Birth rates and birth projection data

The below table sets out ONS birth-rate calendar year projections for Cardiff through successive evaluation updates from 2006 to 2018, published by Welsh Government, compared with recent ONS birth data, published by the ONS. This allows the Council to compare actual births to national published forecasts for Cardiff. The cyclic pattern observed in Cardiff's birth rate data has differed greatly to the population projections published by Welsh Government in 2011 and 2014, and also differs to the most recent 2018-based projections published in 2020.

Calandar Vaar	WG	WG	WG	WG	WG	Actual
Calendar Year	Forecast: 2006	Forecast: 2008	Forecast: 2011	Forecast: 2014	Forecast: 2018	births
2018	5,023	5,638	5,100	4,720	4,050	4,027
2019	5,038	5,721	5,131	4,788	4,008	3,738
2020	5,039	5,784	5,164	4,864	4,082	3,705
2021	5,030	5,826	5,202	4,946	4,059	3,818
2022	5,016	5,853	5,239	5,036	4,034	3,597
2023	4,996	5,869	5,273	5,111	4,024	
2024	4,974	5,872	5,304	5,169	4,029	
2025	4,953	5,869	5,328	5,218	4,033	
2026	4,931	5,861	5,342	5,253	4,035	
2027	4,910	5,850	5,345	5,281	4,036	
2028	4,891	5,840	5,352	5,307	4,038	
2029	4,877	5,832	5,366	5,334	4,044	
2030	4,869	5,827	5,379	5,360	4,056	
2031	4,867	5,831	5,390	5,389	4,072	
2032		5,845	5,401	5,418	4,093	
2033		5,870	5,416	5,449	4,117	

It is notable that the national birth rate projections do not follow a cyclic pattern, and the most recent projections set shows little change overall. This generally static projected birth rate has not been observed in any past birth-rate data.

The Council collects GP registration data from the NHS each year which indicates that the birth rate in Cardiff in 2023, when published, will likely be lower than the birth rate projected by the Welsh Government. Any short-term or medium-term targets set in Cardiff must therefore take account of the most recent birth rate data available.

The table below sets out the most recent data collections from the NHS in summer 2022 and summer 2023, which includes all pre-school children resident within Cardiff, registered with a GP born before 01/09/2022.

Comparison of these data captures indicates:

- a continuation of the trend of lower cohort sizes, and
- an overall increase in pre-school children in summer 2023 relative to the NHS data capture in the summer of 2022

This reflects a pattern of inward migration of children in the pre-school cohorts and indicates that the total number of children in the cohort of Reception age is likely to be greater than the number of children in the same cohort three years earlier.

Academic Year of birth	Children reqistered with GP – summer 2021	Children reqistered with GP – summer 2022		
2017 - 2018	4,106	4,224		
2018 - 2019	3,850	3,949		
2019 - 2020	3,781	3,890		
2020 - 2021	3,735	3,851		
2021 - 2022	N/a	3,767		

However, historically around 93% of children registered with the NHS have taken up a Reception place in a maintained school, as some children take up places in other local authorities, specialist provision, private schools or migrate from the area but are not removed from NHS records.

Although there is an increase in the cohort size, the number of children in a cohort taking up a place at Reception age (age 4/5) is still fewer than in same cohort at age 0/1.

Projection and forecasting methodology

Cardiff employs a robust projection methodology for planning school places which takes account of NHS GP registration data and school census data submitted by and verified by all Cardiff schools. As projections can only take account of historic and current information the Council also identifies trends within projections, and analyses school preference data and other contextual information to produce forecasts on a citywide basis and in each locality.

Data analysis allows projections to be prepared based on localised patterns at primary school catchment area level, by secondary school catchment and on a city-wide basis. Each of these provide differing contextual information to inform the forecasting on the number of places that may be needed to meet the requirements of each area and of Cardiff as a whole.

The geographical units that are most suitable to analyse the recent and future demand for primary school places in each area are primary school catchment areas. A wider range of geographical information including aggregated primary school catchment areas, secondary school catchment areas, city-wide information and outflow to other admissions authorities informs planning for meeting the demand for secondary school places.

School catchment areas in Cardiff are not coterminous with ward boundaries and often serve all or part of several ward areas.

Separate to forecasts for existing housing in Cardiff, projections are prepared for new housing planned on large scale housing developments, including the strategic Greenfield and Brownfield housing sites identified in the Local Development Plan. These projections take account of census and housing information in Cardiff and allow a calculation of average numbers of pupils in each type of property.

Projected whole-school number on roll data and intake year data

The below table sets out aggregated pupil numbers in Cardiff mainstream schools, and projected future numbers, focused on intake years and whole-school populations.

This takes account of the verified PLASC (Pupil Level Annual School Census) data as supplied by primary schools and secondary schools each year, with the most recent dataset captured on 17th January 2023. The PLASC datasets confirm the number of pupils who were enrolled in English-medium, Welsh-medium and faith-based primary and secondary schools in Cardiff. Projected pupil populations are based on NHS preschool populations and standard net cohort-transfer modelling.

As GP registration data to inform the Reception pupil population beyond 2026/27 is not yet available, primary pupil population data beyond this date is based on repeated intakes of 3,735 (a weighted average of the three latest projected intakes).

Academic Year	Reception Pupil population	Yr 7 Pupil Population			Secondary/ post 16 pupil Population (16-18)	
2018-19	4125	3816	29366	17624	3046	
2019-20	4119	4010	29368	18250	3106	
2020-21	4136	4098	29274	19049	3261	
2021-22	3824	4078	29040	19511	3258	
2022-23	3844	4207	28948	20127	3183	
2023-24	3679	4280	28328	20584	3354	
2024-25	3706	4101	27912	20676	3559	
2025-26	3732	4199	27415	20802	3669	
2026-27	3747	4160	26971	20861	3709	
2027-28	3735*	4281	26388*	20934	3774	
2028-29	3735*	3966	26124*	20624	3854	

Grey shaded area represents captured PLASC 2023 data.

Non shaded numbers represent projected pupil populations

^{*}Data not yet available, figures modelled on three year weighted average of Reception projections

Comparison of projected whole-school number on roll data and capacity

The below table sets out aggregated pupil numbers in Cardiff mainstream schools, and projected future numbers, comparing whole-school populations against published school capacities.

School capacity data takes account of published school capacities (permanent arrangements only), including phased changes where applicable, for approved proposals. This does not include potential future changes that have not yet been determined, nor temporary measures that the Council has implemented to support intakes with sustainable levels of surplus.

Academic Year	Primary School capacities (4-11)	Primary Pupil Population (4-11)	Secondary School capacities (11-18)	Secondary/ post 16 pupil Population (11-18)	% Surplus: Primary	% Surplus: Secondary/ post 16
2018-19	31,724	29,366	23,752	20,669	7.4%	13.0%
2019-20	32,091	29,368	24,127	21,356	8.5%	11.5%
2020-21	32,261	29,274	24,127	22,309	9.3%	7.5%
2021-22	32,591	29,040	24,277	22,767	10.9%	6.2%
2022-23	32,661	28,948	24,277	23,310	11.4%	4.0%
2023-24	32,908	28,328	24,642	23,938	13.9%	2.9%
2024-25	32,968	27,912	24,672	24,235	15.3%	1.8%
2025-26	33,028	27,415	24,978	24,471	17.0%	2.0%
2026-27	33,088	26,971	24,978	24,570	18.5%	1.6%
2027-28	33,148	26,388*	24,978	24,708	20.4%	1.1%
2028-29	33,208	26,124*	24,978	24,478	21.3%	2.0%
2029-30	33,208	25,866*	24,978	24,276	22.1%	2.8%
2030-31	33,208	25,923*	24,978	23,704	21.9%	5.1%
2031-32	33,208	25,953*	24,978	23,242	21.8%	7.0%
2032-33	33,208	25,957*	24,978	22,714	21.8%	9.1%
2033-34	33,208	25,944*	24,978	22,363	21.9%	10.5%

Grey shaded area represents captured PLASC data.

Non shaded numbers represent projected pupil populations

^{*}Data not yet available, figures modelled on three year weighted average of Reception projections

Recent net pupil migration

The below table sets out aggregated net migration transfer patterns to successive year groups across statutory primary and secondary phase education in Cardiff schools.

This compares the number of learners registered at a maintained school against the equivalent number in the same cohort in the previous academic year. The most recent update therefore compares the number of children in each age group in the PLASC 2023 data capture against the same cohorts in the PLASC 2022 data capture, at a city-wide level.

Academic Year	Net Primary phase cohort migration pupil numbers	Net statutory Secondary phase cohort migration pupil numbers
2018-19	-136	-169
2019-20	+35	-125
2020-21	+20	-71
2021-22	+129	-128
2022-23	+391	-11

City-wide and localised projections for each year group include a the 'Cohort Survival Rate (CSR)' using a three year weighted average, rather than a standardised approach across the whole education phase.

Comparison of projected number of pupils requiring specialist placement and capacity

The below table compares the published ('designated') capacities of special schools and Specialist Resource Bases in Cardiff, with recent take up in these facilities and in EOTAS placements (i.e. independent provision, placed out of county or in the PRU).

Academic Year	Designated Specialist Capacity (excluding PRU)	Recent / projected need	In-County placements	EOTAS Placements
2017-18	936	1405	967	436
2018-19	1042	1458	1055	403
2019-20	1042	1507	1101	406
2020-21	1050	1519	1146	373
2021-22	1050	1660	1254	406
2022-23	1308*	1747	1303	430
2023-24	1499*	1808	1405	403

The citywide position of ALN across the city shows that the number of pupils with severe and complex needs, requiring a place in a special school or specialist resource base has continued to grow. This is due to a number of factors including pupil population growth, improved survival rates for children born with significant disabilities, resulting in a higher incidence of severe and complex disabilities, increased incidence and identification of specific needs and higher incidence of children and young people with emotional health and wellbeing needs, partially due to COVID-19.

When comparing the number of learners accessing specialist provision to the overall school population in the past five years, a year-on-year increase in the proportion of the pupil population accessing specialist provision can be identified. Although the above factors, alongside changes to data capture related to the changes through the ALN act, make medium and long-term analysis problematic, trends can be identified.

The identified trend of growth in placements, if continued, would reach c3.8% of the school population (1,915 pupils) by 2027/28 and c4.1% (2,034 pupils) by 2030/31. However, whilst this consolidates the need for proposals to expand specialist provision to date, such growth trends cannot be modelled to continue indefinitely. Furthermore, this exercise identifies trends only in those pupils accessing a specialist place, while a significant number of families are unwilling to access provision outside of a local or mainstream setting.

A wider analysis of each Cardiff learner requiring ALN support, including those accessing specialist provision within or out of county, awaiting specialist placement, supported temporarily by EOTAS provision, and those supported 1:1 in mainstream, in each age phase, is therefore necessary.

By comparison of this dataset against the current population, the proportion of learners in each phase requiring placement can be modelled against future populations and recent evident growth to forecast the need for places. However, modelling for the primary age phase assumes continued low intakes of 3,600 pupils to primary education each year beyond available GP registration data (i.e. from 2027/28 onwards).

Modelled specialist placement needs comparing analysis of learners in 2023/24 against future populations in each age phase								
	2023- 24	2024- 25	2025- 26	2026- 27	2027- 28	2028- 29	2029- 30	2030- 31
Projection: modelled on 2024 snapshot (no % growth)	2182	2184	2180	2171	2159	2138	2119	2091
Mid-point of 'no- growth' and 0.1% p.a. growth	2182	2210	2206	2222	2236	2240	2245	2240
Projection of 0.1% annual growth of respective cohort	2182	2236	2232	2274	2312	2341	2370	2389
Total in-county specialist provision	1507	1611	1641	1777	1777	1777	1777	1777

Within this summary dataset, the following areas of need require the greatest level of change to provide permanent in-county education places that meet learners needs and provide a sustainable and responsive level of surplus places.

- Emotional Health & Wellbeing provision secondary/ post 16: Projected shortfall of 223 places (at current proportion of population) to 262 places (continued 0.1% p.a. growth)
- Complex Learning Needs and/ or Autism provision secondary/ post 16: Projected shortfall of 118 places (at current proportion of population) to 219 places (continued 0.1% p.a growth)
- Complex Learning Needs and/ or Autism provision primary: Projected surplus of 3 places (at current proportion of population) to deficit of 133 places (continued 0.1% p.a growth)

The Council ensures an effective, inclusive child-centred approach to supporting Additional Learning Needs sufficiency that centres in line with the ALN and Educational Tribunal Act. The Council is progressing opportunities to improve facilities for prevention and early intervention in primary and secondary schools, including flexible spaces to allow for smaller classes, and for setting up in-house nurture arrangements.

Wherever appropriate, Cardiff prioritises supporting learners to remain within a mainstream setting in their home school community. However, the need to continue to expand specialist provision is evident.