



Secondary Teacher Education: A View from the Regions

Final report

**A commissioned report for the
Regional Universities Network (RUN)**

October 2019



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Glossary of terms

Acronym	Full meaning	Acronym	Full meaning
AISNSW	Association of Independent Schools NSW	UAC	Universities Admissions Centres (NSW)
AITSL	Australian Institute for Teaching and School Leadership	UNE	University of New England
CQUni	CQUniversity	USC	University of the Sunshine Coast
CAGR	Compound Annual Growth Rate	USQ	University of Southern Queensland
DET	Department of Education and Training	VIC	Victoria
Fed Uni	Federation University Australia	VIT	Victorian Institute of Teachers
ISQ	Independent Schools Queensland	VTAC	Victorian Tertiary Admissions Centre
ISV	Independent Schools Victoria		
ITE	Initial Teacher Education		
NESA	NSW Education Standards Authority		
NSWESA	NSW Education Standards Authority		
NRRRTES	National Regional, Rural and Remote Tertiary Education Strategy		
NSW	New South Wales		
QCT	Queensland College of Teachers		
QLD	Queensland		
QTAC	Queensland Tertiary Admissions Centre		
RRR	Regional, Rural and Remote		
RUN / RUN group	Regional Universities Network		
SCU	Southern Cross University		



Introduction and project background

Introduction



A profession in the spotlight

It is difficult to find a profession that is more in the spotlight, more criticised (if not maligned), more debated than the teaching profession. Criticisms of the profession include that admission standards are poor, reputation is low, salaries are unattractive, teachers have low literacy and numeracy and they are ill-equipped for the challenges they will confront in the contemporary schooling environment.

In August 2019 alone, the Grattan Institute released its report on “Attracting high achievers to teaching”, there was further focus on ATAR scores for entry into teacher education courses and the Commonwealth Minister for Education announced scholarships for study at regional campuses. The Grattan Institute proposed a three-part package involving bonded scholarships, a higher ceiling (up to \$80,000 per annum higher) on teacher salaries and an advertising campaign to re-position teaching as a well-paid career option. On the other hand, the OECD’s most recent “Education at a Glance” survey suggests Australian teachers receive above average salaries when compared internationally.

Arguably, it appears that recent policy interventions may have had perverse and unintended impacts on enrolments in teacher education. Whether it is the impact of the reintroduction of funding caps, the imposition of minimum ATARs, the introduction of the Literacy and Numeracy Test (LANTITE), or the two year Master of Teaching model, an already dire prospect of teacher shortages is turning into a crisis. The situation is even more alarming in regional, rural and remote (RRR) Australia, given the generally lower level of educational attainment of those populations.

For the Regional Universities Network (RUN), teacher education programs are a major academic commitment with a particular purpose to provide a sustainable pipeline of graduate teachers into regional and remote settings. That there is a range of demonstrable issues and challenges with the teaching profession across Australia is undeniable. That there are too few

high achievers choosing the teaching profession, that their salary prospects are limited and, in later career phases, unattractive may also be true. The extent to which these problems and weaknesses with the profession are felt keenly in the major population centres of Australia is one thing. In regional and remote settings, the problems are magnified and exacerbated.

The simple arithmetic is that there are not enough students undertaking teacher education programs, not enough graduate teachers and not enough teachers in targeted, specialist areas. At a time when all schooling systems in the eastern seaboard states are growing, the trend is negative in both undergraduate and graduate (career changer) intakes and in the graduate pipeline. Even if this growth is confined to metropolitan and outer metropolitan areas and, perhaps, some regional hubs, the trend will only serve to draw more of the practising teaching profession to those locations at the expense of other regional and remote settings where shortages will become more pronounced.

This study was commissioned by the RUN Group to shine a light on the challenges confronting the teaching community as it seeks to serve the needs of regional and remote Australia in secondary teacher education as viewed through the experience of six regional universities. The data, supported by the views of employers, professional bodies and those in the frontline of teacher training, demonstrate a diminishing pipeline of graduate teachers, acute shortages of specialist teachers and a very limited array of response options available to the universities themselves. In the experience of some universities, the singular focus on higher ATAR scores has served only to reduce the pipeline further.

Project background [1]

Context and background

The RUN group is a network of seven regionally-based universities with a shared commitment to facilitating stronger learning outcomes and education opportunities for teachers and students located in regional, rural and remote areas.

The group was established in October 2011 between representative members from Queensland (QLD), New South Wales (NSW) and Victoria (VIC), including CQ University, Southern Cross University, Federation University Australia, University of New England, University of Southern Queensland and University of the Sunshine Coast, with the primary objective of:

- Providing policy advice to government, particularly with regard to tertiary education and regional development
- Strengthening and promoting the contributions of regional universities to regional and national development
- Building institutional capacity and sustainability through sharing of best practice in educational delivery, training, research and organisational management, particularly with reference to regional contexts.

Charles Sturt University recently joined the RUN group as a member in May 2019 whilst this study was being undertaken. As a result, no reference is made to Charles Sturt University within this report, and any reference to RUN is a reference to all other RUN group members.

KPMG was engaged by RUN to examine the impact of both Commonwealth and State Government policies on the secondary education teacher supply and demand in regional and remote areas within QLD, NSW and VIC.

Consequently, this project seeks to examine the current supply of secondary teachers and the impact of policy interventions, including caps and entry restrictions on the teaching workforce. In addition, the project seeks to specifically analyse trends in specialist teacher shortages, including those that teach in the Science, Technology, Engineering, and Mathematics (STEM) disciplines.

Scope

This engagement has focused on assessing how key policy initiatives may impact on the supply and demand for secondary education teachers within regional and remote areas through a four stage process, which included:

- **Phase 1** - Project Initiation
- **Phase 2** - Data Collection and Policy Analysis
- **Phase 3** - Stakeholder Consultation
- **Phase 4** - Draft Report and Finalisation.

As part of this process, KPMG consulted with a range of key stakeholders which broadly included: RUN member Vice-Chancellors, Deputy Vice-Chancellors, Deans of Education, tertiary admissions centres, independent schools, government departments and teacher registration bodies. A detailed list of stakeholders consulted can be found in the executive summary.

Project background [2]

Structure of this report

This report is structured as follows:

- **Executive summary** – provides a summary of the key findings and KPMG’s recommendations.
- **Context** – gives an overview of recent policy developments across education and explores the potential impacts on Secondary Education across regional, rural and remote (RRR) locations specifically.
- **Student demand** – explores secondary teacher education preference and commencement data, and student intakes at the State and RUN level.
- **Enrolment dynamics** – includes an investigation into attrition rates across both undergraduate and graduate entry secondary teacher qualification courses.
- **Graduate outcomes** – explores completion rates, place of employment, specialisations and the quality of graduates.
- **Conclusions** – summarises key findings and provides overall recommendations on key issues identified.



Executive summary

Stakeholder consultation

KPMG engaged with a range of internal and external stakeholders during the project and, where appropriate, obtained relevant datasets.

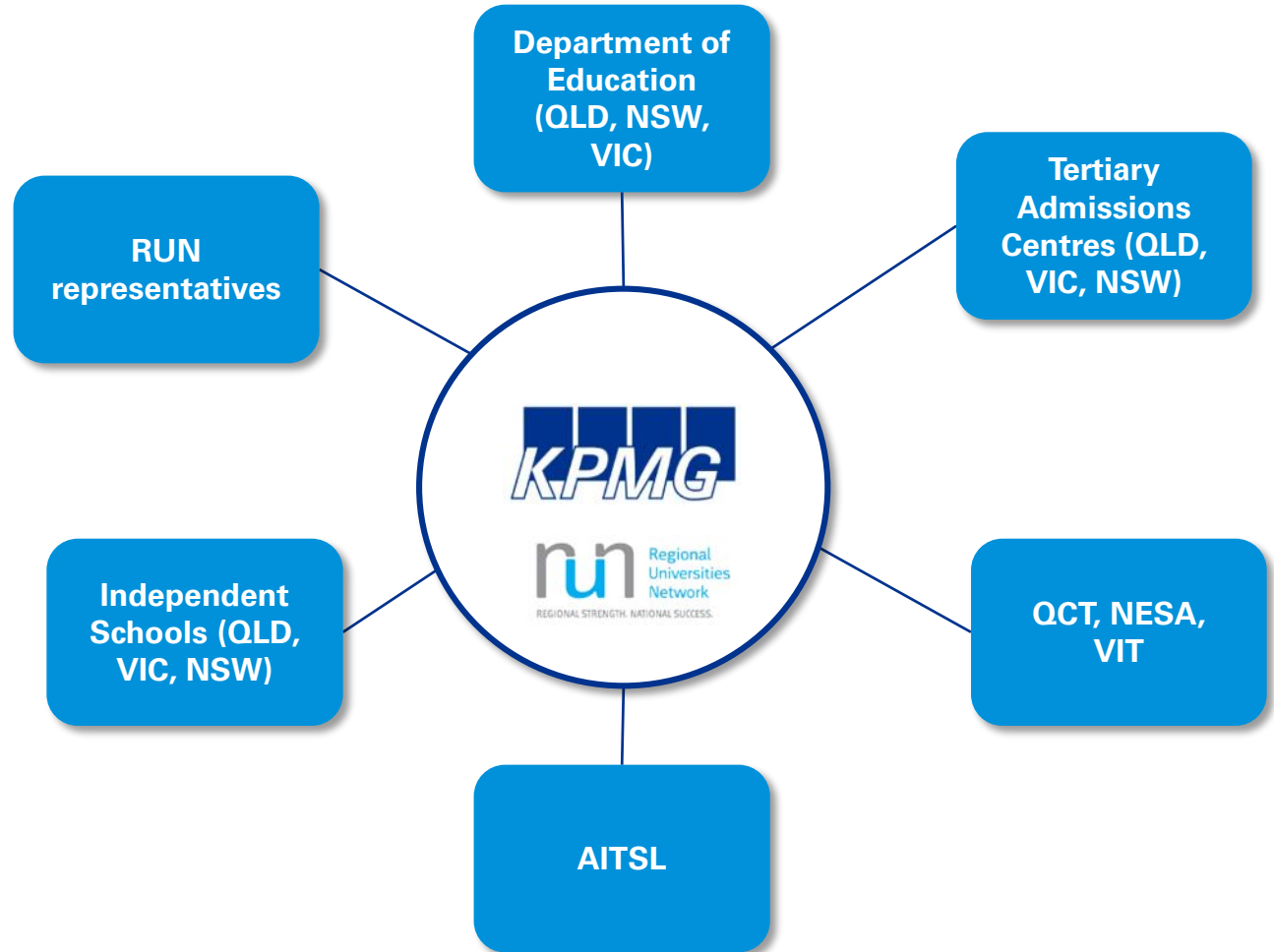
Internal stakeholders included:

- Deans of Education of RUN member bodies (6)
- Vice-Chancellors and Deputy Vice-Chancellors of RUN member bodies (6).

External stakeholders included:

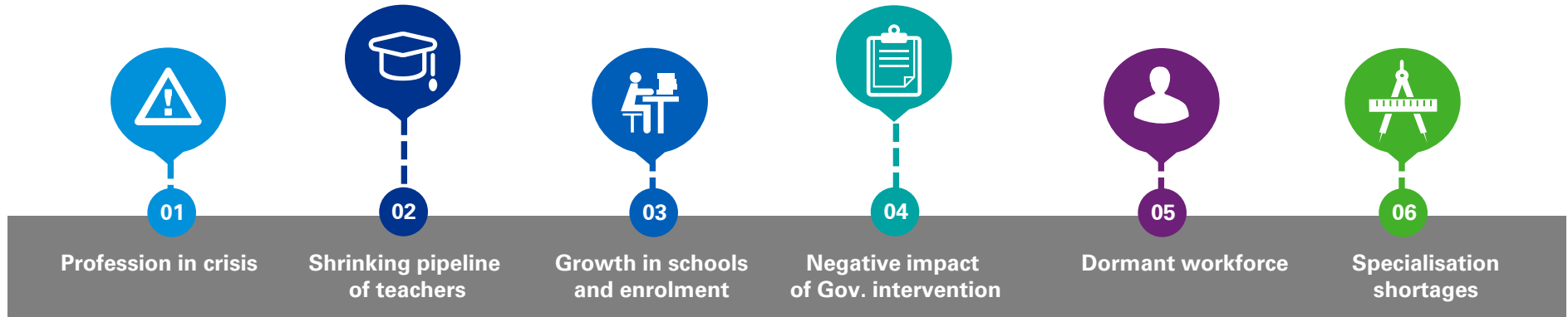
- Australian Institute for Teaching and School Leadership (AITSL)
- Relevant Tertiary Admission Centres (TAC), i.e. QTAC, VTAC, UAC
- Consultation with Senior State Officials from the Departments of Education from NSW, QLD, VIC.
- Independent Schools Associations across QLD, VIC and NSW

KPMG also obtained commencement and completion data from the Commonwealth in order to supplement the key findings from the consultations.



Key findings

The key findings from the consultation process and data analysis conducted throughout this project are presented below.



- **Commencement numbers at the undergraduate and graduate entry levels have been declining since 2014**, more acutely in regional universities.
 - **Perception that the profession has declining prestige, recognition and future career prospects** relative to other professions.
 - Negative perceptions around the teaching profession in part due to intensive public scrutiny
- Across Australia, **total secondary education completions – undergraduate and graduate entry - declined by 8%** between 2016 and 2017 with further declines expected in the 2018 and 2019 data.
 - **Total RUN group secondary teacher education 2018 commencements – undergraduate and graduate entry - are now at 54% of their peak in 2014 and at 82% of the 2009 equivalent figure.**
- **Population growth is driving secondary school expansion in NSW, VIC and QLD.**
 - Acute challenge for QLD in 2020, With the original half-cohort of Prep students set to graduate from high school at the end of 2019, it **will be the first year for full cohorts in all secondary year levels, which creates immediate demand for more secondary teachers.**
- Coincident with **Commonwealth funding being frozen, between 2017 and 2018 there has been a 26% reduction in undergraduate commencements** across RUN.
 - **Minimum ATAR entry standards**, where applied, have restricted the supply of teacher education students and have had a **disproportionately severe impact on regional VIC.**
- At least **30,000 teachers in NSW, VIC and QLD are not currently working at a school**, while they have retained registration, it is not clear what proportion of these teacher registrants could be drawn back to teaching and on what terms.
- **The regional areas of NSW, VIC and QLD in particular are already feeling acute shortages in STEM and language disciplines.** An insufficient number are coming through the pipeline.
 - Evidence of teachers working out of specialisations to cover shortages.

Recommendations

The key findings of this engagement invite policy, funding and co-operative initiatives on a number of fronts among teacher education stakeholders at national, state and local levels, with Governments, employers and with professional accrediting bodies. The specific recommendations presented below should be considered co-operatively between regional universities and the relevant stakeholders. Further detail on these recommendations is provided on pages 48-50 of this report.

Key Stakeholder - Recommendations



Commonwealth and State Governments



State Gov. & Professional bodies



Combined sector

Policy Leadership (see Recommendation 5, page 50)

- Address the broad shortage of secondary teacher education graduates in regional and remote parts of the country; and
- Recognise and respond to the acute shortage of specialist teachers in the STEM disciplines and in language education particularly.

Student Attraction (see Recommendation 1, page 48)

- Consider strategic incentives targeted to both undergraduate and graduate entry programs, including the provision of scholarships aligned with these areas.

Policy Leadership and Employer Dialogue (see Recommendation 3 and 5, page 49)

- Transform interactions beyond the transactional business of practicum management and curriculum alignment among Deans and government officials to a more strategic dialogue between University, large employers and senior Government leaders. This dialogue needs to focus on
 - The skill needs of the teaching profession more broadly;
 - The workforce management challenges that need to be addressed;
 - Future demands for teachers across the schooling system and in regional and remote settings particularly; and
 - Developing effective strategies to meet the future demand for specialist teachers.
- Consider ways in which the pipeline of graduate entry teachers transitioning to the workforce can be accelerated to assist with acute shortages.

Dormant Workforce (see Recommendation 4, page 49)

- Initiate research to discover the extent to which a solution to current teacher shortages may be found by re-engaging with the large number of registered teachers not currently employed as teachers.

Curriculum Innovation (see Recommendation 2, page 48)

- Consider curriculum innovation to facilitate faster transition options for mature age entrants into the teaching profession in recognition that current two year study options for mature age students have acted as a disincentive. The standing of micro-credentials needs consideration consistent with reforms to the Australian Qualifications Framework (AQF).

Student Attraction (see Recommendation 1, page 48)

- For all stakeholders, re-conceptualise admission standards for entry into teacher education programs. This would require all stakeholders to recognise that the crude use of arbitrary minimum cut offs for school leavers and others has been detrimental in attracting those who aspire to a teaching career and has damaged the repute and status of the profession.



Context

Recent policy developments in secondary education

Secondary education teacher shortage

There is a strong body of evidence which suggests that there is a growing shortage of secondary education teachers across Australia, particularly within regional, rural and remote (RRR) parts of Australia.

The state departments' current workforce estimates are forecasting growth in the number of teachers needed to educate a growing school age population. This is occurring at a time when commencement data and completion rates within secondary teacher education strongly indicate a diminishing pipeline of teachers. Additional anecdotal evidence from employers, employment bodies, registration bodies and tertiary admission agencies all suggest the secondary teacher education workforce is reaching a crisis point.

Conservative estimates from workforce planning teams within the Departments of Education across the eastern seaboard suggest there is a need for an additional 800-1,200 new secondary teachers in the next year alone.

For the first time in many years, all three eastern seaboard states are planning the construction of a significant number of new schools. When combined with general population growth, demand for new teachers will accelerate. In NSW alone, the public school student population is expected to grow by 25% from approximately 800,000 to one million students by the end of the next decade.

Given the historical difficulty in placing teachers within regional and remote areas, and the population density within metropolitan settings, it is likely that the most significant impacts of these shortages will be experienced in RRR parts of Australia. The shortages of secondary teachers are centralised

around STEM disciplines, industrial design, special education and language teachers. Regional universities, in particular, are grappling with these shortages and are concerned with a number of recent policy interventions which are serving to exacerbate the issue.

The federal government's National Career Education Strategy places a high level of importance on the role of highly qualified and capable teachers within the system to deliver robust and future-proofed education to all students. As such, a number of recent policy initiatives from the federal and state governments have been focused on driving improvements in the quality of teachers within Initial Teacher Education (ITE). There has also been strong community interest and media coverage of teaching standards which has led to public debate around the role of policy in regulating the selection of teachers enrolling into ITE.

Public sentiment appears to reflect growing concerns around the capability of teachers entering the profession and whether they are equipped to deliver on public expectations. It is highly unusual to witness a profession under so much public scrutiny.

As a consequence, governments have adopted several policy initiatives as a way of addressing the supposed public concern, with the aim to deliver on strategic objectives around teacher quality. As one such example, some governments have displayed a propensity toward raising entry standards for commencing students with the intention of imposing stronger quality control measures within the teaching discipline.

This report explores the significant implications of a number of public policy decisions on the future workforce of secondary education in Australia.

Teacher shortages - QLD case study



Department of Education QLD (Workforce Planning)

The Department's five year forecast of Teacher Supply & Demand illustrates the challenges in meeting demand for teachers from 2020 onwards. The Department has presented a number of key findings from the forecast and workforce planning data to the Council of Deans of Education in QLD. The findings with regards to secondary education in RRR areas are presented below.

Demand and Supply challenges

- **Changing graduate demographics** – There are fewer male graduates than female graduates and fewer graduates from rural and remote areas than those from metropolitan areas. This will diminish the pool of graduate teachers available for RRR employment.
- **Experienced teacher mobility** – Experienced teachers are generally concentrated within metropolitan areas and are reluctant to move into regional areas where shortages are more acute.
- **Two year graduate entry initial teacher education** – Two year graduate entry Masters of Teaching has replaced one year Graduate Diplomas, as per the new national requirement. In some instances, this may act as a disincentive.
- **Changes to undergraduate prerequisites** – It is now relatively more difficult for students to obtain entry into teacher education training than previously.
- **Ageing workforce** – The teacher workforce is ageing, and therefore heading in larger numbers towards retirement, at a time when the pipeline of new graduate teachers is contracting.
- **Teachers teaching out of field** – There is a mismatch of skills between graduates and employer needs which has led to teachers teaching out of their specialisation.
- **Senior assessment and tertiary entrance processes** – A fundamental shift in the education system, in senior assessment and Tertiary Entrance processes will require a period of re-training and capability improvement of teachers.
- **Enrolment growth** – Population and migration growth is driving enrolment growth and the need for more secondary education teachers.
- **New curriculum areas** – Expanded and broader curricula require more specialist teachers.
- **Six full cohorts** – The original half-cohort of Queensland Prep students graduate from high school at the end of 2019, ending a period where secondary schools have carried only 5.5 cohorts of students. From 2020, six full secondary year levels will occupy state high schools across the State.
- **Increased investment in schools/new schools** – The 2020 school year will see the \$250 million investment completed to deliver new classrooms and educational infrastructure to accommodate the full cohorts in secondary schools.

Recent policy developments in secondary education(2)

Federal policy

The federal government has introduced a mandatory Literacy and Numeracy Test (LANTITE) for ITE administered by the Australian Council for Educational Research (ACER). All students undertaking a teaching degree are required to pass the LANTITE in order to meet the requirements for graduation. The test was first introduced in 2011 as a quality control measure, to ensure teachers entering the profession held the requisite literacy and numeracy skills. Students are required to fall within the top 30% of the adult population for personal literacy and numeracy to be considered suitable to teach.

In 2012, the federal government introduced the “demand driven” system when it lifted previously imposed limits on the funding of bachelor degree students at public universities. This allowed universities to offer a total number of enrolments in each qualification in line with student demand. However from 2018, the Federal government froze the Commonwealth Grant Scheme funding at 2017 levels as part of its agenda to reduce federal spending and improve the national budget. This effectively re-imposed limits on how many places universities could offer. Some assistance was given to some regional universities to lessen the impact of the funding freeze.

NSW policy

The NSW state government has recently introduced strict eligibility criteria to assess applicants seeking employment as a teacher within public schools. The Teacher Success Profile (TSP) was introduced in 2019 as a way of maintaining teacher quality standards within public schools. This requires teachers to meet the following suitability criteria:

- Receive a minimum credit grade point average in their university degree
- Provide sound practical knowledge and ability, reflected by an assessment of each practicum report
- Show superior cognitive and emotional intelligence measured via a psychometric assessment
- Demonstrate commitment to the values of public education in a behavioural interview
- Recognise that teaching is relational – individuals who complete an entirely online undergraduate teaching degree will not be preferred for employment unless they live in a remote area, or face circumstances which makes online education the only practical option.

Victorian policy

The Victorian state government has introduced revised entry requirements into university degrees for teaching, by increasing minimum ATAR entry requirements to 70 or equivalent. The initiative was introduced in 2018 as a method of responding to public concerns regarding the quality of teachers in public schools.

Overall, the initiative aims to promote a positive, if not elite, reputation for the teaching profession and increase the calibre of students undertaking ITE.

Recent policy developments in secondary education (3)

Other developments

Following an independent review into Regional, Rural and Remote Education (the Halsey Review), the Minister for Education appointed an Expert Regional Education Advisory Group (EREAG) to develop a National Regional, Rural and Remote Tertiary Education Strategy (NRRRTES).

Recommendation 4 from the National Regional, Rural and Remote Tertiary Education Strategy (NRRRTES) (published by the Department of Education in August, 2019) focusses on building aspiration, improving career advice and strengthening RRR schools to better prepare RRR students for success, including by improving support available to teachers, principals and school leaders.

The report notes that further collaborative work should be undertaken with jurisdictions to improve teacher support and supply RRR areas, through:

- supporting a focus on RRR education as part of the ongoing implementation of national reforms to initial teacher education;
- improving opportunities for high quality professional experience for initial teacher education students;
- providing additional incentives to train in RRR areas;
- flexibility for experienced teachers to move between jurisdictions; and
- consideration of RRR content in the Australian curriculum.

The report indicates that there should also be further training, professional development, mentoring and other support for principals and school leaders in RRR areas, to ensure they are well prepared before and during their appointment and tenure.

Regional implications

- Victorian ATAR standards are likely to restrict the number of students commencing ITE, particularly in RRR locations where students tend to score lower in ATAR overall. This is expected to limit the number of secondary teachers working within RRR locations.
- NSW's credit GPA requirement and reluctance to recognise online accreditation will reduce the supply of secondary teachers and will have a disproportionate impact on the number of secondary teachers available to RRR locations.
- If relevant actions are implemented, the NRRRTES is likely to positively impact secondary teachers within RRR areas, by improving employment outcomes. RUN has indicated that it will consider increasing the focus on RRR education practices in pre-service ITE. However, this could attract additional costs for students, such as travel expenses.
- In relation to the NRRRTES, RUN noted that member universities have the capacity to provide context and professional development to teachers from primary through to secondary schooling.

Trends in quality measures for secondary teachers

Overview

National trends in teaching have predominately focused on the quality and retention of teachers, particularly in the context of workforce demand. These topics have been widely discussed across the literature, and are critical to contextualising and informing the current understanding of policy developments within secondary teacher education. As a result, the following pages consider:

- **Student intakes** – entry restrictions into ITE programs and recent developments in using ATAR scores as regulatory tools.
- **Specialist teacher choice** – developments in student preferences for specialty disciplines and workforce needs, particularly in the context of STEM subjects.
- **Graduate shortages** – expected teacher shortages and issues surrounding the retention of quality teachers in the profession.

Student intakes

There has been growing support for increasing entry standards for teaching qualifications across Australia. Groups in support of increasing entry standards to an ATAR of 70 have cited examples such as the highly respected education system in Finland, where very high standards must be met to enter teacher preparation programs. There is a belief that students who receive relatively low ATAR scores do not possess the aptitude to become high quality teachers despite going through qualification training. As a result, students who do not meet the ATAR cut-offs are offered alternative pathways, such as bridging programs, to close out the perceived skills and knowledge gaps.

However, higher minimum entry standards may not necessarily be synonymous with student success within teacher education. In 2014, the Teacher Education Ministerial Advisory Group (TEMAG) cited research which noted that, while ATAR ranking is regarded as a good predictor of performance in engineering, agriculture and science, the relationship is low for education.

The report also indicated that universities rely on a number of factors when accepting students into teaching degrees, including written applications, interviews and online assessment tools. Universities believe that by using this richer mix of indicators, they are able to identify applicants with strong suitability towards a career in teaching. Universities are confident that, if these students are put through a carefully designed qualification course, they will develop the requisite knowledge and skills to succeed within the teaching profession.¹ This supports the suggestion that greater focus should be placed on university graduate outcomes, as entry restrictions may only serve to reduce the diversity of applicants into the profession and place unnecessary scrutiny on the quality of the applicant before entering the program.

¹ Tovey, 2013, High marks 'not the key' to better teachers, *The Age*, <https://www.theage.com.au/national/high-marks-not-the-key-to-better-teachers-20130218-2enhq.html>

Trends in quality measures for secondary teachers (2)

Specialist teacher choice

Secondary teacher education has observed significant shifts in the number of teachers specialising in STEM disciplines, particularly within the maths and science fields. Recent media reports and parliamentary inquiries have sought to address perceived shortages in secondary teachers within maths and science disciplines. In a growing percentage of these cases, shortages are being filled by out-of-discipline teachers.

The use of out-of-discipline teachers has invoked significant community and political concern, particularly at a time when student uptake of senior maths and related sciences has been at a record low. The Australian Mathematical Science Institute has reported that in 2018, approximately 76% of secondary students were being taught maths by out-of-field teachers for at least one year between Years 7-10.

These concerns are more pronounced for schools in RRR areas that have greater difficulty attracting secondary education teachers to fill shortages in science and maths, than schools in metropolitan areas. For example, Teach for Australia recently reported that within rural regions, only 17% of senior chemistry teachers had completed three or more years of tertiary studies in contrast to 74% in metropolitan areas.

In response to these concerns, in 2018 the federal government announced that every high school would be required to employ science and maths teachers who have studied those subjects at a university level. It was the expectation that this initiative would drive higher quality teachers who would be able to inspire students to pursue the maths and sciences. However, this is proving difficult to implement and discussions are continuing around how to create other incentives for students to undertake secondary teaching qualifications in these specialisations.

¹ Crook, 2018, *Fixing the shortage of specialist science and maths teachers will be hard, not impossible*, *The Conversation*, <https://theconversation.com/fixing-the-shortage-of-specialist-science-and-maths-teachers-will-be-hard-not-impossible-99651>

Trends in quality measures for secondary teachers (3)

Graduate shortages

While the total number of graduates in the pipeline continues to be a major concern, so too is the mismatch between the specialisation and skills of the graduates compared to employer needs. There is a growing consensus across the country that the shortages in secondary education teachers are most acute within the STEM disciplines. For example, research conducted by ACER indicates that approximately 40% of physics teachers are expected to retire over the next decade, with only 10% of trainee science teachers selecting to specialise in physics.¹

Additionally, The NSW Department of Education's *2015 Teaching Workforce Supply and Demand* report flagged the following areas where teacher shortages could be possible:

- English (rural and regional areas only)
- Engineering Science
- Industrial Technology
- Food Technology
- Textiles Technology
- Languages
- Science (physics only)
- Mathematics.

Consultations undertaken as part of this project provide further evidence that these shortages exist, and are most acute within regional and remote settings.

State governments have offered different incentives in an attempt to attract and retain quality teachers within specific fields and regions. Some of these initiatives include: scholarships, rent and travel subsidies for rural and remote areas, leave entitlements and accelerated career progression.

However, in addition to incentives, there is scope for greater focus to be placed on the teaching profession more broadly, particularly in the context of retaining secondary teachers. Greater attention has been given within recent years to attrition rates for early teaching professionals, with some reports indicating that between 30%-50% of teachers leave within the first five years. Although some literature has indicated that identifying the true national attrition rate is problematic with no clear link between current reported rates and those which can be verified, attrition remains a relevant topic in assessing teaching needs.¹

The absence of adequate support within the first few years of teaching is frequently cited as a key reason why early-career teachers leave, noting that heavy workload demands and salary expectations play a key role in the retention of teachers. A co-ordinated response, particularly from employers, will be important in providing better support for new graduates and to keep other practising teachers in the profession for longer.

¹ Weldon, 2018, *Early career teacher attrition in Australia: evidence, definition, classification and measurement*, Australian Council for Education Research



Student demand

Student demand

Overview

This section investigates the demand for secondary education qualifications and analyses the trends to understand what impact these will have on secondary teacher shortages across Australia. In order to understand the demand for secondary education, this section focuses on:

- School leavers' first preference data with Tertiary Admission Centres (TAC)
- Undergraduate and postgraduate commencement numbers
- Student intake pathways and basis of admission.

To this end, longitudinal data (2009 to 2018) is analysed from both the national perspective and the perspective of the RUN group members as a collective. Recent federal and state policy initiatives and other developments in the sector more broadly, are used to contextualise the trends observed from the data to understand what impact these policies may have had on the overall demand for secondary education qualifications.

Where trends observed at the regional level differ from those observed at a national level, insights obtained throughout consultations with stakeholders, such as TACs, Independent Schools associations and the RUN group members, are used to support the analysis.

Note: the 'rate of growth' or 'growth rate' refers to Compounded Annual Growth Rate (CAGR) for the relevant period, unless otherwise specified.

Commencement trends in secondary teacher education

Undergraduate commencement trends - National

In 2018, approximately 7,500 students commenced secondary teacher education, 4,700 (63%) in undergraduate qualifications. The national headcount for students commencing secondary education increased at a rate of 1% between 2009 and 2018, as presented in the chart overleaf. However, there are two distinct phases of growth and decline during this period. In 2009, the federal government announced it was no longer going to cap or restrict funding to a fixed number of enrolment places. This removal of enrolment caps was to be officially implemented from 2012. In response, universities began loading enrolments pre-emptively across undergraduate qualifications. This is evidenced by the 8% rate of growth between 2009 and 2014 as universities met the excess demand for secondary education. Driven by commencements doubling between 2010 and 2011, VIC experienced the most rapid rate of growth (20%), compared to NSW and QLD (5% and 7% respectively).

From 2014, however, commencement numbers declined at a rate of 8%. Once again, this is most pronounced within VIC, which experienced a rate of decline of 18%, more than double the rate in NSW and QLD (-8%). The 22% decline between 2017 and 2018 in particular is largely attributable to the Victorian government raising the minimum ATAR requirement for entry into teacher education. More broadly, the national decline is coincident with a number of changes to policy settings. Firstly, the Federal funding freeze from 2018 has limited the flexibility of universities to respond to student demand issues. Of particular note is the 17% decline in intakes nationally in 2018, the first year of the funding freeze. This is the largest year-on-year movement in demand, positive or negative in the period 2009-18.

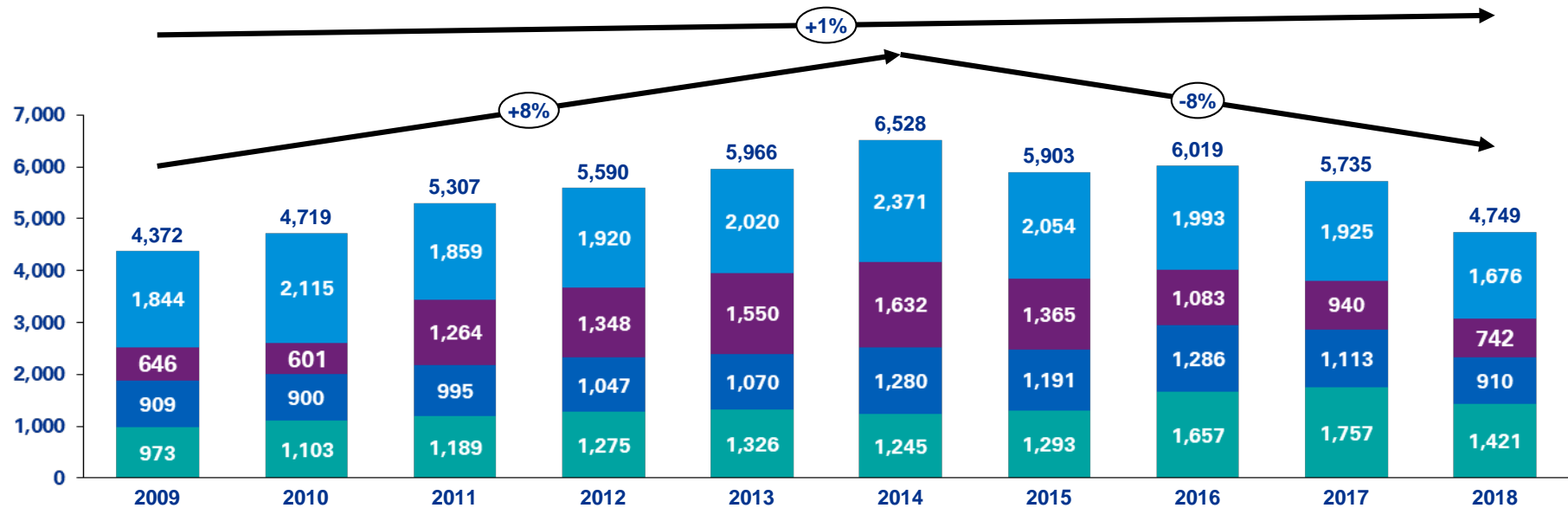
Secondly, many stakeholders, including tertiary admission centres and professional bodies, have indicated that many school leavers, particularly those with higher ATAR scores, have tended to gravitate to professions with greater 'prestige' such as medicine or engineering.

Throughout our consultations, the perception offered was that school leavers view the profession as a 'back-up plan' or a safety option, not a 'first preference' option. In addition, there is a general consensus amongst the school leaver cohort that the teaching profession is characterised by high workloads and low reward and recognition. Recent adverse media and public scrutiny on the profession is also likely to have played a contributing role in the decline across the country.

Secondary Teacher Education: A View from the Regions

Commencement trends in secondary teacher education (2)

Commencement undergraduate headcount - National



Source: Department of Education and Training

% CAGR

■ NSW ■ VIC ■ QLD ■ Rest of Aus

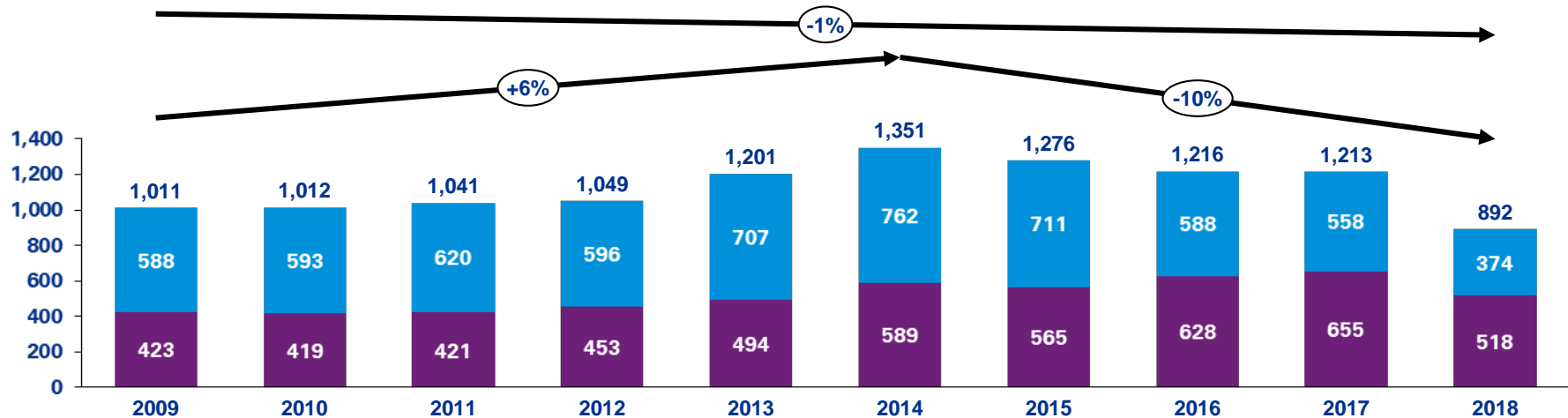
Commencement trends in secondary teacher education (3)

Undergraduate commencement trends - RUN

In 2018, approximately 900 students commenced undergraduate qualifications in secondary education across RUN group members, the smallest intake in a decade. Total commencement figures between 2009 and 2018 declined at a rate of 1%, in contrast to the 1% rate of growth observed at the national level. Consistent with national trends, this is characterised by two distinct phases of growth and decline. Between 2009 and 2014, the peak period of enrolment post the introduction of the demand driven system, commencements increased at a rate of 6% (8% nationally). This was consistently observed across RUN group members across NSW and VIC (5%) and QLD (7%).

From 2014, the decline in commencements was more pronounced across the RUN group members (-10%) than across the country (-8%). The decline was most pronounced across RUN group members in NSW and VIC (-16%). This indicates that the regional areas have been impacted more strongly by recent policy developments and shifting student preferences. Most notably, the total number of students commencing undergraduate qualifications in secondary education in 2018 was 12% lower than the number of commencements in 2009.

Commencement undergraduate headcount – RUN



Source: Department of Education and Training (% CAGR)

■ NSW & VIC ■ QLD

Commencement trends in secondary teacher education (4)

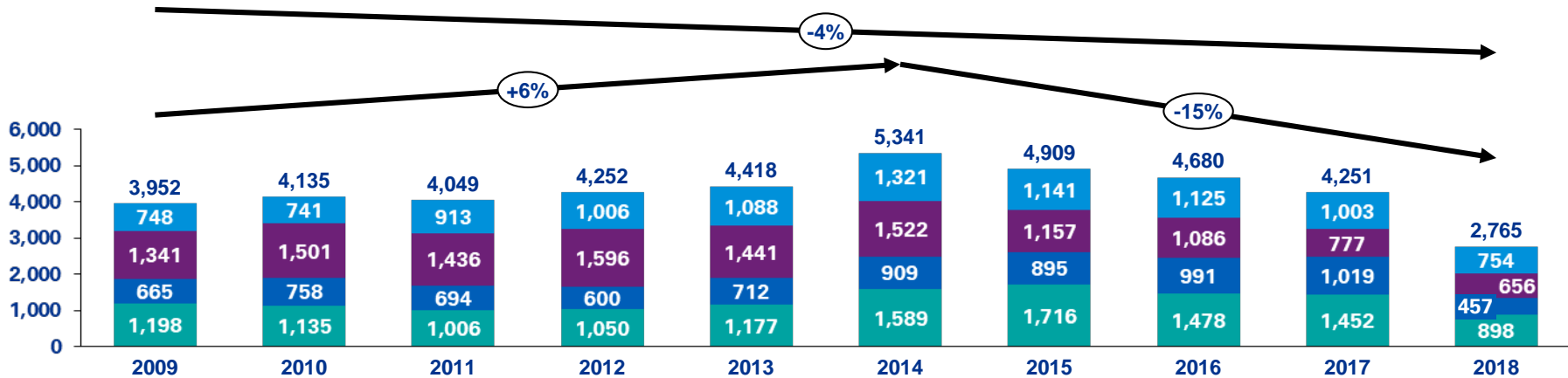
Postgraduate commencement trends - National

In 2018, approximately 2,800 students commenced postgraduate secondary education across the country, the lowest intake in at least a decade. Commencement numbers have observed a significant decline over the past decade with a rate of decline of 4% across Australia from 2009. Similar to trends observed across the undergraduate cohort, postgraduate commencement numbers in secondary teacher education were increasing at a rate of 6% between 2009 and 2014, driven by the strong growth in NSW during this period (12%). From 2014, postgraduate commencement numbers have declined at a higher rate (-15%) than undergraduate commencements (-8%). Consistent with undergraduate commencements, this decline was most pronounced in VIC (-19%) compared to NSW and QLD (-13% and -16% respectively).

The most acute decline occurred between 2017 and 2018 as the total number of postgraduate commencements declined by 35% in just one year. This is (at least) partially attributable to a new requirement for two year graduate entry qualifications through a Master of Teaching instead of the single year Graduate Diploma. This has likely acted as a deterrent to some students seeking to undertake further qualifications and transition into teaching, given that the additional year of study will require an additional sacrifice of both time and income and further fee liability or loan debt.

The slowdown of undergraduate commencements in combination with the general decline in postgraduate qualifications across the country highlights the shrinking pipeline in secondary education teachers across Australia.

Commencement postgraduate headcount – National



Source: Department of Education and Training

% CAGR

■ NSW ■ VIC ■ QLD ■ Rest of Aus

Commencement trends in secondary teacher education (5)

Postgraduate commencement trends - RUN

Postgraduate commencement numbers across the RUN group declined at the same rate as national trends between 2009 and 2018 (-4%).

Consistent with national trends and patterns in undergraduate courses prior to 2014, commencement numbers grew at a rate of 14%. The most significant increase occurred between 2013 and 2014 (65%).

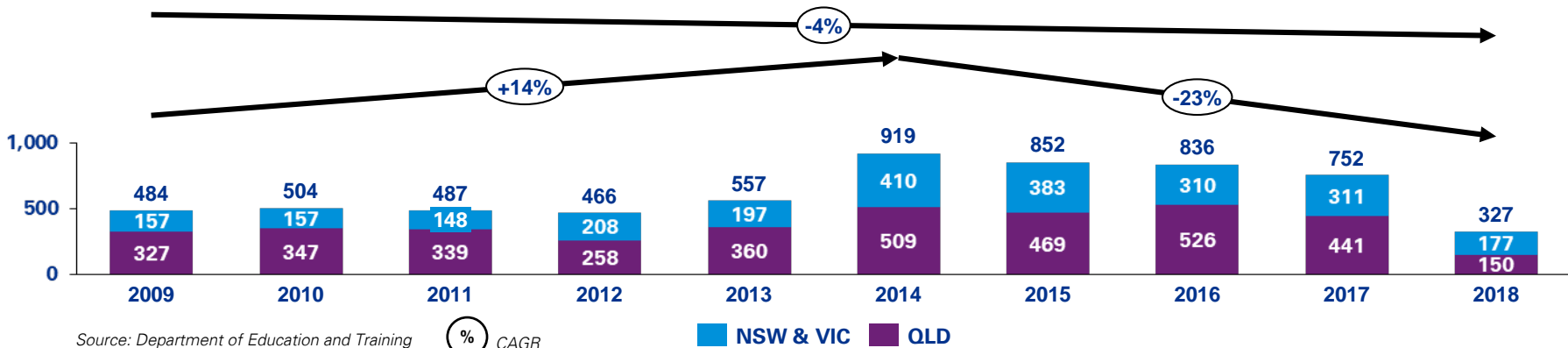
Conversely from 2014 to 2018, commencement numbers declined by a rate of 23%, however this is largely driven by the 57% decline which occurred between 2017 and 2018. RUN group members across all of the eastern seaboard states have seen a dramatic reduction during this period [NSW and VIC (-43%) and QLD (-66%)]. This is consistent with the trends observed nationally due to the shift to two year Master of Teaching qualifications over the shorter Graduate Diploma.

Most notably, the total number of postgraduate commencements in 2018 was 32% less than in 2009.

Despite the most recent reduction in postgraduate commencements, the RUN group made a concerted effort to attract more postgraduate students. This is reflected in the total number of postgraduate commencements in 2017 being 55% more than in 2009. However, RUN members have not been able to maintain these numbers in the subsequent intake.

The cumulative impact of the decline across postgraduate commencement and undergraduate commencement numbers across RUN group members is a shrinking overall pipeline of secondary education teachers for the regions. Given that shortages within the regions are already worse than in metropolitan areas, this presents a significant challenge for regional secondary education.

Commencement postgraduate headcount - RUN



Demand for secondary education

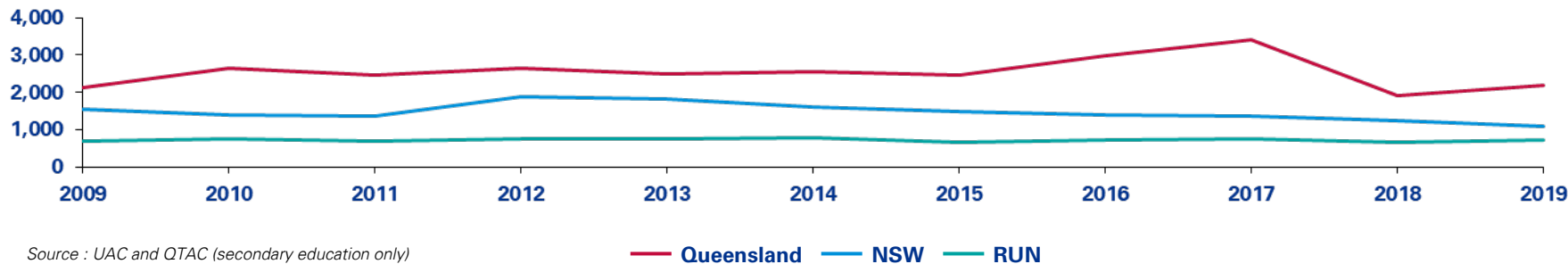
Trends in first preference demand

Another proxy for demand for secondary education across the country is the number of students who select secondary education as their first preference when looking to enrol into tertiary education. The chart below presents first preference data for undergraduate secondary teacher education across all relevant institutions within NSW and QLD* and specifically the RUN Group. The number of first preference selections across all institutions in NSW declined by a rate of 4%, however within QLD and the RUN group specifically, demand has remained stable, with respective rates of preference movement less than 0.5%. These rates are characterised by strong growth in demand between 2009 and 2014 (4%, 4% and 3% in NSW, QLD and RUN respectively), the period where enrolment caps were removed. This indicates that once enrolment caps were removed, institutions across NSW and QLD were able to meet the excess demand for secondary education. However from that point, rather than stabilising, demand declined at a rate of 10% and 3% across NSW and QLD respectively between 2014 and 2019.

The RUN group performed relatively better against this trend, notably in Queensland, with a small two percent rate of growth during these years.

The recent decline in demand for secondary education may be partially attributable to the declining reputation of the profession amid heightened public and media scrutiny. Anecdotal evidence from the RUN group also indicates demand for secondary education is declining most rapidly among male students. In Victoria, the rising entry standards reflected by higher ATAR requirements is also a factor in the reduction of demand, as many with lower ATAR scores will have been discouraged from selecting secondary education as a first (or any) preference. The distribution of ATAR scores is generally lower within rural and remote areas compared to students in metropolitan areas, and therefore has had a disproportionate and negative impact. Overall, the declining demand for teaching has translated to fewer commencements of secondary education students that will continue to place further pressure on rural and remote area shortages.

Undergraduate secondary education first preference totals – QLD, NSW and RUN



Source : UAC and QTAC (secondary education only)

*Note preferential datasets were not able to be obtained from VTAC

Student demand

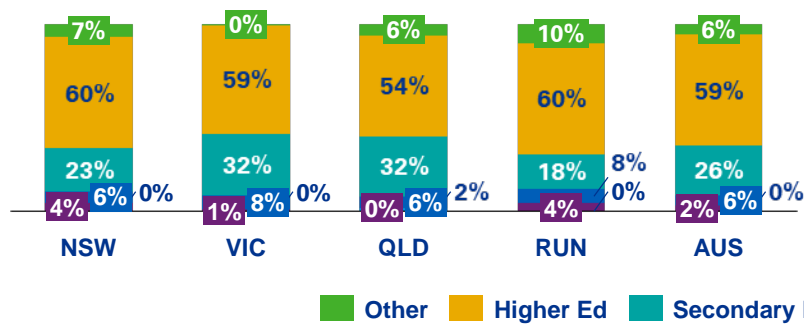
Trends in demand

Students commence undergraduate and graduate entry secondary education through a variety of pathways, as presented in the chart below. The changing nature of these pathways and intake dynamics is reflective of the broader trends observed with regard to demand for secondary education. Higher education pathways represent half of the secondary education entrants across Australia, however there has been a 17% decline in students coming from these pathways across the country between 2015 and 2018. During the same period, there has been a 30% increase in commencements via school leavers. The proportion of students coming from the two main pathways – school leavers and higher education – is broadly consistent across the three eastern seaboard States.

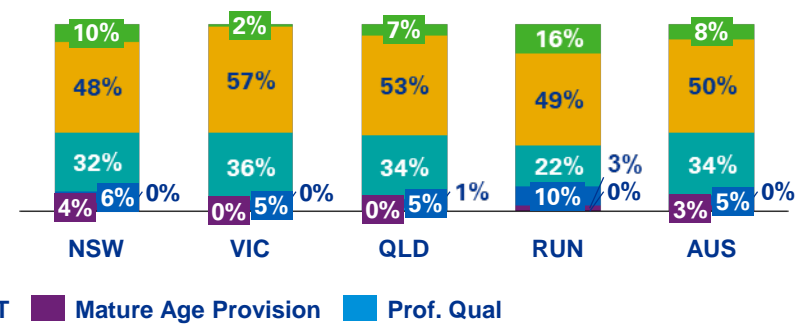
Across the RUN group, the percentage of students commencing from secondary school has remained between 18-22% in the last three years, lower than that observed within Australia (26-34%).

This illustrates the difficulties the RUN group is having attracting school leavers to secondary education, as observed by the slowdown in undergraduate commencement figures, and is reflective of the broader difficulties faced by regional areas across NSW, VIC and QLD. As such, the RUN group has exhibited a growing focus on other pathways to fill enrolments in combination with stronger graduate entry offerings. While the percentage of students coming from higher education is largely consistent with trends across Australia, commencements from VET (8-10%) and other pathways (10-16%) have risen in the last three years and are higher than the relative percentages across Australia (VET and Other pathways representing 5% and 8% respectively). This is reflective of the RUN group’s recent collective focus on targeting mature age students to undergraduate qualifications, to compensate for diminishing demand from school leavers.

2015 Commencement pathways



2018 Commencement pathways



Source: Department of Education (Headcount of commencing domestic student enrolments in secondary education)

Summary of findings

Key findings

Across Australia, demand for secondary teacher education has declined significantly in the last 10 years based on commencement figures and TAC preferential demand data.

Commencement numbers at the undergraduate and graduate entry levels have been declining since 2014, and are likely to continue to do so following the Federal funding freeze and the introduction of minimum ATAR entry standards in Victoria. Both policy initiatives have been coincident with a reduction in the future pipeline of secondary teachers. Across the country, the total undergraduate and postgraduate students who commenced secondary education in 2018 is 10% less than in 2009. The corresponding figure from the RUN group members is -18%, signifying that relative to national trends, RUN group members have observed a significantly larger decline and the recent policy and media developments have had a more significant impact on student demand within RRR areas across QLD, NSW and VIC in particular.

The temporary boost to the sector from the demand driven enrolment system has subsided and there are no indications that commencements will rise in the future. Additionally, first preference data from TACs for secondary education qualifications is trending downwards across NSW and QLD, despite more stable demand across the RUN group. In combination with limited enrolment places, secondary education qualifications are not in high demand from school leavers.

The overall decline in demand has been driven by a number of different factors including, in part, the negative perceptions around the teaching profession in addition to extensive media coverage of the issue of ATARs of students entering ITE programs directly from secondary school. Broader issues impacting student demand include school leavers viewing the teaching profession as a back-up or safety option and the general feeling that the profession has lower prestige, reward and recognition relative to other professions.

A combination of all of these factors suggests that shortages felt in NSW, VIC and QLD are not going to be filled by an increase in demand in the near future and these shortages are going to be most acutely felt in RRR areas. As a result, these shortages are likely to continue into the future and significant intervention is required to prevent the sector reaching a more severe crisis point.



Enrolment dynamics

Introduction

Overview

The percentage of commencing students who graduate to become teachers is dependent upon rates of attrition amongst the cohort. Note that universities present attrition rates based on the DET's New Adjusted Attrition Rate¹. An examination of enrolment dynamics within commencement cohorts, such as types and mode of study, can provide additional context to help understand what is driving the general trends in attrition across secondary education programs.

This section of the report defines type of study, demographic profiles and mode of study as some of the key enrolment dynamics worth observing. By understanding the general trends in attrition, universities will be better placed to maximise the number of students who graduate with secondary education qualifications and go on to be employed as a secondary education teacher.

This section will also present evidence from AITSL's 2018 ITE Data Report. This report presents trends and findings with regards to 'completion rates' across ITE in Australia. Note 'completion rates' are the inverse of attrition rates, calculated by AITSL as the proportion of students who completed, discontinued, or were still enrolled in an ITE program within six years of their commencement.

This will be used to contextualise attrition rates and deliver key findings for the RUN group.

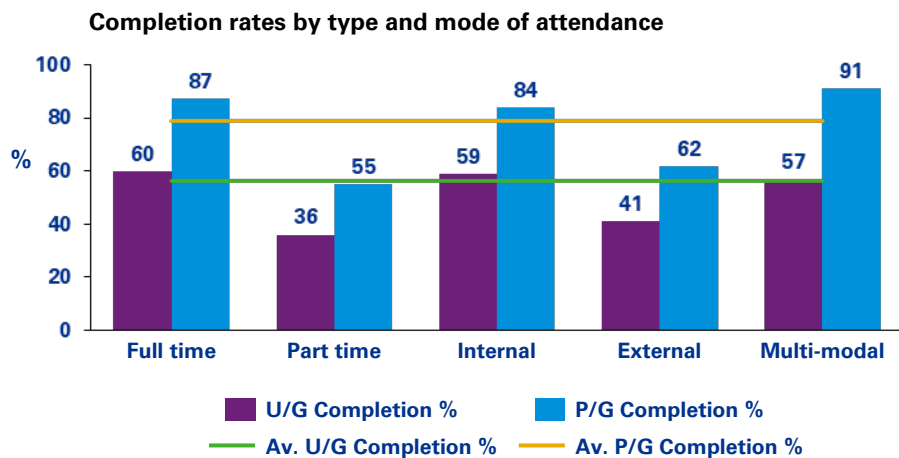
¹ *Improving retention, completion and success in higher education Higher Education Standards Panel Discussion Paper, June 2017*

National completion trends

National completion rates - ITE Data Report 2018

ITE in Australia is characterised by relatively high rates of completion compared to other tertiary specialisations. In 2016, ITE undergraduates had a completion rate of 56% which was 3% higher than the mean completion rate of the nine undergraduate higher education program types selected for comparison. The corresponding number for graduate entry courses was 78%, which was 11% higher than the mean completion rate of the other nine graduate entry programs.

There are a number of different factors which can influence completion rates, as identified by the 2018 ITE Data Report. These include, but are not limited to, type of attendance, mode of attendance, gender and location. Completion rates within ITE across these enrolment characteristics/dynamics are presented below.



Source: AITSL, ITE Data Report 2018

A number of key findings can be inferred from the graph opposite:

Undergraduates

- Part-time students had a completion rate of 36% which was 24% below the full-time rate and 20% below the average undergraduate rate.
- Students studying through an internal (i.e. on campus) mode of attendance had a 59% completion rate, which was 4% higher than the undergraduate average.
- Students studying externally had a 41% completion rate, which was 18% lower than the internal rate and 15% below the undergraduate average.

Postgraduates

- Part-time students had a completion rate of 55% which was 32% below the full-time rate and 24% below the average postgraduate rate.
- Multi-modal students (91%) and students studying internally had a higher than average completion rate.
- Students studying externally had a 62% completion rate which was 29% lower than the multi-modal rate and 17% below the average postgraduate rate.

It should be noted that while certain enrolment dynamics appear to have a level of influence on completion rates, there are likely to be a number of other factors which may have an impact on an individual. As such, the causality of enrolment dynamics on completion rates is not definitive. Nonetheless, by considering their own enrolment dynamics, universities can tailor their intervention strategies to target higher rates of completion.

Enrolment characteristics (ITE data report)

The 2018 ITE Data Report provides some insight into enrolment characteristics and dynamics of students within ITE across Australia. Specific enrolment data of secondary education students across the RUN group has not been obtained, however, the general trends appear to be consistent with anecdotal evidence provided by the RUN group during the consultation process.

In 2016, approximately 80% of ITE students were enrolled full-time, and the relative proportion of full-time and part-time students has remained fairly consistent over the past decade. Full-time study loads help expedite completion numbers and are generally characterised by higher completion rates. Anecdotally, most students undertaking secondary education across the RUN group are undertaking a full-time load, particularly at the undergraduate level.

With regard to mode of study, between 2007 and 2016 across all ITE in Australia, there has been a 16% decline in students commencing via an internal (i.e. on campus) mode of attendance and a 10% increase in students commencing via an external (i.e. online) mode of attendance. This reflects a broader trend of students shifting towards more flexible study arrangements to allow for part-time work. The comparatively lower rates of completion for such students, while not a definitive measure, may lead to additional constraints to the future supply of secondary teachers.

In 2016, 72% of commencing ITE students were female while the cumulative number across all higher education was 55%.

Source : Department of Education and Training (RUN does not include USQ and CQU)

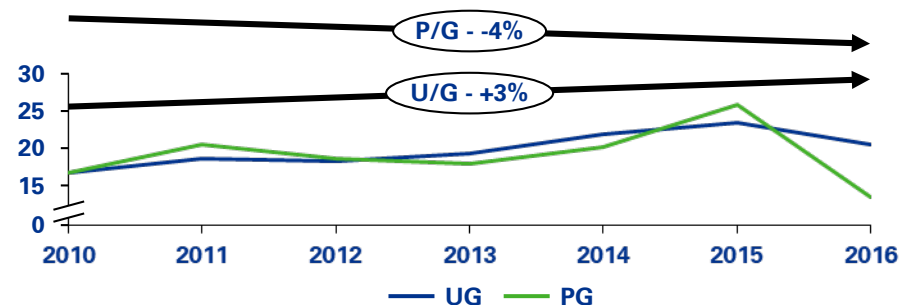
This is largely consistent with the anecdotal evidence provided by the RUN group which suggests that gender imbalance is more acute within primary education and that secondary education is closer to a 50/50 representation.

Attrition rates - RUN

In 2016, the attrition rate in graduate entry qualifications across the RUN group was 35% lower than the corresponding figure in undergraduate courses. As presented in the chart below, undergraduate attrition rates have been rising by a growth rate of 3% since 2010. By comparison, in graduate entry courses, the attrition rates have declined by a rate of 4% across the RUN group.

This is consistent with the fact that more graduate entry studies are completed by mature age or non-school leaver students, in addition to broader trends observed within the ITE report which suggests that mature age students generally have higher completion rates compared to school leavers.

Attrition rates - RUN



Enrolment characteristics

Practicum placements

Maintaining and facilitating the placement of large numbers of students for their practicum requirements continues to be a major logistical exercise for all universities offering teacher education programs, particularly sourcing appropriate teacher provisions in STEM disciplines. Among RUN members, where many students are studying online from remote locations, this is particularly demanding. Notwithstanding this challenge and the wide variation in admission numbers over the past decade, all RUN members have managed to fulfil this important curriculum requirement for their students.

Employers across the eastern seaboard who facilitate these practicums in their workplaces, report varying levels of satisfaction in the relationships they establish with the universities involved. It is clear that universities can do more to facilitate better relationships with this key stakeholder group aimed at improving the quality of the practicum experience for students. Such improvement can only be for the betterment of teacher education graduates who will be more likely to enter the workforce after a positive practicum experience.

Key findings

The attrition rate across undergraduate programs has steadily increased among RUN group members and, together with the contracting commencement numbers in undergraduate studies, places further constraints on the pipeline of graduates to fill shortages in secondary education. In response to difficulties in attracting school leavers to undergraduate qualifications, the RUN group has pursued a strategy of targeting more graduate entry students, who have higher completion rates than undergraduates.

The enrolment dynamics of student education cohorts have been shifting over the past 10 years. There is a growing percentage of students completing their secondary education qualifications through part-time and/or online modes, which are typically associated with lower completion rates. Completion rates also differ between male, female, mature age, school leaver, part-time and full-time students.

The RUN group should remain cognisant of its enrolment dynamics in order to develop specific strategies to address directly those students most at risk of not completing their qualifications. Incentive strategies to attract and retain a larger male cohort and to support strategies that help students who do not study on campus are two such measures which can help reduce attrition and improve completion rates in secondary education. A focus on enrolment dynamics and specific strategies will help ensure that student attrition is limited to those who discover the profession is not suitable for them rather than be influenced by other, more controllable factors.



Graduate outcomes

Introduction

Overview

This section assesses the impact of reduced student intakes and changing enrolment dynamics on graduate outcomes. Specifically, this pertains to:

- The number of undergraduate and graduate entry students completing secondary education; and
- Employment outcomes for graduates.

This longitudinal data (2009 to 2017) is analysed from both the national perspective and the perspective of the RUN group members as a collective. The recent federal and state policy initiatives, and other developments in the sector more broadly, are used to contextualise the trends observed from the above data to better understand what impact these policies may have on the overall supply of secondary education teachers.

Where trends observed at the regional level differ from those observed at a national level, insights obtained throughout consultations with stakeholders such as Teacher registration bodies, AITSL, state Departments of Education and the RUN group members further support this analysis.

Completion trends in secondary teacher education

Undergraduate completion numbers – National

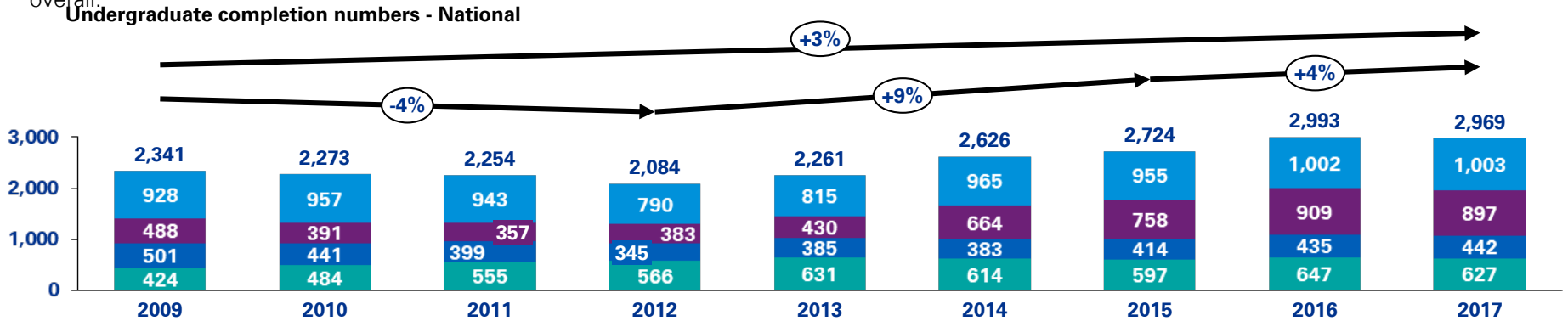
In 2017, approximately 6,400 students completed a secondary education qualification across Australia, approximately 3,000 (46%) through an undergraduate degree program. Approximately 79% of these graduates completed their education across the eastern seaboard states.

Undergraduate completions grew at a rate of 3% between 2009 and 2017 across Australia. Victoria is the only State amongst the three which had a significantly positive growth rate between 2009 and 2017 (8%), while QLD's completion numbers decreased at a rate of 2%. The overall increase across the eight years masks a 4% rate of decline across Australia between 2009 and 2012, most prominently in QLD (-12%).

However since 2012, the rate of growth in completions has been 7% across Australia, most significantly in VIC (19%) while QLD and NSW have both grown at a relatively slower rate (5%). It is evident that the removal of enrolment caps provided a temporary boost to the graduation numbers overall.

The growth rate for completions during these years is consistent with the growth in commencement numbers between 2009 and 2014, as the cohort from these years graduated and entered the workforce.

However, the rate of growth exhibited during this period has now begun to slow. The rate of growth over the last three years across Australia has been 4% compared to 9% between 2012 and 2015. It is expected that the data will show a plateauing, if not a decline, in the number of graduates in 2018 and 2019 as the pipeline effect of the earlier increased intakes diminishes. Looking ahead, the decline in graduate numbers has serious implications for the anticipated shortages within secondary education. This will be felt most significantly in Victoria as the full ramifications of the increased ATAR entry standards are experienced. But the anticipated growth in secondary school enrolments in NSW and Qld will present dire consequences for teacher numbers in these states also.



Source: Department of Education and Training

CAGR

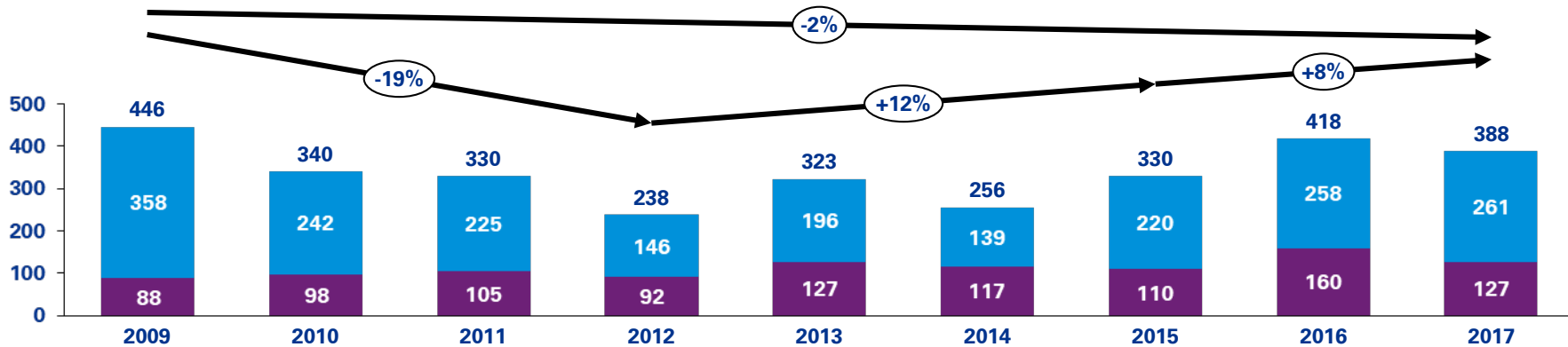
Completion trends in secondary teacher education (2)

Undergraduate completion numbers - RUN

In 2017, approximately 390 students completed undergraduate qualifications in secondary education within the RUN group. Over the nine year period, the rate of student completions within the RUN group declined by 2%, in contrast to a growth rate of 3% across Australia. Consistent with national trends, all members experienced a significant decrease in completions between 2009 and 2012, a decline of 19% across the group (compared to just -4% across Australia). The most significant decline is observed in RUN group members in NSW and VIC (-26%). This is reflective of the difficulties faced by regional universities in attracting school leavers to undergraduate qualifications, and further evidence of the decline in demand for the profession.

From 2012, total completions across the RUN group have increased by a rate of 10% (compared to 7% across Australia), driven largely by members in NSW and VIC (12%) compared to 7% in QLD. This is consistent with the increase in commencement figures between 2009-2014 and suggests that rural universities have benefited more than others from the removal of enrolment caps. As observed nationally, this has been shown to be temporary, as completions after 2015 have slowed to 8% compared to the 12% growth observed between 2012 and 2015. Most notably, despite the recent growth, total undergraduate completions of secondary education teachers in 2017 is 14% lower than the figure in 2009. This serves to highlight the shrinking supply of secondary education teachers, and how the growing shortages are likely to be more acutely felt across regional areas within NSW, VIC and QLD.

Undergraduate completion numbers - RUN



Source: Department of Education and Training

% CAGR

■ NSW & VIC ■ QLD

Completion trends in secondary teacher education (3)

Postgraduate completion numbers - National

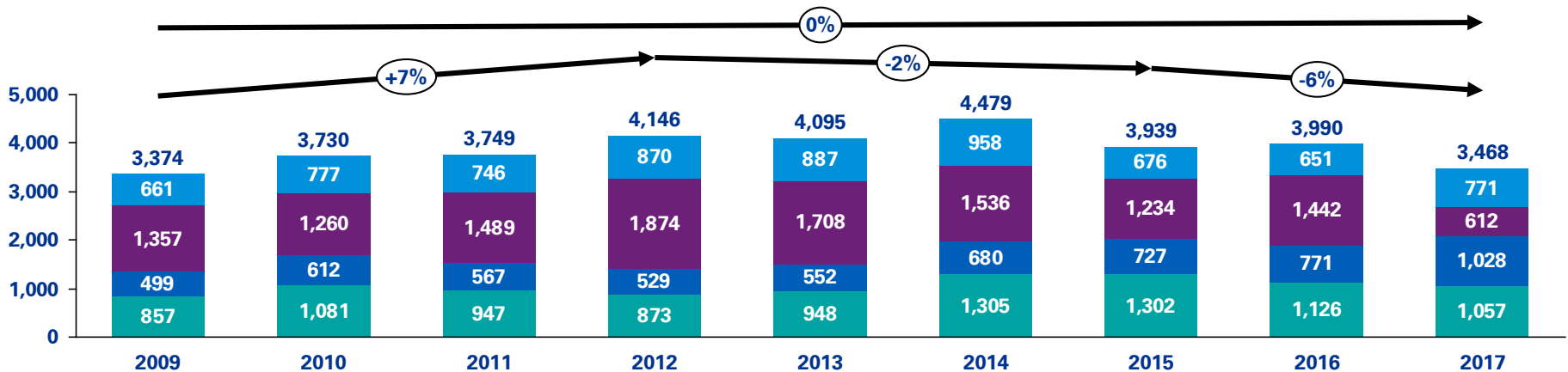
In 2017 approximately 3,500 students obtained a graduate entry qualification in secondary education. Approximately 70% of these graduates completed their education across the Eastern seaboard states. Nationally the number of postgraduate completions remained relatively stable between 2009 and 2017. This is characterised by a 7% rate of growth between 2009 and 2012, in contrast to the declining undergraduate completion growth during the same period. The rates of growth in NSW and VIC (10% and 11% respectively) were significantly higher than QLD (2%).

However between 2012 and 2017 postgraduate completions have diminished by a rate of 4%.

A large proportion of this decline occurred between 2016 and 2017 in the University of Melbourne, which had a -77% decrease in postgraduate completions, while NSW also observed a -2% rate of decline during this period. However this trend showed signs of recovery in NSW and QLD. In particular, from 2015 these states have observed a 7% and 19% rate of growth respectively.

The overall number of postgraduate completions in 2017 was only 3% more than the corresponding figure in 2009, and together with the imminent slowdown in undergraduate completions across Australia, further accentuates the lack of growth in the future supply of secondary education teachers across Australia.

Postgraduate completion numbers - National



Source: Department of Education and Training

% CAGR

■ NSW ■ VIC ■ QLD ■ Rest of Aus

Completion trends in secondary teacher education (4)

Postgraduate completion numbers - RUN

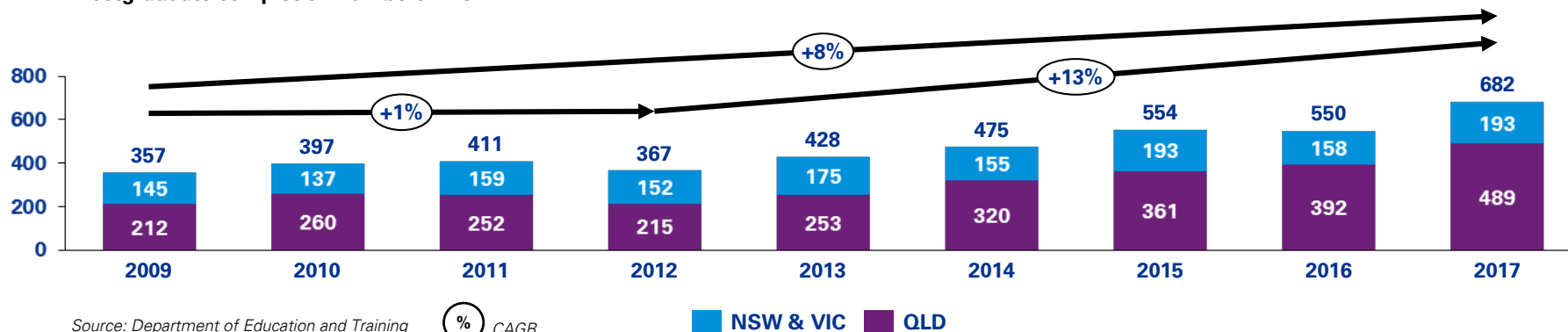
In 2017, approximately 700 students completed a graduate entry qualification in secondary education within the RUN group. Similar to national trends (excluding Victoria), the number of completions within the RUN group increased by a rate of 8% from 2009. This is characterised by a particularly sharp rate of growth in postgraduate completions from 2012 onwards (13%), most prominently observed across members in QLD (18%).

It is evident that the total number of postgraduate completions has risen more sharply across the regional universities than across all other universities within Australia. This is reflective of a number of different factors. Firstly, it is consistent with the RUN group strategy to focus on attracting mature age and second career students to graduate entry qualifications to fill the rising shortages in secondary education.

This is coincident with the difficulty faced by regional universities in attracting school leavers to undergraduate qualifications in secondary education. Secondly, many of the universities within the RUN group are offering a range of non-traditional pathways into teacher education for their students. This is particularly true in areas where universities have identified acute shortages. For example, CQ University is offering successful pathways for trade workers into a three-year fast track undergraduate program, targeting well documented shortages of manual arts teachers.

However, the sharp decline in postgraduate *commencements* from 2015 indicates that future completions from graduate entry programs will be much lower than current numbers. This was also observed within undergraduate commencements. Together, this indicates that the secondary teacher shortages across regional areas in NSW, VIC and QLD are likely to worsen without further intervention.

Postgraduate completion numbers - RUN



Employment outcomes

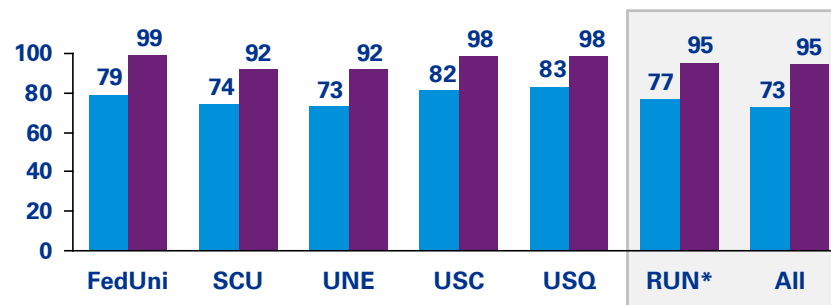
Undergraduate employment (teacher education*)

The 2016-2018 Graduate Outcome Survey (GOS 2018) collects data from 102 higher education institutions, including 41 universities, regarding graduate outcomes and destinations of students across all qualifications. The charts adjacent present the percentage of all teacher education undergraduates from the RUN group who are employed and those who are employed specifically as teachers.

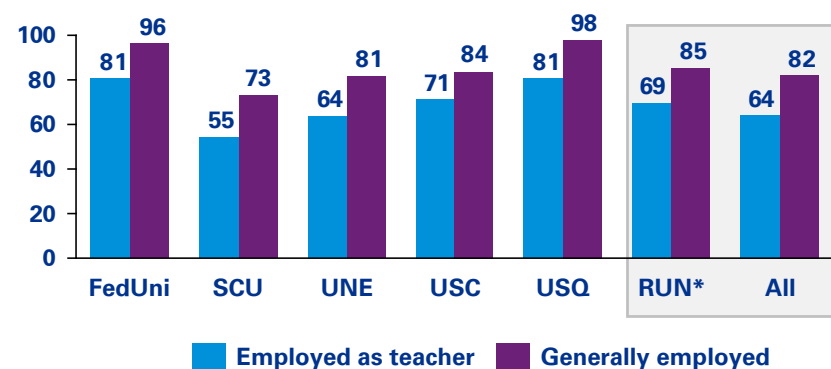
In total, 95% of all RUN undergraduates are employed within their first year of graduating, with only Southern Cross University (SCU) and University of New England (UNE) marginally below the national rate. However, the number of graduates who are employed specifically as a teacher is closer to 77% across the RUN group. While this is higher than the average across Australia, this suggests approximately 20% of those employed are either unable to find employment after graduation or pursue alternative career options.

While 77% of RUN graduates are employed as teachers, only 67% of all graduates are employed full time. This suggests there may be additional capacity within the workforce.

Percentage of respondents employed (full time and/or part time)



Percentage of respondents employed (full time only)



*Includes: 070105 Teacher Education: Secondary and Initial Teacher Training

Source: Department of Education and Training, GOS 2018

Note: Includes CQU data but cannot be presented separately as individual sample size is statistically insignificant.

Employment outcomes (2)

Postgraduate employment (teacher education)

The charts adjacent present the GOS 2018 results for postgraduates in teacher education. Approximately 91% of all RUN postgraduates are employed, with only SCU below the national average of 92%. However, the number of graduates who are employed specifically as a teacher is closer to 73% across the RUN group. While this is higher than the average across Australia, this is marginally lower than the percentage of undergraduates working as teachers. Consistent with undergraduate data, there remains a proportion who are working part time.

Teacher registration

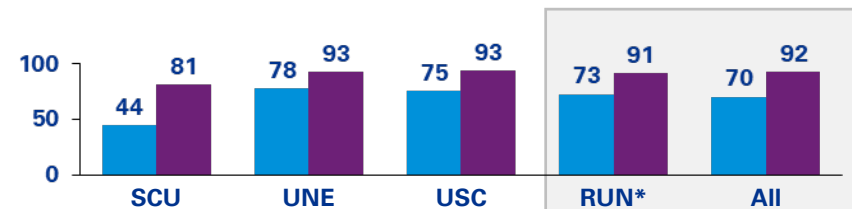
Consultation with teacher registration bodies in QLD, NSW and VIC suggests that there are at least 30,000 people in each State who are registered as teachers but not currently working at a school. Hence, there may be dormant capacity within the qualified secondary education teacher labour force. However, none of the registration bodies has definitive evidence or clear analysis of why these teachers are not working in schools. It is assumed that a large portion of registered teachers who are not working in schools are either working in other professions or are retired or semi-retired and find fulfilment in continued membership of the profession. Many others may have left the profession due to dissatisfaction. AITSL has identified the early stages of a teacher's career as one of the major phases during which teacher attrition can occur. There is a mixed base of evidence of teacher attrition rates, and these vary widely across different States and demographics.

Regardless of the actual rates of attrition, evidence shows that reasons for leaving the profession are varied and include lack of leadership support, high workload and insufficient recognition and reward.

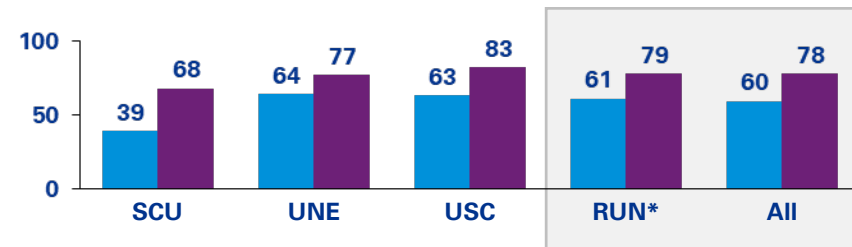
Given that these are enduring issues within teaching, it will be difficult to attract any teachers who have left for these reasons back into the profession.

While it is unknown what percentage of registered teachers have left the profession for good, none of the registration bodies believe that a significant portion of this dormant workforce can be mobilised to fill the shortages in secondary teaching, and even less so in regional and remote areas.

Percentage of respondents employed (Full-time and/or part-time)



Percentage of respondents employed (Full-time only)



■ Employed as teacher ■ Generally employed

Source: Department of Education and Training, GOS 2018

Note: Includes FUA data but cannot be presented separately as individual sample size is statistically insignificant. Other RUN university data not received.

Underutilised workforce

Additional capacity

While there is some evidence to suggest that there may be additional capacity in the national secondary education labour force, there are a couple of mitigating factors which may limit the extent to which the currently underemployed or unemployed portion of the labour force is able to help address regional shortages. This may be because graduate specialisations and teaching preferences do not match job availabilities or there may be limited availability of jobs in the preferred locations for graduates.

Specialisation

The additional capacity in the secondary education labour force may also be attributable to the choice of specialisation by graduates. It is clear that student choices in some areas do not match employer needs and that this imbalance has existed for many years. The most prominent areas of shortage in the regions continues to be within STEM disciplines, language teachers and the manual arts. Depending on the locality, there are also acute shortages in niche disciplines, such as music, special education and home economics. Many regional schools in QLD in particular feel that a narrowing of secondary curriculum is inevitable given the shortages which exist.

Evidence from stakeholders suggests that relationships between schools and universities in regional areas could be bolstered by stronger communication and collaboration in order to reach mutually beneficial outcomes. There is a strong desire from employers to elevate the conversation with universities to a strategic level. This would allow the co-creation of strategies that would help ensure that students are graduating with the specific specialisation and high quality skills desired by employers.

The current mismatch in the skills of graduate teachers with the employment needs of the school sector needs to be addressed in this co-operative way.

The 2018 ITE Data Report and anecdotal evidence throughout the consultation process suggests that there is already a growing percentage of new graduates and experienced teachers who are being forced to work in specialisations outside their qualifications. This is more common in regional and remote areas. This is not tenable either in the short or long-term, and is likely to lead to poorer educational outcomes for students and lower job satisfaction for their teachers.

Location

Another factor likely contributing to excess capacity is the difference in locality of completing students and the locality of the most acute shortages. The most acute shortages are felt in regional and remote Australia, while close to 70% of ITE completions are within metropolitan regions (ITE Data Report 2018). Students who have grown up in metropolitan areas are more likely to remain in these areas. It is also the case that students recruited to secondary education programs in RUN group members are more likely to find first employment in regional and remote settings.

Permission to teach

An example of how chronic teacher shortages have found short-term relief is the utilisation of a 'permission to teach' strategy. In QLD, the professional registering body will, in exceptional circumstances, permit a student in their final stages of a teacher education program to be engaged as a teacher in advance of the completion of their program. Typically, such arrangements are in fields of study for which repeated recruitment attempts have been unsuccessful.

Summary of findings

Key findings

The sector has enjoyed a temporary boost in completions across Australia, including in the RUN group, due in part to the removal of enrolment caps between 2012 and 2017. The completion numbers between 2015 and 2017 reflect the results of growth in commencement numbers observed between 2009 and 2014. As a result, the slowdown in commencement figures from 2014–2018 is yet to be fully observed in graduate completions. There is already evidence that the declining demand for secondary education qualifications from students is translating to a reduction in the supply of graduates in the future. Across Australia, the total secondary education graduate completions declined by 8% between 2016 and 2017, in contrast to the 12% growth in 2013 and 2014.

This is also observed across the regional areas of VIC, NSW and QLD. Across the RUN group, the growth of total graduates was 11% in 2016 and 2017. This is down from the 21% growth in 2014 and 2015. The increase in postgraduate completions in the past few years has provided some relief against the decline in undergraduate completions. These general trends are expected to continue into 2020 and beyond.

Not only are the total number of graduates completing secondary education insufficient compared to what will be required by the market, the specialisations of these graduates do not align with employer requirements. The regional areas of QLD, VIC and NSW in particular are feeling acute shortages in STEM disciplines and language teaching and not enough are coming through the pipeline. There are also an undefined number of graduates who may be leaving the workforce entirely within the first few years of employment, due to a variety of satisfaction issues.

The cumulative impact of these factors will severely constrain the current and future supply of graduates across Australia. Given the observable growth in the secondary education sector across Australia, particularly in VIC, NSW and QLD, it is evident that the shortages in secondary education will continue to be felt into the future, and will be further magnified within RRR areas.



Recommendations

Recommendations

Conclusion

Throughout our extensive consultations associated with this project – with senior leaders in the RUN Group, large employers in the eastern seaboard states, admissions centres, professional registering bodies and other stakeholders – not a single interviewee has offered a positive view of the standing of the teaching profession. Responses to our various questions in the broad and at a specific level, whether focused on student demand, admissions, graduation rates, disciplinary expertise or employment dynamics, have highlighted a wide variety of problems. Some have described teaching as a profession in crisis.

It seems most, if not all, stakeholders have an adverse view, whether broad or narrow, of teaching. Many of these views have played out in the public domain, resulting in sharp criticisms and at times unhelpful policy interventions. There is no doubt that the “noise” around teaching is acting as a disincentive to school leavers, including those for whom, all other things being equal, teaching would be an attractive and long-term career option. While the focus of this report is secondary teaching, it appears that much of this criticism pervades all branches of the profession.

The data supports the impact of this narrative. Demand from students for secondary education and the supply of these students continues to decline just as the sector enters a period of unprecedented growth. NSW, VIC and QLD are all building schools, and in QLD, with the original half-cohort of Prep students set to graduate from high school at the end of 2019, next year will see full cohorts in each secondary year level for the first time in state high schools across the State.

For RUN members, all of which have a significant – historical, current and continuing – commitment to teacher education, the challenges are many and the problems run deep. To the extent the focus for these universities is especially directed to regional, rural and remote provision, the challenges are magnified.

There is no doubt that for regional rural and remote educational communities, the case for policy and funding responses is becoming critical. The problems require specific and focused attention and carefully tailored intervention.

This has been reflected in actions under NRRRTES Recommendation 4 on better preparing RRR students for success, including –

- a focus on RRR education as part of the ongoing implementation of national reforms to initial teacher education;
- improving opportunities for high quality professional experience for initial teacher education students;
- providing additional incentives to train in RRR areas;
- flexibility for experienced teachers to move between jurisdictions; and
- consideration of RRR content in the Australian curriculum.

A number of recommendations pertaining to the key issues identified in this report, a number of which align with the NRRRTES, are presented overleaf.

Recommendations (2)



Student attraction

Recommendation 1

On the issue of student intakes, where policy intervention has focused on arbitrary minimum ATAR cut off scores to the detriment of school leaver interest particularly, universities might consider ways of recasting their admission policies for undergraduate programs. Despite recent and continuing interventions, the evidence is mixed as to whether higher school leaver entry scores have a significant consequence for the quality of graduate teachers. This invites the possibility that the use of ATARs for teacher education admissions cease and that a new approach be developed that focuses on personal aptitude, personal attributes, literacy and numeracy standards, academic performance in relevant disciplines and personal interview evaluations. The use of pathways programs, already well developed in some institutions, could also be integrated with this approach.

In part, the challenge in this area is also about numbers – intake numbers, continuing student numbers and graduation numbers. RUN group members need to initiate a dialogue with the Commonwealth Minister on their unique capacity to respond to the under-provision of graduate teachers in rural and remote settings, taking all these factors into account.



Curriculum innovation

Recommendation 2

In the development of new curricula, the two year model for Master of Teaching programs provides a vehicle for innovation. While there are examples of success in this area, its use in attracting mature age, second career teaching aspirants is under-exploited. Certainly, there is much more scope for specialised masters programs to target fields of study where there are shortages. Universities and professional bodies should be encouraged to think critically around how the Master of Teaching programs are designed as compared to an undergraduate degree. For example, there is an opportunity to design these programs more as a 'job internship' model, where students are taught under a professional environment which encourages on-the-job learning outside of a traditional university setting. This would follow-up on the NRRRTES action to improve opportunities for high quality professional experience for initial teacher education students.

Universities should also take cognisance of likely changes to the Australian Qualification Framework (AQF) which may embrace the formal description and provision of micro-credentials. Such a development opens up opportunities for professional teacher education packages that address field of study shortages and a range of professional development shortcomings in the teaching profession. The provision of appropriately targeted micro-credentials has the added virtue of not requiring teachers to withdraw from the workforce in order to enrol.

Recommendations (3)



Employer dialogue

Recommendation 3

In interviews with the large employer groups, it is clear that focus of the regular interactions with universities is on curriculum content in existing programs, practicum program management and a variety of other issues. Much of this dialogue is transacted by Deans with officials at various levels (and with various specific responsibilities) in State departments and other peak bodies.

There is a case for a different and more strategic dialogue to be established at a more senior level to address the structural, reputational and policy challenges that are now confronting the teaching profession and how, in partnership, universities and large employers can respond in a more co-ordinated way. It is clear from our consultations, for example, that State departments in particular have refined their analyses of future workforce needs to the point where universities might act in partnership to respond with their own curriculum design and intake planning initiatives. This would follow-up on the NRRRTES suggestion that further collaborative work should be undertaken with jurisdictions to improve teacher support and supply in RRR areas.



Dormant workforce

Recommendation 4

As is mentioned in the body of this report, there are at least 30,000 registered teachers in each of the three eastern seaboard States – a total of nearly 100,000 registered teachers – who are not attached to a school, may be working in a different sector or not working at all. Little is known about the career intentions of these people (the proportion at least who are not retired) other than the fact that, at a given point in time, they are not choosing to use their professional qualifications in a school setting. In the context of a national secondary teacher shortage and acute teacher shortages in particular fields of study, this group might provide part of the solution. RUN group members have considerable expertise in educational research. One theme worth targeting in a strategic way, in partnership with teacher employers and the professional registering bodies, would be an analysis of this dormant workforce with the objective of determining what proportion of the group would be willing to re-engage in school-based teaching, what re-training might be required to make that possible and on what terms.

Recommendations (4)



Policy leadership

Recommendation 5

As this report has observed, teacher education has become a very significant target for political, social and policy discussion. In many cases, this has been at the expense of the repute of the profession and the many positive aspects of the roles and functions performed by teachers across the country, especially in regional Australia. Demands on the teaching profession and schools have never been greater, the need for reform never more pronounced. Nationally, debates around the future of work have magnified perceptions of the nature of educational systems that may not be equipping young people for the type of employment experience they are likely to confront as they transition from study to work. This is at least as relevant and challenging for the teaching profession as it is for any other profession or vocational group.

Particularly as these pressures mount, an opportunity presents for the RUN group to take a leadership role in engaging with government and in policy reform of initial teacher education and the teaching profession more broadly and aligns with the focus on RRR education recommended by the NRRRTES. This is a critical policy discussion that, at least, needs to embrace the way teachers are trained, what skills they are taught and how curriculum might be designed. To the extent that the profession of teaching is confronting a crisis, it may be sourced to the fact that there is (only) a single, conventional pathway to gaining teacher registration. Are there other higher education avenues that need to be explored to expand the supply of graduate teachers beyond this single pathway? The implications for regional, rural and remote teaching are profound. It will be important for the RUN group to be an activist and leader in the search for solutions for this major professional group.



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