



Projections of Australia's current and future teacher workforce

Action 25: National Teacher Workforce Action Plan

December 2025



**Informing the future
of the teaching profession**

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Executive Summary

Purpose

- This report presents nationally consistent projections of Australia's current and future teacher workforce from 2025 to 2032, developed under Action 25 of the National Teacher Workforce Action Plan (the Action Plan).
- It provides the first national projections of how the registered teacher workforce may change over time, including projections of teachers retained in schools, registered teachers not attached to schools (including relief teachers), and the total number of teachers required in schools to teach the future student population.
- The report also presents projections by learner level, curriculum area and selected secondary subject specialisations, providing national estimates of retained teachers, teachers not attached to schools, and teachers required.
- The projections aim to improve understanding of workforce dynamics and support evidence-based workforce planning.

Key Insights

- In 2024, there were approximately 567,000 registered teachers in Australia, with around 368,000 in a role attached to schools (to teach or lead school-aged students) and around 198,000 who were not attached to schools (including those working as relief teachers, on extended leave, teaching early childhood, or not currently working as a teacher)
- The number of teachers from the 2024 cohort projected to remain attached to schools declines from 362,896 in 2025 to 286,568 in 2032.
- The number of teachers from the 2024 cohort projected to remain registered but not attached to schools declines from 187,712 in 2025 to 149,899 in 2032.
- The projected number of teachers required in schools remains relatively stable over the projection period, at 366,976 in 2025 to 365,857 in 2032, after peaking at 368,712 in 2027.
- Projections of teachers required by learner level and curriculum area remain broadly stable across the projection period, reflecting projected changes in the school-aged population and the assumption that current student-teacher ratios are maintained.
- Projections by secondary subject specialisations broadly reflect the estimated current distribution of teachers across the workforce, with larger numbers of teachers retained in subjects such as Humanities, English and Health/PE, and smaller numbers in areas such as Language Other Than English (LOTE), Technology, Mathematics and some Science disciplines.

Approach

- Projections in this report were developed using linked national datasets from the Australian Teacher Workforce Data initiative, including teacher registration data, school staffing information, Australian Teacher Workforce Survey responses, teacher specialisation information, school enrolments and population projections.
- A predictive modelling approach was used to:
 - estimate how many teachers from the 2024 registered workforce are projected to remain registered over time
 - model whether those teachers are projected to be attached to schools or not attached to schools in each year
 - estimate movements in workforce participation over time
 - project the number of teachers required in schools by aligning projected student populations with current student-teacher ratios and teacher employment patterns

- estimate national teacher projections by learner level, curriculum area and selected secondary subject specialisations.
- Retention projections are based on the 2024 registered teacher workforce cohort and model year-to-year changes through processes such as teachers leaving registration, remaining registered but not working in schools, or continuing to work in school-attached roles.
- Projections of teachers required estimate the total number of teachers needed in schools, rather than the number of additional teachers to be recruited.

Policy Context

- Teacher retention is a major component of workforce supply. Alongside new entrants from initial teacher education (ITE), migration and teachers returning to the profession, the extent to which the current workforce remains engaged in school-attached roles plays a key role in shaping future workforce availability.
- Teacher demand is influenced largely by demographic trends, student enrolment patterns and policy settings that affect school staffing requirements, including curriculum offerings and class sizes.
- This report contributes to the evidence base for national teacher workforce planning by providing projections of three key workforce measures: teachers retained, teachers not attached to schools, and teachers required in schools.
- The projections complement other analyses undertaken under the Action Plan and provide insights into the dynamics shaping Australia's future teacher workforce.

Key Limitations

- These projections are not forecasts. They assume that historical patterns and relationships observed in the underlying data continue over the projection period.
- These projections do not capture current policy initiatives post 2024, which look to boost supply and bolster teacher retention, such as actions in the Action Plan and a range of other Commonwealth and State and Territory initiatives.
- The retained teacher projections relate only to the 2024 registered workforce cohort. They do not include new sources of teacher supply such as graduate teachers, migrant teachers or previous teachers re-entering the profession after their registration lapsed.
- Projections of teachers required represent the total number of teachers needed in schools, not the number of additional teachers that must be recruited. Estimates are presented as headcounts rather than full-time equivalent staff, and therefore reflect a mix of full-time and part-time employment patterns.
- Specialisation projections rely on a combination of observed data, modelling and imputation. Teachers may hold multiple learner-level or subject specialisations, and not all teachers will teach every subject they are qualified to teach. As a result, differences between retained and required specialisation estimates should not be interpreted as direct measures of subject shortages.
- As with all projections, uncertainty increases over time, meaning shorter-term estimates are likely to be more reliable than longer-term projections.

Introduction

Background

Attracting and retaining skilled teachers where they are needed most is essential to supporting the success of all Australian school students and building a strong and sustainable education system. Addressing teacher shortages is critical to ensuring all students have access to quality education across all regions and subject areas.

In December 2022, Education Ministers agreed on a [National Teacher Workforce Action Plan](#) (the Action Plan), which sets out a clear pathway to address the national issue of teacher workforce shortages. Priority Area 5 of the Action Plan focused on better understanding future workforce needs to improve the information available for teacher workforce planning. The projections presented here represent the first national approach to understanding how the current teacher workforce might look in the years to come.

[Priority Area 5](#): Better understanding future workforce needs, aims to improve the information available for teacher workforce planning and includes the following actions:

- Develop and publish nationally consistent teacher workforce projections based on consistent standards, disaggregated at a regional level and by subject specialisation, to enable a national understanding of teacher demand (Action 25).
- Develop and publish nationally consistent initial teacher education (ITE) graduate supply data, including disaggregated by subject specialisation and participation in ITE at the regional level, to enable a national understanding of teacher supply (Action 26).

Scope

This report describes the methodology, limitations and findings of the teacher workforce projections (Action 25), estimating the number of teachers retained from the 2024 workforce, and estimating the total number of teachers required, from 2025 to 2032 nationally. The projections were developed using a range of data sources, including population projections, current teacher registrations, and teacher workforce movements modelled using Australian Teacher Workforce Survey (Teacher Survey) responses.

Projections in this report are provided for the 2025–2032 period. As of December 2025, the Australian Teacher Workforce Data (ATWD) Initiative has teacher workforce data up to 2024, which forms the baseline year from which the teacher workforce is projected. The projected figures in this report are not data, they are estimates based on predictive modelling and assumptions using what is known about the current and previous cohorts of registered teachers and the predicted consequences of future population growth.

As of 2024, there were approximately 560,000 registered teachers in Australia, who can be considered as two groups: those who work in contracted roles teaching and/or leading school-aged learners within schools, and those who are registered teachers but not attached to a school (such as those who are on extended leave, casual and relief teachers, teach early childhood aged or adult learners, or who work outside of a teaching role but maintain their teacher registration). Both groups of registered teachers are vital in understanding the retention of the current teacher workforce, as many will flow in and out of contracted teaching roles throughout their careers. These projections were calculated for each Statistical Area Level 4 (SA4s; geographic regions) across Australia and then aggregated to form the national totals presented in this report.

Action 25 of the Action Plan also aimed to enable a national understanding of teacher demand, and therefore the estimated number of teachers required to teach the projected student population is another key piece of information for workforce planning and therefore is included in these projections.

Projections by specialisation are also described in this report, these projections estimate a headcount of how many teachers are trained to teach a particular age range, curriculum area and/or subject nationally, and then estimate how many of those are projected to be retained and required. As teachers may hold more than one subject specialisation (for example English and History) or can teach more than one age range (for example primary 1-2 and primary 3-6) specialisation numbers need to be interpreted carefully, as they don't necessarily sum together to create a headcount of the total number of teachers.

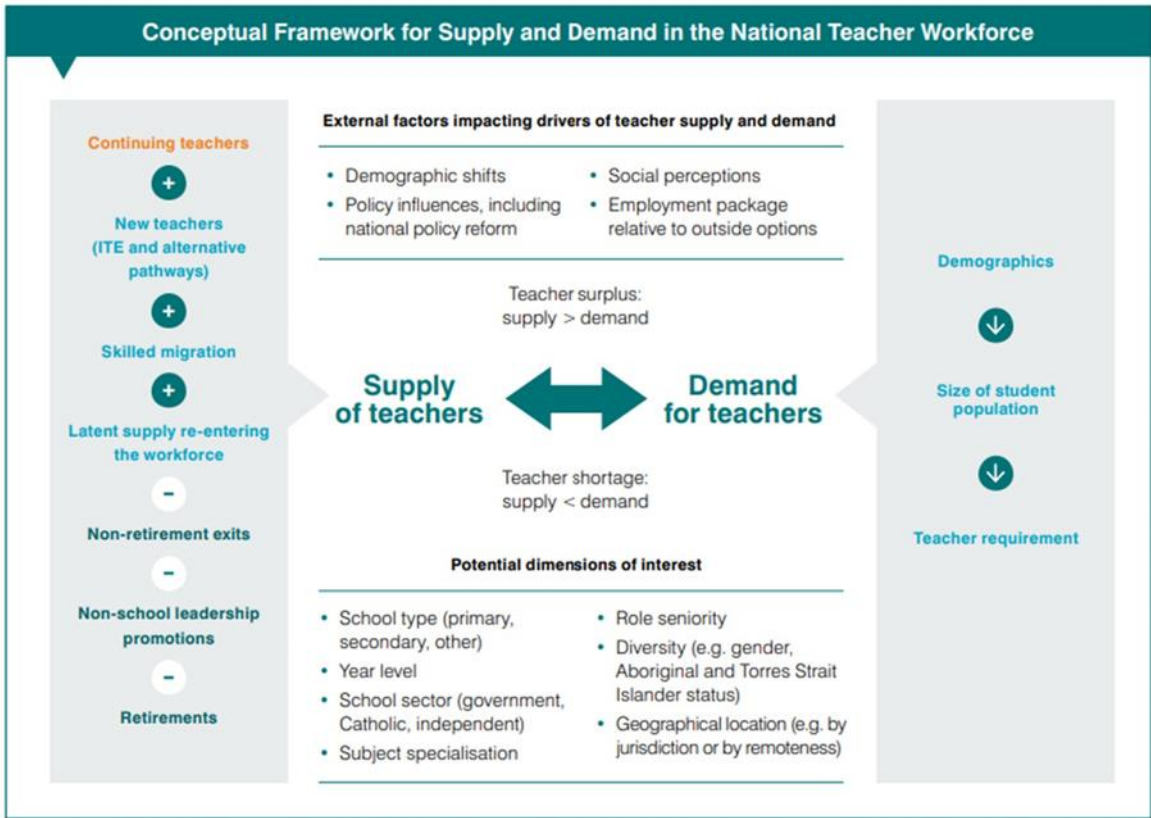
Specialisations are estimated for teachers retained (both attached and not attached to schools), as well as teachers required. Baseline subject specialisations were only available from the four Australian jurisdictions that capture specialisation within their teacher registration data. National baseline estimates were created using modelling and imputation which is described in the methodology section of this report and are susceptible to differences not able to be observed in the underlying data (jurisdictional contexts). Projections from baseline are susceptible to changes in predicted population growth, changes in policy, and changes in human behaviour in selection, for example, they assume the subject selection of year 11 and 12 students holds relatively consistent over the projection period, which may not be the case.

Conceptualising teacher retention and demand

Gaining an understanding of teacher retention and teacher demand is critical for effective workforce planning. These projections provide governments, employers, regulatory bodies and higher education providers the opportunity to identify and target areas of need, to plan ahead and meet the growing needs of the Australian education system.

The *Conceptual Framework for Supply and Demand in the National Teacher Workforce* (Figure 1), outlines the dynamic relationship between the supply and demand for teachers.

Figure 1: Conceptual Framework for Supply and Demand in the National Teacher Workforce



Teacher retention is a key component of overall workforce supply, influencing the extent to which the existing pool of teachers remains available to meet staffing needs. Alongside the inflow of new graduates, migrants and returning teachers, patterns of retention and attrition shape how supply changes over time. Teachers may leave the classroom through retirement, career change, promotion to non-teaching roles or temporary breaks, while supportive working conditions, manageable workloads and clear career pathways can encourage them to remain. In this way, teacher supply is not fixed but is continually reshaped by the balance between entry, exit and ongoing participation in classroom practice.

Teacher demand is largely driven by student-related factors, particularly demographic trends that affect the size, distribution and characteristics of the school-aged population. Growth or decline in enrolments, regional population shifts and participation patterns influence where teachers are required and in what numbers. Policy settings, such as class size requirements, curriculum breadth and inclusion measures, further shape demand by determining staffing profiles, including the need for particular subject specialisations or levels of experience. As a result, demand varies across sectors, locations and fields.

These dynamics are also influenced by broader external conditions, including national policy reform, social perceptions of teaching and the competitiveness of employment conditions relative to other professions. The interaction between supply, retention and demand determines whether shortages or surpluses emerge, and these imbalances are experienced differently according to school sector, geographic location, career stage, subject area and workforce diversity.

Projecting teacher retention and teachers required

The projections were developed using a range of data sources, including population projections, current teacher registrations, teacher workforce movements modelled using the Teacher Survey responses, and ITE program commencements and completions to produce estimates of graduate teacher supply, retention of the current teacher workforce, and potential future teacher demand. The projections are intended to support workforce planning across Australia. However, combining these projections cannot produce estimates of teacher shortages or surpluses, as not all elements of the supply and demand framework (shown in **Figure 1**) are modelled.

The four metrics projected to meet the requirements of Actions 25 and 26 of the Action Plan are listed below, and shown in **Figure 2**.

1. **Graduate teacher supply:** Graduates projected to have completed all requirements of an ITE program (regardless of whether they register as teachers) at a higher education provider.
2. **Teachers retained:** Continuing teachers from the 2024 workforce projected to be retained and attached to a school, teaching school-aged learners (i.e., working in schools, but not as a casual/relief teacher or teaching early-childhood aged learners). This does not include new supply of graduate or migrant teachers from 2025 onwards but does include teachers re-entering teaching roles attached to a school (e.g., moving from casual/relief to full-time role) throughout the projections period.
3. **Teachers not attached to schools:** Of all teachers registered in 2024, those projected to remain registered, but not attached to a particular school. This includes casual/relief teachers, registered teachers on extended leave, those teaching early childhood aged learners, or those maintaining their registration but not working as teachers.
4. **Teachers required:** The projected total demand for teachers in schools (not including casual/relief teachers), given growth in the number of school-aged children, secondary subject enrolments, and student/teacher ratios.

This report focuses on metrics 2 to 4, that is the projected estimates of the number of teachers remaining from the 2024 cohort for the years 2025–2032 and the projected number of teachers required for those same years. It is important to note that the ‘teachers required’ estimates are not a calculation

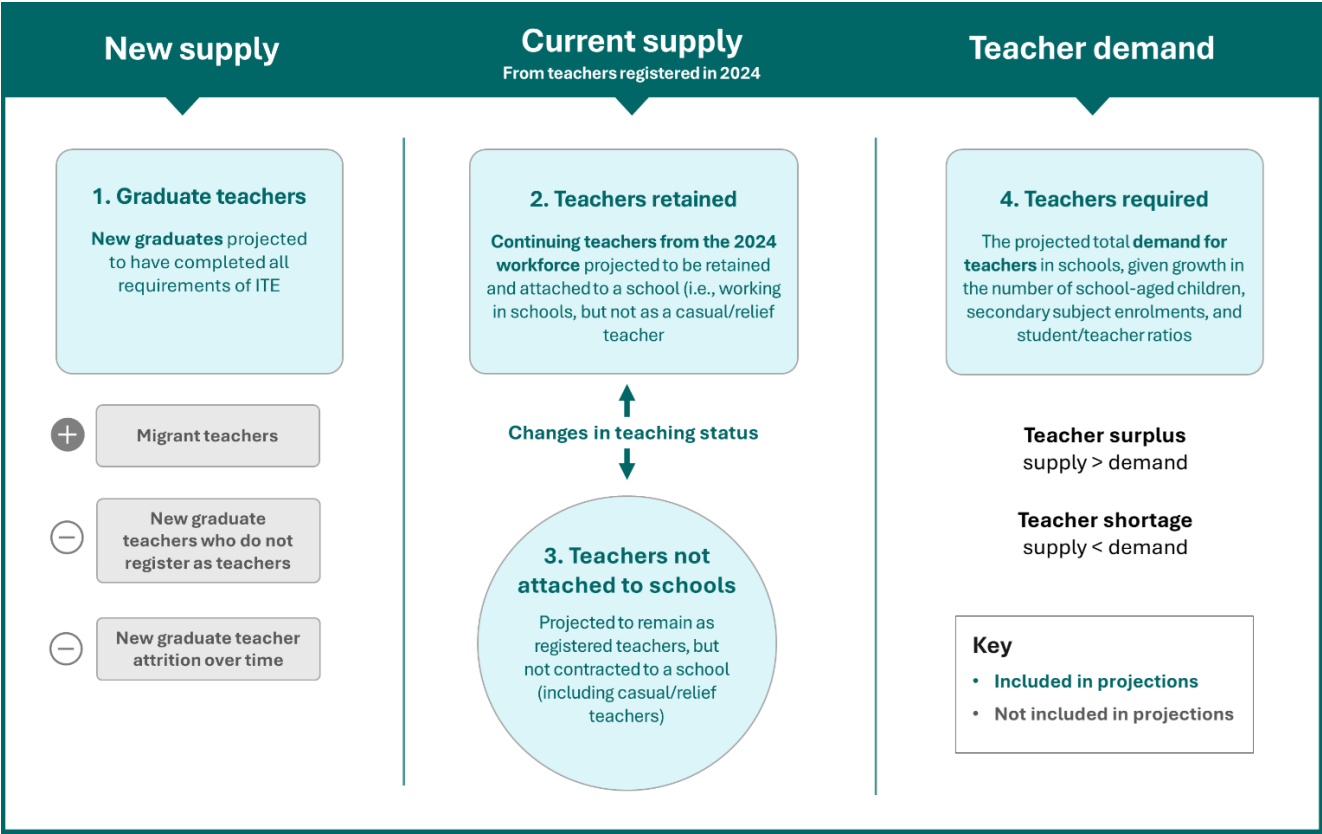
of *additional* teachers needed, but rather the projected total number of teachers required to teach the forecast student population.

The ‘retained teacher’ measure represents those from the 2024 workforce who are projected to remain contracted to a school, teaching or leading school-aged students. This excludes casual and relief teachers as well as early-childhood teachers and does not include new supply such as graduates or migrant teachers. However, it does include teachers from the 2024 registered pool who move into an attached, ongoing school role, for example transitioning from casual or relief work.

In contrast, ‘teachers not attached to schools’ are those who were registered in 2024 and are expected to remain registered but not contracted to a school to teach school-aged learners. This group includes casual and relief teachers, registered teachers on extended leave, teachers of early childhood-aged learners (regardless of setting), teachers who work in non-school related education settings (such as Technical and Further Education, TAFE), and those maintaining registration while not actively teaching.

Changes in teaching status from ‘teacher retained’ to ‘teachers not attached to schools’ is modelled (refer to **Figure 2**) and reflected in the estimates. This means that if a teacher was projected to originally be contracted to a school, but then go on extended leave for a year, they move from being a ‘teacher retained’ to a ‘teacher not attached to a school’ for that year. When a relief teacher is projected to take up a contracted role in a school, they move from being a ‘teacher not attached to a school’ to being a ‘teacher retained’ for as long as they are projected to be contracted for.

Figure 2: Projection measures for the National Teacher Workforce Action Plan



Methodology and results

National projections of the estimated number of registered teachers remaining each year are modelled based on their predicted school employment status, either attached (teachers retained) or not attached (teachers not attached to a school).

The estimates of ‘teachers retained’ refers specifically to registered teachers from the 2024 workforce who are projected to continue teaching and/or leading school-aged students in a role attached to a school. It excludes new entrants such as graduate or migrant teachers, as well as those working solely in casual, relief or early-childhood teaching roles. However, it includes individuals from the 2024 registered cohort who move into an ongoing, school-attached position during the projection period.

‘Teachers not attached to schools’ are also projected, this includes those who were registered in 2024 and are expected to remain registered but not linked to a particular school. This category includes casual or relief teachers, those on extended leave, those teaching early-childhood or adult learners, and individuals who retain registration without actively teaching.

The estimates of teachers required reflect the overall number of registered school teachers and leaders projected to be needed to teach the forecast student population. It does not represent the number of additional teachers to be recruited, but the total workforce required in schools each year.

Overview

To project teacher retention, historical trends in workforce movements were applied to the 2024 registered teacher workforce. The model of workforce movement used trends from the 2018–2024 teacher workforce, such as trends in transitions between locations, to predict retention and locations of teachers across the 2025–2032 period. To project the total number of teachers required, student-teacher ratios were applied to the projected school student population in each region.

Datasets

The datasets used in the teacher retention and teachers required projections fall into three categories, those used to understand students, those used to understand structural aspects of the school system, and those used to understand teachers. Teachers required are estimated using the student and school data, teacher retention is estimated using the school data and the teacher data. The datasets, purpose and their sources are outlined in **Table 1**.

Table 1: Overview of data used to project teachers retained and teachers required

Data	Specific variable/purpose	Source of data
Population projections (of those aged 0–20 years) ¹	Projected population of school-aged children per region	Bespoke population projections, provided by the Australian Government Department of Education
School aged student retention and participation rates ²	Used to align the population projections to number of students (per year level) requiring a teacher. ³	Australian Bureau of Statistics (ABS) ⁴

¹ Projections were for the 2024–2032 period.

² Data from the 2011–2024 period.

³ School-aged population projection numbers had to be aligned from SA4 of residence to SA4 of school attendance, with added correction for non-participation. Non-participation data were used to guide how to correct the child projection numbers to student enrolment numbers in each SA4, prior to aligning residential SA4 child projection data to school enrolment SA4 data.

⁴ <https://www.abs.gov.au/articles/education-australia-abc-bs-and-cs>.

Data	Specific variable/purpose	Source of data
Year 12 subject enrolments in 2024	Used to project the likely number of students in each senior school subject.	State and territory curriculum authorities
Number of registered teachers in 2024	Provided the overall number of registered teachers, whether attached to schools or not. This provided the size of the cohort being projected. Subtracting with the number of registered teachers attached to schools in 2024, this also provided the number of registered teachers not attached to a school.	Australian Teacher Workforce Data initiative -Teacher Regulatory Authority data , improved by data-linkage to provide a national view, with small amounts of missing data filled from the Australian Teacher Workforce Survey and imputation (as required).
Number of registered teachers attached to a school in 2024	Used as the baseline 2024 numbers for teachers retained. Numbers per school was used to produce region-specific estimates of current teachers.⁵ When subtracted from the total number of registered teachers in 2024, this also provided the number of registered teachers not attached to a school.	Australian Curriculum, Assessment and Reporting Authority
Student-teacher ratios, per school	The 2024 data was used to model the FTE of teachers required to teach the projected number of students. Earlier data was used for correspondence analysis with other sources.	Australian Curriculum, Assessment and Reporting Authority
Average full-time equivalent (FTE) per teacher at a school	The 2024 data was used to calculate the average FTE of teachers at a school. This was used to model when an increase or decrease in student headcount would necessitate employment of an additional teacher.	Australian Curriculum, Assessment and Reporting Authority
Historic average class sizes in New South Wales	Used to learn the relationship between average class-size and student-teacher ratios, to determine a conservative upper limit on student-teacher ratios before additional staff are required.	NSW Education Standards Authority (NESA)
Registered teachers and discontinuation rates	Population-level data on the number of registered teachers of each age, gender, and based in each SA4*. This formed the baseline cohort.	Australian Teacher Workforce Data initiative – Teacher Regulatory Authority Data

⁵ An additional use of these data was to correct the 'by school' headcount data in NSW government schools, at the school level, where those on fixed-term contracts are not included.

Data	Specific variable/purpose	Source of data
	The proportion of teachers with different characteristics who discontinued registration each year was modelled based on the longitudinal unit-record, Likelihood of change in SA4 from year to year was additionally modelled, with an emphasis on changes in state and remoteness. *SA4 data utilized a hybrid of residential address, most recent school of employment from the survey and/or the regulatory authority data, based on which source provided the most up to date information for that individual.	
Employment characteristics of the teacher workforce	Modelled proportions of the 2024 attached teachers within each age, gender, and SA4 who were classroom teachers, middle leaders, and senior leaders.	Australian Teacher Workforce Data initiative – Australian Teacher Workforce Survey

Teacher retention

Cohort Establishment

The number of registered teachers in 2024 were considered within their SA4s, as described in the region disaggregation section. From the pool of teachers residing within each SA4, the number who could be working allocated to a school was determined by Australian Curriculum Assessment and Reporting Authority (ACARA) data on the number of registered teachers attached to each individual school in 2024. For those who completed the Teacher Survey in 2024, this was allocated; for those who did not, imputation was required.

To determine which registered teachers were most likely to be allocated to a school in 2024, weighted Teacher Survey data from 2021 through 2024 was analysed to identify the deployment and employment characteristics that were associated with being in a school setting.

Analysis of positions, stratified by school size and type from linked ACARA data, was performed. This was used to determine the expected headcount of senior leaders, middle leaders and classroom teachers given a school of that size. The process accounted for higher ratios of leaders in very small schools. When summed across schools in an SA4, this indicates the total number of teachers and leaders expected. This process helped guide the construction of the initial (2024) cohort.

For modelling, a dataset was constructed with one record per registered teacher. Each record had the teachers' identified SA4 and specialisations, their known age and gender, and an indicator of whether they were currently attached to a school. In each SA4, the number of registered teachers attached to a school matched the number of teachers attached to a school in ACARA's school records in 2024.

Student and teacher counts

Student counts and teacher in school counts were predominately sourced from ACARA. Student counts were modelled based on individual grades where required. Where this conversion necessitated the

removal of some student counts,⁶ the teacher headcount FTE was reduced proportionately. Child projection numbers by age were converted into school grades based on the typical ages of students in each grade in each state.

Where ACARA data was used to determine the number of teachers in schools, the ATWD was then used to determine the number of unique individuals appearing on Teacher Regulatory Authorities (TRAs) registers across the country.

As employment data in the ATWD is representative, but incomplete, registered teachers were allocated probabilistically into schools. Where a school was known for a teacher, these teachers received priority for modelling in that school, however, the number of assigned teachers could not exceed the adjusted headcount or FTE reported by ACARA. When it did, or where employment data was unknown, teachers were assigned to schools within their SA4⁷, which was most consistent with what was known about them from the ATWD. For instance, those who were known to be working outside of education, or in early childhood had lower probabilities of assignment to a school.

When a person's most recent employment data indicates that they are exclusively teaching early childhood learners, they are not assigned to a school in the first instance. When a person is on a TRAs register as an early childhood teacher, if recent employment is unknown, they could be assigned to a school consistent with what was known about their qualifications. Anyone not allocated through these steps are present in the 'teachers not attached to schools' category. Over time, the model allows individuals with an Early Childhood, birth-8 or birth-12 qualification to move into and out of schools.

Summing the 2024 'teachers retained' and 'teachers not attached to schools' numbers in any given state or territory will lead to a different number than teachers on that state's TRA register. This is because the ATWD is able to correct for teachers concurrently registered in more than one state or territory.

Projection process

To produce projections of the current teacher cohort through to future years, a three-step process is used. First, the pool of active, registered teachers is identified, and their age is incremented. Second, changes in a teacher's circumstances over the course of the year is determined through application of models to the data. These are described in the next section, but cover ceasing to be registered, moving between regions, and starting or stopping being attached to a school. Finally, the counts of teachers in each reported set of circumstances are tallied. These tallies are stratified by the disaggregation variables (SA4, specialisation, described below), to produce disaggregated counts of:

1. Retained teachers: the number of teachers who were registered in 2024, and are active and attached to a school in, for example, 2025.
2. Non-retained teachers: the number of teachers who were registered in 2024, and have continued their registration in, for example, 2025, but are not attached to a school.
3. Ceased registration: the number of teachers who were registered in 2024, and ceased their registration in, for example, 2025 (not reported).

A person's circumstances are only tallied at the end of each model cycle. This means that a person who contributed to the retained teachers pool in one area, may in the next year, appear in the now-retained teachers pool in a different area.

This sequence is repeated for each year. Those who cease registration do not progress to the next year's model. This assumes there is no re-registration. Additionally, teachers' characteristics are remembered, and carried forward in the model. The projections only use the most up-to-date projected circumstances of an individual, and do not have memory for circumstance changes between earlier

⁶ For example, in WA pre-foundation enrolments (Kindergarten) were removed from the student counts.

⁷ In a small number of SA4s, there were insufficient registered teachers to cover known deployment; in these cases, the same SA4 constraint was relaxed, and a teacher residing in a neighbouring SA4 could be assigned to these schools.

years (for example, a person who was in group one in 2025–2026 is projected no differently to a person in group one in 2026 but group two in 2025).

Change models

Change models calculated the probability of change in a teacher's circumstances over the course of the year, given their current circumstances and a limited set of other demographics. The calculation process for these change models was operationalised to minimise the number of moving parts. Although more extensive models were considered, and often performed suitably on their own, when considered together their projected workforce had extensive drift over time.

Ceasing registration

Models to predict ceasing of registration were restricted to predictors available from TRAs, as inclusion of other predictors would rely on imputation. Only two predictors, age and gender, are held for all respondents.

An estimate of SA4 has been derived for almost all respondents, and can be recoded into [Greater Capital City Statistical Areas](#) (GCCSAs; 7 regions) and [Remoteness Areas](#). The imputation required to produce this indicator, described in the section on region disaggregation, means that it strongly reflects the SA4 a person has been in, but has lower accuracy in regards to exactly when they were in this SA4.⁸ For the change models, which are sensitive to time, its direct inclusion or inclusion as recoded variables (GCCSAs and Remoteness Areas) produced improbable and highly heterogeneous change probabilities in a notable number of regions. Similar challenges were faced with the inclusion of registration status.⁹

Specialisation also requires imputation, and while this imputation is robust for national-level aggregate reporting, the proportion of records requiring imputation means it is unreliable as a predictor in the change models. The process of constructing specialisation is described in the specialisation disaggregation section. When trialled in the model, inclusion of specialisations created a bias toward unique trajectories only for those with observed specialisations, but not imputed specialisations – this disproportionately affected younger teachers.

Using data from 2018–2024, the probability that a person would cease to be registered the following year was calculated separately for men and women, and for people aged under 25, 26, 27, ... , 73, 74, over 75. These probabilities were then smoothed along the age axis separately for men and women.

Movement model

As noted in the change model considerations, the SA4 data has relatively low time sensitivity for use in a change model. This challenge was exacerbated by many of the available years of data being collected over COVID-19-affected years. To prevent the perpetuation of any COVID-19-specific migration patterns impacting the projections, only the change in region from 2022 to 2024 was modelled.

The ideal model would examine the movement between each SA4 and every one of the 87 other SA4s. However, it was not possible to produce reliable probability estimates from one year of data, and no other predictors would be able to be included in the model.

A simpler model was adopted: change between an SA4 with a predominantly metropolitan remoteness to one with a predominantly regional/remote remoteness, and vice versa. For individuals predicted to move, the destination was restricted only by the remoteness-level of the SA4 and not the state they were moving from. Destinations were in proportion to the SA4 of teachers in the 2024 cohort.

Using data from 2022–2024, the probability that a person would change remoteness area levels was calculated separately for men and women, and for people aged under 25, 26, 27, ... , 73, 74, over 75. These probabilities were then smoothed along the age axis separately for men and women.

⁸ This has particularly pronounced impacts in South Australia and Western Australia.

⁹ Registration status should be available without imputation in the future with additional waves of data.

Deployment model

Deployment is sourced from the Teacher Survey, and so the potential predictors of change in deployment are broader. A change model based on the Teacher Survey responses can only be built using data from people who have completed the survey on more than one occasion. The repeat survey participants in the ATWD initiative may show patterns of change that do not generalise to others,¹⁰ and could not be corrected for sufficiently through longitudinal weights.

As a result, it was decided that, rather than use a change model, a cross-sectional snapshot of the 2024 workforce's deployment would be used. Each year, a person was assigned deployment or non-deployment with the probability of those one year older than the year prior. This assignment was independent of their deployment in the prior year. As prior status has no bearing on other changes, this simplified approach could be adopted.

Using data from 2024, the probability that a person would change deployment was calculated separately for men and women, and for people aged under 25, 26, 27, ... , 73, 74, over 75. These probabilities were then smoothed along the age axis separately for men and women.

Region disaggregation

To calculate the projected number of teachers retained and non-retained, the tallying approach at the end of each projection cycle is applied. Separate tallies are calculated within each SA4, to produce disaggregated counts of teachers in each region.

Most regulatory authorities provide address data to the ATWD initiative. When this address can be precisely geocoded, i.e., to [Statistical Area Level 1](#) (SA1s), the statistical area is coded by AIHW during data-linkage. This SA1 data was recoded into an SA4.

If an SA4 could not be identified in this way, a number of other methods were used. Sometimes residential suburb or postcode was available, but insufficient address information was available for coding to SA1 during linkage. In these cases, the process used to code region during initial teacher education was adopted.

Others were coded from their school, as reported in the Teacher Survey, or recorded by the TRA. Inspection of the data revealed that when both sources were available, the Teacher Survey was typically more current than TRA data for the school a teacher worked at, and so the Teacher Survey schools were prioritised. TRA school data was still used, as for modelling purposes it was more important to achieve low missingness with teachers coded to a region reflecting the characteristics of those who were or had previously worked there, than having high missingness but high confidence that a specific teacher worked in that region. Almost all teachers could be assigned a location based off some of their data.

Regional allocation is important even if projections are only to be considered at a national level as this modelling technique avoids over or under estimating teachers nationally, as teachers can register in more than one state or territory.

¹⁰ Participation in the survey was a strong predictor of individuals maintaining their registration the next year. This was true despite the fact that survey participation has been more likely among older teachers in most states in most years – a response bias that has been corrected for through weighting of the data. As such, examining changes in workforce characteristics using the survey data would mean that individual-level data on transitions between parts of the workforce would likely be biased toward individuals who are highly engaged with the profession. This could potentially lead to an over-estimation of the number of registered teachers progressing into and through levels of leadership. It could also possibly lead to an over-estimation of registered teachers moving from the teacher workforce into the non-teacher workforce, and might result in an over-estimate of attrition because 'attrition' is being inflated by overestimation of the non-teacher workforce who may have permanently exited but maintained their registration.

Teachers required

Projections of child population numbers needed to be aligned with school year levels, via information on the current year level distributions in schools, and student retention rates. This alignment was performed nationally due to the difficulty aligning age and year level at each SA4 when students can study and reside in different SA4s (i.e., population projections provide residential SA4, but not the attended school SA4). Fractional reallocations from residential SA4 to school SA4 were calculated using the 2024 data, to ensure that every child was assigned to a school, even if it was not in their SA4. These reallocations optimised for the following assumption: that an SA4 with more enrolments than residents had students attending schools in the closest SA4s with deficits (and vice versa). This was achieved through an iterative optimisation algorithm, which ensured that the child projections (which had a higher national sum than ACARA school enrolments data) were reduced to the number of enrolments available from ACARA.¹¹ This optimisation focused on ensuring the correct overall number of students, and then minimising the distance between each student's residence and enrolment locations. The reallocation proportions were carried through to 2032.

To convert the volume of children in SA4s into demand for teachers, they required allocation to a school.¹² A proportional allocation method was applied, assigning growth in student volume in proportion to current enrolments; separately for primary and secondary students.¹³ Where volume of children was projected to decline, enrolments were removed from schools in an equivalent manner.

With enrolments at each school now projected, these were converted into teachers required. The first step of this process was to determine the FTE of teachers required. It was assumed that the 2024 student-teacher FTE ratios would continue. In some schools, existing student-teacher FTE ratios were indicative of pre-existing demand for teachers. Based on analysis of public records of student-teacher FTE ratios, it was determined that student-teacher ratios in excess of (on average) 18 for primary schools, 16 for combined schools (e.g., K–12), and 14 for secondary schools would require, at minimum, an additional teacher. The national averages for student-teacher ratios were 14.0 (primary) and 11.7 (secondary).¹⁴ Required teacher FTE was derived from dividing student FTE enrolments by the smaller of the capped or observed (in 2024) student-teacher FTE ratio.

The required teacher FTE at a school was finally converted to a required teacher headcount – the measure of teacher demand. This was calculated from the average FTE of teachers at the school in 2024 – calculated from the observed teacher FTE divided by the observed teacher headcount.¹⁵

The required teacher FTE divided by the average FTE of teachers, and then rounded to zero decimal places, converted the measure of teacher demand from FTE to headcount. This conversion and rounding process dealt with the fact that not every additional student requires an additional staff

¹¹ The student aged population, rather than historical trends in student enrolments at specific schools, were used to project and allocate students to schools to ensure changes in the size of the student aged population, shifts in resident population and shifts in birth rates were considered in the projections. This approach allows the modelling to not add in new 'future' schools to accommodate population growth, instead it allows schools to grow beyond previously observed enrolment numbers (while retaining current student teacher ratios) – which together closely approximate the effects of adding new schools into the model.

¹² Schools with no enrolments were excluded from this process as many of these have alternate models of enrolment, or are (at least) temporarily inactive.

¹³ The observed proportion of children's residence to school SA4 was mapped from the 2024 data – as it was observed in both sources. This was necessary, as in many cities, the city centre has a low resident population but high school enrolments, as students travel to school. These patterns of residence to school SA4s were held constant into the projected years to account for the observed discrepancy between the sources.

¹⁴ Taken from [Australian Curriculum, Assessment and Reporting Authority](#).

¹⁵ The NSW Government system does not include non-permanent staff in headcount at the school-level but does at the state-level. This means that, at the school level, some have greater teacher FTE (where those on short-term contracts are included) than they do headcount. The difference between NSW government schools' teacher headcount at the state-level, and the sum of their teacher headcount at the school-level, was imputed back into the schools. This process first assigned the shortfall in headcount to each SA4, in proportion to their teacher FTE, and then sought to assign each SA4's allocation of headcount to individual schools. The additional headcount was allocated in a manner that reduced the variability in average FTE within the SA4.

member. For example, a primary school would start with a student-teacher ratio of 14.0 (national average) and this would increase if more students were added to the school without additional teacher FTE. There may not be a need to add an additional teacher for say, 5 extra students, but there may be for 15 extra students. Similarly, if in the previous year there were 10 extra students with no change in teacher FTE, this year, 5 extra students may necessitate an additional teacher. This process provides a window of tolerance around changes, such that the headcount demand for teachers is robust to an increase or decrease of a relatively small number of students.

Projections of teachers retained and teachers required

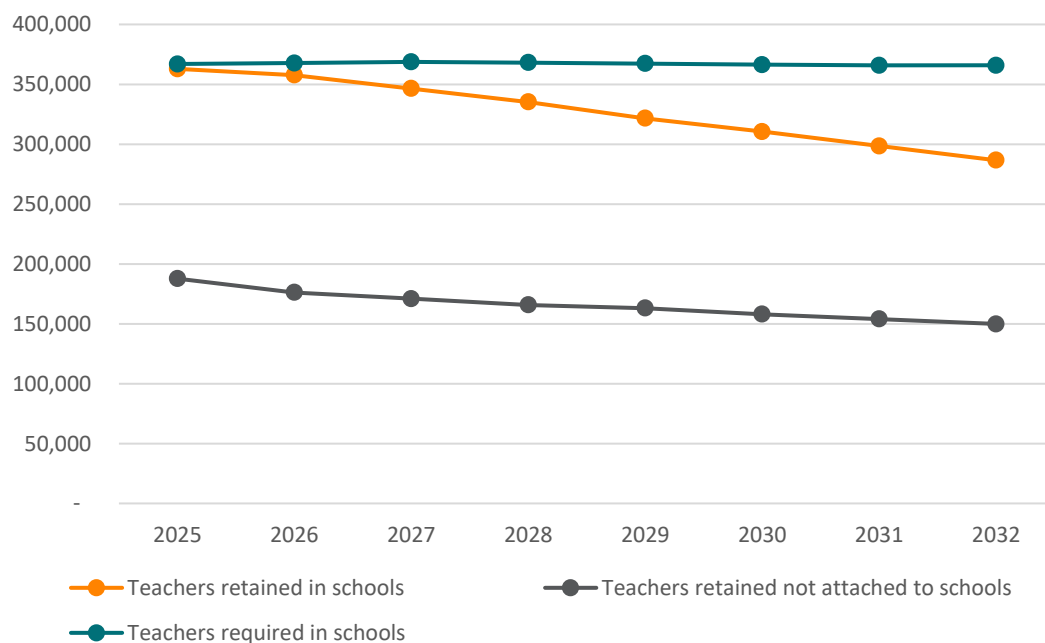
Estimates of the national numbers of teachers retained (both in schools and not attached to schools) and teachers required from 2024 were projected for the years 2025-2032 in accordance with the methodology outlined in this paper. The methodology, including assumptions, caveats and limitations, should be considered and reported on, should these estimates be described elsewhere. Estimates were projected by region and then rolled up to national totals (refer to **Table 2**).

Table 2: Projections of teachers retained and teachers required (2025 - 2032)

	2025	2026	2027	2028	2029	2030	2031	2032
Teachers retained in schools	362,896	357,734	346,447	335,261	321,664	310,556	298,468	286,568
Teachers retained not attached to schools	187,712	176,192	171,024	165,786	163,086	157,942	154,015	149,899
Teachers required in schools	366,976	367,757	368,712	368,142	367,355	366,386	365,851	365,857

The estimated number of teachers retained from the 2024 cohort will necessarily reduce each year, while the number of teachers required remains relatively stable over the projection period, reflecting projected changes in student numbers (**Figure 3**).

Figure 3: Projections of teachers retained and teachers required (2025 - 2032)



Specialisation disaggregation

To calculate the estimated number of teachers required with each specialisation, the volume of students in each grade level was determined for each year based on population projections. Based on the relationship between current teacher headcount nationally, student numbers in each grade level, and the number in Year 12 combined with Year 12 subject completions, a ratio is calculated. This ratio is applied to the projected teacher demand, so that teacher demand can be split in proportion.

Each teacher was assigned their specialisations (including year levels and secondary subjects) when defining the baseline cohort. For teachers retained and teachers not attached to schools, at the end of each projection cycle, the number of teachers with each specialisation was tallied. Although an individual's specialisations do not change across projection cycles, as teachers move from being retained to not attached, different teachers may contribute their specialisations in some years but not in others.

To calculate teachers required for each specialisation, the proportion of teachers required at each learner level were first determined from the proportion of students projected to be in each grade. Within the secondary learner level, this was split into the proportion in years 7-10 and the proportion in years 11-12. All calculations were at the level of curriculum areas, prior to a final conversion back to subjects within areas. For the proportion of year 7-10 learners, the specialisations required were proportionally split as per the national curriculum, on average, over these years. For the proportion of year 11-12 learners they were split based on the proportion of year 12 subjects undertaken in the states where data was available, classified into their curriculum areas. Two combined estimates were created for each projected year, one, based entirely off the year 11-12 data, which assumes that year 7-10 teaching in a curriculum area is covered by the senior specialisations held, and another which combined year 7-10 and year 11-12 estimates proportionally, which assumes that subject specialists are just as important in year 7-10 as year 11-12. The final estimate used was the average of these two sets of assumptions. The projected number of teachers required was a proportional split of the required teachers, upscaled to the number of curriculum areas a teacher held a specialisation in. Having already accounted for cross curriculum area specialisations, subjects within curriculum areas were determined based on the observed baseline cohorts distribution of multiple specialisations within a curriculum area.

Data for specialisation disaggregation

The datasets used in the teacher retention and teachers required projections, as outlined earlier in **Table 1**, are also relevant for specialisation projections in that both the estimated projected retention of current (2024) teachers and the estimated number of required teachers have been projected for specialisations. The underlying source data that was used to identify and/or assign teacher specialisation is documented in **Table 3**.

Table 3: Data used for specialisation disaggregation for teachers required and teachers retained

Data	Specific variable/purpose	Source of data
ITE program type ¹⁶	Derived from ITE course codes and names, course (and unit) field of education (FOE) codes	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)
Field of study	ITE unit FOE codes	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)

¹⁶ The ATWD already reports on age-focus specialisations as 'program type', and this coding was used in the projections.

Data	Specific variable/purpose	Source of data
Subject specialisation of registered teachers as recorded by TRAs	Subject specialisation data from TRAs in NSW, ACT, VIC, and QLD ¹⁷ ; TRA qualifications data	Australian Teacher Workforce Data initiative – Teacher Regulatory Authorities (TRAs)
Demographic details of ITE students and registered teachers	State, Age, Gender, ITE provider, Remoteness, Registration Status, Year of Data	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)
Learner levels taught	Whether or not a registered teacher has ever taught secondary students	Australian Teacher Workforce Data initiative – Australian Teacher Workforce Survey; ACARA school type data
In-field subjects taught	Subjects reported as in-field, indicating specialisation during ITE, asked when a teacher taught that subject during the year	Australian Teacher Workforce Data initiative – Australian Teacher Workforce Survey
Proportion of secondary and non-secondary teachers	Derived from In-school Staff (FTE) by School Level, Function, Sex, Affiliation, States and Territories	Schools, 2024 (Australian Bureau of Statistics)

Methodology for specialisation disaggregation

As ITE records are held only for a portion of the registered teacher workforce, there is no universal information in TRA records indicating which teachers are qualified to teach secondary students, meaning imputation is required. The first step in allocating workforce specialisations was to identify the cohort of secondary and non-secondary teachers, through synthesis of data sources and imputation. These secondary and non-secondary flags were derived from ITE program type, Teacher Survey learner level responses, TRA subject specialisation data, TRA teaching type data, specialisation and field information, and synthesis of TRA school IDs with ACARA school types. Where no level could be identified, levels were randomly imputed based on target counts stratified by gender and state.¹⁸

For teachers identified as secondary¹⁹, specialisation classifications from all sources were integrated, with the individual receiving their first classification, using the following sequence: NESA subject specialisation data, TQI subject specialisation data, specialisations parsed from TRA qualifications data, specialisations allocated by a random forest model,²⁰ Teacher Survey subject specialisations, specialisations imputed using the logistic regression-based process described in the ITE supply section.²¹ Approximately a third of teachers identified as secondary did not have specialisations recorded in any data source; these teachers were allocated a specialisation using a logistic regression-based imputation process similar to that employed for ITE supply (based on likelihood ranks, but

¹⁷ NSW Education Standards Authority (NESA), ACT Teacher Quality Institute (TQI), Victorian Institute of Teaching (VIT), Queensland College of Teachers (QCT).

¹⁸ Target counts for learner level by gender by state were calculated by synthesizing Teacher Survey data with ABS data on In-school Staff (FTE) by School Level, Function, Sex, Affiliation, States and Territories.

¹⁹ Both primary and secondary teachers could receive a specialisation of Special Education, as this was classified using an independent process from the same source data. When a Special Education specialisation was assigned to a secondary teacher, this constituted one of their subject specialisations.

²⁰ A random forest model is a commonly used machine learning algorithm that combines the output of multiple decision trees to reach a single result

²¹ As a hypothetical illustration of this process, the specialisations classification would be based on TQI data for an individual for whom TQI and Teacher Survey specialisations information was available, whereas it would be based on Teacher Survey data if information was available for the individual from Teacher Survey responses and imputation based on their ITE records.

allocating individual specialisations within a national imputation pool, then adjusting for individual over or under-allocations). All reporting uses this classification of specialisation/s.

Where a curriculum area comprises only a single subject specialisation, these tallies should equal each other. Where this condition was not met, the subject specialisation tally was adjusted to equal the curriculum area tally.

Individuals holding a special education specialisation could not readily be identified using the classification method for other specialisations. For workforce projections, a special education flag was constructed from ITE course and unit data, TRA data and Teacher Survey responses on ITE studies and in-field teaching. An individual was designated as holding a special education specialisation if they were identified either by this flag or by the more general methods described above.

Projections of teachers retained and teachers required by specialisation

Teachers retained by specialisation

Teacher retention specialisation projections are shown for the years 2025-2032 in accordance with the methodology outlined in this paper. The methodology, including assumptions, caveats and limitations, should be considered and reported on, should these estimates be described elsewhere. Estimates of teachers retained in schools by learner levels and curriculum area specialisations are shown in **Table 4**.

Total primary and total secondary teacher retention estimates by specialisation are not a sum of the number of primary and secondary specialisations, they are estimates of the number of teachers who are projected to be retained teaching either primary or secondary aged learners, as teachers can specialise in more than one learner level (for example, primary 1-2 and primary 3-6) or more than one curriculum areas (for example, Mathematics and Science), refer to **Table 4**.

Table 4: Teachers retained in schools by learner level and curriculum area

Learner level	Curriculum Area	2025	2026	2027	2028	2029	2030	2031	2032
Foundation	Primary	175,601	172,762	167,338	162,196	155,366	150,285	144,418	138,560
Primary 1-2	Primary	171,316	168,547	163,255	158,238	151,575	146,618	140,894	135,179
Primary 3-6	Primary	160,271	157,680	152,729	148,036	141,803	137,165	131,810	126,464
	<i>Total Primary</i>	<i>175,601</i>	<i>172,762</i>	<i>167,338</i>	<i>162,196</i>	<i>155,366</i>	<i>150,285</i>	<i>144,418</i>	<i>138,560</i>
Secondary 7-12	English	46,694	46,026	44,294	42,746	41,222	39,801	38,388	36,940
Secondary 7-12	Health/PE	35,970	35,996	35,093	33,960	32,644	31,781	30,977	29,773
Secondary 7-12	Humanities	57,722	57,311	55,706	54,309	52,272	50,813	49,155	47,688
Secondary 7-12	LOTE	8,710	8,512	8,217	7,783	7,422	7,128	6,775	6,344
Secondary 7-12	Mathematics	24,632	24,009	22,928	21,946	20,710	19,485	18,484	17,440
Secondary 7-12	Science	30,932	30,521	29,514	28,375	27,377	26,200	25,342	24,200
Secondary 7-12	Technology	18,098	17,776	16,947	16,243	15,484	14,533	13,600	12,891
Secondary 7-12	The Arts	32,446	32,050	31,318	30,528	29,544	28,746	27,729	26,987
	<i>Total Secondary</i>	<i>187,295</i>	<i>184,972</i>	<i>179,109</i>	<i>173,065</i>	<i>166,298</i>	<i>160,271</i>	<i>154,050</i>	<i>148,008</i>
Foundation - 12	Special Education	9,437	9,188	8,940	8,500	8,160	7,868	7,570	7,194

Estimated projections for teachers retained in schools by secondary subject specialisations is shown in **Table 5**. In some cases, only the curriculum area could be modelled (for example English and Mathematics), for others, specialisations could be projected as discipline specific (for example Biology) or groups of related disciplines (for example, Economics, Business and Accounting), refer to **Table 5**. Differences between teachers retained in schools and teachers required in schools in terms of subject specialisations cannot be described as 'shortages of teachers' in specific subject areas.

Table 5: Teachers retained in schools by secondary specialisation

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
English	All	46,694	46,026	44,294	42,746	41,222	39,801	38,388	36,940
Health/PE	All	35,970	35,996	35,093	33,960	32,644	31,781	30,977	29,773
Humanities	All	57,722	57,311	55,706	54,309	52,272	50,813	49,155	47,688
Humanities	Economics, Business, Accounting	13,402	13,280	12,881	12,489	12,037	11,544	11,182	10,730
Humanities	Geography	9,951	9,671	9,270	8,900	8,563	8,094	7,853	7,554
Humanities	History	32,097	32,140	31,144	30,393	29,238	28,532	27,605	26,971
Humanities	Humanities, Social Sciences	19,572	19,406	18,996	18,642	18,163	17,760	17,239	16,757
Humanities	Religious Studies	3,993	3,938	3,844	3,675	3,475	3,384	3,235	3,066
LOTE	All	8,710	8,512	8,217	7,783	7,422	7,128	6,775	6,344
Mathematics	All	24,632	24,009	22,928	21,946	20,710	19,485	18,484	17,440
Science	All	30,932	30,521	29,514	28,375	27,377	26,200	25,342	24,200
Science	Biology	19,477	19,338	18,758	18,249	17,700	17,072	16,569	15,988
Science	Chemistry	17,182	17,052	16,587	16,070	15,505	14,917	14,380	13,871
Science	Earth, Environment, General Sciences	13,143	12,766	12,174	11,577	11,115	10,510	10,079	9,576
Science	Physics	7,422	7,428	7,092	6,776	6,433	5,993	5,842	5,493
Technology	All	18,098	17,776	16,947	16,243	15,484	14,533	13,600	12,891
Technology	Design Technology	12,724	12,472	11,950	11,375	10,823	10,180	9,481	8,996
Technology	Food Technologies	3,795	3,723	3,509	3,427	3,334	3,106	2,923	2,745
Technology	IT/Computer Science	5,020	4,917	4,712	4,489	4,252	4,035	3,758	3,601
Technology	Industrial Technologies	4,277	4,284	4,051	3,827	3,663	3,441	3,223	3,060
Technology	Textiles	2,152	2,141	1,991	1,941	1,865	1,691	1,579	1,506
The Arts	All	32,446	32,050	31,318	30,528	29,544	28,746	27,729	26,987
The Arts	Music	11,284	11,113	10,854	10,568	10,220	9,863	9,557	9,325
The Arts	Performing Arts	10,336	10,388	10,170	10,008	9,764	9,645	9,244	9,096
The Arts	Visual/Media Arts	13,305	12,978	12,583	12,265	11,765	11,361	10,962	10,541

Estimates of teachers retained, not attached to schools, by learner levels and curriculum area specialisations are shown in **Table 6**. The same interpretation on projected estimates as per teachers retained is relevant, in that totals are not sums of separate curriculum areas.

Table 6: Teachers retained not attached to schools by learner level and curriculum area

Learner level	Curriculum Area	2025	2026	2027	2028	2029	2030	2031	2032
Foundation	Primary	96,652	91,254	88,518	85,481	84,237	81,361	79,294	77,148
Primary 1-2	Primary	89,683	84,675	82,136	79,318	78,164	75,495	73,577	71,586
Primary 3-6	Primary	86,716	81,873	79,418	76,694	75,577	72,997	71,143	69,217
<i>Total Primary</i>		<i>96,652</i>	<i>91,254</i>	<i>88,518</i>	<i>85,481</i>	<i>84,237</i>	<i>81,361</i>	<i>79,294</i>	<i>77,148</i>
Secondary 7-12	English	24,863	23,138	22,580	21,918	21,260	20,660	20,003	19,518
Secondary 7-12	Health/PE	14,423	13,116	12,708	12,575	12,611	12,169	11,757	11,725
Secondary 7-12	Humanities	28,621	26,663	25,849	24,925	24,737	23,936	23,376	22,689
Secondary 7-12	LOTE	4,860	4,570	4,391	4,323	4,213	4,011	3,896	3,830
Secondary 7-12	Mathematics	12,810	11,915	11,532	11,046	10,802	10,570	10,171	9,796
Secondary 7-12	Science	14,160	13,323	13,094	12,981	12,742	12,617	12,150	11,999
Secondary 7-12	Technology	8,906	8,254	8,093	7,817	7,577	7,433	7,378	7,058
Secondary 7-12	The Arts	16,157	15,369	14,879	14,419	14,224	13,830	13,617	13,124
<i>Total Secondary</i>		<i>91,060</i>	<i>84,938</i>	<i>82,506</i>	<i>80,305</i>	<i>78,849</i>	<i>76,581</i>	<i>74,721</i>	<i>72,751</i>
Foundation -12	Special Education	4,819	4,604	4,437	4,446	4,374	4,241	4,125	4,043

Estimated projections for teachers retained not attached to schools by secondary subject specialisations is shown in **Table 7**Table 5. In some cases, only the curriculum area could be modelled (for example English and Mathematics), for others, specialisations could be projected as discipline specific (for example Biology) or groups of related disciplines (for example, Economics, Business and Accounting).

Table 7: Teachers retained not attached to schools by secondary specialisation

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
English	All	24,863	23,138	22,580	21,918	21,260	20,660	20,003	19,518
Health/PE	All	14,423	13,116	12,708	12,575	12,611	12,169	11,757	11,725
Humanities	All	28,621	26,663	25,849	24,925	24,737	23,936	23,376	22,689
Humanities	Economics, Business, Accounting	6,139	5,704	5,544	5,383	5,283	5,156	4,943	4,858
Humanities	Geography	5,893	5,466	5,194	4,944	4,693	4,603	4,303	4,097
Humanities	History	15,780	14,485	14,144	13,655	13,657	13,218	12,989	12,522
Humanities	Humanities, Social Sciences	9,754	9,221	8,918	8,597	8,415	8,150	7,981	7,836
Humanities	Religious Studies	1,920	1,822	1,738	1,723	1,734	1,641	1,599	1,578
LOTE	All	4,860	4,570	4,391	4,323	4,213	4,011	3,896	3,830
Mathematics	All	12,810	11,915	11,532	11,046	10,802	10,570	10,171	9,796
Science	All	14,160	13,323	13,094	12,981	12,742	12,617	12,150	11,999
Science	Biology	9,060	8,518	8,421	8,291	8,149	8,074	7,852	7,737
Science	Chemistry	8,017	7,519	7,383	7,263	7,182	7,110	6,949	6,771
Science	Earth, Environment, General Sciences	6,554	6,240	6,136	6,062	5,879	5,779	5,495	5,310
Science	Physics	3,500	3,128	3,086	3,031	2,991	3,049	2,815	2,810
Technology	All	8,906	8,254	8,093	7,817	7,577	7,433	7,378	7,058
Technology	Design Technology	6,264	5,803	5,637	5,508	5,338	5,211	5,208	4,957
Technology	Food Technologies	2,339	2,179	2,174	2,039	1,923	1,908	1,867	1,803

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
Technology	IT/Computer Science	2,266	2,127	2,070	2,038	2,002	1,942	1,970	1,862
Technology	Industrial Technologies	2,012	1,757	1,758	1,759	1,686	1,660	1,642	1,581
Technology	Textiles	1,495	1,359	1,367	1,263	1,205	1,215	1,177	1,096
The Arts	All	16,157	15,369	14,879	14,419	14,224	13,830	13,617	13,124
The Arts	Music	4,876	4,640	4,491	4,357	4,303	4,263	4,170	3,999
The Arts	Performing Arts	5,409	5,028	4,928	4,714	4,645	4,450	4,515	4,328
The Arts	Visual/Media Arts	7,083	6,865	6,661	6,384	6,305	6,118	5,912	5,718

Teachers required by specialisation

The estimated number of teachers required by specialisation are projected for the years 2025-2032 in accordance with the methodology outlined in this paper. The methodology, including assumptions, caveats and limitations, should be considered and reported on, should these estimates be described elsewhere.

In terms of learner levels, the estimated number of teachers required reflects the number of teachers projected to be required to teach the forecast student population based on estimates provided to the ATWD, and an assumption that the current student-teacher ratio will be maintained. Estimates of teachers required in schools by learner levels and curriculum area specialisations are shown in **Table 8**.

In the case of learner levels, the total number of primary and secondary teachers indicate the estimated number of primary and secondary teachers required, thus in this case the total number of primary teachers is a sum of the estimated number of primary teachers at each learner level. The total number of estimated secondary teachers is not a sum of the specialisations required by curriculum area, as teachers may be specialised to teach more than one curriculum area (for example Humanities and English, refer to **Table 8**).

Table 8: Teachers required in schools to meet demand by learner level and curriculum area

Learner level	Curriculum Area	2025	2026	2027	2028	2029	2030	2031	2032
Foundation	Primary	26,189	26,666	27,307	25,972	25,599	25,590	26,332	26,998
Primary 1-2	Primary	53,799	53,479	53,667	54,776	54,249	52,615	52,128	52,770
Primary 3-6	Primary	111,093	110,391	109,817	108,707	108,530	109,426	109,128	108,634
<i>Total Primary</i>		<i>177,575</i>	<i>177,602</i>	<i>178,092</i>	<i>178,104</i>	<i>177,435</i>	<i>177,302</i>	<i>177,022</i>	<i>176,897</i>
Secondary 7-12	English	45,857	46,038	46,147	45,999	45,998	45,815	45,770	45,829
Secondary 7-12	Health/PE	24,465	24,544	24,596	24,519	24,484	24,356	24,317	24,309
Secondary 7-12	Humanities	43,001	43,188	43,301	43,170	43,161	42,989	42,936	42,988
Secondary 7-12	LOTE	10,681	10,705	10,722	10,687	10,658	10,590	10,569	10,549
Secondary 7-12	Mathematics	45,524	45,738	45,865	45,728	45,737	45,572	45,522	45,600
Secondary 7-12	Science	39,298	39,445	39,537	39,415	39,380	39,197	39,141	39,155
Secondary 7-12	Technology	27,786	27,901	27,971	27,886	27,874	27,756	27,720	27,746
Secondary 7-12	The Arts	23,854	23,927	23,975	23,899	23,860	23,730	23,691	23,676
<i>Total Secondary</i>		<i>189,401</i>	<i>190,155</i>	<i>190,620</i>	<i>190,038</i>	<i>189,920</i>	<i>189,084</i>	<i>188,829</i>	<i>188,960</i>
Foundation - 12	Special Education	10,423	10,464	10,490	10,458	10,451	10,405	10,391	10,399

Estimates of teachers required to teach each secondary school specialisations are projected for the years 2025-2032 in **Table 9**. These projections show the estimated number of teachers projected to be required holding each secondary subject specialisation with the assumption that if teachers hold more

than one secondary subject specialisation, they will teach both. This assumption does not hold true when teachers have been employed to teach just one of their subject specialisations, or when their subject allocations are disproportional (i.e. most of the time they teach mathematics, but occasionally they teach computer science). Therefore, the estimated number of 'teachers required' for each subject specialisation may only be relevant for broad conceptualisation of estimated workforce requirements over the coming years, and calculations of teacher shortages per subject cannot be determined using these estimates.

Table 9: Teachers required in schools to meet demand by secondary specialisation

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
English	All	45,857	46,038	46,147	45,999	45,998	45,815	45,770	45,829
Health/PE	All	24,465	24,544	24,596	24,519	24,484	24,356	24,317	24,309
Humanities	All	43,001	43,188	43,301	43,170	43,161	42,989	42,936	42,988
Humanities	Economics, Business, Accounting	11,816	11,867	11,898	11,862	11,860	11,813	11,798	11,812
Humanities	Geography	4,950	4,971	4,984	4,969	4,968	4,949	4,942	4,948
Humanities	History	16,503	16,575	16,618	16,568	16,565	16,499	16,478	16,498
Humanities	Humanities, Social Sciences	13,788	13,848	13,884	13,842	13,840	13,784	13,767	13,784
Humanities	Religious Studies	4,017	4,035	4,045	4,033	4,032	4,016	4,011	4,016
LOTE	All	10,681	10,705	10,722	10,687	10,658	10,590	10,569	10,549
Mathematics	All	45,524	45,738	45,865	45,728	45,737	45,572	45,522	45,600
Science	All	39,298	39,445	39,537	39,415	39,380	39,197	39,141	39,155
Science	Biology	20,353	20,429	20,477	20,414	20,396	20,301	20,272	20,279
Science	Chemistry	15,908	15,967	16,004	15,955	15,941	15,867	15,844	15,850
Science	Earth, Environment, General Sciences	11,460	11,503	11,530	11,494	11,484	11,431	11,414	11,418
Science	Physics	8,456	8,487	8,507	8,481	8,473	8,434	8,422	8,425
Technology	All	27,786	27,901	27,971	27,886	27,874	27,756	27,720	27,746
Technology	Design Technology	15,522	15,586	15,625	15,577	15,571	15,505	15,485	15,499
Technology	Food Technologies	7,016	7,045	7,063	7,042	7,039	7,009	7,000	7,006
Technology	IT/Computer Science	5,940	5,965	5,980	5,962	5,959	5,934	5,926	5,932
Technology	Industrial Technologies	4,852	4,872	4,884	4,869	4,867	4,847	4,840	4,845
Technology	Textiles	1,919	1,927	1,932	1,926	1,925	1,917	1,914	1,916
The Arts	All	23,854	23,927	23,975	23,899	23,860	23,730	23,691	23,676
The Arts	Music	6,693	6,714	6,727	6,706	6,695	6,659	6,648	6,643
The Arts	Performing Arts	6,363	6,383	6,396	6,375	6,365	6,330	6,320	6,316
The Arts	Visual/Media Arts	11,721	11,756	11,780	11,743	11,723	11,660	11,640	11,633

Assumptions and caveats

Teacher retention

- Until a teacher ceases registration, they are free to move between the retained and 'registered but not attached to a school workforce' group. The likelihood of this change in circumstances is modelled equivalently to the likelihood of changing positions. Depending on the reason a person is not in the retained group, their timeframe and likelihood of return will vary. Although these projections do not attribute this variation to specific reasons (e.g., leave vs. employed elsewhere), it does capture it.
- A fundamental assumption is that the probability of registered teachers changing their circumstances (e.g., moving from being attached to a school to not) remains the same for people of each age over time. The proportion of people whose circumstances change in a specific way (e.g., moving from being attached to a school to not) may differ based on shifts in the underlying age distribution of the workforce. So, while it is assumed that the probability of a 34-year-old moving into middle leadership in 2024 will continue through to 2032, it is not assumed that those teachers who were 34 in 2024 will have the same probability of becoming middle leaders in 2032. As they are now 42 years old, rather these teachers are assumed to have the probability of a 42-year-old in 2024 entering middle leadership.
- Teachers are assumed to not retrain through their career and add a new speciality or remove an old one.
- Re-registration (i.e., a teacher ceasing registration and then re-registering and re-entering the teacher workforce later) is not modelled explicitly.²²
- Models to predict ceasing of registration were restricted to predictors available from TRAs, as inclusion of other predictors would rely on imputation. Only two predictors, age and gender, are held for all respondents.
- As noted in the change model methodology considerations, the SA4 data has relatively low time sensitivity for use in a change model. This challenge was exacerbated by many of the available years of data being collected over COVID-19-affected years. To prevent the perpetuation of any COVID-19-specific migration patterns impacting the projections, only the change in region from 2022 to 2024 was utilised to project teacher movements over time. The ideal process would examine the movement between each SA4 and every one of the 87 other SA4s. However, it was not possible to produce reliable probability estimates from two years of data.

Teachers required

- Teacher numbers are estimated as headcounts, not full-time equivalent teachers. The numbers of required and retained teachers therefore reflect a combination of full-time and part-time roles, as well as a combination of different proportions of face-to-face teaching. For example, a demand for 10 teachers does not necessarily indicate a demand for 10 full-time teachers nor for 10 teaching positions with the maximum face-to-face teaching hours.
- An underlying assumption is that the historic trends in terms of the full-time equivalency and face-to-face hours of teachers in each school will continue into the future. Nationally in 2023, 73% of classroom teachers were contracted full-time (0.95–1.00 FTE), 10% were part-time working approximately 4 days per week (0.8–0.94 FTE), and 17% were part-time working less than 4 days per week (<0.79 FTE). A projected demand for 10 teachers might therefore commonly correspond to 7 or 8 full-time teachers, one part-time teacher working 4 days a week, and 1 or 2 part-time teachers working less than 4 days per week.

²² When training the model using historic patterns of ceasing registration, there were unusual patterns over the Covid period. As such, teachers who ceased to be registered over Covid, and then re-registered immediately after were treated as retained over this period when learning about profiles of maintaining registration.

- In projecting teacher demand, the projections outline the number of teachers required to teach the projected number of students, while maintaining current student-teacher ratios. Through this modelling, there were a number of schools with higher than average²³ student-teacher ratios due to difficulties in hiring enough teachers, and ratios being maintained through casual/relief teachers (who are not counted in the teachers retained metric).
- The relationship between class-sizes at a school and student-teacher ratios was determined for the purposes of identifying where a school had a statistically unlikely student-teacher ratio. Such a ratio does not necessarily mean that maximum class-sizes are being exceeded, rather that they may be requiring the employment of casual/relief teachers to be met. Therefore, an important consideration when examining the projections is that casual/relief teachers are not included in the projections of teachers retained and attached to schools.²⁴
- New South Wales data was the only available source of class size data stratified by school size. It was used to determine the relationship between average class-sizes at a school, and average student-teacher ratios. This data was available for schools of all sizes, and New South Wales government schools appear at all levels of remoteness. This was necessary to understand when schools with high student-teacher ratios were likely employing casual/relief teachers to meet staffing needs. While the relationship between class-sizes and student-teacher ratios is likely similar across states and territories, if it differs this could lead to over- or under-estimation of the projected teachers required.
- The population projections used to help estimate the future ITE population may differ from government population projections developed by individual states and territories (e.g., the WA Tomorrow 12 Population Forecasts; Victoria in Future 2023 projections). Different underlying population projections may produce different results for teacher demand projections.

Regions

Both school locations and child projections are utilised for modelling the structural aspects of the school system, which serve as a key input for both retention and demand modelling. These two sources are aligned together as follows:

- Due to some students living in a different SA4, than the location of their school, fractional reallocations from residential SA4 to school SA4 were calculated using the 2024 data, to ensure that every child was assigned to a school, even if it was not in their SA4. These reallocations were persisted through to 2032, essentially, constraining any growth in children to follow current patterns of attending a neighbouring SA4. These reallocations assumed that an SA4 with more enrolments than residents had students attending schools in the closest SA4s with deficits (and vice versa).
- The modelling of retention assumes that teachers live and work in the same SA4. To ensure that discrepancies do not impact projected numbers of teachers retained, this number is set initially by the number of teachers working there. To the extent that teachers in neighbouring SA4s are fundamentally different (e.g., substantially older), when a high proportion of people work where they do not live, this assumption may impact the later years of the projections.
- When a teacher moves from one SA4 to another, the region they are counted in changes. If they were a classroom teacher in both years, they change from contributing 1 to the retained workforce in the first SA4 to contributing 0 to the retained workforce and now contribute these counts in the second SA4 (the gaining SA4 has them in the retained workforce and the losing SA4 has them in the non-retained workforce). It is important to note that this means that the number of teachers

²³ See Teachers Required section for details on current student-teacher ratios, and at which point an additional teacher was considered required to decrease the student-teacher ratio.

²⁴ There is no cross-sector headcount of unique casual/relief teachers available for this group to be modelled, and data on the extent to which higher student-teacher ratios at each school are managed via casual/relief teachers is unavailable through the National School Statistics Collection.

retained in a particular region may increase or decrease from one year to another, as teachers are projected to move into or out of particular SA4s.

- Due to regionality considerations, only national estimates are reported on in this report.

Specialisations

- The specialisation allocations from the new graduate supply projections (Action 26) were one of the sources employed to allocate specialisations for teachers required and retained. All assumptions and limitations relevant to these allocations are also relevant here.
- Approximately a third of secondary specialisations were imputed for the projections for teachers required and retained. Where specialisations were imputed, they have a lower degree of confidence than for specialisations determined from TRA sources or modelled using ITE data, especially at an individual level..
- When a person's specialisation was collected through responses to the Teacher Survey, it is possible that only specialisations taught at the time of survey completion were provided by the respondent. Any additional specialisations for which they were qualified but were not currently teaching may not have been captured.
- Where multiple sources of information for an individual's secondary specialisation differed, a hierarchy was used to adjudicate between them.²⁵

²⁵ The hierarchy was as per the sequence outlined in the Methodology for specialisation disaggregation section. This hierarchy prioritised overall reliability, consistency between sources, and coverage.

General limitations

Projecting teacher workforce estimates is complex. While the projections provide meaningful indicators of potential teacher retention and demand, the following limitations must be kept in mind when interpreting them.

- These projections are not forecasts, and they assume that historic trends and associations will continue into the future.
- These projections do not capture current policy initiatives which look to boost supply and bolster teacher retention, such as actions in the Action Plan and a range of other Commonwealth and State and Territory initiatives like the Commonwealth Prac Payment, or Queensland's Turn to Teaching Internship Program.
- The projections cannot accurately estimate teacher shortages or surpluses, as they do not include all components of teacher supply and demand.
- Teachers of early childhood-aged learners are only captured if they are registered teachers²⁶ and they are captured as 'not attached to school' even if they work in an early childhood setting within a school. If an early childhood teacher is working in a school in a state or territory that does not require them to be registered, they will not be counted in the projections.
- There will be duplicates when looking at the subject specialisations, as teachers can specialise in more than one field.
- The shorter-term projections are likely to be more accurate than longer-term, given that more changes will occur over time.
- Projections were created based on regional allocations of teachers and are rolled up nationally for reporting. Specialisations (broad school year levels and secondary subjects) were created based on national estimations only, due to limitations in underlying specialisation data.
- There are potential challenges as the data also reflects the impacts of COVID-19 in 2020 and 2021. Projections may be affected by differences seen in the COVID-19 period such as:
 - Changes in teacher retention, such as being more or less likely to maintain registration
 - Changes in employment status, such as being more or less likely to go on extended leave, become a relief teacher, or move back into a role attached to a school.
- The historical trends on which the projections are based also encompass both pre- and post-COVID-19 data to minimise the influence of the pandemic on projections.

²⁶ Registration is not mandatory for all early childhood teachers. See [this table](#) for more information.

Conclusion

Understanding how the current teacher workforce may change over time is an important component of effective workforce planning for Australia's education system. This report provides the first nationally consistent projections of Australia's current and future teacher workforce, offering insights into the potential retention of the 2024 registered teacher workforce, the number of teachers projected to remain registered but not attached to schools, and the number of teachers required in schools between 2025 and 2032.

The projections indicate that the number of teachers from the 2024 workforce cohort who remain attached to schools is expected to decline over time, reflecting natural workforce dynamics such as retirement, career transitions and changes in workforce participation. At the same time, the projected number of teachers required in schools remains relatively stable across the projection period, reflecting projected changes in student numbers and the assumption that current staffing patterns and student-teacher ratios are broadly maintained.

Teacher retention represents only one component of the broader teacher workforce pipeline. Workforce outcomes are also shaped by new sources of supply, including graduates from initial teacher education programs, migration and teachers re-entering the profession, as well as by policy initiatives that influence teacher recruitment, retention and workforce participation. These projections should therefore be interpreted as an indication of how the current teacher workforce may evolve if future years follow historical trends, rather than as a complete representation of the future teacher workforce.

Despite these limitations, the projections provide an important evidence base to support national and jurisdictional teacher workforce planning. By improving understanding of potential future workforce dynamics, they can assist governments, employers and education stakeholders to better anticipate workforce pressures and support a sustainable teacher workforce across Australia.



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