

Post-School Education in Australia: The Case against Deregulation

Submission to: Senate Education and Employment Legislation Committee inquiry into the
Higher Education and Research Reform Amendment Bill 2014

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**This submission is a statement of my personal views and does not reflect the position of
the University of Queensland**

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Summary

The main conclusions of this submission are

- 1. The current university funding situation is unsatisfactory and inadequate, but is not at a ‘tipping point’ in which radical reform is necessary to stave off collapse. In the short term, restoration of the funding policy prior to the 2013 cuts would be sufficient to stabilize the financial position of the university sector as a whole.**
- 2. Except for the top 1 per cent of the population, US provision of undergraduate education is far worse than in Australia. Moving towards a stratified model on US lines would be a backward step for the vast majority of Australian students**
- 3. The introduction of for-profit provision and enhanced competition in the higher education sector will lead to worse outcomes for students and the community, including higher costs, reduced diversity and poorer educational outcomes.**
- 4. Structural change in the economy over the past century has required steadily increasing levels of education. The pace of change, and the need for education has accelerated with the rise of the knowledge economy, based on personal computers and the Internet.**

Post-School Education in Australia: The Case against Deregulation

Introduction

Education is central both to human development and to participation in a knowledge economy. The need to promote access to high-quality education for all was recognised in the bipartisan endorsement of the Gonski reforms of school education. Unfortunately these measures have been accompanied by retrograde steps in school education: first, the cuts to university funding proposed by the Labor government in 2013 and now even more draconian measures, combined with fee deregulation, proposed in the May Budget. The purpose of this submission is to argue that these measures should be rejected in favor of a goal of universal access to high-quality education.

The submission is organised as follows. Section 1 deals with the present situation facing universities in Australia. Section 2 describes the failure of the US university system, widely seen as a model to be emulated, to expand access to undergraduate education. Section 3 criticises the framework of microeconomic reform, which underlies proposals for deregulation. Section 4 explains how structural change contributes to a demand for steadily increasing education levels, and how the emergence of a digital knowledge economy has accelerated the rate of change. Section 5 argues for the goal of universal access to high-quality education.

1. The present situation

The [summary of the current situation presented by Professor Sandra Harding, Chair of Universities Australia](#), is reasonably accurate. I quote the relevant section in full as an agreed basis for discussion

A new era in Australian higher education was marked by the [2008 Review of Higher Education](#) led by Denise Bradley. The Review report

articulated the threat posed to higher education quality by inadequate funding and investment. The review found:

There are now clear signs that the quality of the educational experience is declining; the established mechanisms for assuring quality nationally need updating; and student-to-staff ratios are unacceptably high.

The review's recommendations were intended as a package, but the cost was too high. Higher education got a regulator, targets, a promise (since delivered) that student places would be made available to all comers capable of success, and additional funds for access and equity. But there was insufficient change to base funding, (that is, to the funding received per student place) and for many universities, the reliance on income streams from international student enrolments became more important.

In 2009, higher education was shocked by a series of attacks on international students and a number of other incidents that had sudden impacts on those international enrolments – particularly from India – and repercussions for university budgets. This, coupled with the impacts of the global financial crisis and a strengthening Australian dollar, exposed to everyone the risks of Australia's reliance on - and complacency about - the international education market and the extent to which it subsidises our own sector.

In 2010 the federal government legislated for the automatic indexation of the Commonwealth Grant Scheme (CGS). Before this important policy change, the sector had been suffering a steady decrease in the effective real-dollar value of the largest individual funding source, occasionally alleviated by one-off increases. But the core issue, that the level of CGS base funding was too low, was not addressed.

In part as a response to these complaints, the government in 2011 conducted a new review, this time investigating the principles behind, and the required levels of, [Higher Education Base Funding](#). The review's primary finding was blunt:

Put simply, despite productivity gains and allowing for institutional decisions about priorities, the costs have not just risen, but also the nature of the institutions has changed during the decades on either side of the millennium.

In other words, universities were struggling to make ends meet with returns failing to match the cost of education provision.

The review considered that sufficient base funding should be provided for universities to undertake their fundamental roles of teaching and learning informed by scholarship and a base capability in research.

Despite this finding, the fundamental problem of inadequate base funding was not rectified.

Unfortunately the gains made under the first years of Labor, including indexation, were largely nullified in 2013, with the announcement of cuts and future efficiency dividends to higher education, ostensibly to help meet the increased funding demands of the school sector.

The sector saw the cuts for what they were – steps taking funding back to 2009 levels.

Harding asserts that the current situation is a 'tipping point' at which radical reform is necessary. This point is put even more strongly by [Michael Gallagher of the Go8 who asserts 'the status quo is not an option'](#).

Yet examination of Harding's account belies this claim. In essence, the argument implies that restoring a difficult, but sustainable situation, would require, simply, the reversal of the *ad*

hoc and unjustified cuts introduced in 2013, in conjunction with the Gonski reform package. The amount supposed to be saved by these cuts was \$2.3 billion over four years.

Labor and the Greens have correctly decided to repudiate the mistaken decision of the previous government, and oppose these cuts. If this rejection is sustained, the *status quo* will be the one described by Harding before the cuts: an inadequate level of base funding, but one which has been maintained in real terms for a number of years during which the university sector has operated in an environment of stringency rather than insolvency.

The other key dimension of university funding is the demand for places from overseas students. While complacency is always to be avoided, the fact is that demand remains strong, and is projected to increase in future. The unfortunate events of 2009 are a fading memory, and the Australian dollar is finally depreciating to a more sustainable level.

In summary, while the current funding situation is unsatisfactory in many respects, the university sector is not at a 'tipping point' in which collapse is inevitable without radical change. Indeed, in many respects, the situation is better than it was in the immediate aftermath of the Vanstone-Kemp cuts of the late 1990s.

Conclusion: The current university funding situation is unsatisfactory and inadequate, but is not at a 'tipping point' in which radical reform is necessary to stave off collapse. In the short term, restoration of the funding policy prior to the 2013 cuts would be sufficient to stabilize the financial position of the university sector as a whole.

2. The failure of the US model

Among developed economies, the United States stands out for its failure to adapt its higher education system to the needs of a modern knowledge economy. For most of the 20th century, the US university system was by far the best in the world, both in terms of research and education. The US remains dominant in research and in many areas of postgraduate education.

However, as nearly all US commentators recognise, undergraduate education is in a state of crisis, failing to meet either the needs of the economy for educated workers or its historic role as an engine of social mobility. The proportion of US males with university education is actually falling. Although substantial progress has been made in promoting gender and ethnic

balance at leading universities, the reverse is true with respect to social class. [The proportion of middle-class, working class and poor Americans attending high-status universities is declining over time.](#)

According to recent data, [the US now ranks 12th in the OECD](#) in the proportion of 25-34 year olds who have attained tertiary education, behind Australia and ten other countries. Given recent growth in participation in Australia, compared with fluctuating trends in the US, it seems likely that this gap will expand in the future.

The distinctive feature of the US system is a high level of stratification, which is both a consequence of, and a contributor to, the growing inequality and polarisation of US society. It implies that around two-thirds of those who go to college at all do so at two-year colleges.

Unfortunately, these lower tier institutions are failing badly, and in ways that make this comparison more difficult. On the one hand, they have higher dropout rates (which would imply that the total number ever attending is even larger). On the other hand, time to completion of a degree is nearly always more than two years, and the picture is further complicated by the prevalence of part-time enrolment. In, [*Divided We Fail*](#), Colleen Moore and Nancy Shulock found that six years after initial enrolment only about a third of California community college students have completed a degree, about half have dropped out, and around 15 per cent are still enrolled (national studies paint a similar picture).

The picture at the second-tier state universities is somewhere in between that of the flagships and community colleges. Some are excellent, but many are appalling. A recent report found [25 state universities with four-year graduation rates of 4 per cent or less.](#)

Even for those who manage to graduate, degrees from lower-tier institutions do not, in general, provide a route into the upper end of the income distribution. The wage premium for an associates degree over a high school education is only about 20 per cent. Moreover, whereas the return to a bachelor's degree has grown sharply over time (with the growth being greatest for the Ivy League), that for an associates degree has remained static. Community college pays off only for the minority who are able and tenacious enough to manage the transfer to a bachelor's degree, and then to complete that degree.

With these numbers in mind, the ferocity of the admissions race for the elite institutions is unsurprising. Even with steadily increasing tuition fees, parents and students correctly judge that admission to one of the 'right' schools is a make-or-break event, far more so than a generation ago. The odds in the competition are becoming steadily longer.

As the dominant oligarchy becomes smaller and smaller, and open competition for entry to the elite workforce is replaced by informal procedures like internships, personal connections will become steadily more important.

There have been some attempts to turn this around from within. Amherst, for example, has managed to increase the proportion of its students receiving Pell Grants, from 13 per cent in 2005 to 22 per cent recently. But the picture overall is getting steadily worse. A recent report from the Education Trust, arising originally from a consumer-oriented survey aimed at finding good college choices for low-income students, found, in essence, that there were none. According to the study, called [*Priced Out*](#), only five public universities in the country (none of them state flagships) met three modest criteria:

- * an annual cost for low-income students of \$4,600 or less, after financial support is taken into account
- * a graduation rate of over 50 percent
- * at least 30 percent of total enrollment being Pell Grant recipients, or from lower-income families.

The result of all these trends is that the idea of the United States as a land of opportunity is thoroughly obsolete. Even for the current adult population, intergenerational mobility between income groups has been substantially lower than in the European social democracies. But with education increasingly critical to life chances, and education increasingly stratified on class lines, the higher education system is now contributing to the development of a self-sustaining oligarchy.

Efforts are being made at many institutions to address the problem of class stratification through changes in admissions policies. But in the absence of structural change, these efforts will be overwhelmed by the economic and social forces pushing in the opposite direction.

These points may be illustrated by the recently released QS university rankings, which reflect a variety of indicators, but are heavily focused on research. The top places (11 of the top 20 and 17 of the top 50) are dominated by US universities. By contrast Australia has five universities in the top 50 (ANU, Melbourne, Sydney, UQ and UNSW). This is a good performance considering our much smaller population.

However, the QS rankings take no account of the fact that many leading US institutions have very small undergraduate enrolments, in some cases unchanged since the 1950s. Typical Ivy League institutions like Harvard, Princeton and Yale enrol around 5-7000 undergraduates, comparable to a single faculty at a large Australian institution.

Based on data reported in Wikipedia, the 17 US universities in the top 50 have a total undergraduate enrolment of 210 000 (a figure dominated by a few public universities: Michigan, UC Berkeley, UCLA and Wisconsin-Madison, as well as Cornell which is partly public). It appears that around 10 per cent of students in leading private universities and perhaps 5 per cent in public universities are international students

By contrast, the five Australian universities in the [QS top 50 enrol 135 000 undergraduate students, of whom 108 000 are domestic](#). Adjusted for population, Australian students are nearly ten times as likely as Americans to attend a top 50 university.

Conclusion: Except for the top 1 per cent of the population, US provision of undergraduate education is far worse than in Australia. Moving towards a stratified model on US lines would be a backward step for the vast majority of Australian students

3. Micro-economic reform

As numerous commentators have noted recently, the rhetoric of microeconomic reform, dating back to the 1980s has largely outlived its usefulness. In those sectors of the economy where a simple reform strategy of 'more markets' can produce useful outcomes, the process is largely complete. In other sectors, notably including education, these assumptions are not useful, and attempts at market-oriented reform have repeatedly failed to produce the desired outcomes

Competition

The idea of encouraging competition is central to micro-economic reform. The introduction of the National Competition Policy in the 1990s is rightly seen as the high-water mark of micro-economic reform in Australia.

A central assumption embodied in the idea of competition is that those who perform well will prosper and grow, while those who perform badly will fail and disappear. This Darwinian process weeds out inefficient firms and thereby raises average levels of prosperity and performance. In addition, the prospect of extinction provides a powerful incentive for better performance.

This assumption is almost entirely inapplicable to education, at any level, but particularly for universities. It is extremely rare for universities, regardless of the quality of their management to close down. At most, they are merged with other institutions. More strikingly, even the relative rankings of institutions are almost entirely unrelated to the quality of their management over any period of time that is amenable to policy. Rather, the rankings of universities can be predicted, with a high degree of accuracy, by the date and conditions under which they were founded.

Again, this is illustrated by the QS University rankings. Nearly all the institutions in the top 50 are more than 100 years old, and most were among the first universities established in the countries concerned. Indeed, QS publishes a special list of '[Top 50 under 50](#)', consisting of leading universities that are less than 50 years old (most of the Australian 'Unitechs' and 'Gumtrees' described below are in this list). If it takes as much as 50 years to achieve even this second-tier status, it is evident that the effects of competition over periods of less than twenty years must be negligible. But ten years is the usual maximum term for a university vice-chancellor or president, and also the effective range of strategic planning, given the pace of change in the sector as a whole.

In Australia, relative standings correspond fairly closely to the classification set out by [Marginson and Considine \(2000\)](#), who class universities, in rank order of status, as:

- * Sandstones/Redbricks (the Go8 + U Tas)
- * Unitechs (former institutes of technology)

* Gumtrees (postwar universities founded between 1960 and 1975)

* New Universities (former Colleges of Advanced Education)

These relative standings have been stable for many decades, except that the end of the binary system saw the Unitech sector supplant the Gumtrees as the second tier. Even this change, however, reflects changes in policy settings that have favoured the Unitech sector as a whole, rather than superior performance by particular institutions.

The stability of relative standings reflects the fact that changes in student demand through reputation effects operate more slowly than the processes of change that operate within universities. Where they operate effectively, reputation effects tend to be part of a self-reinforcing cycle, so that initial improvements in performance promote growth in demand, which in turn facilitate further improvements in performance. By contrast, in the absence of deliberate policies aimed at reducing inequality in standards, relative rankings tend to be determined by long-standing sources of relative advantage (or disadvantage) such as the institution's history of excellence or otherwise, the body of graduates (now called alumni, in recognition of the success of US universities in obtaining funds from this source), the possession of high-value centrally located campuses and so on.

The stability of relative standings is a common feature of educational institutions, regardless of the organisation of the system as a whole. For example, the same stability may be observed in rankings of universities in the United States and United Kingdom or in rankings of Australian private schools, which have remained remarkably stable for a century or more.

Diversity

The stability of relative standings also explains the failure of hopes that a competitive market system would lead universities to specialize in appropriate market niches. This idea was never well-thought out. For example, in relation to universities it presupposed the politically and educationally unsustainable notion that students in particular regions should be deprived of the opportunity to study subjects other than those in which their local university had chosen to specialize.

More fundamentally, the system gives incentives for convergence on a common model, not divergence. Under the current systems universities do best by imitating the status characteristics of institutions with slightly higher status, while aspiring to the cost structures of institutions with slightly lower status.

Indeed, the striking feature of competition in higher education is that, while it amplifies inequality in resourcing, it produces ever greater homogeneity in approaches to teaching and research. In the pre-competition era, the 1970-vintage universities embodied a range of innovative approaches to teaching and research compared to the traditionalism of the sandstones. Universities of technology and former colleges of advanced education had a distinctive ethos reflecting their diverse origins.

Now these differences have disappeared. Since the incentives are the same everywhere, universities have made the same structural reforms (replacing discipline-based departments with numbers-driven “schools”) and the same choices in specialisation (killing classics, philosophy and so on while expanding business and particularly MBA programs).

There is no reason to suppose that this will change with deregulation. All institutions will raise fees substantially, and most will reduce the number of places. Given the greatly increased debt levels with which students will graduate, and tighter repayment terms, demand for courses with limited earnings potential will decline even further.

Privatisation

A central element of the micro-economic reform is support for privatisation. In the education sector this takes the form of introducing for-profit schools, universities and other training providers, or else withdrawing public funding to the extent that existing public institutions are effectively privatised.

The privatisation agenda was introduced in the United States during the 1990, and enthusiastically pursued by Australian institutions, most notably the University of Melbourne under the leadership of Alan Gilbert. The key US initiatives were

*Edison Schools: a for-profit school management company set up by leading education reformers Chris Whittle and John Chubb in 1992. At its peak the company managed several hundred schools in the United States; and

* The University of Phoenix; a for profit university providing both traditional campus and online education

Notable Australian initiatives have been

* [Melbourne University Private](#); a for-profit subsidiary of the University of Melbourne

* U21 Global; a for-profit university established by [Universitas21](#) a consortium of institutions including leading Australian universities, in collaboration with Thompson Learning at a reported cost of \$100 million

* A massive expansion of private provision in the TAFE sector, particularly in Victoria

The record of these initiatives has been universally disastrous, at least in educational terms. * Edison Schools lost nearly all of its contracts due to poor performance, and has rebranded itself as [EdisonLearning](#). It remains unprofitable and deeply troubled.

* U21 Global was eventually sold to a Mauritius-based company Manipal Global Education, and rebranded as [GlobalNxt](#). It appears that virtually the entire investment of the university partners was written off.

* Melbourne University Private was closed with losses estimated to range between \$20 million and [\\$150 million](#)¹

By contrast, the University of Phoenix has been highly profitable for its owners (at least until recently) but disastrous for students. The core business model, exposed in a series of reports, has been to enrol students who are eligible for subsidies from the US Federal government (Pell grants) but [who have little or no chance of graduating](#).

Similar points apply to the ‘reform’ of vocational education undertaken by the Victorian government. While there is certainly a place for private training providers, the attempt to introduce direct competition for the TAFE sector has been a [disaster](#), again exposed in [numerous reports](#).

¹ It is notable, and consistent with the argument of this submission that these and other instances of mismanagement by ‘enterprising’ vice-chancellors had virtually no impact on the rankings and status of the universities concerned. The advantages

Despite this appalling performance, advocates of the government's deregulation policy remain enthusiastic about for-profit education and, in particular, the University of Phoenix

In a recent piece supporting deregulation, the Executive Director of the Group of Eight, Michael Gallagher wrote: https://go8.edu.au/sites/default/files/docs/article/edutech_presentation_-_4_june_2014-word_version_updated_6_june_2014.pdf

Transnational corporates are also expanding. ... Apollo Education Group Inc., through its subsidiaries the University of Phoenix, Apollo Global, Institute for Professional Development, Western International University and College for Financial Planning, is one of the world's largest private education providers. Much of its focus is on upgrading the qualifications of working adults. The Apollo Global network includes BPP , a provider of education and training to professionals in the legal and finance industries in the UK and Europe; Bridge School of Management , an Indian business school in joint venture with HT Media Ltd.; Milpark Education, a management education provider in South Africa; **Open Colleges Australia comprising: Open Colleges; Integrated Care & Management Training; and College of Fashion Design** ; UNIACC , a university of arts & communication in Chile; Universidad Latinoamericana, a communications, business, and medical university in Mexico.

Clearly such enterprises involve risks. Kaplan, for instance, has had difficulties with US accreditation. The University of Phoenix has run into difficulties regarding student dropout and graduate employment outcomes. These difficulties hit the bottom line quickly and require prompt responses from providers and regulators alike, as in all industries. The important policy point is not about individual providers but about **the directions of change that pioneering providers indicate for the future** through their successes and failures. The thing

about the US enterprise culture, unlike Australia's, is a willingness to accept learning from failure as a step to success. (emphasis added)

Gallagher subsequently [denied](#) representing the University of Phoenix and similar institutions as pointing to the way of the future, a claim belied by his own words quoted above. It is also noteworthy that this highly dubious institution is already playing a major role in Australian vocational education, one which will certainly expand if deregulation proceeds.

Indeed, on Gallagher's argument, the disastrous failure of previous attempts at privatisation must be a guarantee of future success. It does not seem wise to base public policy on such notions, however popular they may be among the authors of business-oriented self-help books.

4. The need for tertiary education in a knowledge economy

The structure of the Australian and world economies changed radically over the course of the 20th century. [These changes have accelerated since the turn of the present century, most notably because of the rise of information technology and the Internet, now omnipresent in all aspects of work and social life.](#) The result of these changes has been to increase the need for education far beyond the levels that were adequate in the past. Unfortunately, much discussion of education policy (including from advocates of radical reform) is largely premised on obsolete assumptions inherited from the past.

The economic structure in 1901

In 1901, at the time of Federation, the economy was accurately represented in terms of primary, secondary and tertiary industries. The primary industries produced raw materials (minerals, food and fibre) which were processed in the secondary (manufacturing sector) into final products. The tertiary sector, including transport, wholesale and retail trade delivered these goods to their final consumers, as well as providing ancillary services such as finance.

In an economy of this kind, only a small minority of the population required tertiary education, or even completion of high school. Most work skills were learned on the job, either through formal apprenticeships or by 'sitting next to Sally' (learning from more experienced colleagues). University education was a requirement for a small number of elite

professional jobs (notably law and medicine, though even here there were on-the-job pathways into the professions) or else served to cultivate the minds of a small, and mostly wealthy elite.

The six 'sandstone' state universities founded at this time were out of reach to all but a tiny proportion of the population. They were funded by tuition fees along with small amounts of state government funding which supported, among other things, scholarships for a small number of poor but able students. These elite institutions were supplemented by teachers colleges and technical colleges.

Changes over the 20th century

Over the course of the 20th century, the economy changed radically. Most obviously, employment in agriculture and mining shrank to become a tiny proportion of the workforce, while manufacturing first expanded and then contracted. By the middle of the century most workers were employed in service industries, and by the end of the century, this sector encompassed the vast majority. Moreover, the old three-stage model of the industrial economy, based on the production and distribution of physical goods, ceased to be appropriate.

The majority of service provision by the end of the 20th century focused on information and knowledge rather than on physical production. Increasingly, economic activity focused on 'pure' services, such as health, education and cultural industries, and financial services, which were not associated with the distribution of goods, and therefore did not fit the standard three-sector division.

As late as 1990, the three-sector division was still workable, with primary and secondary industry (including construction) accounting for around 40 per cent of economic activity (GDP, excluding the imputed rent of dwellings) and 'tertiary' services such as retail and wholesale trade for another 15 per cent. 'Pure' services accounted for the remaining 45 per cent. By the turn of the century, however, the positions had reversed, with pure services accounting for the majority of economic activity, according to the national accounts.

Moreover, even within the primary and secondary sectors, the mix of jobs changed, with unskilled and semi-skilled jobs declining while skilled, professional and managerial

employment expanded. An increasing proportion of workers (about 35 per cent in 2012) are employed in managerial and professional occupations. On the standard classification, professionals are now [the largest single group in the workforce](#).

The result has been a steady increase in the demand for skilled and educated workers from employers and for access to post-school education from young people, as well as older workers seeking retraining. Until the mid-1970s, these demands were met in an environment of expanding public funding, which saw the transfer of financial responsibility to the Commonwealth, the creation of a large number of new universities and the upgrading of other institutions, notably the conversion of teachers' colleges to colleges of advanced education.

From the mid-1970s onwards, however, the environment has been one of fiscal stringency. Nevertheless, a massive expansion of access to university education has taken place, while maintaining tuition charges that are low by international standards (at least, those of the English-speaking world), and have been made manageable by the HECS system.

Throughout this process, discussion of the needs of post-school education was hampered by outdated assumptions. In part this took the form of nostalgia. Discussion of technical and trades education repeatedly referred back to the idea that young people seeking trade or technical skills ought to leave school at the end of Year 10 and learn on the job. At the other end of the scale, many in the university sector lamented the passing of the days when university education was the preserve of a cultivated elite and its replacement by a mass education model.

Advocates of micro-economic reform have also made a negative contribution, seeing education as an over-subsidised private good, with the implication that education levels ought to be lower.

The 21st century knowledge economy

The spread of personal computing devices and the rise of the Internet since the late 1990s have accelerated the shift to a knowledge economy and led to qualitative as well as quantitative changes in both work and daily life. Skills such as searching and querying an online database, once required only for advanced researchers and IT professionals, are now a

routine part of life for the great majority of the population, invoked in activities as mundane as a trip to the shops, or as vital as looking for a job.

Fears of a 'digital divide' in which access to the Internet would be confined to a minority of computer owners have abated as declining prices have made computing devices ubiquitous. However, the converse idea that young people are 'digital natives' who automatically acquire the skills required to navigate the knowledge economy in the same way as they acquire language is equally misleading. Cognitive skills of the kind acquired through formal education are crucial in developing the capability to participate fully in a knowledge economy.

The rise of the Internet has fundamentally changed the nature of work in a more fundamental way. Virtually all jobs now require interaction with computing devices of one kind or another. All but the simplest of these interactions involve text, and many also require some capacity to deal with quantitative information and a range of cognitive skills that were previously confined to managerial and professional workers.

At a minimal level, the basic levels of literacy and numeracy required to do any kind of job have increased substantially, to the point where failure to complete high school represents a severe handicap in obtaining even an entry-level job. The same is true at higher levels of occupational status. Many US employers now require a university degree even for 'standard' white-collar jobs that would once have been filled by high school graduates.

This is not, as is often claimed, credentialism. The complexity and informational richness of the modern workplace is such that the skills of a high-school graduate are increasingly inadequate for the majority of jobs. Increasingly, either specific technical skills, or the general cognitive skills acquired through tertiary education, are necessary qualifications.

Conclusion: Structural change in the economy over the past century has required steadily increasing levels of education. The pace of change, and the need for education has accelerated with the rise of the knowledge economy, based on personal computers and the Internet.

5. How to reform post-school education in Australia

The long term goal of education reform in Australia should be the achievement of universal high school completion and universal access to high-quality post school education and training, either through universities or through technical education. The achievement of this goal would require an increase in public expenditure. However, given that Australia has both low levels of taxation and low levels of public education expenditure by international standards, such an increase would be entirely within our fiscal capacity.

In this context, it is useful to note that some advocates of low taxation suggest we should be comparing ourselves to low-tax countries in our own region, rather than to the developed countries as a group. One of the ways in which these countries have kept taxes low is by limiting public expenditure on, and access to, higher education. This in turn has contributed to the large inflow of fee-paying students to Australia, many of whom do not return to their home countries.

Structural reforms are required in addition to increased fundings, and these should be in the opposite direction to those that have been proposed by the advocates of deregulation. Rather than competing for students, money and prestige, universities and other educational institutions should co-operate in the achievement of the social goal of better education for all. Examples of desirable changes include

- * Abandonment of marketing efforts directed at domestic students. These efforts waste scarce resources, to no net benefit except a reallocation of students between universities

- * Co-operation between institutions in the same city to ensure that as wide as possible a range of courses is available. Ideally, this should include options to undertake units at another university if the relevant course is not offered where the student is enrolled

It is also highly desirable, though difficult, to reduce the growth in the share of university expenditure allocated to administration, rather than to research and teaching. This would require a shift away from demands for ever-greater accountability and reliance on universities to take responsibility for their own performance. There is little if any evidence that the greatly enhanced compliance burdens imposed on universities over recent decades has yielded any substantive benefits

The achievement of universal access to post-school education is a vital goal, which will take many years to be realised. It is crucial to avoid backward steps that will restrict high quality education to a wealthy elite, as is happening in the United States. The government's proposals for deregulation take us in that direction, and should be rejected.

Conclusion: The long term goal of education reform in Australia should be the achievement of universal high school completion and universal access to high-quality post school education and training, either through universities or through technical education.