

Global economist Justin Wolfers, left, says there is no easy way for universities to achieve productivity gains.

# Universities need to sell themselves better

Robert Bolton

The cost of running universities will keep rising and the higher education sector will have to work harder to convince taxpayers it is worth paying more for, according to global economist and graduate of Sydney University Justin Wolfers.

Academics and university management needed to think about the rising costs of higher education relative to other industries, Dr Wolfers said.

In sectors where labour is the output, not the input, such as arts, health and education, costs inexorably rise. Unlike manufacturing, where technology had made massive productivity gains possible, education relied on teachers being able to teach and faculties managing large numbers of students.

For example, in 1826 a university lecturer in the United States might take a two-and-a-half-hour class which would cost his employer \$US3.02. But in 2020, assuming a similar US minimum hourly rate, a lecturer giving the same-duration class would cost \$US71.

By comparison, in a factory making toys or electronics, where there had been huge productivity growth through machines, an individual worker could produce more today than at any point in history. This was known as Baumol's Cost Disease, identified by US economist William Baumol.

Dr Wolfers, who spoke to *The Australian Financial Review* at the Universities Australia conference on Wednesday, said there was no easy way to get productivity gains at universities, but the least they could do was present what they did in a better way to the public.

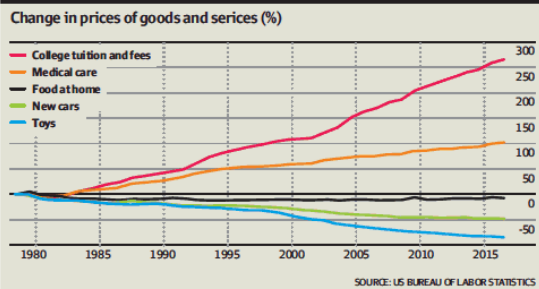
The difference between having a university degree and not having one was equivalent to earning an extra one million dollars over a lifetime.

"We're producing a million bucks for every student we graduate," he said. "We're graduating tens of thousands of them. That means we're producing billions of dollars worth of value to the economy."

"We have a good story to tell. We do a bad story telling it. Maybe we should learn to speak English."

"This is about you, your child, earn-

## Baumol's Disease Cost



ing a million dollars more if they go to university than if they don't. That's not some abstract social value. That's pay cheques and adding them up."

Universities needed to do better in putting a value on what they produced in research, Dr Wolfers said. But they

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Justin Wolfers

would have better reputations if they focused on research that was more distinctly to do with Australia.

Academics were given the freedom to research highly abstract subjects which often had a pay-off for the whole world, but less for Australia.

A new mathematical theory might be useful to the technologies of the future, but it would be just as useful to the US and Russia as it would Australia.

However, Australia could be the best in the world at something like reef management and it should have the best marine biologists in the world.

Many academics researched new ways to balance the ups and downs of the business cycle. But Australia was a small country with a finite amount of capital, whereas the United States was a big country with a lot of money and

institutions such as the Federal Reserve had as many as 1000 PhD graduates working on how to run monetary policy in a better way.

"It would be a really good thing if there were people here who were actively taking that literature and adapting it for Australia. Not just photocopy it, adapting it," Dr Wolfers said.

"Adaption from an economic perspective is vitally important, but in terms of the academic hierarchy is sort of looked down on."

"There is stuff that's important for Australia that we universities regard sneeringly as being a little beneath of us."

Another area universities had ignored at their reputational cost was rising enrolments of women, he said.

In the 1950s, just 20 per cent of university students were women. By 2019, women were nearly 60 per cent of enrolments.

Economics faculties were among the worst offenders for enrolments and teaching attitudes for women.

A study of textbooks by the University of Michigan for *The New York Times* showed about 94 per cent of economics textbooks referred to business leaders as men, not women, and between 92 and 93 per cent referred to policymakers and economists as men.

"This is in a world of Janet Yellen and Christine Lagarde," Dr Wolfers said. "Our female students never see themselves on the page."

"It is completely at odds with what our student body is like now. It's about how we haven't adapted."

# Edtech could open up new markets in region

Exclusive

Robert Bolton

Venture-capital investment in technology related to education jumped from a global \$500 million in 2010 to \$7 billion in 2019, according to consultants Deloitte.

Deloitte says by 2025 global expenditure on edtech will reach \$341 billion. But Australia's share of the business is tiny.

In its second Edtech Market Census, Deloitte said China made up 53 per cent of education technology spending in the past decade and the United States 33 per cent, while Australia was lumped in with "rest of world", which added up to 5 per cent.

Deloitte partner and education lead Colette Rogers said despite this poor share, the number of edtech firms in Australia had risen from 350 in 2017, when the census was first done, to 600 in 2019.

Of these, the number reporting revenue of \$15,000 or less had decreased from half in 2017 to a third in 2019.

"Australian edtech developers need a global orientation," she said. "That's where investment interest is being directed. Edtech companies need to pay more attention to the products that can be scaled."

"Increasingly the focus is on schools. And after that, university and vocational. And it has a big role to connect students with employers, which is what the government is increasingly interested in."

The chief executive of industry organisation EduGrowth, David Linke, said people often misunderstood the reach of the sector. Edtech was not just about developing software to teach maths.

Administration, credentialing and university research management were the three growth areas.

Teaching applications had expanded way beyond learning programs.

Universities use software to identify students at risk of failing as early in the term as possible. Online exams have been around for years but there is a new interest in using technology to supervise exams in real time, an electronic version of the old-fashioned exam invigilator.

Deloitte said the biggest Australian edtech interest was in school technology, with high school attracting 60 per cent of sector focus and primary schools 58 per cent.

Mr Linke said this was explained by volume. There were 8400 schools in Australia and only 40 universities. Edtech customers were "sticky", they bought a product and stayed with it.

"That's why edtech is interesting to venture capital investors," he said. "The revenue is long run. No school or uni will deploy a product and disperse with it the next year."

He said if you compared the market capitalisation of health and education companies, health came out ahead by a wide margin. Education was under-represented in public companies,

## School's in

What EdTech organisations are focussed on (%)

Secondary school	60
Primary school	58
University	55
Vocational	42
Corporate	38
Early childhood	24
Language learning	18
Other	9

Surveyed respondents SOURCE: DELOITTE

which was surprising given it shared some of health's fundamentals: growing demand and government spending. "The amount of investor information in health is big," Mr Linke said. "Edtech is a new space. Analysts don't have a clear position on it. And in early stages sectors like this have a lot of volatility."

"It's a new asset class. Things like digitising curriculums or learning-management systems are new concepts for a lot of people."

Successful companies were the ones that developed technology that could be used by an entire school system, he said. If you could produce software that was bought by, for example, Western Australia's public school system, you were demonstrably able to service

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David Linke, EduGrowth

large urban schools, smaller regional schools and tiny schools in very remote locations.

The edtech sector had the potential to "buffer" revenues in education as it became increasingly borderless at a tertiary level. Future students would not come to Australia for their whole university education – the costs were too high. Some would do part of their degree online and come to Australia for capstone classes or workshops.

This would give universities a mix of revenue: high fee payers from countries such as China and lower fee payers from countries such as Malaysia. "At the moment students coming to Australia have a certain demographic," Mr Linke said. "But digital applications should open up a different market."

"And compared to the US or Europe, Australia can teach in real time. Seventy per cent of the future global education market is more or less in Australia's time zone."

Ms Rogers said the census came as universities were dealing with the coronavirus and edtech offered a solution to some of the issues it raised.



Deloitte partner and education lead Colette Rogers. PHOTO: ATTILA CSASZAR