Investing in our teachers

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Although Australia has been investing more money in education, it has not been making a serious investment in what really counts – offering salary structures that enable teaching to compete with other professions for our best high school graduates, and provide irresistible incentives for all teachers to work towards achieving high professional standards.

Recent research indicates a clear correlation between investment in teachers’ salaries and PISA performance. High performing countries focus educational policy directly on recruiting academically successful students and treating teachers as professionals.

Overall, the data would suggest that nations that want a first class teaching force need to be prepared to pay enough to take compensation “off the table” as a major consideration for talented young people making career decisions, but need not pay at the top of the professional scale.

How are we actually doing in this regard? A recent report from the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCSRTE), titled The Demand Driven System: Undergraduate Applications and Offers, February 2013, indicates we are not doing well.

Based on data in the DIICCSRTE report, Figure 1 shows that over 50% of Year 12 students receiving offers for places in undergraduate teacher education courses in 2013 had ATAR scores below 70. (It should be noted that over 50% of offers go to applicants who have not come direct from Year 12 in 2012). Only 21.5% of Year 12 offers went to students with ATAR scores above 80, compared with an average of well over 50% across all other university programs (e.g. nearly 70% for science and engineering).

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2 In 2011, there was a total of approximately 75,000 students in teacher education programs in Australia. About 28,000 students commence teacher education programs each year, 20,000 of whom enter at the undergraduate level and 8000 at postgraduate level.
Clearly we have a problem. Teaching is not attracting a sufficient share of more able Year 12 students to maintain the quality of our teaching profession. All entrants to teacher education programs in top five countries, like Finland and Singapore, on international tests such as PISA are in the top 25% of the cohort in terms of academic ability – and salaries for experienced teachers are comparable to those of other professions.

The trend has been downward for many years. Between 2002 and 2011, the rate at which eligible applicants received offers for teacher education programs increased from 65% to 85%, whereas the rates for other fields like engineering and science remained steady. The trend continues. Since the Demand Driven funding system was introduced in 2011, Australia’s universities can enrol as many students as they choose. The new system appears to be exacerbating a trend among some universities to lower ATAR requirements to enter teacher education courses significantly more than for other courses, despite the fact that an over-supply of new teachers already exists.

The figures are most worrying for the state of Victoria, as shown in Figure 2. In 2013 Victorian universities took more than twice the proportion of year 12 graduates into undergraduate teacher education with ATAR scores between 50 and 60 as any other state, and three times as many with ATAR scores less than 50. This represents more than 1000 students from the lower half of the Year 12 cohort. Nearly 400 of the 600 students with ATARs of 50 or less who received offers had applied to Victorian universities.
The trend is downward. The proportion of Year 12 offers for teacher education places to students with ATAR scores of 60 or less increased from 15% in 2012 to 20.5% in Victoria in 2013. The proportion of offers to students with ATAR scores of 50 or less was double the percentage for 2012 (this means that 400 entrants to teacher education programs, out of a total of 2500 Year 12 offers, came from the bottom third of secondary school graduates. The proportion may actually be higher as 51% of entrants did not come directly from Year 12, but may have deferred for one or more years or transferred from other university courses. Less than 4% of these applicants do not have ATARs, but their scores are not reported).

Figure 3 shows how the growth in offers over application for places in undergraduate teacher education programs in Victoria has been much greater than for Australian as a whole.
Victorian universities made approximately 1774 offers for teacher education places to students with ATAR scores less than 70, whereas national guidelines for accreditation stipulate that offers should only be made to students in the top 30% of the age cohort (in terms of literacy and numeracy).

Universities vary greatly in the proportion of offers they make to students with ATAR scores less than 70. It is difficult not to conclude that some universities are placing their own interests above those of the public, especially when Victorian universities as a whole are enrolling more than twice as many students in teacher education courses (nearly 7000) as the number of new teachers Victorian schools need each year less than 3500).

Forty-four percent of Year 12 offers for Ballarat University’s Early Childhood course went to students with ATAR scores below 50. Twenty percent of offers for Deakin’s primary teacher education program in Geelong were to students with ATAR scores below 54.9. Victoria University does not make its figures public except for one course for PE teachers, where 50% of its 67 offers went to students with ATAR scores below 55. Surprisingly, three TAFE institutions are now permitted to offer teacher education programs as well, for which ATAR scores are probably comparable or lower. Perhaps funding for places in teacher education courses should be restricted to students in the top 25% of their age cohort.

What to do? If the Australian Government were to refuse to fund places in teacher education courses for students with ATARs less than 70, it would not lead to a shortage of new teachers. It might instead make those courses more attractive to abler graduates and attrition rates from these courses would be lower. (Introducing literacy and numeracy tests for teacher education applicants will certainly do nothing to increase the numbers applicants with high ATAR scores.) Alternatively, it may be time to move steadily to a situation where teacher education courses are only available to post-graduate students. This would provide more confidence that entrants have a sound educational foundation and maturity.

We will not join top five countries unless this trend is reversed. International evidence shows it is not the salaries for beginning teachers that matter so much; or the salaries at the top of the incremental scale. It is the salaries of experienced teachers relative to other professions that distinguish countries with higher student achievement. And research shows that this is the factor that is turning potentially good teachers away from choosing teaching in Australia. They don’t see a career path that gives high status and recognition to teachers who reach high professional standards. Another study in England showed that the number of high quality graduates who choose teaching moves up and down as relative salaries for teachers move up and down. The

This is a way in which we could ensure Gonski money has a significant impact long term: by attracting more academically able students to choose teaching as a career; by offering more attractive career pathways and salaries based on a rigorous profession-wide assessment and certification system; and by ensuring less advantaged schools have the resources to compete for nationally certified teachers on an equal footing.

The debate around Gonski is singularly lacking any theory about how extra money is most likely to make a difference to student achievement. There is no mystery here. Making that difference
will depend on long-term strategies to attract more academically able students into teaching and to reform career pathways to ensure widespread use of successful teaching practices: to make best practice, common practice.

Research indicates a clear relationship between relative teacher pay and student performance across OECD countries. A recent paper in the journal Economic Policy concludes:

Our results suggest that recruiting higher ability individuals into teaching and permitting scope for quicker salary advancement will have a positive effect on pupil outcomes.

The authors go on to say:

To provide some idea of the scale of the effects we find our coefficients suggest that a 10% increase in teacher pay would give rise to around a 5–10% increase in pupil performance. Likewise, a 5% increase in the relative position of teachers in the salary distribution would increase pupil performance by about 5–10%. These effects are significant and robust to the estimation procedure we use and the different identification assumptions we make to facilitate each estimation technique.

The authors argue that each country gets the teachers it wants and deserves; or, each country gets the teachers it is willing to pay for. It is misleading to state, as some journalists have recently, that Australian teachers’ salaries are above the OECD average. In fact, the ratio of teachers’ salary to GDP per capita, 1.30, is now among the lowest in OECD countries, where the average is 1.65. The 2012 report of the Productivity Commission pointed out that

Increases in teachers’ pay do not appear to have kept pace with those in other professions. Indeed, the evidence is that, since 1995, there has been no increase in the average real salaries of Australia’s more experienced teachers.

Both sides of politics talk about the importance of teacher quality. The reality is that Australian governments must become more willing to pay more for high quality teachers. Programs like Teach for Australia merely scratch the surface of the problem. Australia has maintained reasonably competitive salaries at the entry stage; however these rapidly become uncompetitive with other professions after ten years or so. It is this comparison that matters more when high achieving graduates make their career choices, not the starting salary.

Any nation that is serious about teacher quality must ensure that teaching can attract academically strong applicants into teacher education programs, prepare them well and provide strong salary-linked incentives to reach high professional standards. High performing countries, whose number Australia hopes to join, take this as a given and ensure that teaching offers salaries that enable teaching to compete with other professions. They also close down or disaccredit teacher education programs that cannot attract academically proficient applicants.

Teachers who are not competent and confident in their subject matter knowledge cannot teach to high standards. The research is clear that academic ability and deep understanding of subject matter, whether that be early numeracy or senior high school history, while not sufficient, is certainly necessary to high quality, innovative and challenging teaching. ATAR scores are not
perfect measures of academic achievement, but in the absence of anything better it would be folly to ignore them. No other profession does, why should teaching?

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1 http://www.ncee.org/programs-affiliates/center-on-international-education-benchmarking/top-performing-countries/australia-overview/australia-teacher-and-principal-quality/
2 http://www.ncee.org/2012/03/statistic-of-the-month-teacher-quality/

