

Let's aim for the top 10

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THERE has been a decade of reducing government investment per student in Australia while many of the higher education systems in our region, such as China and Singapore, have had major increases in investment.

There are significant skills shortages in many fields in Australia, and demographic projections suggest that, without major investment and new strategies, those skills shortages will be more acute in the coming decades. The development of the Australian economy is dependent on access to new knowledge and new technology.

The need for skilled graduates, ensuring a population with the education to support innovation and adaptability in the face of fast-changing global conditions, and a strong research base to create knowledge and fuel innovation, all rely on a strong higher education system.

The success of international higher education depends on clear policy and investment. International education contributes to Australia from the international graduates who stay as migrants - more than 40 per cent of all our skilled migrants come from people who completed their qualifications here.

Given the decline in public investment per student over the past decade and the rise of investment in many countries around the world, questions arise about what it takes for Australian higher education to contribute at the level and quality needed.

The Australian Technology Network of universities has argued that Australia should focus on what it takes to make the sector as a whole one of the world's top 10 university systems. In a country as small as Australia we need more than one or two high-ranking universities: we require a commitment to excellence across the entire university system.

Unfortunately the debate in Australia about the quality of our universities has focused on the international reputation of a few individual universities as measured through university rankings.

While this approach may be appropriate in a large system, it will not work in Australia. For example, China has decided to focus its investment to create 100 world class universities. Australia has only 38 public universities in total.

Any strategy based on a small percentage of high quality, and a long tail of under-achievement, will not produce enough of the quality graduates or research we require.

So Australia must ask itself what it takes to produce a top 10 university system. What are the objectives or goals, how are they measured and how will we know we have achieved them?

There are some simple and broad objectives. Australia must have high-quality graduates who will supply the abilities and skills the nation needs for its social and economic future, and internationally connected research that will foster innovation and a better future.

Achieving this goal will require a focus on three elements: scale, quality and international education. Turning first to scale, Australia needs sufficient graduates and research output to provide the intellectual and technical input that drives a sophisticated economy.

OECD data shows Australia placed 8th in the OECD in terms of the proportion of graduates in the population, with more than 22 per cent of its population aged 25 to 64 having degrees in 2005. This proportion has been increasing over time, with 29 per cent of Australian 25- to 34-year-olds with a university degree, compared with 23 per cent of 35- to 44-year-olds and 16 per cent of 55- to 64-year-olds in 2005. This is a strong performance, but behind a number of other high-skill nations and less than has been calculated Australia needs for the future.

OECD statistics also show that, whether measured by expenditure per capita or as a percentage of GDP, Australian research and development expenditure does not rank in the top 10 and is well below the OECD mean. Moreover, investment by industry in Australian research and development is much less than in most of the top 10 nations.

On quality, much attention is paid to international rankings as surrogate measures for quality.

The two rankings that have been dominant in general commentary are the Shanghai Jiao Tong, which is focused exclusively on research, and the Times Higher Education Supplement rankings, which cover a broader set of indicators.

In the THES, 12 Australian public universities rank in the top 200. Adjusting the raw results to account for differences in GDP or population places Australia fourth overall in these rankings.

Only seven Australian public universities rank in the top 200 of the SJT. Again, when numbers are adjusted for population or GDP, Australia ranks 11th.

Of concern is that overall, Australian universities have been slipping in both the THES and SJT rankings in the last few years.

The rankings are made up of various aspects of performance and peer estimation. However, where they can be influenced they are affected by investment in research or education as shown in citation rates and student: staff ratios.

The final element to Australia's future as a world class university system lies with its performance in international education.

We are currently so successful in international education that it is Australia's third largest export: with only 0.3 per cent of the world's population, Australia hosts 6 per cent of the world's international students. Compared to the OECD, Australia has the highest proportion (17.3 per cent) of international students in higher education.

It is a key contributor to the Australian economy, both through the export dollars it generates and through its contribution to meeting Australia's skill needs.

However, our place in international education requires careful support. As a result of vigorous competition, our share of the international student market has remained static over the past five years and the proportion of international students in advanced research programs is less than in a number of European nations and the US.

Australia needs to set itself some ambitious goals to build a top 10 university system.

With scale, quality and international education in mind, I believe these goals should be to ensure that:

- * One third of our adult population gain a higher education qualification, with greater support for mature-age workers and those from disadvantaged groups wishing to gain a qualification. And we should increase the proportion of our population with research qualifications.

- * One quarter of all higher education students in Australia should be international students, and again we should increase the proportion of research students to fuel innovation.

- * Gross domestic expenditure on research and development should increase to 2.5 per cent of GDP, with an aspiration to increase the proportion of research expenditure from industry.

Greater investment in higher education and research will be required to bring these goals into reality.

Much can be achieved if Australia is prepared to build and maintain a top 10 university system.

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