupils attending school on a part-time basis. Measured as a headcount, the number of children aged under 5 in all state-funded schools fell to 985,000 in 2018, and is projected to drop to 950,000 in 2022 before stabilising at around that level.

The vast majority of early years pupils (current and projected) are in primary schools. That was the case for 815,000 out of 859,000 (95%) full-time equivalent pupils aged under 5 in a state-funded school in 2018. This is expected to stay at the same level over the projection period.

State-funded primary schools

There was a 1.1% increase in the population in state-funded primary schools between 2017 and 2018, very close to that forecast in the previous projections (1.2%). The annual rate of increase is expected to fall gradually to 0% for 2020 and 2021 before decreases are projected (between 0.3% and 0.7% each year) until the end of the projection period. This is primarily due to the lower birth projections in ONS’s new population projections.

The overall population in state-funded primary schools was 4,607,000 in 2018 and is projected to be 112,000 lower in 2027 at 4,494,000.

State-funded secondary schools

In 2018 the overall number of pupils in secondary school increased by 1.9% compared to 2017, reaching 2,849,000. This is lower than the rate of increase forecast in the previous projections (2.4%). However, as in the previous projections, the rate of increase is expected to reach around 3.1% for the next two years before slowly dropping to 0% by the end of the projection period (2027).

As a result of these increases the overall population in secondary schools is projected to reach 3,267,000 in 2027, 418,000 higher than it was in 2018 and a 14.7% increase over the whole projection period.

Reasons for changes in pupil populations

Changes in the school age population are largely driven by the birth rate. However, the proportion of the overall population which actually attends school (the participation rate) also has an effect, particularly in the early years, since parents can choose whether or not to send their children aged under 5 to school.

In 2018 the school census showed that, although overall the number of 3-year olds attending any school was stable, there was a significant swap from part-time to full-time attendance. This is presumed to be due to the offer of 30 hours free childcare to many 3-year olds. The pupil projection assumes a slight further transfer of 3-year olds from part time to full time in the first few years.

Direct immigration of pupils born outside the UK has a very small effect on the school age population. However, the birth rate, which has a much larger effect, is in turn affected by any increase in the number of births.

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1 The tables in this release are presented as full-time equivalents (FTE). Pupil headcount figures can be found in the underlying data which accompany this release.
children born to non-UK born women (who overall tend to have higher fertility rates). For more information on this see the accompanying methodology document.

The overall effect of these changes on the projected population is that the number of children (up to and including age 15) attending all state-funded schools has been rising since 2010, and is projected to continue on an upward trend until 2024, albeit at a gradually slowing rate after 2019. The overall population is then expected to fall slightly until the end of the projection period (2027).

The actual population in state-funded schools in 2018 was 7,600,000 and this is projected to increase to 7,968,000 by 2024 before falling back slightly to 7,919,000 by 2027. The rate of increase over the whole projection period is forecast to be 4.2%.

2. Comparison with previous projections

The 2018 national pupil projections are based on the latest (mid-2016 based) ONS population projections, replacing the mid-2014 based projections used in the previous pupil projections published in July 2017. ONS use the most recent information on levels of fertility, migration and life expectancy to create up-to-date projections giving future population levels for England by age and gender.

In addition, the new pupil projections incorporate outturn data for pupil numbers in 2018 (taken from the School Census) and 2016 monthly birth figures from ONS to bring the historic data up to date. As well as providing actual data for 2018, these affect the pupil participation rates and proportions assumed to be attending each school type, which are used to calculate the pupil projections.

A comparison can be made between the new projections and those published in 2017 to gain an understanding of the effect of actual and projected changes on the future school population. This time, unlike 2017, the model incorporates new projections from the ONS on the size and age breakdown of the future population of England. Results for primary & nursery and secondary schools are compared in figure 3.

Figure 3: Comparison of primary & nursery and secondary population projected in 2017 and 2018.

The actual census total for all state-funded schools in 2018 was 14,000 lower than the 2018 figure projected in the 2017 pupil projections. The vast majority of this difference is found in secondary schools:
Their actual population of 2,849,000\(^2\), as measured in the 2018 school census is 14,000 lower than previously projected. By 2026, the 2018 model is projecting a secondary school population 53,000 lower than was forecast in the previous model. However, the new projected figure of 3,277,000 in 2026 still forecasts a rise in the secondary school population of 429,000 (15%).

The only school types to show a higher population in 2018 than had been projected in the 2017 model were state funded special schools (2,000 higher than previously projected) and independent schools (3,000 higher).

The difference between the two projection models increases through the projection period, and by 2026 is mostly found at primary & nursery level. This is because most of the difference in the new underlying ONS national population projections is a drop in projected figures at age 0 (birth) which, over the timescale of this projection, feeds into the nursery and primary population.

By 2026, the projected nursery and primary total is 151,000 (3.2%) lower than previously forecast. Thus whereas in the previous projections an increase in the nursery and primary population was forecast over the whole projection period, we are now forecasting that, by 2026, the nursery and primary population will be 100,000 lower than it is in 2018.

### 3. Alternative scenarios

There are inherent uncertainties in projecting the future size of the pupil population. This is particularly true for early age cohorts, which are the most immediately dependent on projections of future birth rates.

The 2016-based principal national population projections for England produced by the ONS are the base for this projection of future trends in pupil numbers. Principal population projections are based on assumptions considered to best reflect demographic patterns at the time they were adopted. However, the ONS also produce a number of variant projection scenarios, based on alternative assumptions of future fertility, net migration and life-expectancy.\(^3\) An understanding of the overall effect of the uncertainty in the population projections can be obtained by comparing the results of the principal population projections with projections based on the ONS alternative scenarios.

The national pupil projections look at the effect on the projected pupil population using the ONS variant projections which adopt: a) high and low fertility assumptions; b) high and low migration assumptions, and c) high and low population scenarios (which combine the impact of high and low fertility, net migration and life-expectancy). These scenarios are for illustrative purposes only and are not intended to represent the upper or lower limits of projected pupil numbers.

The main findings are:

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Change in Pupil Numbers</th>
<th>Compared to Principal Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under the high net migration assumption</td>
<td>0.7% (48,000 pupils)</td>
<td>0.7% lower (48,000 pupils)</td>
</tr>
<tr>
<td>Under the high fertility assumption</td>
<td>1.3% (95,000 pupils)</td>
<td>1.9% lower (133,000 pupils)</td>
</tr>
</tbody>
</table>

\(^2\) Full time equivalent, all figures rounded to the nearest thousand

\(^3\) For further details of the ONS principal and variant national population projections, see ONS releases here and here.

\(^4\) All figures rounded to the nearest thousand
Under the high population assumption, total pupil numbers are predicted to be 2.0% (145,000 pupils) higher by 2027, compared to the principal projection. This compares to being 2.6% lower (181,000 pupils) under the low population scenario.

Figure 4 shows the combined impact of the ONS high and low population assumptions (which combine varying assumptions for high and low fertility, high and low net migration and high and low life-expectancy). It shows that varying the scenarios does not have a notable impact until around 2022, since it takes several years for changes in birth rates to feed through and affect the size of the school-aged population.

**Figure 4: Comparison of alternative scenarios for projected pupil numbers aged 5 to 15**

![Graph showing comparison of alternative scenarios for projected pupil numbers aged 5 to 15](image)

1. Projections use the mid-2016 based national population projections produced by the Office for National Statistics. Projections incorporate the Office for National Statistics principal projections and high and low population variant scenarios which assume a combination of high and low fertility, life expectancy and net migration.

2. All state-funded schools include maintained nursery, primary, secondary and special schools, pupil referral units, City Technical Colleges, free schools and all academy types.
4. List of tables

The following tables are available in Excel format on the department’s statistics [website](#):

Table 1:
State-funded schools: Full-time equivalent number of pupils (aged up to and including 15) by type of school in England: January 2003 to 2018 (actual) – January 2019 to 2027 (projection)

Table 2:
All schools: Full-time equivalent number of pupils by age group and by type of school in England: January 2010 to 2018 (actual) – January 2019 to 2023 (projection)

Table 3a:
State-funded schools: Comparison of the full-time equivalent number of pupils aged 5 to 15 based on varying net migration assumptions in the underlying population projections in England: January 2018 (actual) - January 2019 to 2027 (projection)

Table 3b:
State-funded schools: Comparison of the full-time equivalent number of pupils aged 5 to 15 based on varying fertility assumptions in the underlying population projections in England: January 2018 (actual) - January 2019 to 2027 (projection)

Table 3c:
State-funded schools: Comparison of the full-time equivalent number of pupils aged 5 to 15 based on varying population assumptions in the underlying population projections in England: January 2018 (actual) - January 2019 to 2027 (projection)

Definitions

**Date of Count**

Figures relate to January of the year shown. For years up to and including 2017 they are actuals from the School Census and related censuses. Figures for 2018 and later years are projected.

**School Types**

**State-funded schools** include maintained nursery, primary, secondary and special schools, including all academy types, alternative provision settings, City Technology Colleges, Free Schools, University Technical Colleges and Studio Schools.

**State-funded primary schools** include maintained primary schools, primary academies and primary Free Schools.

**State-funded secondary schools** include secondary and all-through schools. However, it does not include all-through special schools and special academies.

**State-funded special schools** include all special schools apart from non-maintained special schools and general hospital schools.

**Non-maintained special schools** constitute a separate category of school.

**Alternative provision settings** include pupil referral units and alternative provision academies & free schools, but not other types of alternative provision.

**Independent schools** include all schools that are not state funded, except non-maintained special schools.

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5 The related censuses are the School Level Annual School Census and Pupil Referral Unit Census. In this document “School Census” is taken to include these related censuses.

6 Only registered alternative provision settings that are directly state-funded are included here. Non-registered alternative provision settings (which can be indirectly state funded where places are commissioned by schools and local authorities) are not included.
### 5. Further information

<table>
<thead>
<tr>
<th>Previously published figures</th>
<th>Figures from earlier projection releases are still available from the department's website. For this and earlier releases follow the link here.</th>
</tr>
</thead>
<tbody>
<tr>
<td>More information on trends in schools and their pupils</td>
<td>The latest and previous releases of the statistical publication 'Schools, pupils and their characteristics', can be found on the department's website here.</td>
</tr>
<tr>
<td>More information on population projections</td>
<td>Information on the ONS population projections and their projections methodology can be found here.</td>
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### 6. Technical information

A quality and methodology information document accompanies this statistical publication. This provides further information on the data sources, their coverage and quality and explains the methodology used in producing the data, including how it was processed.

### 7. Get in touch

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