

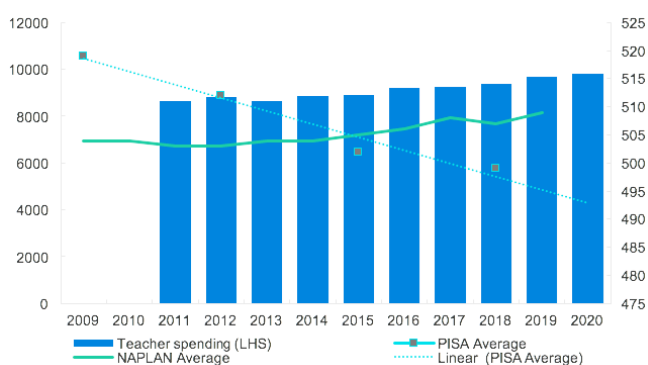
RESEARCH REPORT SNAPSHOT

Teacher workforce: fiction vs fact

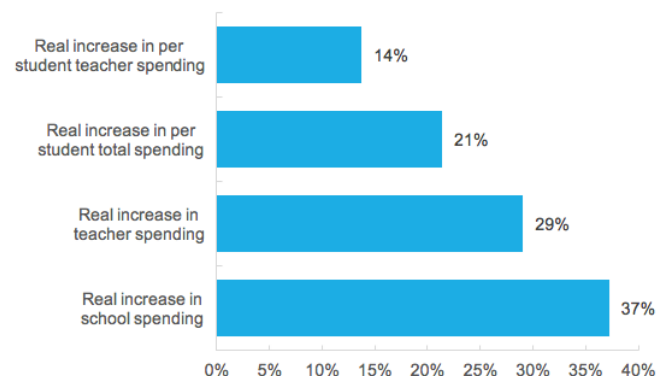
Glenn Fahey

- Australia's education outcomes have deteriorated, despite increased spending on teachers and many policy initiatives intended to increase the quantity and quality of the teacher workforce.
- Real spending on teachers per student has increased 14% from 2010-11 to 2019-20.
- Over the past 20 years, full-time-equivalent students have increased by around 21 per cent, while the full-time-equivalent teachers increased by around 37 per cent, accompanied by a doubling of the non-teaching workforce in schools.
- Education policy is dominated by inputs-based approaches, which see increasing inputs — such as the number of teachers (and, correspondingly smaller class sizes), salaries, and narrow indicators of 'quality' (such as level of credentials, years of experience, and teachers' test scores) — as the path to better education outcomes. But there is little evidence that increasing inputs improves outcomes.

Real teacher expenditure per student (LHS, government schools only; 2019-20 dollars), 2010-11 to 2019-20, and consolidated student achievement trend in NAPLAN and PISA (RHS).



Real change in total public spending on schooling and on teachers, 2010-11 to 2019-20.



Common misconceptions about the quantity and quality of the teacher workforce compromise evidence-based education policy

- A common quantity misconception is that there is an overall teacher workforce shortage — resulting from supposedly high rates of teacher attrition, a lack of new teachers in training, an expected wave of retirements, and growing numbers of school students. But the evidence shows that these factors are either overstated or pose only mild risks to the teacher workforce.
- A common quality misconception is that Australian teachers are at a low academic standard — and that is responsible for declining student outcomes. However, rather than poor academic standards, there is clear evidence of poor quality teacher training, so any potential quality concerns should be levelled at training deficiencies, not the teachers themselves.

QUANTITY FACTORS

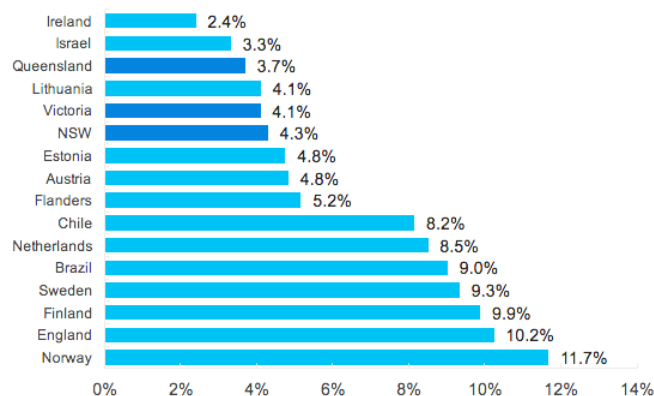
There is not an overall teacher shortage

- Australia has among the most-resourced school systems in the world, and records among the lowest on indicators of overall staff shortages.
- The Australian teacher workforce has consistently grown for the past two decades, and is also growing at a faster pace in the past five years.
- Predictions of future shortages are typically made without proper consideration of the full range of potential supply and demand factors impacting on the workforce.
- While there is not an overall teacher shortage, there are geographic-specific and discipline-specific shortages (such as in maths). But these should not be conflated.
- Addressing the subject-specific and geographic-specific shortages in the teacher workforce will not be solved by commonly proposed approaches toward increasing the attraction to the general workforce and reducing attrition from it — such as increased across-the-board salaries or reductions in class sizes.

There is not convincing evidence of 'pull' factors driving exits from the teacher workforce

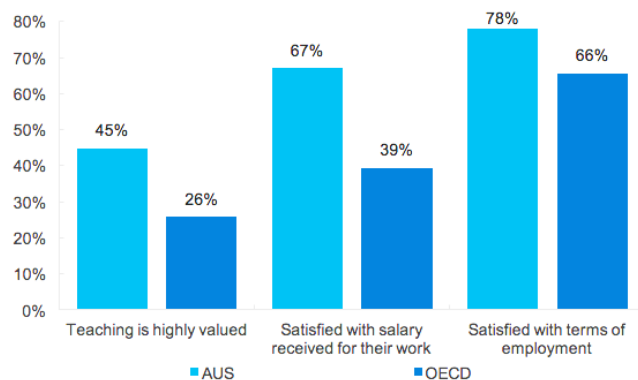
- Despite regular claims that teachers are leaving the workforce at unprecedented rates, there is no convincing evidence of this.
- It is likely the early career attrition rate is around 10-14%, which is less than the OECD average. Moreover, available data suggests the overall teacher attrition rate is also relatively low — likely around 4.9 per cent, which is around half the rate of English teachers.
- Retirements — the largest single source of teacher attrition — are not especially high. Australia's overall teacher workforce is also relatively young, with relatively few teachers approaching retirement.

International comparison of approximate teacher attrition rates in government schools.



- It's often claimed that attrition of Australian teachers is the result of low levels of pay as well as a perceived low status. However, there is not convincing evidence this is likely to significantly impact on attrition. Australian teachers are among the highest paid in the world, are nearly twice as likely than the OECD average to be satisfied with pay, and report relatively high perceptions of the status of teachers.
- Australian teachers work similar hours per week to comparable countries — the United States, New Zealand, and England — as well as slightly fewer hours of teaching per week than the OECD average. Evidence suggests it is not work hours alone that contribute to teachers' stress or dissatisfaction.
- While very high rates of attrition would be disruptive and costly to schools, there is no consistent evidence that mild rates — like that of Australia's schools — has any impact on education outcomes.
- Policy measures that are implemented in order to prevent attrition — such as higher across-the-board salaries, smaller class sizes, and the like — are expensive and have no evidence of improving student outcomes.

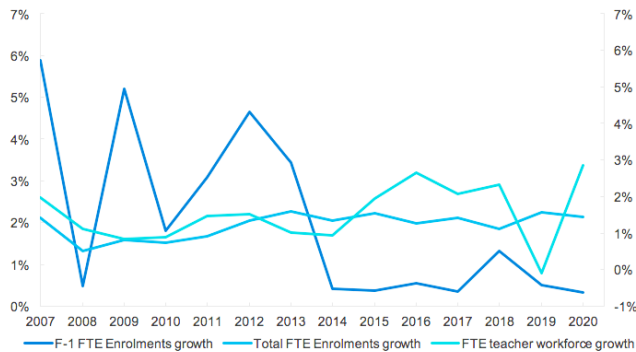
Teachers' perceptions of their work, salary, and working conditions, Australia and the OECD average.



Increased student enrolment is less than increased teacher workforce growth

- The growth of the teacher workforce has generally exceeded growth of the student population.
- Rather than increased pressure on the teacher workforce, slow growth in student enrolments in the coming years will reduce pressure on teacher workforce numbers.

Annual school student enrolments and teacher workforce growth rate.



- Growth in Foundation-Year 1 enrolments has been negligible in recent years. In addition, Australia is experiencing historically slow population growth and the lowest fertility rates on record. This means future student numbers will be relatively low and not require consistently high rates of growth in the overall teacher workforce.
- There are fewer students per teacher in Australian classrooms now than ever recorded. In the late 1960s, there were around 25.6 students per teacher, but this had almost halved to 13.5 by 2020. In recent years, declining student-teacher ratios in Queensland and Victoria have been responsible for the overall decline in this ratio.
- There is no evidence that having fewer students per teacher results in improved student outcomes.

QUALITY FACTORS

Student outcomes are due to teaching quality, not class sizes or teacher pay and conditions

- Teaching quality is the greatest controllable factor for differences in students' achievement.
- International research estimates that over three to four years, the difference between a teacher with an average level of performance and a high performing teacher is equivalent to the achievement gap between disadvantaged and advantaged students. In other words, consistently receiving high-quality teaching can successfully reverse educational disadvantage.
- However, the quality of the teacher workforce is typically considered in terms of the incoming attributes of teachers (their inputs), rather than what they can do (their outcomes of the achievement of their students).
- Many of the factors commonly claimed to significantly impact on student achievement — such as class sizes, teacher stress, teachers' pay, conditions, and perceptions of teaching — have virtually no effect on student outcomes.
- How teachers use their working time (rather than the amount of working time per se), their practices in the classroom, school-based policies, and the quality (not necessarily quantity) of training are all significant factors explaining student achievement.

- Australian teachers who administer more class assessments, and those who provide more immediate feedback on students' work, record higher achievement.
- Australian classes with a poorer disciplinary climate record lower achievement.
- Australian teachers who spend a greater share of their work time on correcting and marking student work, and relatively less time on school management activities, have higher achieving students.

There is a teacher training problem, not a teacher 'quality' problem

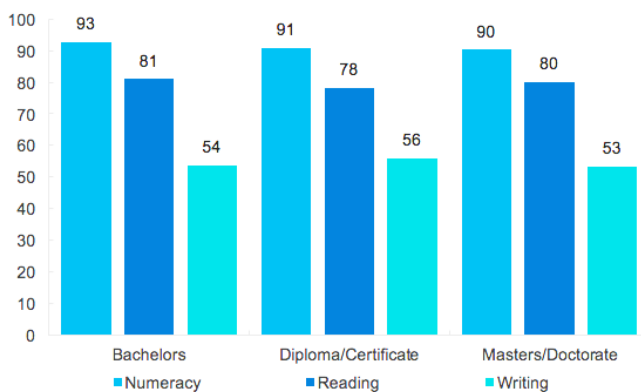
- In recent years, policy interventions have focussed on regulating entry to the teaching profession. However, attempts to predict and selectively recruit potentially effective teachers have not been very successful. By and large, greater regulation of the teacher workforce is unlikely to improve outcomes, while posing potential risks of unintended consequences.
- There is not convincing evidence that Australia has a significant problem with *teacher* quality per se. Australian teachers are sourced from the same point in the academic distribution as in high performing countries, like Finland and Singapore.
- At the same time, recent CIS research has identified significant deficiencies in the quality of *teaching* practices in Australian ITE (Initial Teacher Education) programs.
- As a result, the greatest risk to the quality of the teaching profession is not the 'quality' of teachers who *come into* ITE courses, but the quality and preparedness of teachers *coming out of* ITE.
- For this reason, both federal and state governments have roles to play in further improvements to quality assurance of ITE.
 - As the primary regulator of the university sector, the federal government can use its funding leverage to monitor the content within ITE qualifications.
 - As the primary employer and certifier of teachers, state and territory policymakers can reinforce the importance of quality signals to ITE students and provide incentives and sanctions for ITE providers to improve the quality of ITE graduates.
- In addition to the concerns about pedagogical content in some ITE programs, Australian teachers commonly report a lack of quality practical training in classrooms during ITE.
- There is strong evidence that the quality — though not necessarily quantity — of time trainee teachers spend in practical training is a significant predictor of teachers' effectiveness.
 - Trainee teachers demonstrate significantly better outcomes when they are paired with instructionally-effective supervising teachers and placed in schools that are high-performing.
 - Trainee teachers who are placed in high performing schools and with highly-effective supervising teachers are equally as effective as third year teachers by the time they enter the workforce.

- The practices and performance of teachers when they are in training is a strong indicator of their likely future effectiveness.

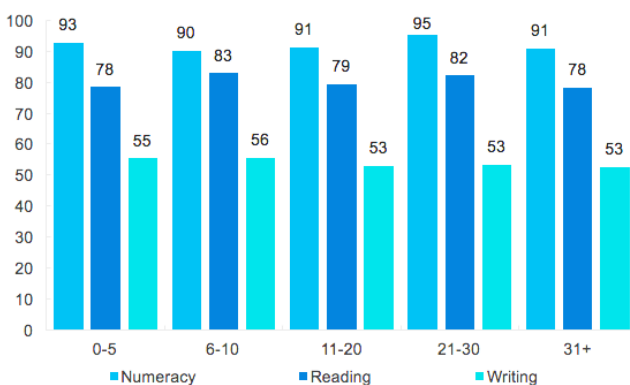
The teaching profession rewards credentials and years worked, not best performance

- Higher rates of pay and promotions are available to teachers as they become more credentialled and work more years. However, research shows neither of these factors results in more effective teaching, nor greater student outcomes.
- There is no evidence that teachers with a postgraduate degree are any more effective than those without. There is also little evidence that those who enter teaching through non-traditional pathways are any less effective — while some evidence shows they perform better than those who complete traditional ITE programmes.

Average student achievement gain (Year 3 to Year 5) in Numeracy, Reading, and Writing, by teachers' highest level of qualification.



Average student achievement gain (Year 3 to Year 5) in Numeracy, Reading, and Writing, by years of teaching.



Author

Glenn Fahey is education research fellow and author of several CIS research papers. His most recent reports are *Failing to teach the teacher: An analysis of mathematics Initial Teacher Education*, *Beating Lockdown Blues: Students pass the Covid test*, *Mind the Gap: Understanding the Indigenous education gap and how to close it* and *Dollars and Sense: Time for Smart Reform of Australian School Funding*. He is a former consultant in education governance at the OECD's Centre for Educational Research and Innovation.

- Australian teachers with only a few years of experience are equally as effective as highly experienced teachers. OECD analysis confirms no relationship between teachers' years of experience and their students' achievement.
- A survey of Australian teachers shows that around 71% say opportunities for promotion are rare, but 87% say that getting promoted is important to them.
- A lack of performance management limits the ability of teachers to receive timely, independent, and meaningful feedback to improve their performance. Equally as important, it means that students do not consistently receive the highest quality of teaching that they can. Improving the quality of teaching cannot be meaningfully achieved without commitment to greater performance management practices.

Implications for policymakers

- Across-the-board pay rises are not a solution to teacher quantity and quality issues, but subject-specific ones may be.
- Subject-specific teacher shortages can be addressed by diversifying the supply of teachers.
- Reward high performing teachers, not highly tenured and experienced ones.
- Review the efficacy of extended postgraduate teacher education programmes.
- Review the process, experience, and effectiveness of student teaching practicums.
- Review the best uses of teachers' working time through an outcomes-based lens.
- Lift the quality of ITE courses, rather than attempting to raise the 'quality' of ITE candidates.
- Improve data collection and reporting on teacher supply, demand, and attrition to enable more effective workforce planning.
- Establish a national education data hub to produce a longitudinal data collection examining teacher effectiveness in the Australian context.