



Projections of graduate teacher supply across Australia

Action 26: National Teacher Workforce Action Plan

December 2025



**Informing the future
of the teaching profession**

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Executive Summary

Purpose

- This report presents national projections of Initial Teacher Education (ITE) graduate supply in Australia from 2025 to 2032, developed under Action 26 of the National Teacher Workforce Action Plan (the Action Plan).
- It provides the first nationally consistent estimates of graduate teacher supply, disaggregated by region and subject specialisation, to inform workforce planning across the education system.
- The projections aim to improve understanding of current and future ITE graduates, which are a major element contributing to national teacher supply.

Key Insights

- National ITE graduate supply is projected to increase from an estimated 16,144 graduates in 2025 to 19,353 graduates in 2032, reflecting population growth and projected participation in ITE programs. Estimates vary significantly across regions and subject areas, reflecting demographic patterns and modelling of historical location patterns.
- Primary teaching qualifications represent the largest component of projected ITE supply, increasing from around 9,752 graduates in 2025 to 11,476 in 2032. Secondary ITE graduate supply is projected to grow more modestly, from 8,054 graduates in 2025 to 9,386 in 2032.
- Larger projected secondary ITE graduate specialisations occur in Humanities, English and Health/PE, while smaller pipelines remain in Languages and some STEM specialisations, including Mathematics, which may present ongoing workforce risks.

Approach

- Projections were developed using data from the Australian Teacher Workforce Data (ATWD) initiative, combined with population projections and historical higher education data.
- A predictive modelling approach was used to estimate future ITE commencements based on population and tertiary participation trends, model completion probabilities and timeframes using historical student characteristics and completion data, and allocate graduates to likely employment regions and subject specialisations based on historical patterns.

Policy Context

- Graduate teachers represent a key component of new teacher supply, alongside other sources such as migration, alternative pathways and teachers returning to the workforce.
- These projections contribute to the evidence base for national teacher workforce planning and complement broader modelling of teacher retention and demand under the Action Plan.

Key Limitations

- The projections estimate ITE graduates eligible for teacher registration, not the number who will enter or remain in the teaching workforce. They exclude other sources of teacher supply, including migrant teachers and teachers re-entering the profession.
- Results assume that historical trends in enrolment, completion and selection behaviours continue, and therefore do not account for the potential impacts of new policy initiatives or behavioural changes.
- 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 the potential future supply of graduate teachers.

[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 explains the methodology, limitations and use of the ITE graduate supply projections (Action 26), outlining the estimated number of students who are predicted to complete their ITE qualification each year. Each predicted ITE graduate appears only once in the regional estimates; counted towards the region that predictive modelling suggests they are most likely to go on and teach in. An ITE graduate is defined as one who has not previously completed a teacher education qualification that would provide eligibility to register as a teacher, i.e. it is their first teacher education qualification. The projections are only for supply through accredited ITE programs. Graduates who complete non-accredited programs are not accounted for.

Estimated graduate teacher supply is shown in this report projected for the years 2025 to 2032. The projected figures in this report are not observed data points, but are estimates based on predictive modelling and assumptions using what is known about the current and previous cohorts of students in ITE and the predicted consequences of future commencements in ITE based on population growth. Regionality is based on teacher registration data and aligns with where ITE students lived when completing their education. These projected figures are strongly susceptible to fluctuations based on population projections, as it is predicted that as Australia's population grows, more students will enter ITE.

The supply of graduate teachers does not account for other sources of teacher supply, such as migrant teachers or unregistered teachers re-registering and coming back to the profession. Therefore, the estimates within this report are not 'teacher supply' estimates, they are nationally consistent ITE graduate supply projections. Further, they are not a prediction of the number of graduates who will go on to teach, they are an estimate of the number of graduates who are predicted to have completed all elements of their ITE qualification and be eligible to register as a teacher in Australia.

Predicted subject specialisations for graduates have also been projected for the years 2025 to 2032. Baseline¹ subject specialisations were 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 both changes in policy and changes in human behaviour in course selection and time to completion. The impact of perceived subject shortages in combination with perceived job security in particular subjects cannot be predicted or modelled; new entrants into ITE may well begin selecting subjects in high demand areas, as they are identified across Australia.

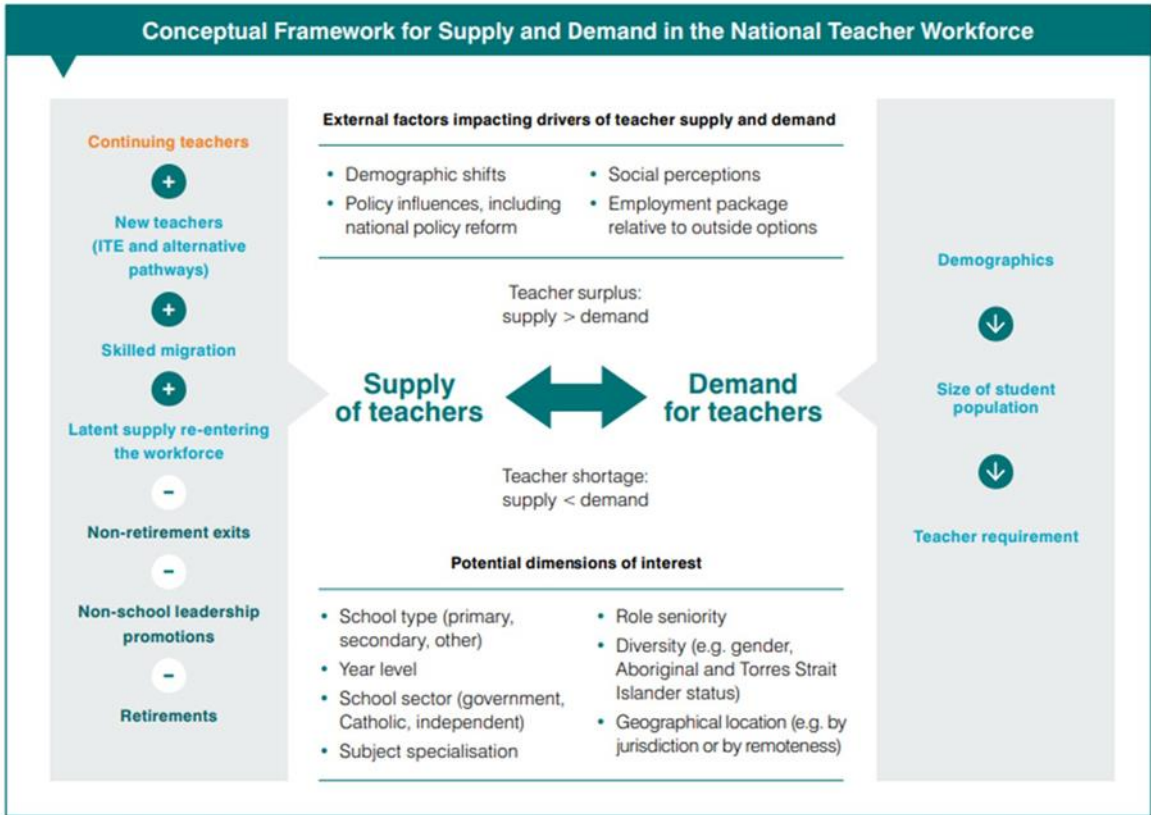
The ITE graduate supply projections do not account for the expected positive impacts of the Action Plan and the variety of other Commonwealth, state and territory, and local initiatives that are being implemented to address teacher shortages. The projections provide a basis for understanding future graduate teacher supply, by region and by specialisation that may inform recruitment and retention initiatives across Australia.

Conceptualising graduate teacher supply

Gaining an understanding of graduate teacher supply 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



¹ Baseline refers to data related to teachers prior to the projection period.

On the supply side, multiple factors contribute to workforce availability, including continuing teachers, new graduates from ITE and alternative pathways, skilled migration, and teachers re-entering the profession. This supply is simultaneously reduced by attrition through retirements, career changes, and promotions into non-teaching or leadership roles outside classroom practice. These elements demonstrate that teacher supply is not static but is continually reshaped by patterns of entry, exit and retention.

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 graduate teacher supply

The ITE graduate supply projections were developed using a range of data sources, including population projections, current teacher registration data, and ITE program commencements, completion and enrolment characteristics. Graduate teacher supply is one of the four metrics that were projected to meet the requirements of Actions 25 and 26 of the Action Plan.

The four metrics projected cover the supply of new graduate teachers, as well as the retention of current (2024) teachers, registered teachers who are not currently attached to a particular school, and the number of teachers required (teacher demand), refer to **Figure 2**:

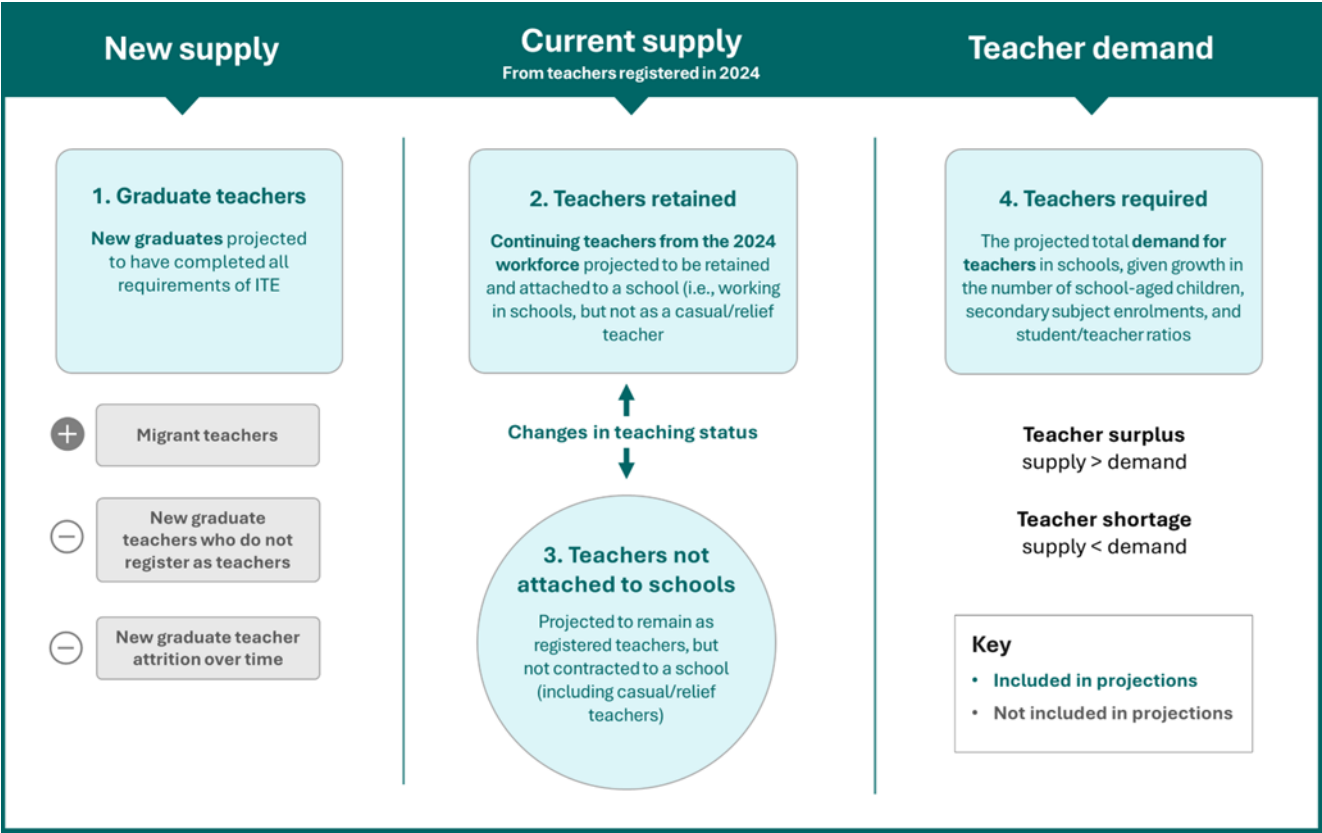
1. **Graduate teacher supply:** Graduates projected to have completed all requirements of an accredited ITE program (regardless of whether they register as teachers) at a higher education provider.
2. **Teachers retained:** Continuing teachers from the 2024 workforce projected to be retained and attached 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.

While these projections are intended to inform teacher workforce planning, they do not cover all elements of future teacher supply and demand as described in **Figure 1**. Combining the projections of graduate supply (from this report) and teacher projections will not provide estimates for teacher shortages or surpluses as not all elements are modelled.

Graduate teachers are a major component of the 'new supply' of teachers (refer to **Figure 2**), and projections by region and by specialisation, as shown in this report, are just one part of a broader and

more complex set of workforce dynamics that shape the future balance between teacher supply and demand.

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



Methodology and results

ITE is a program of study undertaken through a higher education provider, or an equivalent qualification that allows individuals to register to teach in Australia. To produce projections of future teacher supply through ITE, observed data from the past is modelled to make informed estimates of the future. Such models use observed data to understand how the demographic and study characteristics of ITE students in their first year of study impact the likelihood of them completing their program and how long this takes. That is, the model uses trends from past ITE cohorts to predict how students currently in the ITE pipeline, and students who are predicted to enter it, may progress through to program completion. As noted earlier, these projections include graduate supply through accredited ITE programs. Graduates who complete non-accredited programs are not accounted for.

Overview

To project the number of ITE graduates through to 2032, first the number of ITE commencements was projected. Next, the likelihood of each ITE student completing their degree, and under what timeframe, was modelled based on historical trends in completion rates for a range of student and study characteristics.

Modelling of completion rates from historical trends was stratified by degree duration. For instance, only two-year programs contributed to the modelled completion rates for students enrolled in two-year programs – this includes two-year Bachelor Graduate Entry programs but does not include one-year post-graduate programs.

Currently, the typical undergraduate program is four years, while the typical postgraduate program is two years. A student may complete in one year if they had credit from prior study or a previous ITE enrolment. Other students may take longer to complete their degree due to studying part-time, needing to repeat a failed unit, or scheduling of placements. The modelling method captures this nuance by allowing students to complete in any timeframe or be predicted to exit in any timeframe.²

Datasets

The datasets used for graduate supply modelling and their broad purposes are outlined in **Table 1**. The way that these data were used to project graduate teacher supply is then detailed.

Table 1: Overview of data used to project ITE graduate supply

Data	Specific variable/purpose	Source of data
Volume of currently enrolled (2023) ITE students	Number of ITE students who had commenced, but not yet completed, an ITE program by 2023	Australian Teacher Workforce Data initiative – Higher Education Student Data Collection [HESDC] (Australian Government Department of Education)
Student and study characteristics of enrolled ITE students	The specific characteristics ³ used to model completions were: • enrolment status⁴ • mode⁵	Based on the HESDC, reconciled and made consistent through data harmonisation with other linked ATWD sources to improve the data

² Most survival models only allow the prediction of completion or exit, not both simultaneously. The model used to allow simultaneous prediction of completion and exit timeframes was a competing risk model.

³ For further information see <https://meteor.aihw.gov.au/content/758462>.

⁴ Full-time or part-time.

⁵ Online/mixed or on campus.

Data	Specific variable/purpose	Source of data
	• domestic status⁶ • ATAR score⁷ • basis of admission⁸ • specialisations • program type⁹ • age • state/territory • gender • disability indicator • remoteness • year of commencement	
Population projections (of those aged 0–20 years) ¹⁰	Possible number of school-leavers available to enter undergraduate ITE programs	Bespoke population projections, provided by the Australian Government Department of Education
Adult population projections and overseas migrations ¹¹	Possible number of adults available to enter undergraduate ITE as older students or to enter a postgraduate ITE program	Population Projections, Australian Bureau of Statistics (ABS)
Historic tertiary commencements ¹²	Trends in the number of students commencing Bachelor and Coursework Master's programs across all disciplines were used to understand the uptake of tertiary study by the projected adult population	HESDC (Australian Government Department of Education)
Historic ITE commencements ¹³	Used to predict the proportion of projected tertiary commencements likely to commence an ITE program	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)
Historic ¹⁴ ITE program completion rates (or progress to date ¹⁵)	Used to project the number and timeframe of ITE completions. Models were stratified by degree duration and used the ITE student and study characteristics as predictors.	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)

⁶ Domestic or international.

⁷ For domestic undergraduates only.

⁸ For domestic undergraduates only.

⁹ Primary or secondary, for example.

¹⁰ Projections were for the 2023–2032 period.

¹¹ Projections for the 2023–2032 period.

¹² From the 2011–2023 period.

¹³ From the 2011–2023 period.

¹⁴ From the 2006–2023 period.

¹⁵ It is not possible to ascertain the impact of the COVID-19 pandemic on more recent data due to the co-occurrence of a shift from 1- to 2-year postgraduate programs, transitions from Higher Education Information Management System (HEIMS) to Tertiary Collection of Student Information (TCSI), and general issues with data quality during the COVID-19 period.

Method

ITE graduate supply projections are based on two cohorts:

- currently enrolled ITE students
- future ITE commencements.

The maximum size of the possible future ITE population is constrained by the number of working age adults, which was estimated using population projections (of those aged 0–20 years), adult population projections and overseas migrations. This was then reduced to those likely to commence equivalent tertiary study in any subject area, and then specifically to commence an ITE program. This process produces an estimated number of ITE commencements for each future year.

To predict completion rates of the estimated future ITE commencements from the historical ITE program completion rates, it was necessary to determine the expected student and study characteristics of the estimated future ITE population. A time-series commencement model was developed that predicts the number of commencing students at the state/territory level. A set of student characteristics were assigned to each commencement based on the sets of students' characteristics observed in historic commencements in that same state (2017–2023). The sampling method was weighted to prioritise more recent years in order to better reflect current trends in student demographics and enrolment patterns.¹⁶ This sampling prioritised the characteristics of more recent commencements, while still including earlier years to minimise the impact of years COVID-19 altered patterns, in a 35:20:15:10:8:7:5 ratio (i.e., per year 2023:2022: ... :2017). This methodology preserves the co-occurrence of student characteristics, such as part-time study, being older and studying online. This process produces a synthetic dataset of ITE commencements, one per expected future commencement, with realistic sets of characteristics.

To project the number of completions each year, the competing risk model, which was trained on the historical data (2005–2023), is applied to the two cohorts (currently enrolled and future commencements). This application generates an expected year of completion, or exit, from ITE. The total number of expected completions in each year are counted across commencing students from all cohorts, be they students observed commencing their studies up until 2023, or estimated future commencements from 2024 onwards, and this becomes the projected number of ITE graduates. These projections were then disaggregated by region and specialisation, as detailed below.

Region disaggregation

The [Statistical Area Level 4](#) (SA4s) region for each projected graduate is the region where the graduates are likely to enter employment, not necessarily where they completed their degree. Thus, it was necessary to model the probability of a graduate teacher entering the workforce in an SA4 based on their SA4 location during their degree. A probability model was built based on historic patterns of the place where new graduates entered the workforce. This probability model was then applied to the SA4 region of each ITE commencement (for both currently enrolled and projected future cohorts). Refer to **Table 2** to review the data sources used for regional disaggregation of ITE supply.

¹⁶ For each new year, a new commencing cohort is randomly sampled from the pool of recent, historic ITE commencements. The historical ITE data is based on population data from the HESDC – as it is population level data, it is, by definition, representative of the population

Table 2: Data sources for region disaggregation of ITE supply

Data	Specific variable/purpose	Source of data
Address during ITE degree ¹⁷	Available address fields ¹⁸ recorded during ITE degree	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)
Address during registration ¹⁹	Available address fields ²⁰ recorded as part of teacher registration. These were geocoded to Statistical Area 1 ²¹ regions	Australian Teacher Workforce Data initiative – Teacher Regulatory Authorities (TRAs)
School most recently worked in ²²	Location of school, geocoded (via linkage to school addresses in the Australian Curriculum, Assessment and Reporting Authority) to SA4 region. This was used to identify historical trends in the locations graduate teachers go on to teach.	Australian Teacher Workforce Data initiative – TRAs

Methodology for region disaggregation

A variety of address fields have been supplied to the ATWD from the HESDC over time, and an individual may not have all address fields collected in a particular year. These are not geocoded to statistical areas, but supplied as either suburb, postcode, or both, and recoded into SA4s using the ABS's Australian Statistical Geography Standard (ASGS) correspondence files – rather than attempting to code the literal address. The correspondence files provide a fractional alignment, e.g., X% of this suburb fits into this SA4, and Y% of this suburb into that SA4. Suburbs were prioritised over postcodes due to there being fewer fractional alignments less than 100% when recoding to SA4. When a suburb name exists in more than one state/territory, that suburb was only geocoded if the state was also available in the data.

One address is assigned to each projected graduate, when assigning that address the various [address fields](#) were prioritised in the following sequence for each individual, within each year:

- E413: Address of permanent home residence, postcode, E470: Residential address state
- E789: First residential address suburb, E791: First residential address state
- E790: First residential address postcode, E791: First residential address state
- E469: Residential address suburb, E467: Postal Address – state code
- E320: Residential address postcode, E470: Residential address state
- E409: Postal Address – postcode, E467: Postal Address – state code
- E319: Term address postcode, no-state.

From a modelling perspective, it is essential to identify the residential address of students at the time of commencement, if available, or otherwise use their first available address. This approach allows us to build a probabilistic model that predicts the transition from the SA4 of the first residential address to the SA4 of the first registration. The rationale is that the first residential address is likely the student's home

¹⁷ Taken from the 2005–2023 period.

¹⁸ Suburb, postcode, or both.

¹⁹ Taken from the 2005–2023 period.

²⁰ Suburb, postcode, or both.

²¹ [Statistical Area 1 regions](#) are smaller geographical areas than SA4. They aggregate to form each SA4.

²² Taken from the 2005–2023 period.

address before any move related to university, providing insights into where university commencements originate. Australian Teacher Workforce Data initiative data has been used in combination with TRAs data to find the SA4 code of graduates' first registration.

When no source was available for an individual in a specific year²³, they were often able to be geocoded to an SA4 in another year of their ITE study. In these cases, a backward fill and forward fill was applied to obtain locations in all years.

International students that had no Australian address at any time during their ITE program were not allocated an SA4, and therefore not counted as graduate supply.

Projections of graduate teacher supply by region

Graduate teacher supply was projected for the years 2025 to 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. Graduate teacher supply was projected by region (refer to **Table 3**). A summary of jurisdictional and national totals is shown in **Table 4**.

Table 3: Graduate teacher supply by SA4 region

State	Region Name	SA4 Code	2025	2026	2027	2028	2029	2030	2031	2032
ACT	Australian Capital Territory	801	341	342	368	356	355	383	378	440
NSW	Capital Region	101	121	115	138	109	128	128	179	160
NSW	Central Coast	102	225	212	215	219	220	232	235	248
NSW	Central West	103	125	123	116	131	127	110	125	126
NSW	Coffs Harbour - Grafton	104	56	59	66	58	53	60	52	52
NSW	Far West and Orana	105	47	43	47	60	54	49	52	49
NSW	Hunter Valley exc Newcastle	106	149	143	144	150	149	139	138	139
NSW	Illawarra	107	186	214	229	211	229	212	221	226
NSW	Mid North Coast	108	92	83	93	91	83	88	84	97
NSW	Murray	109	56	63	68	62	60	76	62	63
NSW	New England and North West	110	89	83	98	94	90	97	86	87
NSW	Newcastle and Lake Macquarie	111	249	250	225	252	241	245	238	251
NSW	Richmond - Tweed	112	163	145	128	150	160	155	151	161
NSW	Riverina	113	82	106	100	108	99	96	97	96
NSW	Southern Highlands and Shoalhaven	114	71	57	67	57	55	56	55	61
NSW	Sydney - Baulkham Hills and Hawkesbury	115	293	341	279	275	270	263	271	282
NSW	Sydney - Blacktown	116	230	249	223	209	203	196	204	198
NSW	Sydney - City and Inner South	117	196	179	194	186	180	189	182	187
NSW	Sydney - Eastern Suburbs	118	116	121	119	109	117	112	122	131
NSW	Sydney - Inner South West	119	395	412	442	415	438	427	421	447

²³ Missingness in all address fields has decreased over time. In 2005 and 2006, it was 8% and 7% respectively, decreasing to 3–5% in the period 2007–2021 with a notable decrease to 0.2% in 2022.

State	Region Name	SA4 Code	2025	2026	2027	2028	2029	2030	2031	2032
NSW	Sydney - Inner West	120	220	219	208	223	210	220	222	217
NSW	Sydney - North Sydney and Hornsby	121	269	235	253	259	251	249	243	257
NSW	Sydney - Northern Beaches	122	123	99	93	98	101	87	90	93
NSW	Sydney - Outer South West	123	197	231	221	222	198	196	194	212
NSW	Sydney - Outer West and Blue Mountains	124	247	252	270	261	265	265	272	281
NSW	Sydney - Parramatta	125	352	380	370	376	368	370	363	371
NSW	Sydney - Ryde	126	85	85	92	105	96	98	94	103
NSW	Sydney - South West	127	324	316	320	305	314	308	305	309
NSW	Sydney - Sutherland	128	138	165	165	157	161	145	143	150
NT	Darwin	701	83	95	89	96	89	102	108	105
NT	Northern Territory - Outback	702	93	80	98	95	86	102	100	131
QLD	Brisbane - East	301	114	156	125	129	131	136	156	169
QLD	Brisbane - North	302	134	150	124	125	153	124	132	160
QLD	Brisbane - South	303	270	311	306	316	329	333	338	385
QLD	Brisbane - West	304	154	173	163	166	182	169	194	208
QLD	Brisbane Inner City	305	298	294	303	310	326	329	365	383
QLD	Cairns	306	157	187	167	162	160	154	180	195
QLD	Central Queensland	308	106	102	91	93	94	94	111	107
QLD	Darling Downs - Maranoa	307	33	31	21	21	27	21	26	27
QLD	Gold Coast	309	486	467	430	454	476	466	492	559
QLD	Ipswich	310	154	178	173	134	146	137	148	164
QLD	Logan - Beaudesert	311	182	186	201	185	206	191	202	215
QLD	Mackay - Isaac - Whitsunday	312	76	95	66	70	74	75	70	81
QLD	Moreton Bay - North	313	122	134	123	116	118	123	124	150
QLD	Moreton Bay - South	314	129	137	121	138	143	140	166	166
QLD	Queensland - Outback	315	51	33	45	34	49	31	48	47
QLD	Sunshine Coast	316	221	244	212	203	217	233	247	272
QLD	Toowoomba	317	115	91	87	73	74	83	84	97
QLD	Townsville	318	144	158	140	142	139	146	150	160
QLD	Wide Bay	319	93	116	101	87	88	87	91	103
SA	Adelaide - Central and Hills	401	236	289	237	190	207	238	239	258
SA	Adelaide - North	402	267	316	272	238	244	258	289	301
SA	Adelaide - South	403	240	226	211	192	182	201	226	235
SA	Adelaide - West	404	164	168	159	155	147	166	177	181
SA	Barossa - Yorke - Mid North	405	64	92	76	71	76	68	80	71
SA	South Australia - Outback	406	73	83	71	57	64	62	57	74
SA	South Australia - South East	407	116	120	112	121	128	125	111	142
TAS	Hobart	601	200	211	213	190	199	228	238	241

State	Region Name	SA4 Code	2025	2026	2027	2028	2029	2030	2031	2032
TAS	Launceston and North East	602	91	94	91	87	96	109	120	122
TAS	South East	603	27	26	20	27	26	17	30	34
TAS	West and North West	604	66	74	74	85	78	81	85	99
VIC	Ballarat	201	102	118	100	92	98	116	106	113
VIC	Bendigo	202	73	93	97	92	99	100	100	105
VIC	Geelong	203	204	230	243	244	261	259	262	287
VIC	Hume	204	72	89	91	85	88	83	89	91
VIC	Latrobe - Gippsland	205	140	156	161	160	172	168	176	173
VIC	Melbourne - Inner	206	558	604	559	475	557	602	590	603
VIC	Melbourne - Inner East	207	292	313	305	305	331	347	353	355
VIC	Melbourne - Inner South	208	457	629	498	470	507	532	530	549
VIC	Melbourne - North East	209	319	321	341	319	344	348	351	358
VIC	Melbourne - North West	210	260	283	263	247	268	287	289	290
VIC	Melbourne - Outer East	211	376	448	417	381	437	464	459	471
VIC	Melbourne - South East	212	562	628	587	603	661	685	665	679
VIC	Melbourne - West	213	548	585	590	549	595	609	639	652
VIC	Mornington Peninsula	214	190	200	207	194	222	235	234	242
VIC	North West	215	70	85	76	76	84	75	81	87
VIC	Shepparton	216	68	73	63	63	61	58	64	60
VIC	Warrnambool and South West	217	57	67	64	73	80	83	82	79
WA	Bunbury	501	119	107	145	162	145	167	181	183
WA	Mandurah	502	65	70	83	82	93	97	98	99
WA	Perth - Inner	503	229	295	340	366	362	398	445	479
WA	Perth - North East	504	211	218	253	277	276	295	334	354
WA	Perth - North West	505	404	439	516	566	615	652	707	702
WA	Perth - South East	506	259	297	304	304	334	397	395	395
WA	Perth - South West	507	283	300	360	383	431	431	487	441
WA	Western Australia - Outback (North)	510	60	98	96	121	119	137	117	131
WA	Western Australia - Outback (South)	511	105	133	119	159	128	155	137	150
WA	Western Australia - Wheat Belt	509	65	84	77	83	82	87	90	89

Table 4: ITE graduate supply projections

Year Projected	2025	2026	2027	2028	2029	2030	2031	2032
ACT	341	342	368	356	355	383	378	440
NSW	4,896	4,980	4,983	4,952	4,920	4,868	4,901	5,054
NT	176	175	187	191	175	204	208	236
QLD	3,039	3,243	2,999	2,958	3,132	3,072	3,324	3,648
SA	1,160	1,294	1,138	1,024	1,048	1,118	1,179	1,262
TAS	384	405	398	389	399	435	473	496
VIC	4,348	4,922	4,662	4,428	4,865	5,051	5,070	5,194
WA	1,800	2,041	2,293	2,503	2,585	2,816	2,991	3,023
National total	16,144	17,402	17,028	16,801	17,479	17,947	18,524	19,353

Specialisation disaggregation

As subject names vary between jurisdictions, the disaggregation employed a set of secondary curriculum area and subject specialisations chosen with consideration to its alignment with other sources and its suitability to the methods described below. Some curriculum areas comprised a single subject specialisation; Science, Humanities, Technology and the Arts each comprised multiple subject specialisations. English is reported as a single subject curriculum area. Refer to **Table 5** for the data used for specialisation disaggregation.

Table 5: Data used for specialisation disaggregation for graduate supply

Data	Specific variable/purpose	Source of data
ITE program type ²⁴	Derived from ITE course codes and names, and 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)
Subject specialisation of registered teachers	Subject specialisation data from TRAs in NSW, ACT, VIC, and QLD ²⁵ ; TRA qualifications data	Australian Teacher Workforce Data initiative – TRAs
Demographic details of ITE students and registered teachers	State, Age, Gender, ITE provider	Australian Teacher Workforce Data initiative – HESDC (Australian Government Department of Education)

Methodology for specialisation disaggregation

ITE data reported through the HESDC has no information on secondary subject specialisations. Teachers who had registered with the NSW Education Standards Authority (NESA) have their transcripts assessed and specialisations assigned in the regulatory authority database. Along with similar data held by the ACT Teacher Quality Institute (TQI), it is the only source with very high coverage of its population. Those in the ITE data who also appeared in the NESA data were used to train a machine-learning model (random forest model) to determine which fields of study were associated with which specific specialisations, based on tallies of successfully completed Equivalent Full-Time Student Load (EFTSL).²⁶ Performance of the random forest model on a test set was very good, especially for the model trained on undergraduate students, with specialisations rarely allocated to individuals who did not hold them (false positives), and a low rate of failure to allocate specialisations to individuals who did in fact hold them (false negatives) for most curriculum areas. False negatives were more variable for individual subjects but were also generally low.²⁷

²⁴ The ATWD already reports on age-focus specialisations as 'program type', and this coding was used in the projections.

²⁵ NSW Education Standards Authority (NESA), ACT Teacher Quality Institute (TQI), Victorian Institute of Teaching (VIT), Queensland College of Teachers (QCT).

²⁶ Units which were recorded as failed or withdrawn were not included. Detailed field of study codes were used for the classification, excluding codes in the Education Broad Field ('07xxxx' codes). Separate models were trained for people who had undertaken any undergraduate ITE study, and people who had only undertaken postgraduate ITE study.

²⁷ Special education was an exception, owing to insufficient numbers of known special education teachers with ITE records in the NESA data. TESOL (not reported) was also an exception.

Two versions of the random forest allocation were produced, in each case using cumulative EFTSL tallies across all available ITE studies for each individual.²⁸ The versions differed in whether the random forest model was used even for people for whom NESA/TQI subject specialisation data was available, or only for people who did not have NESA/TQI subject specialisation data. The reported projections are a mean of the projections based on these two versions of the allocation. For each version, if a person was allocated a curriculum area but no subject specialisation within that curriculum area (e.g., they were allocated the curriculum area English, but neither the subject English nor TESOL (Teaching English to Speakers of Other Languages)) – or vice versa – an appropriate subject specialisation (or curriculum area) was allocated on a proportional basis. This was intended to avoid under-allocation from false negatives and to synchronise between allocations of curriculum areas and subjects.

Not all individuals could be classified, and an imputation process was used for the remainder.²⁹ This imputation involved assigning probabilities that each individual held each specialisation using a logistic regression model trained on demographic factors, and then giving each individual a likelihood rank for each specialisation (e.g., person X was the tenth most likely individual to hold a Physics specialisation).³⁰ Target counts for combinations of specialisations were then derived from NESA data, calculated separately for each state. The top 'n' most likely individuals were allocated each combination of specialisations (e.g. qualified to teach Physics and Chemistry), based on the sum of the likelihood ranks for each specialisation in the combination (in our example, the sum of likelihood ranks for Physics and Chemistry). Each individual could only be allocated a single combination of specialisations, and so was removed from the imputation pool upon receiving an allocation.

Where a curriculum area contains multiple subject specialisations, the tally of subject specialisations must at least equal and typically exceed the tally of the curriculum area.³¹ Additionally, individuals holding a special education specialisation could not readily be identified using the classification method for other specialisations. For graduate teacher supply, a special education flag was constructed from

ITE course and unit data as well as TRA data. 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 graduate teacher supply by specialisation

ITE graduate supply projections are shown for the years 2025 to 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. Graduate supply by learner levels and curriculum area specialisations are shown in **Table 6**. It should be noted that 'All completions' are not a sum of specialisations, as teachers can specialise in more than one curriculum area (for example, Early learning and Primary, Mathematics and Science). Similarly, total primary and total secondary are not a sum of the number of primary and secondary specialisations, they are estimates of the number of graduate teachers who are projected to be qualified to teach either primary or secondary aged learners, therefore totals should not be summed across rows.

²⁸ Another set of allocations, based on cumulative EFTSL tallies up until each particular year, were used to model completion status for each ITE student over years.

²⁹ These were people who only studied Broad Field Education units ('07xxxx' FOE code) – who the random forest model could not be used for – or who held a secondary program type, but the random forest model did not allocate any specialisation.

³⁰ This imputation was conducted separately for people with only undergraduate ITE study or any postgraduate study, and within each degree level, for people with only Broad Field Education units ('07xxxx' FOE code), and for people to whom the random forest model failed to allocate a specialisation.

³¹ As an illustrative example, anyone assigned a Science curriculum area specialisation must hold at least one of Biology, Chemistry, Physics or Earth, Environmental and General Science subject specialisations, but some individuals will hold multiple of these subject specialisations, causing the subject tally to exceed the curriculum area tally.

Table 6: Graduate teacher supply by learner level and curriculum area

Learner level	Curriculum Area	2025	2026	2027	2028	2029	2030	2031	2032
Early Childhood	Early Learning	3,332	3,365	3,474	3,603	3,807	3,865	3,887	4,032
Foundation	Primary	9,752	9,424	9,820	10,213	10,629	10,802	11,010	11,476
Primary 1-2	Primary	8,750	8,298	8,699	9,026	9,328	9,510	9,716	10,136
Primary 3-6	Primary	7,944	7,562	7,950	8,267	8,534	8,670	8,824	9,243
<i>Total Primary</i>		9,752	9,424	9,820	10,213	10,629	10,802	11,010	11,476
Secondary 7-12	English	1,946	1,860	1,872	1,927	2,066	2,154	2,212	2,312
Secondary 7-12	Health/PE	1,304	1,266	1,322	1,395	1,479	1,506	1,542	1,595
Secondary 7-12	Humanities	2,488	2,452	2,412	2,405	2,648	2,714	2,804	2,948
Secondary 7-12	LOTE (Languages)	174	162	186	187	194	197	194	222
Secondary 7-12	Mathematics	732	721	731	758	802	784	830	846
Secondary 7-12	Science	1,076	1,061	1,030	1,045	1,101	1,096	1,156	1,188
Secondary 7-12	Technology	413	345	372	391	426	430	456	478
Secondary 7-12	The Arts	1,284	1,288	1,216	1,238	1,334	1,374	1,435	1,490
<i>Total Secondary</i>		8,054	7,877	7,816	7,914	8,562	8,696	9,050	9,386
Foundation - 12	Special Education	148	140	174	188	218	204	206	210
<i>Total Completions</i>		16,144	17,402	17,028	16,801	17,479	17,947	18,524	19,353

ITE graduate supply projections, estimated by secondary subject specialisation is shown in **Table 7**. 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: Graduate teacher supply by secondary specialisation

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
English	All	1,946	1,860	1,872	1,927	2,066	2,154	2,212	2,312
Health/PE	All	1,304	1,266	1,322	1,395	1,479	1,506	1,542	1,595
Humanities	All	2,488	2,452	2,412	2,405	2,648	2,714	2,804	2,948
Humanities	Economics, Business, Accounting	665	680	638	620	682	698	728	786
Humanities	Geography	304	304	285	284	308	316	326	344
Humanities	History	1,436	1,400	1,389	1,394	1,532	1,573	1,612	1,664
Humanities	Humanities, Social Sciences	700	672	647	630	720	752	777	838
Humanities	Religious Studies	67	69	68	65	73	74	78	84
LOTE (Languages)	All	174	162	186	187	194	197	194	222
Mathematics	All	732	721	731	758	802	784	830	846
Science	All	1,076	1,061	1,030	1,045	1,101	1,096	1,156	1,188
Science	Biology	873	863	836	856	904	904	949	972
Science	Chemistry	782	831	782	781	832	814	876	898
Science	Earth, Environment, General Sciences	249	240	221	225	231	218	236	245
Science	Physics	174	170	162	168	156	164	164	172
Technology	All	413	345	372	391	426	430	456	478
Technology	Design Technology	300	264	272	290	318	324	337	363
Technology	Food Technologies	97	80	101	108	109	112	117	118

Curriculum Area	Specialisation	2025	2026	2027	2028	2029	2030	2031	2032
Technology	IT/Computer Science	76	54	66	78	80	78	88	87
Technology	Industrial Technologies	104	94	100	105	111	114	120	131
Technology	Textiles	36	30	34	34	36	36	40	42
The Arts	All	1,284	1,288	1,216	1,238	1,334	1,374	1,435	1,490
The Arts	Music	423	425	366	390	398	418	439	459
The Arts	Performing Arts	330	265	298	299	326	338	340	348
The Arts	Visual/Media Arts	560	622	590	584	644	656	694	721

Assumptions and caveats

The following assumptions and caveats specific to the ITE supply projections should be considered.

- A fundamental assumption is that previous trends in ITE program completion rates, and particularly those from 2023, will continue through to 2032. For example, it is assumed that the same proportions of the available population will commence ITE programs, and that the same student and study characteristics will predict completion rates. It is not possible to quantify the effects of myriad policy initiatives that have been, and will be, enacted after 2023, which may impact components of the projections.³²
- The population projections used to help estimate the future ITE population may differ from government population projections provided to individual states and territories (e.g., the WA Tomorrow 12 Population Forecasts, or Victoria in Future 2023 projections). Different underlying population projections may produce different results for ITE graduate supply projections.
- The projections outline the number who graduate from an ITE program, not the number who will enter the teaching workforce. Nationally, approximately 95% of graduates tend to register as teachers within their first-year post-graduation, and some may register at a later time (e.g., after spending a year travelling). Not all who register will necessarily enter the workforce. Data from the Graduate Outcomes Survey³³ shows that 78% of ITE graduates in 2023 were employed as teachers 4–6 months post-graduation³⁴ (the proportion who were employed as teachers attached to schools, versus casual/relief teachers not attached to schools is not specified).
- The projections are only for supply through accredited ITE programs. Graduates who complete non-accredited programs are not accounted for.
- International students that had no Australian address at any time during their ITE program were not allocated an SA4, and therefore not counted as graduate supply.
- Of the graduates who do become employed teachers, their employment will differ in terms of full-time equivalency. It cannot be assumed that, for example, all 17,402 graduates projected for 2026 will contribute to one full-time teaching position each, as some will be employed on a part-time or casual basis, or not be employed as a teacher at all.
- Some ITE students work as teachers in schools during their studies, for example under alternative authorisation to teach arrangements. These individuals therefore contribute to the reported number of teachers attached to schools and will be addressing some demand even before graduating. Upon graduation, these students would contribute less to supply than their FTE, as their additional supply is workforce FTE minus the FTE taught under alternate authorisation. This should be considered if using the projected values to estimate how many of the required teachers will be met by ITE graduate supply.
- Teachers are not only supplied through ITE graduates. The projections do not include supply through migration, nor through de-registered teachers re-registering and re-entering the workforce (these sources of supply are out of scope for this work and are not included in the ATWD). Coupled with the caveat that the projections provide the number of ITE graduates, but not the number who enter the workforce, the ITE graduate supply projections cannot be interpreted as a measure of total teacher supply.³⁵
- The national number of graduates given for 2023 (i.e., baseline, observed data) differs from the number of graduates reported elsewhere by a small amount. This is because the number reported

³² For example, changes to LANTITE commencing in 2025 may increase graduate completion rates and, therefore, graduate teacher supply. The potential results of this (and other) policy changes are not able to be incorporated into the projections.

³³ [https://www.gilt.edu.au/surveys/graduate-outcomes-survey-\(gos\)](https://www.gilt.edu.au/surveys/graduate-outcomes-survey-(gos)).

³⁴ 84–90% employed full-time.

³⁵ Note that those who move from not working as a teacher (and registered as a teacher) back into teaching are captured in the teacher retention projections.

in the projections only include those ITE graduates who had provided an Australian address at any point during their study period. Student address information was needed to generate projections disaggregated by region and, as such, students without such information could not be included.

- Newer programs and those based outside of NSW (and not online) had less training data for the random forest model for subject specialisation, and may have lower precision as their classification is dependent on methods further along the methodology sequence.
- Postgraduates enter programs with most content area subjects already complete, resulting in a higher proportion undertaking only education FOE-coded units during ITE. The random forest model does not make a classification of these students. They are no less likely to be classified via other methods, but as a result, there is more imputation for postgraduate-qualified teachers.
- Older teachers are more likely to have completed ITE prior to 2005, and thus are only able to receive a non-imputed specialisation if they have recorded their specialisations with NESAs, TQIs, VITs and QCTs; or completed the ATWD Teacher Survey while active as a teacher.
- Secondary subjects classified through the random forest model have variable confidence. The languages other than English curriculum area had somewhat more false negatives than other subject areas. More general subject categories such as Humanities and Social Sciences or Earth, Environmental and General Sciences also had high rates of false negatives.
- In all non-ITE data sources, data is not necessarily stable over time. It was observed that both new specialisations appear and prior specialisations disappear. As such, it is suspected to be measurement/reporting error, and not necessarily attributable to people increasing or decreasing their breadth of specialisation.
- For those with multiple sources of specialisation data (e.g., regulatory authority data and ITE data), the sources do not necessarily agree. The integration sequence was selected to mitigate risks from this observation, by selecting those with high coverage, better collection methods and better properties.
- Imputation achieves alignment to current circumstances. However, older and postgraduate-qualified teachers are more likely to require imputation. If there were large changes in the types of secondary subject specialisations over time, then this data could be misleading. There is no way to quantify the extent of any impact with data in the ATWD, and no external reference data is available to facilitate this.

General limitations

Projecting graduate teacher supply and teacher workforce estimates is complex. While the projections provide a meaningful indicator of likely ITE graduates, 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.
- Further upcoming policy changes that may affect the supply of graduate teachers are not accounted for in the projections. For example, recent changes to increase support for the Literacy and Numeracy Test for Initial Teacher Education (LANTITE) may affect graduate completion rates, and therefore graduate teacher supply.
- The supply of graduate teachers does not account for other sources of teacher supply, such as migrant teachers or unregistered teachers re-registering and coming back to the profession.
- The projections cannot accurately estimate teacher shortages or surpluses, as they do not include all components of teacher supply and demand.
- 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 are disaggregated by either region or by specialisation (broad school year levels and secondary subjects). Due to limitations in specialisation data, projections are not able to specifically point to the demand or supply for combined regions and specialisations.
- 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:
 - delays in ITE program completions in circumstances where student placements could not be scheduled
 - the impacts of an uncertain labour market on the uptake of ITE programs, such as students who may have commenced an ITE program largely due to the poor labour market, as well as the loss of potential students who chose to remain in employment rather than study
 - potential overestimation in ITE data of the number of on-campus students, where higher education provider administration systems did not always reflect the shift of students from on-campus to online study during the pandemic.
- 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.
- Underlying population projections used in producing the projections may differ from official State and Territory government population projections. Different underlying population projections may produce different results.

Conclusion

Understanding the future supply of graduate teachers is a critical component of effective workforce planning for Australia's education system. This report provides the first nationally consistent projections of ITE graduate supply, offering insights into the potential number of graduates and their projected distribution by region and subject specialisation between 2025 and 2032.

The projections indicate that the number of ITE graduates is expected to grow over the coming years, reflecting projected population growth and participation in tertiary education. Differences in the projected number of graduates across regions and subject specialisations reflect variation in population size, patterns of participation in ITE, and probabilistic allocation modelling.

Graduate teachers form an important part of the broader teacher workforce pipeline, but they represent only one component of overall teacher supply. Workforce outcomes are also influenced by factors such as teacher retention, migration, re-entry to the profession and broader policy initiatives. These projections should be interpreted as an indicator of the possible future pipeline of graduates eligible for teacher registration if future years follow historical trends.

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



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