

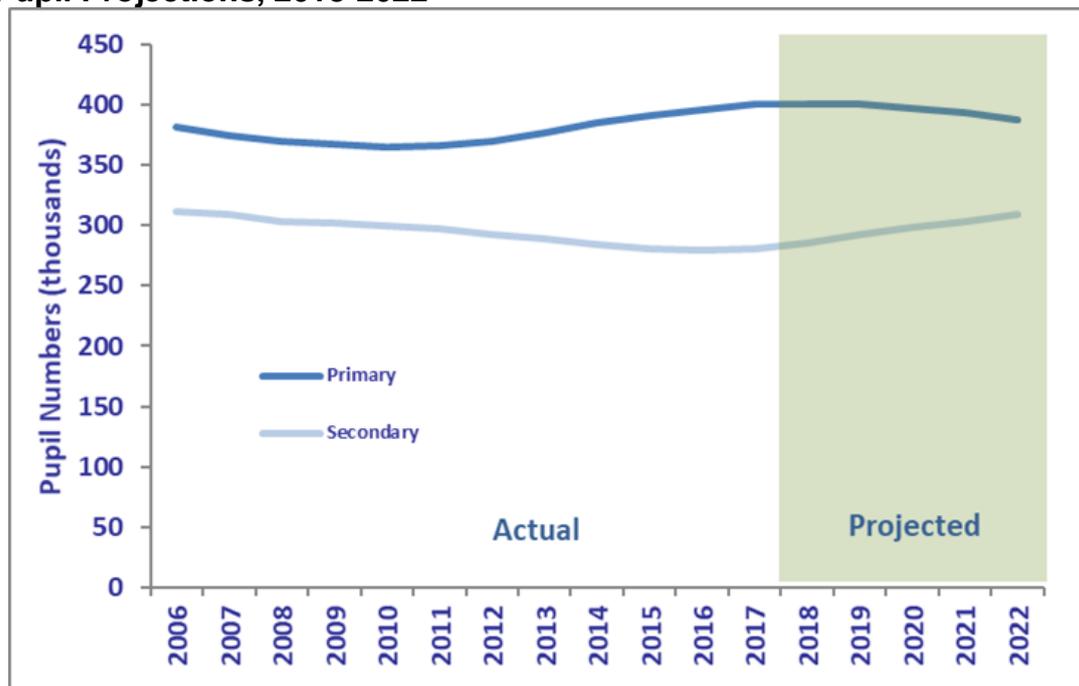
Teacher workforce planning 2018

The teacher workforce planning model estimates future student intake numbers by rolling forward recent patterns in census and other data and is based on a set of assumptions. Other assumptions would result in different estimates.

1. Model Inputs

1.1. Pupil projections

Pupil Projections, 2018-2022



The primary school roll has been rising in recent years but the 2017 based projections show the number of primary pupils has peaked and are projected to drop slightly to the end of the projection period.

At secondary, however, the pupil roll increased in 2017 for the first time in 14 years. This was largely due to the increased primary roll graduating onto secondary school and increases in staying on rates (both S4-S5 and S5-S6) in recent years. The projections show the number of secondary pupils continuing to rise steadily to 2022.

Staying-on rates of secondary pupils, 2009 – 2017

	All pupils	
	S3-S5	S3-S6
2009	79.7%	49.2%
2010	82.9%	53.3%
2011	83.4%	55.6%
2012	84.9%	58.3%
2013	86.1%	60.3%
2014	87.2%	61.7%
2015	87.7%	62.7%
2016	87.3%	62.6%
2017	87.4%	62.2%

1.2. Pupil Census

The 2018 Pupil Census showed an decrease of 36 primary pupils and an increase of around 4,150 secondary pupils, compared to 2017.

1.3. Teacher Census

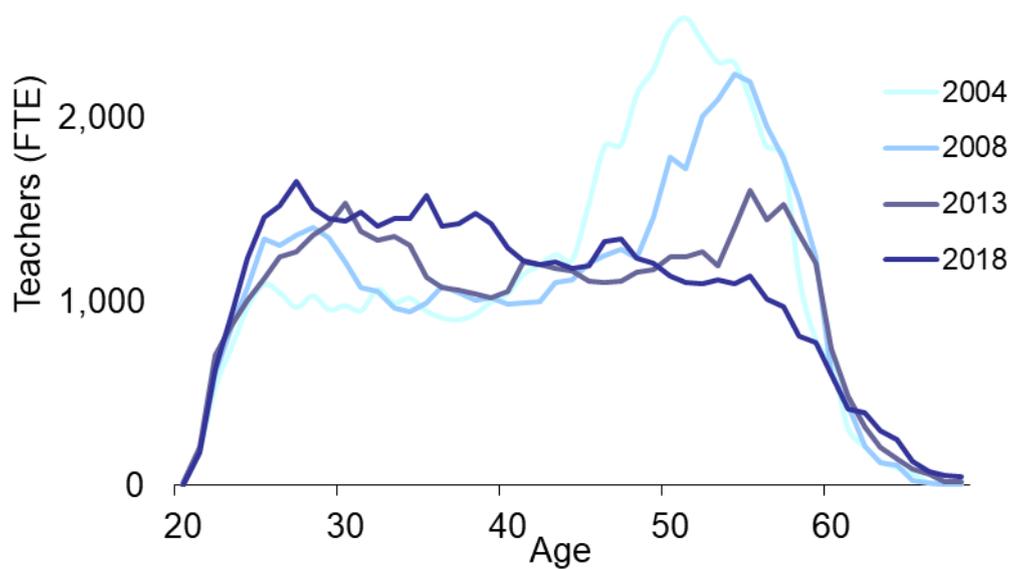
The 2018 Teacher Census reported an increase in primary teachers of 422 FTE and an increase in secondary teachers of 167 FTE. There was also a small increase in the number of special school teachers (47) and a decrease in centrally employed (-90). There was also a decrease in early learning and childcare teachers (-99).

The teacher FTE count includes 962 Attainment Scotland Fund (ASF) funded posts. This demand for these teachers is accounted for in this year’s workforce planning process, as vacant posts due to ASF demands will have appeared in the vacancy figures which have been accounted for in the statistical model.

1.4. Age profiles of teachers

The 2018 Teacher Census data shows that the age profile of teachers has changed much over the past 15 years. The prominent peak of teachers in their fifties, as seen in 2008, no longer exists and the age distribution is now more even.

Age profile of school based teachers



1.5. Working patterns

The percentage of teachers working part-time has been fluctuating slightly over the last nine years and increased by 1.2 percentage points from 22.4% in 2016 to 23.4% in 2017, the highest rate over this period. (Data on working patterns is not yet available for 2018)

Number of teachers (headcount) by mode of working, all sectors, 2010-2016

	Full-time	Part-time	Total headcount ⁽¹⁾	Percentage part-time
2008	46,202	9,716	55,918	17.4
2009	44,757	10,361	55,118	18.8
2010 ⁽¹⁾	43,660	10,767	54,427	19.8
2011 ⁽¹⁾	42,572	10,701	53,273	20.1
2012 ⁽¹⁾	42,497	10,568	53,065	19.9
2013	42,472	10,427	52,899	19.7
2014 ⁽³⁾	41,934	10,866	52,800	20.6
2015	41,884	11,256	53,140	21.2
2016	41,701	12,003	53,704	22.4
2017				
Primary	20,012	7,809	27,821	28.1
Secondary	20,405	4,515	24,920	18.1
Special	1,529	537	2,066	26.0
Total	41,952	12,782	54,734	23.4

(1) Teachers are counted as full-time if their total FTE across all schools where they teach is greater or equal to one.

(2) Data on early learning and childcare, primary and total teachers along with associated pupil teacher ratios for 2010, 2011, 2012 were revised in 2013 to remove teachers who were double counted as a result of working in both sectors.

(3) 2014 Teacher figures were amended in February and December 2015. See background notes.

Excludes centrally employed and early learning and childcare teachers.

1.6. Vacancy data

The local authority vacancy collection in September showed that there were 204 pre-school/primary and 402 secondary full-time and part-time permanent vacancies as at September 2018 (excluding head teachers and deputy head teachers).

The target student intake figures have been increased in line with these figures (accounting for drop out etc) on a one year basis for primary and a phased, more manageable, three year basis for secondary.

Increasing target student intakes is not a guarantee that vacancies will be filled.

2. Assumptions

2.1. Leaver rates

Leaver rates are based on teachers in permanent employment only, as these are more stable and a more reliable measure of churn. Leavers include career breaks, retirements, teachers on maternity leave and any other long term or permanent move away from teaching. The percentage of permanent teachers "leaving" decreased from 5.5% in 2017 to 5.2% in 2018. Leaver rates for female teachers between the ages of 30-40 are broadly similar to previous years.

The pattern of maternity leavers by age was also similar to previous years.

2.2. Returner rates

Returner rates are also based on teachers in permanent employment.

The average of the last three years' figures in primary was 461. The average of the last three years figures has been used for Secondary (352).

2.3. Supply pool

The model accounts for the need of a pool of supply teachers and increases the student intake figure by 12% for this purpose. This is in line with the figure used last year.

2.4. PTRs

The model is based on the assumption of maintaining pupil teacher ratios (PTRs), therefore it projects future teacher requirements in line with pupil projections on the basis of current PTRs.

The 2018 pupil and teacher census results show that the primary sector PTR has improved from 16.4 in 2017 to 16.1 in 2018, and the secondary PTR increased from 12.2 to 12.3.

2.5 Retention rates

Retention rates (ITE students who go on to the Teacher Induction Scheme) vary between routes. Retention rates for Primary BEd and PGDE courses are around 75% and 80% respectively. Rates for Secondary courses are around 85% (BEd) and 80% (PGDE).

2.6 Post-probationer employment rates

The 2018 Teacher Census indicates that there has been an increase in the proportion of post-probationers in employment (permanent or temporary, full time or part-time). The figure has risen from 66% in 2011 to 87% in 2018, with the largest increase in the proportion of post-probationers with full-time permanent contracts (up from 13% in 2010 to 55% in 2018).

3. Model Results

The combination of the primary school pupil roll falling and the recent increase in primary teachers means that the model projects a lower requirement for new student teachers. Accounting for the pre-school and primary vacancies, the model projects that the 2019 intake target should be cut.

At secondary, the peak in school aged children over the past five years can be seen to be shifting from primary to secondary school. This is countered by a number of factors including an increase in the number of secondary school teachers and a decrease in the number of secondary vacancies. Hence the model suggests the intake target should remain at a similar level.

Vacancies for secondary have been smoothed across 2019, 2020 and 2021.

Primary and Secondary Student Intake Projections, 2019-2023

Primary vacancies accounted for in 2019 intake only

Secondary vacancies accounted for across 2019-2021 intake

Entry Year	Primary		Secondary		Combined
	BEd	PGDE	BEd	PGDE	
<i>2018 target intake</i>	710	1,230	190	1,750	250
2018 actual intake	718	1,260	159	1,494	271
2019	700	550	185	1,750	195
2020	700	200	185	1,700	195
2021	700	350	185	1,600	195
2022	700	350	185	1,150	195
2023	700	450	185	850	195

Note: Primary estimates do not include any additional requirement for ELC sector.

The model outputs have been rounded to the nearest fifty.

TWPAG/2018/6

Primary and Secondary Teacher Projections, 2018-2023

Primary	Projected pupils (pre-school, primary and half of special)	Demand for teachers at start of academic year	Change in demand from previous year	Leavers during previous year	Vacancies arising during previous year	Teachers returning to profession in previous year	Projected Deficit at start of year
2018	493,996	27,028					
2019	487,646	26,928	-100	1,429	1,273	461	812
2020	483,273	26,771	-156	1,394	1,198	461	941*
2021	479,876	26,575	-196	1,373	1,114	461	653
2022	475,532	26,316	-259	1,347	1,177	461	717
2023	472,402	26,146	-170	1,330	1,193	461	732

**includes 274 vacancies*

Secondary	Projected pupils (secondary and half of special)	Demand for teachers at start of academic year	Change in demand from previous year	Leavers during previous year	Vacancies arising during previous year	Teachers returning to profession in previous year	Projected Deficit at start of year
2018	289,563	24,924					
2019	296,014	25,358	433	1,282	1,755	352	1,403
2020	303,037	25,830	473	1,277	1,583	352	1,365**
2021	307,630	26,136	306	1,266	1,576	352	1,358**
2022	312,311	26,446	310	1,270	1,473	352	1,255**
2023	315,360	26,649	203	1,245	1,326	352	974

*** includes 134 (402/3) vacancies*

Teacher workforce planning timeline

Year 1				Year 2								Year 3																
S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Census Day			Census publication. TWPAG	PGDE apps								PGDE intake										Graduate	Start teaching					

Teacher workforce planning model

