

Teacher workforce planning 2015

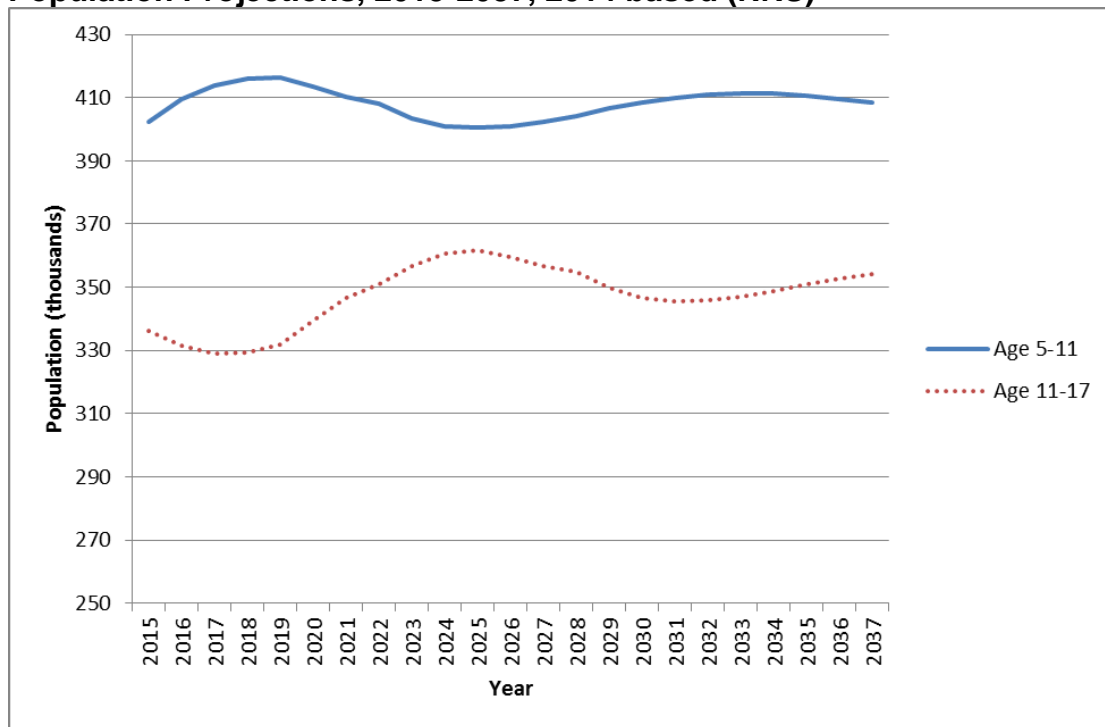
1. Model Inputs

1.1. Population projections

The recently published 2014-based population projections indicated that population of primary school aged children (5-11) would rise steadily over the next four years before reducing again from 2020 to 2025. The population of secondary school aged children (12-17) is forecast to initially decrease, rising in 2018 and peaking in 2025.

The 2014-based population projections have forecast the number of school aged children (particularly primary) to be greater than expected (2012-based) by a magnitude of 3-4,000 per year for the next five years.

Population Projections, 2015-2037, 2014 based (NRS)



1.2. Population estimates

It can be seen from the age structure of the population in 2014 that there is a peak in the number of school aged children around age 6/7. These children will reach secondary school in 2020/21, the impact of this can be seen in the increased demand for secondary teachers around this time.

Estimated population by age and sex, mid-2014 (NRS)



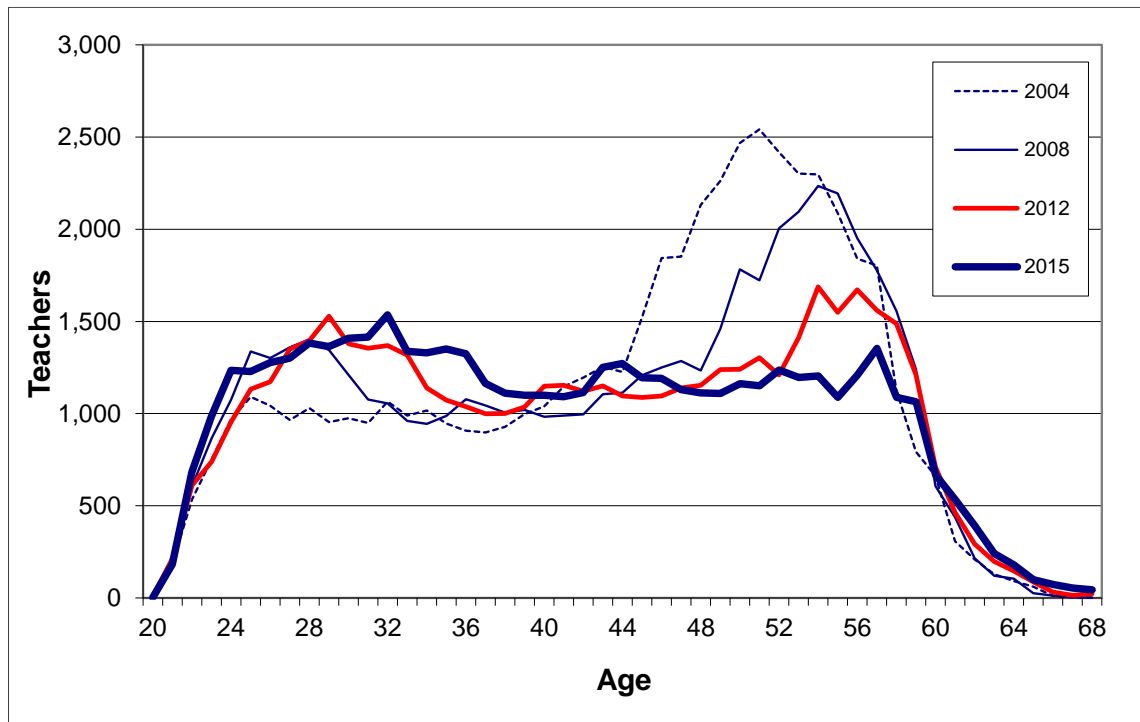
1.3. Pupil Census

The 2015 Pupil Census showed an increase of around 6,000 primary pupils and a decrease of around 3,000 secondary pupils, compared to 2014. This increase in primary pupils will have had an effect on the projected immediate need for primary teachers.

1.4. Age profiles of teachers

The 2015 Teacher Census data shows that there is still a small peak in the fifties age band (specifically around 57) but that this peak is much less pronounced than it was in previous years and in fact the largest peak is around the early thirties (32).

Age profile of school based teachers, 2004 to 2015



1.5. Post-probationer employment rates

The 2015 Teacher Census indicates that there has been another increase in the proportion of probationers in employment (permanent or temporary, full time or part-time). The figure has risen from 66% in 2011 to 86% in 2015, with the largest increase in the proportion of post-probationers with full-time, permanent contracts (up from 28% in 2011 to 45% in 2015).

1.6. Working patterns

The percentage of teachers working part time has risen slightly between 2014 and 2015 (an increase of 0.6 percentage points) and is at its highest level since 2009. This upward trend is not consistent however, the rate dipped to 19.7 in 2013.

Number of teachers (headcount) by mode of working, all sectors, 2009-2015

	Full-time	Part-time	Total headcount ⁽¹⁾	Percentage part-time
2009	44,757	10,361	55,118	18.8
2010	43,660	10,767	54,427	19.8
2011	42,572	10,701	53,273	20.1
2012	42,497	10,568	53,065	19.9
2013	42,472	10,427	52,899	19.7
2014	41,934	10,866	52,800	20.6
2015				
<i>Primary</i>	19,690	6,728	26,418	25.5
<i>Secondary</i>	20,575	4,132	24,707	16.7
<i>Special</i>	1,635	497	2,132	23.3
Total	41,884	11,256	53,140	21.2

(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 pre-school, primary and total teachers for 2010, 2011 and 2012 have been revised to remove teachers who were double counted as a result of working in both sectors.

Excludes centrally employed and pre-school teachers.

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. Leaver rates have increased since 2014 which the model will be rolled forward and will have an effect on projected need for new teachers.

Leavers include retirements, teachers on maternity leave and any other long term or permanent move away from teaching. Leaver rates have increased for female teachers between the ages of 30-40, compared to 2014.

2.2. Returner rates

Returner rates are also based on teachers in permanent employment. This approach replaces the past method of assuming 500 returners per sector to account for the unstable workforce which now appears out-dated.

Returners figures used are the number of teachers returning to a permanent post, averaged over the last three years (679 in Primary and 498 in Secondary).

2.3. Supply pool

The model accounts for the need of a pool of supply teachers and increases the student intake figure by 8% for this purpose.

This year, student intakes have also been calculated on the basis of an additional 10% and 12% in order to quantify the required increase if an increased pool of supply teacher was deemed preferable.

This analysis resulted in the following outputs:

- increasing supply pool from 8% to 10% would require an additional 25 students for both primary and secondary PGDE
- increasing supply pool from 8% to 12% would require an additional 50 students for both primary and secondary PGDE

2.4. PTRs

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

According to the 2015 pupil and teacher census results published this week, the primary sector PTR has improved slightly from 16.8 in 2014 to 16.7 in 2015, and the secondary PTR remained the same as 2014 at 12.2.

3. Model Results

The results suggest a reduction in Primary PGDE intakes, reducing further over time, in line with the forecast decline in primary school aged population. However, caution should be exercised due to other local intelligence about teacher availability.

The model suggests a need to increase Secondary PGDE intake in order to meet the projected demand for trainee teachers from 2019 onwards. This is due to the peak in school aged population, currently aged around 6/7, who will reach secondary school around 2020/2021.

The above assumptions have been used in the following projections. Other assumptions would result in different outcomes.

The model outputs have been rounded to the nearest fifty.

Primary and Secondary Student Intake Projections, 2015-2021

<u>Entry Year</u>	<u>Primary</u>		<u>Secondary</u>		
	<u>BEd</u>	<u>PGDE</u>	<u>BEd</u>	<u>PGDE</u>	<u>Combined</u>
<i>2015 actual intake</i>	793	1,230	165	991	197
2016	700	900	200	1,350	180
2017	700	750	200	1,500	180
2018	700	550	200	1,650	180
2019	700	500	200	1,700	180
2020	700	500	200	1,500	180
2021	700	450	200	1,450	180

Primary and Secondary Teacher Projections, 2015-2022

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
2015	486,154	25,646					
2016	490,715	25,909	264	1,927	2,191	679	1,512
2017	492,226	26,176	266	1,858	2,125	679	1,446
2018	492,714	26,310	134	1,818	1,952	679	1,273
2019	490,974	26,374	64	1,769	1,832	679	1,153
2020	487,485	26,321	-53	1,734	1,680	679	1,001
2021	485,329	26,170	-151	1,719	1,568	679	889
2022	482,785	26,059	-111	1,696	1,585	679	906

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
2015	285,394	25,175					
2016	284,103	24,798	-377	1,778	1,401	498	903
2017	284,764	24,715	-83	1,678	1,596	498	1,098
2018	287,716	24,765	49	1,653	1,702	498	1,204
2019	293,446	24,968	204	1,610	1,814	498	1,316
2020	300,398	25,359	390	1,569	1,959	498	1,461
2021	304,996	25,828	469	1,544	2,013	498	1,515
2022	309,286	26,140	312	1,526	1,838	498	1,340