

**The Case for Restructuring
Australia's Universities
into
an
Internationally-Competitive
Networked
System**

by

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Executive Summary

Australia's 38 universities have deteriorated significantly in a number of areas over the past decade, relative to progressively improving international competitors. Specifically, key areas of concern in Australian universities include:

- The quality of strategic, tactical, operational, financial and academic management
- Misplaced prioritization in expenditure, resulting in large increases in corporate and administrative overheads, funded by tax-payers and students
- Major degradation of the national science and engineering infrastructure base available to undergraduate students.

The net result of these problems is that Australia currently has a collection of administratively inefficient universities which are, in the international academic context, at best, above average and, in general, mediocre to substandard.

A number of factors have contributed to this decline, including:

- (i) Lack of internationally-competitive critical mass/size in smaller universities, and an excessive number of universities in each state, artificially competing for the same market segment, by duplicating (i.e., wasting) tax-payer funded services and resources.
- (ii) Inability to attract vice chancellors with strategic management capabilities commensurate with premium international university standards
- (iii) As a consequence of (ii), a skewed focus by university leaders on increasing public funding levels, rather than applying new technologies and management approaches to reduction of costs, wastage and entrenched inefficiencies
- (iv) Widespread inefficiency, duplication and wastage of tax-payer funds in administrative and corporate services, particularly student administration, where 38 universities currently provide 38 duplicated sets of administrative and corporate infrastructure (software and staff) for one function.
- (v) Inefficient and muddled reporting lines between government and universities
- (vi) Failure to capitalize on cost savings realizable from application of information technology for administration of the national university system.

In this document, it is argued that the current Australian university system model is outdated, and neither cost-effective nor sustainable. Further, that a failure to change the model and its corporate and administrative structures will lead to ongoing erosion of the system, and the inevitable closure of many smaller universities over the coming years. At best, the current move towards a two-tier system will only deliver only one or two universities that are competitive at an international level. This, in turn, will damage Australia's ability to export educational services to the Asia-Pacific region.

It is therefore proposed that restructuring, rationalization and networking of university corporate and administrative activities take place across the system, in order to realize major cost savings that are translated into improved infrastructure; greater number of student places and better educational and research outcomes. It is specifically proposed that:

- (I) Australia restructure its current publicly-funded universities into networked state-based systems, analogous to the University of California model. This would create a minimum of five university systems, each of which is internationally competitive.
- (II) Existing universities preserve their identity and history; retain their branding and complete control over academic matters (learning and research). However, that an internationally recognized director be appointed to run each state-based network, and that a single university council be established in each state to ensure that individual nodes work in concert, to provide internationally competitive faculties in chosen areas.
- (III) The responsibility for corporate functions, particularly infrastructure development; marketing; investment; industrial relations management; financial control; administrative support, commercialization, etc. be turned over to the state level director and council, thereby eliminating duplication of corporate services at state level, and enabling vice chancellors to have clearly defined roles and responsibilities, focusing exclusively on achieving academic excellence at an international level.
- (IV) Each state-based network be given a mandate to eliminate duplication of tax-payer funded resources, and coordinate facilities and faculties to operate at the highest international standards, rather than artificially competing (introspectively) at substandard levels.
- (V) The calibre of infrastructure, research and undergraduate programs in each state-based faculty/facility be externally monitored by independent, international review panels for benchmarking purposes.

- (VI) Real competition for the state-based university networks be introduced by encouraging investment in branch campuses from premium international universities, thereby cementing Australia as an international hub for tertiary education in the Asia Pacific region.
- (VII) A single, networked, “on-line” student management (OSM) software system be introduced in Australia (either public or private enterprise) to replace the 38 existing administrative bureaucracies in individual universities. The OSM system is to be funded by the reduction in recurrent funding currently expended on administrative waste and duplication in the 38 individual systems.
- (VIII) The OSM system provide standardized functionality for full on-line student management; reporting of course and subject evaluations; entry of subject results, as well as functionality for on-line payment of HECS/HESA/PELS, thereby dramatically reducing the cost of administration overheads to tax-payers. The OSM system will also provide direct student feedback and compliance data to the Government; simplifying and eliminating manual reporting lines, and reducing waste in reporting/compliance.
- (IX) The resulting reduction in corporate and administration costs be returned to the universities as grants, specifically for national university infrastructure development, additional student places, or as reductions in fees to students.

1. Background

Traditionally, Australia's universities have been viewed by the public through the rose-colored spectacle of the academic procession, with the pomp and regalia of the self-ascribed importance that universities have exuded over some centuries. In more recent years, however, the Australian public has witnessed a different form of academic procession – one in which pixelated images of academics and vice-chancellors are paraded in front of the media for some wrongdoing. It is difficult to think of one of the 38 Australian universities that has not been touched by the scandal of financial incompetence, mismanagement, misappropriation, academic fraud or other misdemeanor. And, of course, one assumes that what is in the public eye is only the tip of the iceberg. It goes without saying that the real picture will be far worse.

So, what have tax-payers had to witness over the past decade? Schools of management, run by people, who purport to teach businessmen how to make a profit in the “*competitive global environment*”, apparently can't even turn a profit in their own local department, an enterprise with fixed costs and where demand greatly exceeds supply. Medical researchers stand accused of bullying junior researchers into falsifying results until they come up with “*the right answer*”. Universities stand accused of ignoring their academic gate-keeping role and falsifying results for full fee-paying international students. Vice Chancellors, who have authorized the expulsion papers for first year undergraduate students caught cheating on a test, have suffered sudden memory lapses, and can't recall having copied entire chapters of other people's books in their own research. A number of Australian academics and general university staff currently face criminal charges and prison sentences for systematic misappropriation and embezzlement over many years.

In recent years, universities around Australia have also squandered hundreds upon hundreds of millions of tax-payer dollars in naïve vice-chancellor-oriented self-aggrandizement ventures; private university spin-offs; overseas campuses, and IT systems that simply don't work and, worse still, lose money – the university response:

“...at least it's been an invaluable learning exercise for the university”.

The problem with invaluable learning exercises is that they are not “invaluable”, they cost tax-payers money and opportunity. Nowhere is the impact of this mismanagement more evident than in the national undergraduate infrastructure in science and engineering faculties, which has been allowed to degenerate into a crumbling ruins – often in order to salvage the financial credentials of vice-chancellors and, seemingly, with no external government audit processes picking up on the lack of investment in the maintenance of undergraduate facilities built up with tax-payer funds over decades.

Sadly, in a cabal-like response to this recent litany of disasters, Australia's university leaders have decided that the best defence of their record is offence:

"...it's the government's fault, if they had given us more money this never would have happened...".

However, what would Australian tax-payers and the fee-paying university students think if people with this sort of calibre and track record were given access to even more public money or more student fees?

Fish, as the old proverb says, smell from the head down, and it is now appropriate for the Federal Government to take a much closer look at Australia's university fish.

For some years, there has been a national chorus from Australia's university leaders, particularly through the AVCC, that public funding, per student, has been in relative decline. Although this is technically correct, this reduction has been more than offset by increases in HECS, and an increase in international and full-fee income. For example, the University of Melbourne cites, in its 2005 annual budget, that its total 2003 income was \$917,642,000. Its projection for 2006 total income is \$1,100,000,000 – an increase of around 6.6% a year, with inflation less than half that figure.

Nowhere, however, has there been any acknowledgement of the cost savings to universities that have been made available through modern management practices and the application of new technology. In the period since 1990, where university administration and corporate costs have increased substantially, in other sectors of society, the reverse has occurred. For example, Telstra reduced its workforce from 100,000 to 60,000 in a period of increasing services. Car manufacturers have had to cut costs by a minimum of 5% per annum in order to remain competitive. So, there is a clear need to look at the multi-billion dollar administration cost associated with management of universities to understand why there has been a failure to respond in similar measure to the increased expectations of society.

A fundamental problem in the management of universities is that they have defacto become large business enterprises, some with turnovers exceeding a billion dollars per annum. While this is not enormous in a corporate sense, the current role of a university CEO has become less and less of an academic issue and more and more of a business issue, with responsibilities including:

- Investment strategies
- Business process re-engineering
- Large-scale infrastructure management
- Industrial relations
- Financial management
- Commercialisation of intellectual property
- Legal and statutory issues
- Strategic planning.

One therefore needs to ask the question as to whether these sorts of skills are those found in a Dean of History, or Medicine, or Engineering, whose primary role has been in middle-level academic administration? The answer is obviously not, and yet this is exactly the track record of Australia's current university leaders. While they may argue that they can get additional support to tackle the corporate issues, the reality is that they cannot credibly assess the value of the information they receive without extensive practical experience in the field of strategic management.

Without corporate leaders to tackle university corporate issues, and academic leaders devoted solely to academic issues, it is not surprising therefore, that Australia's universities have experienced the current raft of problems and decay. It is therefore necessary to reassess the nature of university management and to restructure Australia's universities into a more meaningful model to tackle 21st Century problems.

2. Expenditure and Waste in Australia's University Administration

2.1 Overview

It is difficult to determine, from trawling through various university annual reports, exactly how many billions of dollars of tax-payers' money are expended/wasted on administration. This in itself should be of concern to all Australian tax-payers. One of the reasons for this difficulty is that universities tend to (very conveniently) aggregate administrative and technical support staffing and costs under the heading of "General Staff". This makes it difficult for outsiders to determine individual components. Nevertheless, in examining the annual reports of the various universities, it becomes evident that, excluding technical and maintenance staff, administration costs in Australia's universities are composed of the following elements:

- (i) Student administration – entry of student information, processing of results, special-needs, supporting services, etc.
- (ii) Financial administration – general financial support and data entry
- (iii) Compliance and reporting administration – data collection and manipulation, particularly in terms of feedback to the Federal Government on issues pertaining to (i) and (ii) – much of this is manual.
- (iv) General staff administration – human resources; library; marketing; research administration; administrative staff managing other administrative staff; executive and personal assistants, etc.

These administration components are supported by large-scale information technology (IT) systems, generally costing each university millions of dollars per annum in maintenance costs.

The result of reviewing the various annual reports, however, is that it becomes evident that the cost of administration, *per effective full-time student (EFTSU)*, in Australia, is in the order of \$3000 - \$5000 per annum, depending on the size of the university – the smaller the university, the larger the relative administration burden, despite the fact that one would assume the smaller universities to be more efficient. In addition to this cost, one needs to add the cost of IT support and infrastructure for administration. It would therefore be reasonable to suggest that the average total cost of administration and supporting IT is in the order of \$5000 per full-time student. Based on the 660,000 EFTSU enrolments in 2004, this costs Australian tax-payers/students approximately \$3,300,000,000 per year.

2.2 What do Australian students buy for their \$3,300,000,000?

Given that the administration cost, per full-time student is \$5000pa, one might well ask what the net benefit of this is to each student. The actual tangible administrative deliverables to students are as follows:

- (i) A student's name and address is entered into a university database
- (ii) A student is given an access card (student ID) and plan (timetable) composed of eight subjects per year, with associated lecture theatre/room allocations, as generated by a software package
- (iii) Typically, eight subject results a year are entered into the student's database
- (iv) The student's tuition fee contribution is processed, and a financial reconciliation transaction takes place between the university and the Federal Government to ensure that the correct net amount is paid to the university.

In addition to this, the intangible administrative benefits to the student are that the remainder of the administration cost supposedly allows the university to function and provide academic, IT and library services, etc.

From a tax-payer or student perspective, given that university administration is not core business, it is reasonable to suggest that this figure of \$5000pa per student can be reduced through better management principles and exploitation of technology.

2.3 Where is the student administration money expended?

Australia's \$3,300,000,000 pa university administration burden is expended on the following items:

- 38 sets of multi-million dollar licence and maintenance fees for student management software systems that vary from university to university but all essentially perform exactly the same function
- 38 sets of administrative staff who all manually enter and process the same student data, despite the fact that the students can probably enter the data themselves
- 38 sets of software training and staff induction programs for administrative staff to familiarize themselves with the student administration systems
- 38 sets of financial/student fee processing software systems
- 38 sets of timetabling software systems and maintenance fees

- 38 sets of manually entered student course/subject evaluation data which has to be re-keyed by administrative staff, manipulated and sent to the Federal Government
- 38 sets of student enrolment and fee information which need to be processed
- 38 sets of subject/course performance information which has to be processed and sent to the Federal Government for compliance.
- 38 Human Resources departments
- 38 Facilities/Maintenance departments
- 38 Finance Departments
- 38 Marketing Departments
- 38 IT Service/Maintenance departments
- 38 Legal Services departments
- 38 Library systems with 38 sets of library staff
- 38 sets of office facilities for each of the above functions.

But what does this mean in terms of inefficiency and waste? Just to highlight the problem, in Victoria, for example, tax-payers and students have to fund seven university human resources departments to manage less than 12,000 staff. Compare this again with an organization such as Telstra (hardly a paragon of efficiency), which has one human resources department to handle 60,000 staff. If one takes into consideration all of the duplicated areas, the waste of tax-payers' money and student fees is of staggering proportions.

2.4 What can one conclude from the current system?

It would be cheaper for the Federal Government to get rid of all the university administrative staff and to hire a Queens Counsellor to act as a case officer on behalf of each and every Australian University student, and to do their administration for them, rather than to continue on with the wasteful system that is currently in place. Clearly there needs to be rationalization and reform, commencing with a detailed external study of exactly how much money is expended on student administration and supporting IT, then identifying dramatic cost cutting measures.

3. Lack of Real Choice - An Artificial Taxpayer-Funded Competitive University System

Competition in a business sense only provides consumer benefits in a changing market, when new players seek to enter the market, or when there is a threat of existing players being removed from that market. Neither of these factors have been present, in a real sense, within the Australian university system over the past decade, where competition has been in a sheltered, closed market. The worst case scenario for university players is that they will be absorbed or merged with another university. The stagnant nature of the local student market means that there is little advantage to be gained by performance improvement or cost cutting. This has led to a lackadaisical management style, manifested in a general unwillingness to tackle strategic management issues and industrial relations problems within the university sector, particularly as they relate to high cost areas such as administration efficiency.

The competition and differentiation that there is in the Australian university sector appears to be largely based upon an introspective combination of self-aggrandizement, posturing and prestige – with established universities benchmarking themselves against former technical colleges, and former technical colleges benchmarking themselves against local established universities (which are themselves in decline relative to international competition). The end result of this introspective competition has been a national downward spiral in the calibre of Australia’s universities. Rather than having a “Group of 8” universities which have international recognition, in reality there is rarely more than one Australian university which is given any serious international consideration – even then this is at the bottom end of the international league table.

At an internal level, however, all universities are acutely aware of which programs generate the greatest amount of net revenue per student; the greatest amount of student interest; the greatest prestige for their university, and those that cost the most to run and lack cachet. Ironically, therefore, the national competition has generated its biggest “losers” in fields that are, arguably, of greatest benefit to the national economy. Specifically, areas such as science and engineering, which have a high undergraduate infrastructure cost and low cachet value, are the ones which have suffered most. The big “winners” in the competitive system have been those universities that have pragmatically pursued, at a research level, the latest scientific and social fads (e.g., stem cell research, nanotechnology, etc.) that attract spike funding for infrastructure.

Of itself, if universities were privately funded, local competition could be justified based upon the products related to high undergraduate student demand. However, when all universities are funded by tax-payers, the end result is unnecessary duplication of facilities and services.

In a state such as Victoria, for example, infrastructure duplication in areas such as science and engineering, has meant that tax-payers have had to fund seven sets of infrastructure, none of which are at an international standard. With an undergraduate student year of only 26 weeks, and one-shift laboratory operation, tax-payers have to fund these seven sets of infrastructure with a utilization rate of under 20%. The national cost of this wastage is measured in hundreds of millions of dollars per annum, and in individual infrastructure sets which do not match premium international levels.

The artificial competitive environment that has been established in Australia has led to real competition in meaningless esoteric factors, such as brand differentiation and prestige, but little or no competition in terms of real choice or substance in areas of national economic importance.

A system which does not provide Australian students with the ability to choose between universities which perform at an international level does not provide real choice.

4. Decline of National Science/Engineering Infrastructure for Undergraduates

Duplication of facilities and services has meant that the national, tax-payer-funded cake is not sufficient to maintain 38 universities at an international level. The result has been that universities have engaged in “invisible cost cutting”. Invisible cost cutting is the standard public-service approach to tackling strategic budgetary problems by avoiding short-term pain (industrial relations conflict) by allowing invisible budget items (i.e., infrastructure and academic expertise) to slowly (invisibly) deteriorate. With Australia’s vice-chancellor turnover averaging five years, this means that the “lucky” vice-chancellors can often survive an entire term without tackling an infrastructure problem, that may cost a successor tens or hundreds of millions of dollars to remedy. The victims of invisible cost cutting in Australia’s universities have been the low-cachet areas, predominantly science and engineering, especially at undergraduate level.

The university annual reports seldom reveal the true extent of the damage that has been inflicted at the coal face. Even when the reports show reasonable investment in infrastructure, the aggregated figures do not show how much of this is translated into undergraduate level infrastructure in science and engineering. There is a large chasm between the sort of infrastructure that is useful for research and that which is useful for undergraduates. In order to rationalize the diminution of Australia’s undergraduate infrastructure base in science and engineering, vice-chancellors often use the excuse that students can now “simulate” experiments on computers. This has led to a decline in scientific and engineering discipline, rigor and dexterity. Again, because this decline is difficult to numerically quantify, it has largely gone unnoticed by the Federal Government.

The national decline in undergraduate science and engineering infrastructure has also been exacerbated because the universities benchmark introspectively against each other – while all are in decline relative to international levels. Students are often left in blissful ignorance of this decline because they have no international reference point by which to compare what they are getting for their fees. If a student at an Australian university had the wherewithal to compare their annual fees and facilities with an international university, such as MIT or Berkeley, they would assuredly have a very different view of how well the Australian system was managed.

The declining international full-fee paying student market will accelerate the decline of Australia’s national undergraduate science and engineering infrastructure.

5. A Paradigm for Restructuring

The Federal Government will eventually need to decide whether or not it intends to keep pumping tax-payers' and students' funds into the bottomless money pit of inefficiency and mediocrity that is Australia's university system, or whether it will take the long-term view that structural reform is now unavoidable.

Structural reform of the Australia's university system requires a number of elements:

- (i.) Detailed external review of the administrative and corporate costs in Australia's universities
- (ii.) Detailed review of duplication of corporate and administrative services, infrastructure, etc. at state and national levels.
- (iii.) Networking of publicly funded universities within each state, into a state-based system, in order to aggregate and rationalize corporate and administrative services at state level, with some services, such as student administration and compliance reporting, aggregated and rationalized at a national level.
- (iv.) Replacement of multiple university councils with a single high-level council for each state, to coordinate university education and research within each state, at an international level, and eliminate duplication and wastage of resources.
- (v.) A decomposition of the role of university management into strategic corporate roles and strategic academic roles – with suitably qualified directors undertaking the strategic corporate roles at state level, and vice chancellors taking the strategic academic roles for each of the university nodes in the state system.
- (vi.) Introduction of a networked, on-line student administration system, at national level, to provide a standardized system for enrolment, student course/subject feedback, progress monitoring and compliance checking.

6. Networked State-Based University Structure

Figure 1 shows the proposed network structure for publicly funded universities.

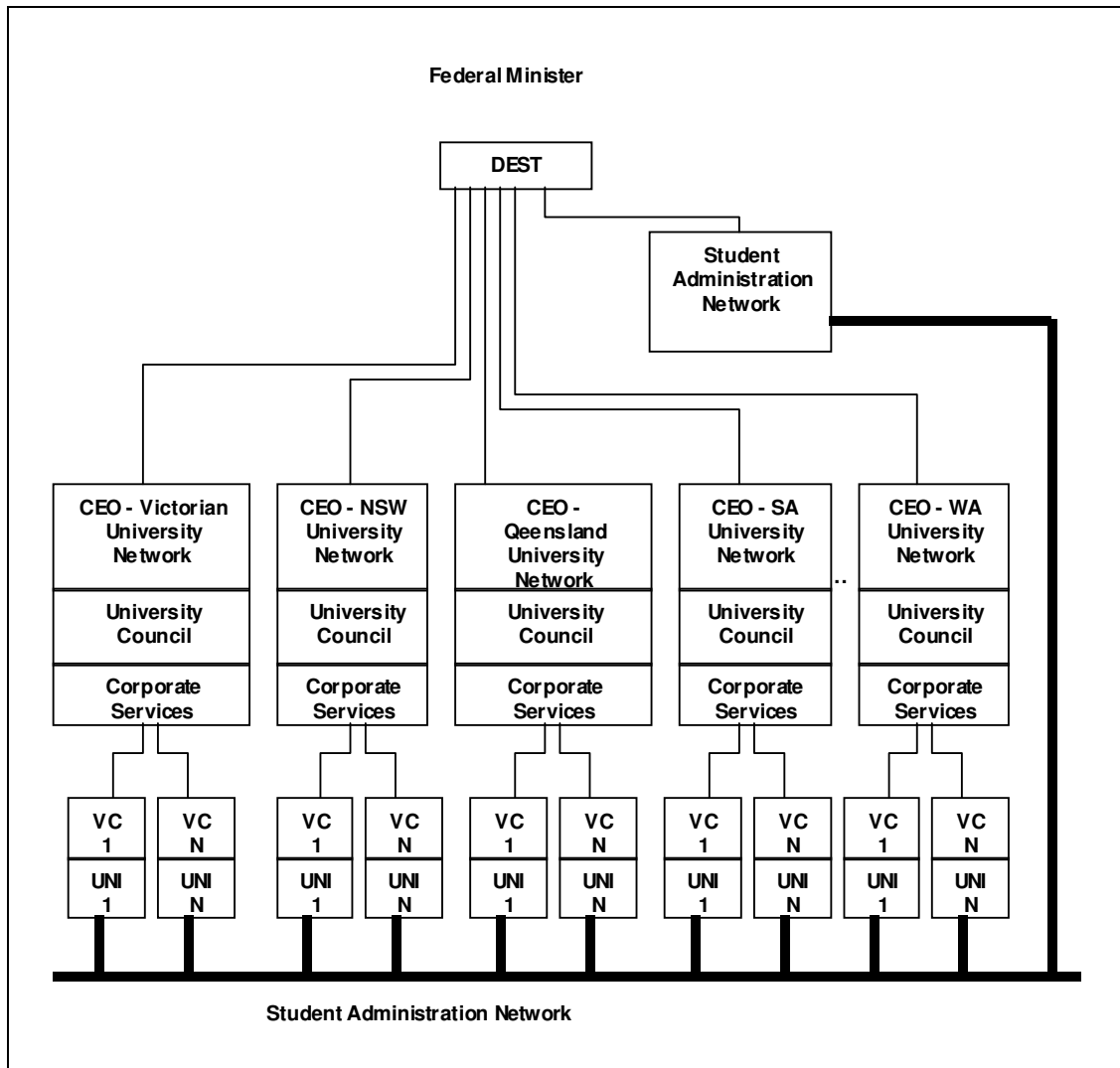


Figure 1 – Proposed Network System for Australian Universities

The proposed model would:

- Reduce 38 sets of corporate and administrative structures to between 5 and 7
- Reduce 38 sets of student administration and IT support systems to 1.
- Reduce 38 sets of science and engineering infrastructure down to 5 to 7 sets, upgraded to international best-practice

- Provide clear position descriptions for the vice-chancellor and for the state level corporate CEO that have some meaningful basis to them.

There is no reason for the state networks to become educational brands – many of Australia’s universities have histories of over 150 years and it would be wasteful to lose this very real brand value. The role of the state networks is to provide corporate and administrative functions that enable the universities to do their academic roles and continue their historical presence. The objective therefore is not to create a new brand entity but to create an efficient and internationally competitive university system.

Smaller states and territories, such as Tasmania and the Northern Territory and ACT could opt to link into the Victorian, South Australian and NSW university networks.

6. Networked On-Line Student Administration System

It is proposed that the Federal Government scrap the inefficient and wasteful duplicated student enrolment and management systems in Australia's universities, and replace them with a networked on-line student management (OSM) system which DEST, the universities and relevant state government authorities can access with varying degrees of authority. This would represent significant staff and IT cost savings at a national level. The complexity of such a system would be significantly less than other comparable national IT infrastructure (Medicare, banking, etc.).

The OSM system would provide a vehicle for on-line student enrolment, payment of fees by credit card or EFTPOS and, importantly, on-line feedback on a subject/course basis, thereby eliminating manual data processing.

The on-line system would require that academics directly enter raw student subject results and that any changes/standardization of raw results by university departments could be tracked by software. When mapped against student fee-categories, this would reveal undesirable university behaviour patterns, such as over-compensation for non-performing students; artificially increasing results for full-fee paying students, etc. When combined with an on-line student feedback system, the OSM system would also be able to track student perceptions of subject difficulty, to avoid having universities "dumbing down" subject areas relative to international standards.

The OSM system would also facilitate national benchmarking of subjects, and automated collection of subject information by RFCD and Bureau of Statistics categories, thereby eliminating other manual processing of information.

A standardized, networked system would enable federal and state bodies to have on-line monitoring of university performance and thereby eliminate the need for widespread administrative costs associated with compliance.

In order to maximize efficiency, the OSM system could readily be implemented through an expansion of existing infrastructure – for example, the Medicare IT and Customer Service backbone could be upgraded to facilitate an additional role in national student administration - thereby providing a student management system which is far more efficient, more wide-ranging and accessible than the current university-based system.

7. Introducing Real Competition and Choice into the System

Under this proposal for a networked university system, artificial tax-payer-funded local competition for universities would disappear and be replaced by two levels of international competition:

- (i) The Federal Government would establish independent, international benchmarking panels for:
 - Undergraduate, postgraduate and research infrastructure
 - Undergraduate, postgraduate and research performance (e.g., AUQA, RQF)
 - Monitoring of international ranking of university network nodes.
- (ii) The Federal Government would actively encourage the establishment of branch campuses, from the world's leading universities to establish themselves in Australia.

Within a networked system, a state university council may also offer students additional real choices in terms of, say, an international standard engineering course with an applied focus or one with a theoretical focus. The point here is that because the two types of courses share one set of infrastructure, whichever decision the student makes, he/she is getting a real choice of a world-class education. The decision path for a student is then:

- World class university education in a state university network
- World class university education from an international local branch campus.

This is not a choice that Australia's university students currently have available to them.

8. Summation

According to the Department of Foreign Affairs and Trade, the Australian higher education sector, as an international supplier and exporter of education, accounts for more than 12% of higher education in countries that have an English-speaking base – a disproportionately high figure that has provided Australia with some \$5,000,000,000 pa of export income. However, Australia's share of the export market for education will decline as the Asian market rapidly develops its own university systems and as Australia's universities face ever-increasing competition from the world's most famous universities. Any prospect of maintaining market share will depend on Australia establishing itself as a nation with an internationally regarded education sector.

The fundamental difficulty that Australia has in presenting an image of an internationally competitive education sector is that the current university structure is diluted, scattered, inefficient and under-resourced. One possible solution is in the creation of a two-tiered university sector, with research-intensive and education-only universities. At best, such a system will only create one or two international standard universities. It will also invariably leave education-only universities in an uncompetitive position in the international marketplace, with perceptions of a second-rate education system in Australia, and lead to numerous university closures.

Rather than increasing expenditure on Australia's universities, however, it has been proposed here that a major restructuring and rationalization be undertaken of the Australian university sector, to:

- Make major national cost savings on the current \$3,300,000,000 administrative and corporate costs
- Make significant reductions in infrastructure and resource duplication
- Create a minimum of five internationally competitive state university networks while retaining existing university brands.
- Create a standardized on-line student management (OSM) system to cut student administration costs and compliance costs.