Australian Government

Review of Australian Higher Education

Final Report

December 2008

Expert Panel

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The Hon Julia Gillard MP
Deputy Prime Minister and Minister for Education
Parliament House
Canberra ACT 2600

12 December 2008

Dear Minister

On 13 March 2008 you initiated a Review of Australian Higher Education to examine and report on the future direction of the higher education sector, its fitness for purpose in meeting the needs of the Australian community and economy and the options for reform.

On behalf of the Review Panel, I am pleased to forward our *Final Report.*

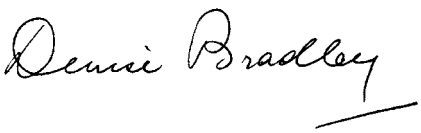
The review process covered many months during which the panel held national consultations, met with a range of stakeholders, and received some 450 formal responses and submissions.

We have been heartened by the care and thought with which a broad cross-section of the Australian community has addressed this review and its terms of reference. Hundreds of individuals, organisations and institutions have given much time and thought to outline their vision for tertiary education till 2020.

While views about solutions have varied, there is no doubt that those with whom we have consulted, or from whom we have heard, consider that this is an issue of critical importance for Australia's future as a productive, fair and democratic country. All are driven by the same vision: we must create an outstanding, internationally competitive tertiary education system to meet Australia's future needs and we must act now if we are to remain competitive with those countries that have already undertaken significant reform and investment.

I would like to express my gratitude to my colleagues on the panel – Mr Peter Noonan, Dr Helen Nugent AO and Mr Bill Scales AO – and to the secretariat, in particular Ms Anne Baly who led the group. We have all been conscious of the importance of producing a comprehensive response to our terms of reference which would allow you and your government time to consider the changes you wish to make to the policy framework for tertiary education in 2010.

Yours sincerely



Professor Denise Bradley, AC

Executive Summary

Australia faces a critical moment in the history of higher education. There is an international consensus that the reach, quality and performance of a nation's higher education system will be key determinants of its economic and social progress. If we are to maintain our high standard of living, underpinned by a robust democracy and a civil and just society, we need an outstanding, internationally competitive higher education system.

As the world becomes more interconnected and global markets for skills and innovation develop even further, it will be crucial for Australia to have enough highly skilled people able to adapt to the uncertainties of a rapidly changing future. Higher education will clearly be a major contributor to the development of a skilled workforce but, as never before, we must address the rights of all citizens to share in its benefits. Higher education will continue to be a cornerstone of our legal, economic, social and cultural institutions and it lies at the heart of Australia's research and innovation system.

The review was established to address the question of whether this critical sector of education is structured, organised and financed to position Australia to compete effectively in the new globalised economy. The panel has concluded that, while the system has great strengths, it faces significant, emerging threats which require decisive action. To address these, major reforms are recommended to the financing and regulatory frameworks for higher education.

Higher education has changed dramatically over the last 30 years or so. It once comprised a small number of publicly-funded institutions. This is no longer the case. There are now 37 public universities, two private universities and 150 or so other providers of higher education. The public universities derive significant proportions of their income from non-government sources and some private providers receive government subsidies. The public-private divide is no longer a sensible distinction.

The Challenges for Australia

Australia is falling behind other countries in performance and investment in higher education. Developed and developing countries alike accept there are strong links between their productivity and the proportion of the population with high-level skills. These countries have concluded that they must invest not only to encourage a major increase in the numbers of the population with degree-level qualifications but also to improve the quality of graduates.

Australia is losing ground. Within the OECD we are now 9th out of 30 in the proportion of our population aged 25 to 34 years with such qualifications, down from 7th a decade ago. Twenty nine per cent of our 25- to 34-year-olds have degree-level qualifications but in other OECD countries targets of up to 50 per cent have already been set. These policy decisions elsewhere place us at a great competitive disadvantage unless immediate action is taken.

The nation will need more well-qualified people if it is to anticipate and meet the demands of a rapidly moving global economy. Work by Access Economics predicts that from 2010 the supply of people with undergraduate qualifications will not keep up with demand. To increase the numbers participating we must also look to members of groups currently under-represented within the system, that is, those disadvantaged by the circumstances of their birth: Indigenous people, people with low socio-economic status, and those from regional and remote areas.

Participation by these groups has been static or falling over the last decade. But we will also need to take account of what is happening among those already in the workforce. We need to turn the rhetoric of lifelong learning into a reality. A well-coordinated, systematic approach to addressing these complex issues and increasing the numbers gaining qualifications is vital.

We also face difficulties with provision of higher education in regional areas where there are thin markets which will not sustain a viable higher education presence. These problems will be exacerbated by projections of further decreases in the 15- to 24-year age group in many regional areas. Current arrangements provide no clear incentives to set up education programs in areas of need nor to work collaboratively with other providers to address problems of provision, and they mask signals that provision in some areas may need review. It is in regional areas that some of the difficulties, blockages and inefficiencies which derive from the structures of tertiary provision in our federal system are most evident.

Twenty years ago Australia was one of the first countries to restructure to enable wider participation in higher education. The results of those changes made it a leader internationally in the movement from elite to mass systems. With the increase in numbers has come much greater diversity in the student body. Full-time students straight from school studying on campus are now a minority in many institutions. There was concern at the time about the possible effects of this restructure and a range of measures was introduced to monitor and assure quality of the new system. 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.

Our educational institutions and, in particular, our universities have built Australia's third-largest export industry – in education services – in the last two decades. A quarter of our higher education students are from other countries and they make an enormous contribution to our economy, our relationships with the region and our demand for graduates. However, their concentration in a relatively narrow range of subject fields, in levels of study and by country of origin poses significant challenges both to institutions and to the long-term viability of the industry. As well, we are not making the most of all the opportunities they present to be ambassadors for Australia and to be part of the solution to some of our more intractable problems in renewal of the academic and research workforce.

Our universities lie at the heart of the national strategy for research and innovation – itself a critical foundation of our response to a globalised world. There is abundant evidence that government provision of funds for underlying infrastructure to support research in universities is very significantly below the real costs. This is leading to a pattern of quite unacceptable levels of cross-subsidy from funds for teaching, adversely affecting the quality of the student experience.

Analysis of our current performance points to an urgent need for both structural reforms and significant additional investment. In 2020 Australia will not be where we aspire to be – in the top group of OECD countries in terms of participation and performance – unless we act, and act now.

The way forward

We must increase the proportion of the population which has attained a higher education qualification. To do this we need to reach agreement on where we need to be; provide sufficient funds to support the numbers we agree should be participating; ensure that the benefits of higher education are genuinely available to all; establish arrangements which will assure us that the education provided is of high quality; and be confident that the national governance structures we have in place will assist us to meet these goals.

Briefly, the panel recommends a package of reforms which if adopted will achieve the following outcomes:

Targets

- national targets for attainment of degree qualifications and for participation of low socio-economic status students will be set and institution-specific targets for participation and performance established and monitored;
- targets will be set to enable national benchmarking against other OECD countries to track system quality and performance;

Students

- all qualified students will receive an entitlement for a Commonwealth subsidised higher education place;
- students will have a choice of where to study at recognised institutions;
- funding will follow the student;
- institutions will have freedom to enrol as many students as they wish;
- funding for teaching will be increased;
- funding for low socio-economic status students will be significantly increased;
- funding for provision in regional and rural areas will be increased;
- levels of student financial support will be increased and eligibility made fairer based on need;

Institutions

- all higher education institutions, including universities, will be accredited;
- criteria for the title of university and for the right to offer research degrees will be tightened;
- a proportion of the funds allocated to institutions will be allocated on the basis of performance against specific targets for teaching and equity;
- funds for research will be increased to more fairly reflect costs;
- funds will be made available to assist institutions to make structural changes;

The national framework

- accountability will be simplified and streamlined to allow each institution to play to its strengths;
- the Australian Government will assume the primary funding and overall regulatory responsibility for tertiary education;
- the Australian Government will establish an independent national tertiary education regulatory body; and

- the Australian Government will progressively extend the tertiary entitlement to the vocational education and training (VET) sector commencing with higher level VET qualifications.

Some of the broader implications of this approach are outlined below.

Targets

An agreed target for the proportion of the population that has attained a higher education qualification by 2020 will provide a focus for action. There is already a target set by the Council of Australian Governments to halve the proportion of Australians aged 20- to 64-years without a certificate level III qualification by 2020. The target proposed for higher education is that 40 per cent of 25- to 34-year-olds will have attained at least a bachelor-level qualification by 2020. This will be quite testing for Australia as current attainment is 29 per cent.

Another important target is one to ensure that those from disadvantaged backgrounds aspire to and are able to participate in higher education. By 2020, 20 per cent of undergraduate enrolments in higher education should be students from low socio-economic backgrounds.

Meeting the targets – a student entitlement

In order to meet these targets the panel considers a more deregulated system is necessary. It proposes that, in a staged process, access to Commonwealth funds be made available to a wider range of eligible providers. But these funds will follow the student, not be allocated to the institution. All qualified individuals will have an entitlement to undertake an undergraduate qualification unlimited in duration or value. This is consistent with the need to broaden the base of higher education qualifications in the population and the need for skills upgrading over the life cycle.

Such a system allows institutions flexibility to decide the courses they will offer and the number of students they will admit. This, combined with an entitlement for all qualified students, is the most responsive and appropriate policy option in circumstances where we must raise participation urgently and do so from among groups which have traditionally failed to participate.

To support the achievement of the target to increase the proportion of students from disadvantaged groups to 20 per cent by 2020, 4 per cent of all funds for teaching will be directed to outreach and retention initiatives. All institutions in receipt of Commonwealth funds for teaching will be expected to establish initiatives to increase both the enrolment of, and success of, students from disadvantaged backgrounds. Part of this allocation will be directed to the support of outreach activities in communities with poor higher education participation rates. In partnership with schools and other education providers, higher education institutions will work to raise aspirations as well as provide academic mentoring and support. The bulk of the allocation will be distributed to institutions on the basis of their success in enrolling and graduating students from low socio-economic backgrounds.

Higher education provision in regional and remote Australia

Provision of higher education in regional areas needs serious attention to increase participation. After a process of review of current patterns of provision, an additional allocation of $80 million per year to develop innovative, collaborative, local solutions to provision of higher education in regional and remote areas is recommended. As well, serious consideration should be given to the development of a university with special expertise in provision of higher education across regional and remote Australia.

Third phase of internationalisation

Education services are now Australia's third-largest export industry. The efforts of higher education providers underpin 60 per cent of the earnings from this industry. It is time to rethink the underlying industry strategy and restructure the way it is governed and supported by government. The panel recommends establishment of a whole-of-government approach, in partnership with the providers in the industry and the movement of regulation of the industry to an independent body.

Achieving and assuring high-quality provision – investing in the future

Australia is the only OECD country where the public contribution to higher education remained at the same level in 2005 as it had been in 1995. Over that time the private contribution increased significantly. A significant increase in public investment and funding for higher education is warranted. An increase of 10 per cent to the base grants from the Commonwealth for teaching will begin to reduce student-to-staff ratios to a more reasonable level and have some effect upon casualisation of the academic workforce. Such changes will have an effect upon the quality of provision and, thus, on the student experience.

There is no general case to increase the investment in Australia's higher education system by increasing the private, student contribution.

At the same time, both a more appropriate rate of indexation and regular triennial review of the adequacy of funding for higher education are required to ensure that the country's efforts in this area remain competitive internationally over time.

As well, more appropriate funds to support the indirect costs of research – a move from 22 cents to 50 cents in the dollar – will benefit not just the research enterprise but should also redirect resources to teaching. There is evidence of substantial cross-subsidy to research from funds for teaching domestic and international students.

Financial support for students

Current levels of income support are inadequate to support the participation and success of students from low socio-economic backgrounds. Reforms to, and better targeting of, income support should enable such students to attain better qualifications in a more timely fashion and are urgently required. This will require significant reforms to elements of Australia's welfare and income support system.

Strengthening accreditation and quality assurance – a national approach

The more demand-driven, student-entitlement system will require a greater focus on accreditation, quality assurance, evaluation of standards and use of outcomes measures. Placing more choice in the hands of students requires a different approach to quality assurance and accreditation. A national system for accreditation of all higher education providers – both public and private – on a regular cycle is necessary to assure the quality of the deregulated system. More rigorous application of revised and strengthened National Protocols for Higher Education Approval Processes, coupled with a quality assurance framework based on externally validated standards and rigorous measures of performance reported publicly will ensure careful oversight of this more flexible system. An independent, national regulatory agency, with responsibility for all aspects of regulation including that for international students is necessary.

As part of this new approach to quality assurance, targets relating to quality of teaching will be agreed with each higher education provider in receipt of Commonwealth Government funds. Some 2.5 per cent of the grant for teaching and learning annually will be quarantined for payment on achievement of these targets.

Addressing Australia's looming shortage of academics

Greater incentives and more support for high performing international students to undertake research degrees in Australia and more places and better support for domestic research degree students will assist us to deal with a looming shortage of academics and researchers. This is necessary to ensure we have enough well-qualified staff to manage the proposed increases in participation and to maintain the stock of researchers in the innovation system.

Changing structures

The institutional arrangements governing tertiary education need significant reform. Tertiary qualifications are offered in two sectors with what have been, historically, very different roles and approaches to educational provision. But the move to a mass higher education system together with the growth of a credentials-driven employment environment has seen a blurring of the boundaries between the two sectors. However, each still has a critical role to play in meeting Australia's future skills needs. While it is important to maintain the integrity of the VET system and its provision of distinct qualifications in which the content is strongly driven by the advice of industry, the time has come for a more coherent approach to tertiary educational provision.

If we are to meet the ambitious tertiary participation targets necessary for Australia to remain internationally competitive, a more holistic approach to planning and provision is vital. What is needed is a continuum of tertiary skills provision primarily funded by a single level of government and nationally regulated rather than two sectors configured as at present. Such a model would deliver skills development in ways that are efficient and fit for purpose to meet the needs of both individuals and the economy.

Responsibility for the funding and regulation of the tertiary education and training system should rest with the Australian Government and the independent regulatory agency should consolidate all regulatory functions across this tertiary system.

Conclusion

The measures supported in this report are designed to reshape the higher education system to assist Australia to adapt to the challenges that it will inevitably face in the future. However, because the world is in a period of rapid and unpredictable change, it is not clear if they will be sufficient to enable the higher education system to meet these challenges adequately.

Because other countries have already moved to address participation and investment in tertiary education, as a means of assisting them to remain internationally competitive, the recommendations in this report, if fully implemented, are likely to do no more than maintain the relative international performance and position of the Australian higher education sector.

Australia's higher education sector is losing ground against a number of its competitor countries on a range of indicators. Greater recognition is needed in government and among members of the Australian community about the need to enhance our competitive position.

For Australia to improve its relative performance against other nations, additional, ongoing and significant public investment in higher education will be required.

A set of public performance indicators to allow assessment of how well the Australian tertiary education system is performing against other countries would assist public understanding of where we are internationally. The OECD countries whose systems are of the best quality and with highest performance are the appropriate reference point for Australia.

Such an initiative would also make it less likely that Australia would fall far behind other countries. It would keep this major issue of maintaining the real wealth of the nation – the capacity of its people – permanently on the public agenda.

Recommendations

Recommendation 1

That the Australian Government adopt the vision, strategic goals and principles for the higher education system set out in this report. *(Chapter 1)*

Recommendation 2

That the Australian Government set a national target of at least 40 per cent of 25- to 34-year-olds having attained a qualification at bachelor level or above by 2020. *(Chapter 3.1)*

Recommendation 3

That the Australian Government commission work on the measurement of the socio-economic status of students in higher education with a view to moving from the current postcode methodology to one based on the individual circumstances of each student. *(Chapter 3.2)*

Recommendation 4

That the Australian Government set a national target that, by 2020, 20 per cent of higher education enrolments at undergraduate level are people from low socio-economic status backgrounds. *(Chapter 3.2)*

Recommendation 5

That the Australian Government introduce the following package of reforms to the student income support system. *(Chapter 3.3)*

Item	Nature of the reform
Parental Income Test threshold	Increase threshold for Parental Income Test to $42,559, consistent with the value used for the Family Tax Benefit.
Parental Income Test indexation	Change the indexation rate to be consistent with the Family Tax Benefit index, a combination of CPI and Male Total Average Weekly Earnings (MTAWE).
Parental Income Test taper rate	Change the taper rate for reduction in benefits for each child in the family on income support benefits to 20 per cent. Apply the new taper rate only once as is the case for the Family Tax Benefit rather than for every child in the family receiving benefits.
Personal Income Test threshold	Increase the personal income threshold for Youth Allowance and Austudy to $400 per fortnight.
Personal Income Test indexation	Change the indexation of the personal income threshold from zero to a wage basis (for example, Male Total Average Weekly Earnings).
Age of independence	Reduce the age of independence for Austudy from 25 to 22 years.
Change to eligibility conditions for independence	Remove the workforce participation criteria for independence of: (a) working part-time for at least 15 hours per week for at least 2 years; and (b) earning a specified amount in an 18-month period since leaving school. Introduce 'grandfathering' arrangements for existing students who have already satisfied these criteria for independence.

Item	Nature of the reform
Eligibility of masters coursework students	Extend eligibility for benefits to students enrolled in all masters by coursework programs.
Enhance the Commonwealth Scholarships program	Continue and enhance the Commonwealth Scholarships program by providing benefits to all eligible students on Austudy or Youth Allowance for education costs and accommodation costs (for those who need to leave home) and by transferring responsibility for the payment of benefits to Centrelink.

Recommendation 6

That the Australian Government undertake a regular process of triennial review of the income support system to assess the overall effectiveness of the support payments in reducing financial barriers to participation of students in need. *(Chapter 3.3)*

Recommendation 7

That the Australian Government require all accredited higher education providers to administer the Graduate Destination Survey, Course Experience Questionnaire and the Australasian Survey of Student Engagement from 2009 and report annually on the findings. *(Chapter 3.4)*

Recommendation 8

That the Australian Government increase the total funding allocation for the Research Infrastructure Block Grants program by about $300 million per year. This represents an increase from about 20 cents to 50 cents in the dollar for each dollar provided through competitive grants. *(Chapter 3.5)*

Recommendation 9

That the Australian Government commission research into future demand for, and supply of, people with higher degree by research qualifications and that it increase the number of Research Training Scheme places on the basis of the findings of the research. *(Chapter 3.5)*

Recommendation 10

That the Australian Government increase the value of Australian Postgraduate Awards to $25,000 per year and increase the length of support to four years, as recommended by the National Innovation Review, to provide greater incentives for high-achieving graduates to consider a research career. *(Chapter 3.5)*

Recommendation 11

That the regulatory and other functions of Australian Education International be separated, with the regulatory functions becoming the responsibility of an independent national regulatory body. *(Chapter 3.6)*

Recommendation 12

That the industry development responsibilities of Australian Education International be revised and be undertaken by an independent agency which is accountable to Commonwealth and state and territory governments and education providers. *(Chapter 3.6)*

Recommendation 13

That the Australian Government provide up to 1,000 tuition subsidy scholarships per year for international students in higher degree by research programs targeted to areas of skills shortage. The scholarships would give the recipients the benefit of being enrolled on the same basis as domestic students. *(Chapter 3.6)*

Recommendation 14

That higher education providers use a proportion of their international student income to match the Australian Government tuition scholarships by providing financial assistance for living expenses for international students in higher degrees by research. *(Chapter 3.6)*

Recommendation 15

That the Australian Government liaise with states and territories to ensure consistent policies for school-fee waivers for the dependants of international research students in government-subsidised places and examine its visa arrangements to improve the conditions for spouse work visas. *(Chapter 3.6)*

Recommendation 16

That, after further consideration of current problems with regional provision, the Australian Government provide an additional $80 million per year from 2012 in funding for sustainable higher education provision in regional areas to replace the existing regional loading. This should include funding to develop innovative local solutions through a range of flexible and collaborative delivery arrangements in partnership with other providers such as TAFE. *(Chapter 3.7)*

Recommendation 17

That the Australian Government commission a study to examine the feasibility of a new national university for regional areas and, if the study indicates that a new national regional university is feasible, the Australian Government provide appropriate funding for its establishment and operation. *(Chapter 3.7)*

Recommendation 18

That the Australian Government initiate a process with key stakeholders to determine the needs of outer metropolitan and regional areas for higher education and the best ways to respond to those needs. *(Chapter 3.7)*

Recommendation 19

That the Australian Government adopt a framework for higher education accreditation, quality assurance and regulation featuring:

- accreditation of all providers based on their capacity to deliver on core requirements including:
  - an Australian Qualifications Framework with enhanced architecture and updated and more coherent descriptors of learning outcomes;
  - strengthened requirements for universities to carry out research in the fields in which they teach so that they can contribute fully to the knowledge economy and produce graduates who embody the distinctive value of teaching that is informed by research;
  - new quality assurance arrangements involving the development of standards and implementation of a transparent process for assuring the quality of learning outcomes across all providers of higher education; and
- an independent national regulatory body responsible for regulating all types of tertiary education. In the higher education sector it would:
  - accredit new providers including new universities;

— periodically reaccredit all providers including the existing universities on a cycle of up to 10 years depending on an assessment of risk;
— carry out quality audits of all providers focused on the institution's academic standards and the processes for setting, monitoring and maintaining them. This would include auditing the adoption of outcomes and standards-based arrangements for assuring the quality of higher education;
— register and audit providers for the purpose of legislation protecting overseas students studying in Australia and assuring the quality of their education;
— provide advice to government on higher education issues referred to it or on its own initiative; and
— supervise price capping arrangements in courses offered only on a full-fee basis where public subsidies do not apply. *(Chapter 4.1)*

Recommendation 20

That the Australian Government establish by 2010, after consultation with the states and territories, a national regulatory body to be responsible for:

- accrediting and reaccrediting all providers of higher education and accrediting their courses where the provider is not authorised to do so;
- conducting regular quality audits of higher education providers;
- providing advice on quality, effectiveness and efficiency; and
- registering and auditing providers for the purposes of the *Education Services for Overseas Students* (ESOS) *Act 2000. (Chapter 4.1)*

Recommendation 21

That the Australian Government, after consultation with the states and territories, revise the processes for higher education accreditation and audit to provide for:

- periodic reaccreditation of all higher education providers on a cycle of up to 10 years by a national regulatory body with the authority to impose conditions on reaccreditation, to require follow-up action or to remove a provider's right to operate if necessary; and
- a shorter-cycle quality audit focused on their academic standards and processes for setting, monitoring and maintaining them with the results to be publicly released and a process for follow-up on action required. *(Chapter 4.1)*

Recommendation 22

That the Australian Government, after consultation with the states and territories, develop more rigorous criteria for accrediting universities and other higher education providers based around strengthening the link between teaching and research as a defining characteristic of university accreditation and reaccreditation. In particular, universities should be required to:

- deliver higher education qualifications including research higher degrees in at least three broad fields of education initially and a larger number over time;
- undertake sufficient research in at least three broad fields initially and over time in all broad fields in which coursework degrees are offered; and
- undertake sufficient research in all narrow fields in which research higher degrees are offered. *(Chapter 4.1)*

Recommendation 23

That the Australian Government commission and appropriately fund work on the development of new quality assurance arrangements for higher education as part of the new framework set out in Recommendation 19. This would involve:

- a set of indicators and instruments to directly assess and compare learning outcomes; and
- a set of formal statements of academic standards by discipline along with processes for applying those standards. *(Chapter 4.1)*

Recommendation 24

That the Australian Government, in consultation with the states and territories, review the Australian Qualifications Framework to improve and clarify its structure and qualifications descriptors. Ongoing responsibility for a revised qualifications framework should rest with the national regulatory body. *(Chapter 4.1)*

Recommendation 25

That the higher education financing system be designed around the following principles to:

- provide students with increased opportunities to decide for themselves what and where they will study through an entitlement;
- maintain the existing income contingent loans schemes that overcome up-front barriers to study;
- allocate government funding through an approach that is:
  - driven by student demand and so largely formula-based with fewer separate, small components of funding;
  - fair, transparent and as simple as possible to understand and administer while retaining the integrity of the policy framework;
- reward providers for performance against agreed outcomes by containing a component which is based on achievement of targets; and
- ensure that Australia remains competitive in the provision of higher education compared with other countries by:
  - providing adequate levels of funding for each of the core activities of teaching and research;
  - supporting growth in higher education participation as part of achieving attainment targets; and
  - preserving the real value of the government's public investment in the sector over time. *(Chapter 4.2)*

Recommendation 26

That the Australian Government increase the base funding for teaching and learning in higher education by 10 per cent from 2010. *(Chapter 4.2)*

Recommendation 27

That the Australian Government maintain the future value of increased base funding for higher education by an indexation formula that is based on 90 per cent of the Labour Price Index (Professional) plus the Consumer Price Index with weightings of 75 per cent and 25 per cent respectively. *(Chapter 4.2)*

Recommendation 28

That the Australian Government commission an independent triennial review of the base funding levels for learning and teaching in higher education to ensure that funding levels remain internationally competitive and appropriate for the sector. *(Chapter 4.2)*

Recommendation 29

That the Australian Government introduce a demand-driven entitlement system for domestic higher education students, in which recognised providers are free to enrol as many eligible students as they wish in eligible higher education courses and receive corresponding government subsidies for those students. The arrangements would:

- apply initially to undergraduate courses but then be extended to postgraduate coursework level courses subject to further work on the balance of public and private benefits at that level of study;
- apply initially only to public universities (Table A providers under the *Higher Education Support Act 2003*), but would be extended to other approved providers when new regulatory arrangements are in place;
- set no time or dollar limit on the value of the entitlement;
- allow eligible providers to set their own entry standards, and determine which, and how many, students to enrol;
- allow providers to change the mix of student load by discipline cluster in response to demand; and
- allow the government to exclude a course of study from the demand-driven system if it wished to regulate student or graduate numbers.

Recommendation 30

That the Australian Government regularly review the effectiveness of measures to improve higher education access and outcomes for Indigenous people in consultation with the Indigenous Higher Education Advisory Council. *(Chapter 4.2)*

Recommendation 31

That the Australian Government increase the funding for the access and participation of under-represented groups of students to a level equivalent to 4 per cent of the total grants for teaching. This would be allocated through a new program for outreach activities and a loading paid to institutions enrolling students from low socio-economic backgrounds. Funding for the Disability Support Program would be increased to $20 million per year. *(Chapter 4.2)*

Recommendation 32

That the Australian Government quarantine 2.5 per cent of the total government funding for teaching and learning for each provider to be allocated on the basis of achievement against a set of institutional performance targets which would be negotiated annually. *(Chapter 4.2)*

Recommendation 33

That the Australian Government commission work on options for achieving a more rational and consistent sharing of costs between students and across discipline clusters in the context of triennial reviews of base funding for learning and teaching. *(Chapter 4.2)*

Recommendation 34

That the Australian Government implement an approach to tuition fees in which maximum student contribution amounts (price caps) apply for any domestic undergraduate or coursework postgraduate students for whom the provider receives a public subsidy for their course. *(Chapter 4.2)*

Recommendation 35

That the Australian Government implement an approach to tuition fees for domestic undergraduate students in which all providers are able to offer courses on a full-fee basis where public subsidies are not received for any students in that particular course. *(Chapter 4.2)*

Recommendation 36

That the Australian Government:

- increase the maximum student contribution amount for nursing and education units of study for students commencing from 2010 to the band 1 rate; and
- encourage people to enrol and work in nursing and teaching by reducing HELP debts for graduates who work in those professions by $1,500 per annum for each of five years, at the same time as their HELP repayment requirements are forgiven to an equivalent amount. *(Chapter 4.2)*

Recommendation 37

That the Australian Government:

- increase the loan fee for FEE-HELP for fee-paying undergraduate students to 25 per cent; and
- remove the loan fee on OS-HELP loans to encourage more Australian students to undertake part of their studies overseas. *(Chapter 4.2)*

Recommendation 38

That the Australian Government establish a new Structural Adjustment Fund amounting to about $400 million in funding over a four-year period from 2009-10 to assist the sector to adapt to the reforms recommended in this report. *(Chapter 4.2)*

Recommendation 39

That the Australian Government provide funds to match new philanthropic donations received in the sector as a means of stimulating an additional revenue stream from this source with the cost capped per institution, and in total at $200 million over three years. *(Chapter 4.2)*

Recommendation 40

That Australian Government legislation and guidelines contain clear and objective criteria for determining access to different types of funding and assistance for higher education. These criteria should:

- reflect the public nature of the purposes for which funding is provided;
- ensure that funds for learning and teaching are directed only to institutions with the capacity to deliver courses of the requisite standard; and
- ensure that funds for research and research training are directed only to those higher education institutions which are accredited and have appropriately qualified and suitable researchers and the capability to achieve an acceptable return on public investment. *(Chapter 4.2)*

Recommendation 41

That the Australian Government provide funds of $130 million over four years towards the costs of implementing these reforms. *(Chapter 4.2)*

Recommendation 42

That the Australian Government develop and implement an accountability framework for the new higher education funding system that is consistent with the broader funding, governance and regulatory framework. In particular it should:

- place primary accountability for performance with the provider's governing body;
- provide for accountability that is simple, clear and transparent where funding follows student demand;
- reflect negotiated targets in relation to performance-based funding; and
- ensure that accountability for other specific-purpose funding occurs under transparent guidelines and is administered through contracts in relation to each program. *(Chapter 4.2)*

Recommendation 43

That the Australian Government negotiate with the states and territories to expand the national regulatory and quality assurance agency (Recommendation 20) to cover the entire tertiary sector (including vocational education and training and higher education) and that the Australian Government assume full responsibility for the regulation of tertiary education and training in Australia by 2010. *(Chapter 4.3)*

Recommendation 44

That the Australian Government negotiate with the states and territories to introduce a tertiary entitlement funding model across higher education and vocational education and training (VET) commencing with the upper levels of VET (diplomas and advanced diplomas) and progressing to the other levels as soon as practicable. *(Chapter 4.3)*

Recommendation 45

That the Australian Government negotiate with the states and territories to extend income contingent loans to students enrolled in VET diplomas and advanced diplomas. *(Chapter 4.3)*

Recommendation 46

That the Australian Government and the governments of the states and territories agree to:

- establish a single ministerial council with responsibility for all tertiary education and training;
- improve the scope and coordination of labour market intelligence so that it covers the whole tertiary sector and supports a more responsive and dynamic role for both vocational education and training and higher education; and
- expand the purpose and role of the National Centre for Vocational Education Research so that it covers the whole tertiary sector. *(Chapter 4.3)*

Findings

Completion rates

Further work should be undertaken on the reasons why students fail to complete their studies. *(Chapter 3.1)*

Admission and selection processes

There should be trials of alternative approaches to the selection of students which use a broader range of criteria, in addition to, or replacing tertiary entrance scores (TER) and which recognise structural disadvantage. *(Chapter 3.2)*

Indigenous knowledge

Higher Education providers should ensure that the institutional culture, the cultural competence of staff and the nature of the curriculum recognises and supports the participation of Indigenous students. *(Chapter 3.2)*

Indigenous knowledge should be embedded into the curriculum to ensure that all students have an understanding of Indigenous culture. *(Chapter 3.2)*

Public reporting of participation

The reporting, monitoring and accountability processes for the participation of under-represented groups should be strengthened. Information about institutional performance should be made public. *(Chapter 3.2)*

International benchmarks of participation

The Department of Education, Employment and Workplace Relations should develop a set of benchmarks which provide comparable data with the United Kingdom, United States, Canada and other countries so that Australia's performance can be regularly compared with that of other developed nations.

The following table provides an indicative list of suggested targets for groups of students that are currently under-represented in the higher education system. *(Chapter 3.2)*

Suggested targets for under-represented groups of students in higher education

Student group	Measure	Target
Low SES students	Access rate	20% based on current postcode methodology or representative of the population share for the new low SES measure developed
	Completion rate	At least 95% of the rate for high SES students.
Regional students	Access rate	Proportion of the population aged 15 to 64 years in this group as defined by the ARIA classification in the 2006 census
	Success rate	Same rates as for metropolitan students
	Retention rate	Same rates as for metropolitan students
	Completion rate	Same rates as for metropolitan students

Student group	Measure	Target
Remote students	Access rate	Proportion of the population aged 15 to 64 years in this group as defined by the ARIA classification in the 2006 census
	Success rate	Same rates as for metropolitan students
	Retention rate	At least 90% of that for metropolitan students
	Completion rate	At least 90% of that for metropolitan students
Indigenous students	Access rate	Proportion that the Indigenous population aged 15 to 64 years represents of the general population in this age group in the 2006 census
	Success rate	At least 95% of the rates for non-Indigenous students
	Retention rate	At least 90% of the rate for non-Indigenous students
	Completion rate	At least 90% of the rate for non-Indigenous students

Income support payments

The level of income support benefits paid to eligible students should be considered in the context of the findings of the Harmer review of pensions. *(Chapter 3.3)*

Indigenous scholarships

Indigenous scholarships should be kept separate from other types of Commonwealth Scholarships with the responsibility for the assessment and payment of these scholarships resting with individual higher education providers. The existing arrangements for Indigenous students who receive Indigenous Enabling Scholarships to be eligible for ordinary Commonwealth Scholarships should continue. Likewise, Indigenous staff scholarships should continue in their current form. *(Chapter 3.3)*

Further changes to income support arrangements

Further work should be undertaken on the feasibility and impact on students of introducing a loans supplement scheme or using FEE-HELP as an instrument for income support. *(Chapter 3.3)*

Student engagement

Comparative information about institutional performance on the Course Experience Questionnaire and the Australasian Survey of Student Engagement should be published on the Going to Uni website as well as broad details of actions taken by institutions to address issues identified through student feedback. *(Chapter 3.4)*

The Australian Learning and Teaching Council

The Australian Learning and Teaching Council should continue to play a significant role in the further improvement of teaching and learning in higher education. There is no need for any major change to its mode of operation or focus. *(Chapter 3.4)*

Governance arrangements for research

Policy on, and decisions about, the funding of research and research training in universities should be made jointly by the Minister for Innovation, Industry, Science and Research and the Minister for Education, Employment and Workplace Relations. *(Chapter 3.5)*

Protections for international students

The Australian Government should commission, by 2012, an independent review of the implementation of the amendments made in 2007 to the *Education Services for Overseas Students Act 2000.* The review should also take account of developments in other countries. *(Chapter 3.6)*

Measuring learning outcomes

Australia should participate in any program resulting from the OECD's Assessment of Higher Education Learning Outcomes if the feasibility study currently underway produces a workable model. *(Chapter 4.1)*

Student data

Higher education providers should be required to provide annual data on student numbers and characteristics as a condition of their accreditation. *(Chapter 4.1)*

Funding for postgraduate coursework

Commonwealth supported students in postgraduate coursework programs should continue to be funded at the same rate as those in undergraduate programs as there is insufficient evidence at this stage to justify a general, higher rate of funding. However, this should be kept under review in the proposed independent triennial reviews of funding for teaching to be commissioned by the Australian Government. In particular, institutions should be encouraged to develop better data on costs of delivery within a robust activity-based costing system before this issue is progressed. *(Chapter 4.2)*

Funding for the creative arts

There are inconsistent arrangements for the funding of the creative arts across government portfolios and this should be considered as part of setting new funding rates by discipline. *(Chapter 4.2)*

HELP schemes

The distribution of subsidies across the various HELP schemes should be periodically reviewed to ensure that they continue to meet the ongoing requirements of the higher education system and the government. *(Chapter 4.2)*

Further work should be undertaken on the options for collecting HELP repayments from students while they are living overseas. *(Chapter 4.2)*

Funding for community engagement

A separate stream of funding should not be provided for community engagement or 'third stream' activities given that these activities are an integral part of an institution's teaching and research activities. The funding recommended in this report for support of teaching and research should be sufficient to sustain these activities without a separate stream of funding. *(Chapter 4.2)*

Funding for infrastructure

The Education Investment Fund should be sufficient to meet the major infrastructure needs of the sector over the coming years, provided that the capital is not drawn down at a rapid rate (ie not quicker than 20 years). The Capital Development Pool should continue in its current form to assist in meeting the needs of institutions for more modest capital projects. Funding for ongoing maintenance should be the responsibility of individual institutions to manage within their general resources. *(Chapter 4.2)*

Credit transfer

Vocational education and training and higher education providers should continue to enhance pathways for students through the development and implementation of common terminology and graded assessment in the upper levels of vocational education and training. *(Chapter 4.3)*

1. A long-term vision for higher education in Australia

Australia is a wealthy nation, rich in natural resources and in the talents of its increasingly diverse population. Its democratic institutions, combined with a strong economy, have created the conditions for a just, creative and productive society.

However, none of the benefits that now flow to the Australian community from its past efforts or present endowments is guaranteed forever in an interconnected world where change is rapid and unpredictable. The current financial crisis highlights both the speed with which events elsewhere can affect our country and the force with which they can hit our institutions. Only citizens who are resilient, informed, adaptable and confident will manage the consequences of the new global economy with all its opportunities and threats. A strong education system designed to ensure genuine opportunity for all to reach their full potential and to continue to improve their knowledge and capacities throughout their lives will build such people.

During the process of consultation for this review, educators, business people, community members and state and regional governments have emphasised the critical importance of increasing the numbers of people who gain a higher education qualification and strengthening our higher education institutions. They argue that this will contribute to a more resilient society and economy. This view is consistent with what is happening elsewhere in both developed and developing countries.

It has been striking that, overwhelmingly, contributors to this review consider that the higher education sector is critical for our future. While there have been many suggestions about areas for improvement, the consensus has been that increased investment in education is essential. The general view, supported by comparison with costs in other countries, is that the current level of private contribution by individuals to obtain a higher education qualification is sufficient, but that a substantial increase in the level of public funding is required to strengthen the system.

But increases in public funding alone will not suffice to position Australia for the future. A streamlined system with clearer roles for the Australian and state and territory governments, greater and fairer choice, more effective regulation and greater flexibility of provision are needed. This requires urgent and substantial structural change. Small incremental adjustments and improvements are not enough if the system is to play its rightful part in meeting the nation's current and future challenges.

Before outlining a vision for higher education to 2020 there are three broad issues that need to be addressed. They are a national framework for tertiary education, an internationally competitive higher education system and Australia's long-term competitive position in tertiary education[1].

1 OECD defines tertiary education as programs at International Standard Classification of Education (ISCED) levels 5B, 5A and 6. Programs below ISCED level 5B are not considered tertiary level (OECD 2008). The OECD definition of tertiary education is used throughout this report.

Framework for tertiary provision

This has been primarily a review of higher education[2]. However, inevitably given the terms of reference and the connections of higher education to other parts of the education and innovation system, the panel has made comments and recommendations about higher education's contribution to Australia's framework of tertiary provision and the framework itself. These are dealt with in Chapters 4.1 and 4.3.

Australia is a sparsely populated country that faces real challenges in ensuring equity of provision across vast distances. A complex and confusing system for governance of this critical area of policy is evident. Governments, statutory authorities and a range of advisory bodies are actively involved in controlling and advising on tertiary education provision. In today's complex world, the Australian tertiary education system needs clarity in relation to which level of government is accountable and has primary responsibility for funding and full responsibility for regulating tertiary education.

An internationally competitive higher education system

Australia has developed an effective and efficient higher education system. A recent *University World News* analysis ranked the Australian system third in the world (Gerritsen 2008). This is a significant achievement and the result of bi-partisan support over the last 20 years for delivery of accessible, high-quality university education to as many citizens as possible.

Despite this, widespread concern exists within the sector that current arrangements are not sustainable or appropriate if the sector is to meet the challenges facing it now and into the future. While we have a higher education system of which Australians can be proud, not all institutions within the system are thriving.

Universities with historically acquired status and resources, supported by good governance, leadership and management, are likely to prosper under almost any set of arrangements and conditions. However, without additional public funding and support, some other institutions established more recently or located in regional or remote parts of Australia may struggle to fulfil all the expectations of what popularly constitutes a modern university.

During the process of this review, some have argued that there is a case for radical change to the structure of the higher education system in Australia. This debate has included specific and wide-ranging proposals to address the sustainability of institutions, to concentrate research investment and effort, to create greater diversity, to create new forms of institutions and to improve the interface with vocational education and training. Most of these would require government-driven or mandated restructuring of higher education.

The panel is not drawn to recommend a formal process to restructure higher education in line with any prescribed model. Such a process would be a prescription for increasing levels of government intervention in the affairs of institutions. Instead the panel's preference is to establish a national framework which allows progressive change in the structure of the sector to occur over time as institutions and governments respond to emerging trends in the environment. Such a framework should permit a diversity of approaches by institutions while also encouraging excellence, innovation and accountability. It should also encourage

2 Higher education is defined in this report as Australian Qualifications Framework qualifications at associate degree and above and diplomas and advanced diplomas accredited in the higher education system.

institutions to both work together and compete with each other, while meeting the nation's needs for high-quality, tertiary-educated citizens.

Australia's long-term competitive position

Consistent with its terms of reference, this review has concentrated on the immediate and medium-term challenges for the system as a whole. Implementation of the recommendations contained in this report will significantly strengthen the system in the short and medium term.

However, because other countries have already moved to address participation and investment in tertiary education, the recommendations in this report are likely to do no more than maintain the sector's relative international performance and position.

Australia is losing ground against a number of its competitor countries on a range of indicators. To go further, to build new economic and social arrangements which might allow us to exploit both our natural resources and the potential for innovation by Australia's people and institutions, then over the long term, substantially greater public support and funding will be required than recommended in this report. Other countries have already chosen to increase their investment in tertiary education so that their people can use their knowledge to help create national competitive advantage. Australia should make a similar choice.

Whatever approach is adopted, greater recognition is needed in government and within the community about the competitive position of the Australian tertiary education system. The panel urges government to develop a set of public performance indicators to allow assessment of how well the Australian tertiary education system is performing against other countries.

If the Australian Government publicly committed to ensuring that it stayed within the top group of Organisation for Economic Co-operation and Development (OECD) nations in relation to the quality and performance of its tertiary education system and developed transparent measures to track and report its achievement annually, greater clarity would exist in relation to the inevitable debates about what is the right level of public funding and what should be expected from this level of public funding. Such an initiative would also make it less likely that Australia would fall far behind other countries. It would keep this major issue of maintaining the real wealth of the nation – the capacity of its people – permanently on the public agenda.

1.1 Changes in the strategic context

Since the mid-20th century, our higher education sector has demonstrated considerable resilience and a robust capacity to respond to major changes in the demands placed upon it. These include substantial changes in the governance and funding arrangements for the sector. Such changes include a move from state responsibility to the dominance of the Australian Government in terms of financial and policy responsibility; growth of non-university tertiary education provision; major changes in financing arrangements with the abolition of tuition fees in 1974 and the introduction of the Higher Education Contribution Scheme (HECS) in 1989; and the end of the binary system from 1988. This last change was accompanied by a massive expansion in the number of domestic and international students and a move towards greater reliance on non-Commonwealth Government sources of revenue. In the last decade, private higher education provision has grown and, more recently, some private higher education providers have received Commonwealth Government subsidised places.

The policy directions in higher education in Australia over the last two decades can be summarised as:

- increasing the percentage of the population participating in higher education;
- increasing the diversity of university income sources, including from international students;
- increasing the contribution by students to the costs of their education;
- improving productivity and efficiency in higher education;
- introducing competitive or performance-based funding; and
- diversifying higher education by government support for private provision.

In general, these significant changes in the sector's strategic directions have led to improvements in many aspects of higher education performance. Against this background, the higher education system has moved from an elite to a mass system, developed Australia's third-largest export industry and maintained its relative research performance.

However, conditions have changed as other countries have followed our lead, reforming and investing in this sector because they have accepted the nexus between tertiary education participation and productivity. This has led them to establish new structures, funding levels and regulatory regimes. This shift has been recognised by the OECD:

> The widespread recognition that tertiary education is a major driver of economic competitiveness in an increasingly knowledge-driven global economy has made high quality tertiary education more important than ever before. The imperative for countries is to raise higher-level employment skills, to sustain a globally competitive research base and to improve knowledge dissemination to the benefit of society. (OECD 2008a, p.23)

As a consequence, our first-mover advantage which flowed from earlier reforms has now all but dissipated. It is, therefore, vital that Australia ensures it is not left behind, benchmarking its current and future performance against its past. Merely to stay competitive will require major changes in structures, funding and regulation.

Goals for tertiary education participation have been set. The Commonwealth, state and territory governments have agreed to work together to halve the proportion of Australians aged between 20 and 64 years without qualifications at the certificate III level and above between 2009 and 2020 – nearly 6.5 million people. This Review of Australian Higher Education is one of the activities underway to set the policy framework to address this target. The report which follows outlines how the Australian tertiary education system can meet our current and future higher education needs.

1.2 Vision and principles for higher education to 2020

A vision for the future

Despite unprecedented change in the role of universities and greater diversity in the composition of higher education providers, Australia needs a higher education sector that is responsive to unpredictable change on a global scale.

Education is at the core of any national agenda for social and economic change. Higher education with its twin functions of teaching and research will make a critical contribution to the nation's capacity to adapt and to shape the nature of social and economic change.

Higher education is the site for the production and transmission of new knowledge and for new applications of knowledge. It is here that the most highly skilled members of the workforce are educated and here too that the intellectual base for new knowledge-intensive industries is formed.

But higher education in a modern democracy does more than this. By deepening understanding of health and social issues, and by providing access to higher levels of learning to people from all backgrounds, it can enhance social inclusion and reduce social and economic disadvantage. By engaging with scholars from other countries and educating people from other countries, it helps create a nation confident and engaged both with its geographic region and the wider community of nations. By helping sustain and renew other institutions through its capacity to develop knowledge and skills, higher education acts as a cornerstone of the institutional framework of society.

At the same time, its traditional personal development role also remains critical and relevant. Higher education can transform the lives of individuals and through them their communities and the nation by engendering a love of learning for its own sake and a passion for intellectual discovery.

The functions of higher education

The central place of higher education in modern Australia derives primarily from the traditional functions of universities in western countries. Universities must show evidence of internationally competitive performance against all aspects of the following functions.

- Developing and disseminating advanced-level knowledge and skills through teaching and scholarship:
  - to provide for self-fulfilment, personal development and the pursuit of knowledge as an end in itself;
  - to provide the skills of critical analysis and independent thought to support full participation in a civil society;
  - to prepare leaders for diverse, global environments; and
  - to support a highly productive and professional labour force.
- Generating new knowledge and developing new applications of knowledge:
  - by undertaking basic and applied research;
  - by developing high-level research skills; and
  - by exchanging and transferring knowledge and its applications with industry and society.

Through the exercise of these functions and related activities, the higher education system in modern Australia also makes essential contributions to:

- developing and maintaining a just, civil and sustainable society
  - by playing a key role in the development and maintenance of the nation's legal, economic, cultural and social institutions;

  - by assisting to develop the capacity of Australia to function effectively in the community of nations and of individual Australians to be global citizens; and
  - by helping develop and maintain regions and communities; and
- building the national economy.

The Australian higher education system is now comprised of more than universities. Other providers of higher education also play an important part in the system and they need to be judged against their ability to disseminate knowledge through teaching and learning and by the exercise of scholarship. However, unlike universities, they are not generally expected to engage in the generation of new knowledge.

Vision for 2020

A vision for Australian higher education in 2020 is a system which:

- produces graduates with the knowledge, skills and understandings[3] for full participation in society as it anticipates and meets the needs of the Australian and international labour markets;
- provides opportunities for all capable people to participate to their full potential and supports them to do so;
- provides students with a stimulating and rewarding higher education experience;
- plays a pivotal role in the national research and innovation system through generation and dissemination of new knowledge and through the education, training and development of world-class researchers across a wide range of intellectual disciplines;
- engages in the global community through student and staff mobility and the exchange of knowledge and ideas;
- contributes to the understanding and development of Australia's social and cultural structures and its national and regional economies;
- engages effectively with other education and training sectors to provide a continuum of high-quality learning opportunities throughout an individual's life; and
- is in the top group of OECD countries in terms of participation and performance.

Strategic goals

To ensure Australia's citizens can contribute to society and Australia can meet the complex challenges which the future brings, the goals for the higher education sector within the tertiary education system should be:

- A high-quality system comparable to the best in the OECD by 2020 in terms of success in learning outcomes
  - progressive increases in the level of public funding for higher education to position Australia in the top group of OECD countries in terms of total funding;
  - guaranteed access to higher education for all capable students with a national attainment rate target of 40 per cent of 25- to 34-year-olds by 2020;
  - an entitlement to a Commonwealth supported place for all domestic students

3 In the Discussion Paper, a core function of contemporary higher education was identified as 'Developing high level knowledge and skills'. There is general agreement that there is a third component of educated performance which involves a broader element variously described as understandings, capability or attributes. This element permits the individual to think flexibly or act intelligently in situations which may not previously have been experienced. Often, value positions, including a commitment to lifelong learning or to responsible citizenship, or the insights derived from practical experience are seen to be components of this.

accepted into an eligible, accredited higher education course at a recognised higher education provider; and
  - a strengthened accreditation and quality assurance process to ensure that students receive the best possible education.
- A high-quality system comparable to the best in the OECD by 2020 in terms of national research performance
  - sufficient public funding for universities to carry out research and knowledge diffusion activities to ensure that, together with funds from industry sources, Australia's investment in university research and knowledge diffusion is in the top group of OECD countries by 2020.
- A national system of higher education which supports access for all those who are capable
  - better financial support for students to ensure they have the time and resources to devote to their studies; and
  - better support for institutions to assist students from a wide range of backgrounds, particularly Indigenous students, students from low socio-economic backgrounds and those from regional and remote areas.
- A national system of higher education which is sustainable over time but dynamic at an institutional level
  - a diverse sector which enables institutions to play to their strengths;
  - a funding system which is driven by demand from students and promotes competition and choice for students;
  - more efficient regulation of the sector between the Australian Government and the states and territories; and
  - a more coherent higher education system which focuses on the quality of education provided rather than the legislative basis or ownership of the provider.

Principles

These strategies are underpinned by a set of guiding principles that will facilitate future decision making and provide a consistent basis for the ongoing development of policies capable of delivering the strategic objectives.

- Public funding should be directed only to those institutions that:
  - encourage both students and staff to engage in critical enquiry;
  - allow freedom for academic staff to comment publicly on matters which are within their area of expertise;
  - permit entry to any student without regard to race, gender or religious belief; and
  - demonstrate that there is an institutional strategy in place to support a culture of sustained scholarship.
- Public funding for higher education should be provided in a way that:
  - is transparent and fair to all providers;
  - is directly related to the outcomes being sought; and
  - encourages providers to pursue their own strategic directions for the benefit of students and the broader community.
- All higher education providers receiving public funding for higher education should:
  - have fair and transparent processes for admitting students;

— have processes in place to encourage the participation of students from across the population spectrum;
— provide flexible study opportunities for all students; and
— have support structures in place to ensure that all students are able to achieve to the best of their abilities.

Recommendation 1

That the Australian Government adopt the vision, strategic goals and principles for the higher education system set out in this report.

2. How well placed is Australia to deliver on the vision?

Australia's higher education system has many high-quality providers, and has maintained relatively strong performance in providing domestic and international students with a quality higher education experience. Research performance is also internationally competitive.

The panel readily acknowledges these achievements. However, Australia is at risk of falling behind the performance of other Organisation for Economic Co-operation and Development (OECD) countries. This chapter outlines areas of decline in performance relative to other OECD countries and some of the implications of this.

Without significant reform and additional investment, current performance is unlikely to be sustained and, as many other countries have already begun to invest to improve their relative performance, our position internationally is likely to decline, possibly quite rapidly. This would have serious and irreversible social, economic and cultural consequences for the nation.

2.1 Meeting Australia's needs for people with high-level knowledge, skills and understandings

Notwithstanding the current global credit crisis and cyclical variations in industry demand, the panel's view is that Australia will have insufficient qualified people to meet its medium- and long-term needs. The Australian labour market has experienced persistent skill shortages in a number of important occupations. This threatens the long-term well-being of the community and the country's capacity to maintain and enhance global competitiveness and prosperity.

Research commissioned for the review on future demand for higher education predicts that, from 2010, the overall demand for people with higher education qualifications will exceed supply. A study by Access Economics shows that a shortfall will persist for most of the next decade. In particular, workers with undergraduate qualifications will be in short supply (Access Economics 2008).

Higher education providers operating under current funding levels and arrangements may be unable to increase supply adequately to meet the predicted level of demand for people with higher education qualifications without seriously jeopardising the quality of educational outcomes. This is a risk Australia cannot afford to take. As a result, far-reaching changes are called for.

More specifically, to meet forecast labour demand, Australia needs to increase the number of students who enter the system, return to study and complete qualifications.

The drop in Australia's performance on attainment of undergraduate or higher qualifications compared with other OECD countries is a cause for concern. Australia has slipped from 7th in 1996 (OECD 1998) to 9th in 2006 (OECD 2008b) in terms of attainment among 25- to 34-year-olds. Notwithstanding classification issues, the OECD top six countries are currently well ahead on this indicator, partly reflecting the significant investment made by a number of countries in recent years to expand their tertiary education sectors.

While undergraduate-level attainment is comparable with the OECD median, too many Australian students abandon their studies. The most recent OECD data shows that in 2005

Australia's completion rate was 72 per cent. While this was above the OECD average of 69 per cent, a drop-out rate of 28 per cent is a cause for concern, suggesting a need to improve performance.

However, this is only part of the story. Australia needs to harness the potential of all capable students to contribute to society and the economy. Actively encouraging and facilitating entry into higher education for people from groups who are currently under-represented is vital. In addition, encouraging people who are already in the workforce to upgrade their skills and qualifications is imperative.

Moreover, higher education institutions face their own workforce shortages of major proportions. Academic staff are approaching retirement age in significant numbers. There is a shortage of younger academics to take their places. This situation reflects global competition for high-quality staff and the relative unattractiveness of academic salaries and conditions, particularly compared with those offered by the private sector. This will require concerted action on many fronts to ensure that Australia has access to sufficient high-quality academic staff to educate new generations and conduct international-class research.

2.2 Providing opportunities for all capable people to participate to their full potential

A number of groups are significantly under-represented in higher education in Australia, with little change over the last decade.

The most under-represented groups are students from remote parts of Australia, Indigenous students and students from low socio-economic backgrounds. In 2007, only 1.1 per cent of people from remote areas participated in higher education, while the proportion of people from remote areas in the general population was 2.5 per cent. Participation of Indigenous people was 1.3 per cent (compared with representation in the population of 2.2 per cent); participation of people from a low socio-economic background was 15 per cent (compared with 25 per cent) and participation of rural and regional students was 18.1 per cent (compared with 25.4 per cent) (DEEWR 2008).

Given the projected shortfall in the number of suitably qualified people to meet Australia's workforce needs over the medium to long term, the failure to capitalise on the abilities of all Australians is a significant economic issue for the nation. It is also a matter of serious concern that individuals are discouraged from participating in, or denied access to, the economic and social opportunities which a higher education provides. Some comparable countries have also become concerned about this issue and have recently improved their performance in this area.

2.3 Providing students with a stimulating and rewarding higher education experience

It is essential that Australia's higher education institutions provide students with stimulating courses and teaching, a good-quality learning environment, access to support services and the opportunity to engage informally with staff and fellow students as part of a learning community, whether it is on-campus or off-campus using the latest available communication technologies.

In the absence of agreed national standards and robust measures of the quality of Australian higher education, student perceptions are an important indicator of the performance of the system. Students who are satisfied with their learning experience are more likely to complete initial qualifications, upgrade their qualifications at a later date and move into the workforce well prepared to contribute to the country's productivity growth and competitiveness.

High levels of student satisfaction will also help maintain global competitiveness by attracting international students. By international standards, the satisfaction of students with the quality of Australian higher education teaching and learning is of concern. It is significantly behind that of the United Kingdom, United States and Canada.

For example, the United Kingdom now administers to students in their final year of study the Course Experience Questionnaire (CEQ), developed by Graduate Careers Australia. The question related to overall satisfaction is the same in both countries. In 2005, 2006 and 2007 the result achieved in the United Kingdom was between 14 per cent and 15 per cent higher than the Australian result (Alexander & Bajada 2008).

In addition, the Australasian Survey of Student Engagement (AUSSE), a more recent survey, provides benchmarking data that makes comparison possible with United States and Canadian universities. The Australian results from a recent pilot test of the AUSSE are well below those of the United States and Canada, with the greatest disparity being for the *Student and staff interaction* scale and that for *Enriching educational experiences* (ACER 2008). While the panel acknowledges the need to obtain long-term and reliable, internationally-comparable, student experience data, these outcomes for one year of AUSSE data, when considered with the CEQ results, suggest action will be needed quickly.

The dramatic rise in student-to-staff ratios in recent years – from about 15:1 in 1996 to over 20:1 in 2006 – may have increased the overall productivity of the system, but it is probably a significant contributor to the relatively low levels of student satisfaction among students.

2.4 Playing a pivotal role in the national research and innovation agenda

Research and innovation play a pivotal role in Australia's international competitiveness and ongoing prosperity. Universities contribute through their research and innovation efforts to the nation's economic growth and productivity.

A study commissioned for the review (Barlow 2008) noted that, while Australian Government funding for competitive research grants has grown significantly in recent years, this has not been matched by growth in block grants programs which underpin institutions' research and research-training efforts. The university sector suggests that this has led to a pattern of cross-subsidisation of research from other revenue sources, such as grants for teaching and, in particular, fees from international students. The panel is concerned about the possible effects of excessive use of cross-subsidies on the quality of teaching and learning provided to students and on Australia's education export industry.

While the number of people completing higher degrees by research has increased since the mid-1990s, growth has been modest over the last five years. The stock of people with higher degrees by research needs to increase to replace the large group of ageing academics and to expand Australia's research and innovation workforce. A potential shortage of highly qualified people has serious implications for the nation.

2.5 International education and global engagement

Australia has established a considerable presence in international higher education. Australian universities have been successful in entering into collaborations with global research networks, and many of our universities are well regarded by international researchers. A number of universities have also invested considerable resources in promoting student and staff mobility and twinning programs with other countries.

In addition, export of education to international students has been an Australian success story over the last 20 years. Australia had the highest proportion of international students in higher education in the OECD: 20 per cent in 2006 (OECD 2008b). Education is Australia's third-largest export industry, with the higher education sector accounting for 60 per cent of all education export revenue in 2007 (Reserve Bank 2008).

However, this important export industry runs the risk of being undermined, with significant consequences not just for international and domestic students but for the broader Australian community. International students are concentrated in a narrow range of subject fields, in levels of study and by country of origin. While this means that Australia has been successful in establishing a comparative advantage in this market, it presents a threat if global political and economic circumstances change. As well, because some institutions accrue a relatively high proportion of their revenue from international students, they are particularly at risk from any downturn or change in student preferences.

A concentration of international students in particular courses may also lessen the value of the experience for both international and Australian students. While surveys show that overseas students are satisfied with their study experience in Australia, they express concerns about some aspects such as interaction with Australian students and involvement with staff (Australian Education International 2007). This poses a potential threat to an industry heavily dependent on the reported experiences of students.

While undergraduate education of international students is an important export industry, it has additional benefits for Australia. It has the potential to make a significant contribution to Australia's skilled migration effort in areas of labour market shortage.

A relatively low proportion of Australia's higher degree students are international students compared with other OECD countries. It has been in the provision of undergraduate education that Australia has excelled. But times have changed and, with looming shortages of academic staff and the new imperative to build international research networks, it is time to consider how increases in higher degree enrolments from high-performing international students might be encouraged.

Australian students have relatively low rates of outward movement compared with other OECD countries, and uptake of scholarships and other schemes to encourage movement overseas has been limited.

2.6 Contributing to Australia's communities and regions

A number of higher education providers and campuses located in remote, regional and outer metropolitan areas already face thin local demand and diseconomies of scale. A study commissioned for the review from Access Economics (Access Economics 2008) forecasts that, over the next decade, total numbers of 15- to 24-year-olds outside the state capitals will decline in Victoria, South Australia, Western Australia and Tasmania, as well as in Hobart and the Australian Capital Territory. The long-term sustainability of providers and campuses in some areas may be affected, and, thus, participation by people from these areas may fall further.

More innovative, sustainable and responsive models of tertiary education provision are needed in these areas to respond to rapidly changing local needs.

2.7 Conclusion

This analysis of the performance of Australia's higher education system points to an urgent need for both major structural responses and additional investment. In 2020 Australia will not be competitive with the top group of OECD countries in terms of the performance of higher education if there is a failure to act now.

3.1 Meeting Australia's needs for people with high-level knowledge, skills and understandings

3.1.1 Assessing future demand for higher education

There is a complex range of factors impacting on future demand for skilled labour that need to be understood in forecasting future educational requirements. To better understand such needs, the panel commissioned Access Economics to assess the quantum and nature of demand for higher education over the next decade. Access Economics (2008) modelled both supply of graduates (student demand) and labour market demand for graduates. This model provided an estimate of the difference between demand and supply of graduates. The findings are summarised below.

Future demand for higher education: key findings by Access Economics

Student supply (student demand for higher education) is expected to grow at a faster rate over the next decade than demographic changes would suggest, reflecting:

- an expected increase in Year 12 retention rates over time;
- a related increase in real wages over time, which provides a greater return to employment; and
- a continuing margin in wages growth favouring higher education intensive occupations.

Growth is projected to be greatest for postgraduate students, increasing by an average of 1.4 per cent per annum over the next decade, compared with growth of 1.1 per cent per annum for undergraduate students, and 1.2 per cent per annum for advanced diploma students and diploma students.

Demand for people with qualifications is expected to be stronger than overall employment growth over the next decade. While overall employment growth is expected to be 1.6 per cent per annum, projected growth for people with postgraduate qualifications is expected to be 3.6 per cent per annum, 2.9 per cent for those with undergraduate qualifications and 1.8 per cent for diploma qualifications. The higher growth rates for postgraduate and undergraduate qualifications reflect both the expected composition of future employment growth (favouring those occupations which are more higher education intensive), and an increase in average skill requirements within occupations over time (consistent with productivity growth).

A comparison of student supply and labour market demand projections for qualifications is set out in Table 1.

Table 1: Projected student demand and implied labour market demand for qualifications

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Supply of students											
Postgraduate	57,778	58,659	59,478	60,218	61,039	61,892	62,711	63,605	64,534	65,461	66,548
Undergraduate	115,930	117,926	119,771	121,357	122,798	124,034	125,032	125,934	126,814	127,796	128,956
Diploma/ Advanced Diploma	39,625	40,263	40,853	41,383	41,884	42,381	42,820	43,230	43,627	44,041	44,580
Total	**213,334**	**216,848**	**220,103**	**222,958**	**225,721**	**228,307**	**230,563**	**232,769**	**234,976**	**237,298**	**240,084**
Labour market demand											
Postgraduate	44,663	36,033	60,405	52,383	50,715	55,370	55,222	50,377	49,311	54,395	48,974
Undergraduate	145,379	115,381	193,545	163,886	159,871	174,985	173,753	156,667	152,319	168,298	150,588
Diploma/ Advanced Diploma	45,729	30,489	56,016	44,081	43,131	48,029	46,996	39,920	37,709	42,921	37,407
Total	**235,771**	**181,904**	**309,965**	**260,350**	**253,717**	**278,384**	**275,971**	**246,963**	**239,339**	**265,614**	**236,970**
Difference (supply less demand)											
Postgraduate	13,116	22,626	-927	7,835	10,323	6,522	7,489	13,228	15,223	11,065	17,574
Undergraduate	-29,449	2,545	-73,774	-42,529	-37,073	-50,951	-48,721	-30,733	-25,505	-40,502	-21,632
Diploma/ Advanced Diploma	-6,104	9,773	-15,162	-2,698	-1,247	-5,648	-4,176	3,311	5,918	1,120	7,172
Total	**-22,438**	**34,944**	**-89,863**	**-37,392**	**-27,997**	**-50,077**	**-45,408**	**-14,194**	**-4,363**	**-28,317**	**3,114**

Source: Access Economics 2008, Future demand for higher education

This table shows that, from 2010, total demand for people with higher education qualifications will exceed supply and that this will continue for most of the forecast period. This is driven by excess demand for undergraduate qualifications (with projections for postgraduate qualifications and diplomas and advanced diplomas closer to balance). To give some idea of orders of magnitude, in 2018, for example, it is estimated that there will be a shortfall of about 22,000 people with undergraduate qualifications, compared with an estimated 129,000 undergraduate completions that year.

The levels of excess demand are projected to fall over time as employment growth slows (driven by an expected decline in labour force participation during the next decade).

Access Economics suggests that a mismatch between supply and demand could create incentives for changes to occur, including in relative wages; different demographics and pathways for higher education; interstate and international migration levels; and the concordance between occupations and qualifications.

A core underlying assumption of the Access Economics (2008) modelling is that upskilling[4] of the workforce over time will be a major contributor to labour market demand. If this upskilling does not occur, demand for higher education qualifications is expected to be

4 Upskilling represents the increase observed in the average level of qualifications in the workforce over time. Enhancement of skills can also occur through other mechanisms such as on the job training.

more subdued, with the likely supply of students more than adequate to cater for expected employment growth.

Access Economics (2008) points to evidence from the Australian Bureau of Statistics Survey of Education and Work which shows a trend of increases in the share of the workforce holding postgraduate or undergraduate qualifications as their highest level qualification, which has occurred across most broad occupational categories over the last five years. However, it finds that the share of the workforce holding diplomas or advanced diploma qualifications as their highest level qualification has changed little in aggregate over the past decade.

Access Economics (2008) projects that a shortfall will occur in the supply of graduates over most years of the next decade, even though the quantum will vary substantially between years. In part, this reflects Access Economics' view of the business cycle over the next decade which affects the rate of employment growth.

In another study commissioned for the review, Birrell et al. (2008) found that Australia will have insufficient higher education students to meet its needs. Birrell et al. argued that this will occur despite student supply increasing in response to demographic change and students responding to projected growth in professional and para-professional employment[5].

3.1.2 Skill shortages

Australia has suffered persistent skill shortages in a number of professional areas served by the higher education sector. However, the global economic downturn may moderate the extent of labour shortages in the short to medium term. While an increase in overall higher education attainment will help alleviate such shortages, they are unlikely to be eliminated. Other factors such as time lags, salary levels and employment conditions can cause skills shortages in specific areas. Notwithstanding the general decline in vacancies associated with the current economic downturn, vacancies and shortages are likely to persist in some occupations and geographic regions and the loss of skilled labour from the labour market may accentuate skills shortages as the economy picks up.

To address occupations with labour supply shortages, incentives may be required to encourage students to enrol in relevant courses and institutions to provide courses which are aimed at addressing specific and localised skill shortages. Options are explored further in Chapter 4.2.

3.1.3 How is Australia placed to achieve higher levels of educational attainment?

Aggregate educational attainment at the post-school level involves a complex interplay of factors which include levels of Year 12 retention, access and pathways to tertiary education (both higher education and post-school Vocational Education and Training) and successful completion of courses.

Australia's Year 12 retention rates have improved significantly since the 1980s. However they are still marginally below the Organisation for Economic Co-operation and Development (OECD) average and well below the top six performing OECD countries (OECD 2008b).

5 The panel's discussion paper noted that researchers differ on the extent to which they believe Australia's future skill needs should be met by the higher education or by vocational education and training systems. For example, Shah and Burke (2006) consider that the labour market will need significantly more people to acquire vocational education and training qualifications over the next decade than higher education qualifications.

Raising Year 12 retention rates would help to increase the pool of potential higher education students. While Year 12 retention is outside the scope of this review, the panel notes that it is a policy focus for all Australian governments.

Attainment (completion of qualifications)

International benchmarks like the OECD comparison of educational attainment show that Australia's level of educational attainment of undergraduate qualifications is below the top six OECD countries. Australia's relative ranking for 25- to 34-year-olds has declined over the ten years from 1996 to 2006 (OECD 1998; OECD 2008b).

More specifically, Table 2 shows that, between 1996 and 2006, the proportion of Australia's population aged 25 to 34 years who had attained undergraduate qualifications increased from 16 to 29 per cent. However, Australia's relative ranking slipped from seventh among OECD countries to ninth. This is because countries such as Sweden, New Zealand and Finland improved at a faster rate. For example, the proportion of Sweden's population aged 25 to 34 years who attained undergraduate qualifications increased from 11 per cent to 31 per cent between 1996 and 2006, with its ranking improving from 18 to 6.

Table 2: International comparisons of educational attainment – percentage of bachelor degree or above

	1996		2006	
Age group	**25-64**	**25-34**	**25-64**	**25-34**
Australia	15	16	24	29
OECD median	12	14	19	27
OECD - top 6 countries	19	23	28	34
United Kingdom	13	15	22	29
United States	26	26	35	35
Canada[2]	17	20	24	29
Korea	19	30	23	33
Australia - Ranking	**6**	**7**	**6**	**9**

Note: Excluding ISCED 3C short programs. Due to the classification system adopted by the Canadian Labour Force Survey, elements of ISCED 4 are contained within ISCED 5B. This results in a higher percentage of the population with diploma and above qualifications and a lower percentage with Year 12 or equivalent or above qualifications.

Source: Education at a Glance 2008: OECD Indicators Tables A1.2a and A1.3a and Education at a Glance 1998, Tables A1.2a.

Access (number of students entering education and training)

Australia performs well in terms of the proportion of young people entering tertiary education. The Longitudinal Survey of Australian Youth (LSAY) tracked a cohort of young people aged 15 in 1995 and demonstrated that by the time they were 25 years old, 87 per cent had entered post-school education and training. About half had enrolled in higher education and the other half in post-school VET (Underwood, Hillman & Rothman 2007).

A significantly smaller proportion of the cohort had completed their qualifications by age 25. Thirty-two per cent had completed higher education qualifications and 44 per cent post-school VET qualifications. This might be partly explained by the longer duration of study in higher

education, and it is likely that some 25-year-olds were still studying and would complete their studies at some time in the future. Nevertheless, there appears to be a gap between entering and completion of studies. This is confirmed by OECD data on completion rates.

Completion rates

OECD data show that, in 2005, Australia's completion rate was 72 per cent compared with the OECD average of 69 per cent (OECD 2008b). While Australia's performance was better than the average, a non-completion (attrition) rate of 28 per cent suggests that improving the quality of the student experience is well worth attention.

Research indicates that completion rates vary significantly when considered in terms of gender, socio-economic background, field of study, age and basis of admission to higher education. They also vary by institution (DEST 2001).

Factors affecting an individual's completion are complex and can include the level of support from teachers and the institution, course content, course satisfaction, and the student's own expectations and personal circumstances. Institutions can influence some, but not all, of these factors to produce a more favourable outcome. On the other hand, some level of attrition must be expected and should be accepted.

3.1.4 Setting targets for higher education attainment in Australia

There is a need for decisive action to address the likely shortfall in numbers of qualified people in Australia over the next decade. Initiatives to address this challenge were put in place by the Council of Australian Governments Productivity Agenda Working Group, which recently set a target that by 2020, Australia will halve the proportion of Australians aged between 20 and 64 years without qualifications at the certificate III level and above (Rudd & Gillard 2008). The current number of Australians in the 15- to 64-year-old age group without post-school qualifications is nearly 6.5 million.

Higher education must be a significant contributor to the achievement of the Council of Australian Governments targets. The panel's recommendations for attainment and participation targets will establish the direction for this contribution.

Setting targets for the achievement of any goal does not of itself ensure that the goal is achieved. However, it can help. Setting targets that are clear and transparent can focus the mind of policymakers on what needs to be done to achieve the target and can help the community hold policymakers accountable.

However, for targets to be credible they need to be consistent with the overall goal of the policy; achievable, even if difficult; and sufficient resources must be available over the long term to fund the practical initiatives that will inevitably be required to ensure that targets are achieved.

A number of countries have recently set targets for higher education. These include: targets around access (proportion of population which is embarking on higher education); participation (proportion of population which is undertaking higher education); and attainment (proportion of population which has completed a higher education qualification). Some examples are set out in Table 3.

Table 3: Targets for higher education: selected countries

Country	Measure[a]	Age cohort	Time period	Target level	Current level
Sweden	Participation	Up to 25 years	N/A	50% of those under 25 should have embarked on university-level education	Target almost achieved
United Kingdom	Participation	18 to 30 years	By 2010	50% participation in higher education	43% in 2003
Germany	Access	Year group	By 2020	Increase the percentage entering tertiary education to 40%	Not available
Ireland	Participation	Tertiary relevant age cohort	By 2020	72%	55% in 2004[b]
Finland	Attainment	30 to 34 years	By 2015	50% are higher education graduates	40% in 2008

Note: a) Definitions of measures may vary across countries. However, there are some consistencies outlined here. Tertiary participation measures generally refer to the proportion of a given cohort enrolled at tertiary institutions at a given time. Tertiary access measures generally refer to the proportion of a given cohort that has commenced tertiary education at a given time. Tertiary attainment measures generally refer to the proportion of a given cohort that has completed tertiary education. b) This statistic refers to the total number of full-time entrants to higher education divided by an estimate of the total numbers of 17- to 19-year-olds in the population. Mature entrants (and other entrants outside the 17- to 19-year age range) are included in this statistic. Therefore increases in full-time mature students (entering higher education for the first time) will contribute to the achievement of this target, as of course will increases in the proportions of students from secondary level education transferring to higher education.) [National Plan for Equity of Access to Higher Education 2008-13].

Source: OECD Swedish background report; UK White paper 2003; The Future of Higher Education; German Federal Government website, 22 October 2008, Germany to become a Federal Republic of Education; Higher Education Authority of Ireland's National Plan for Equity of Access to Higher Education 2008-13; Ministry of Education Finland -Education and Research 2003-2008 –Development plan.

The panel is of the view that a target should be set for higher education attainment (completion of a qualification) rather than access (commencement) or participation (enrolment), as graduates feed directly into the workforce to meet labour market demand. Even if targets based on access or participation were achieved, they may have less impact on growth and productivity if a high proportion of students do not complete their studies.

The panel considers that the attainment target should focus on undergraduate qualifications, as this is the basic higher education qualification providing entry to high-skilled employment. In addition, Access Economics (2008) predicts that undergraduate qualifications will be in under-supply over the next decade, providing another reason to focus on this level.

The target should apply to 25- to 34-year-olds, as this is the group for whom policy changes will have the most direct impact over the next decade. In 2006, 29 per cent of 25- to 34-year-olds in Australia had attained a qualification at bachelor degree or above. A target of 40 per cent of 25- to 34-year-olds having attained an undergraduate qualification by 2020 takes account of current performance, is competitive with high-performing overseas countries and looks to future needs. The panel believes it is achievable if policy directions proposed in subsequent chapters are accepted and appropriately resourced by the Australian Government.

This can best be achieved by a fully demand-driven, student-entitlement system for funding domestic higher education students, which will free up higher education providers to meet the needs of students and the community.

Recommendation 2

That the Australian Government set a national target of at least 40 per cent of 25- to 34-year-olds having attained a qualification at bachelor level or above by 2020.

Scope to increase the supply of higher education qualified people

Achievement of the attainment target outlined above will require concerted action on a number of fronts, including increasing Year 12 retention rates at secondary-school level.

Increase attainment for people from under-represented groups

While entry rates to post-school education and training appear relatively high, particular groups within the population are under-represented in higher education. Scope exists to increase participation by these groups, which include people from low socio-economic backgrounds, those from regional and remote areas and Indigenous people.

Improve pathways from vocational education and training to higher education

In some cases, an effective way to improve access for people from under-represented groups is to streamline movement from VET to higher education. VET is a common pathway to higher education for many people from under-represented groups. However, while improving pathways is important, it must be recognised that this form of provision is not primarily a feeder for higher education and its primary purposes must not be distorted by the need to increase higher education participation. This is discussed further in Chapter 4.3.

Increase completion rates in higher education

A completion rate of 72 per cent offers some scope for improvement. Losing 28 per cent of those who have already indicated an interest in higher education appears wasteful of the talent of Australians. Limited evidence exists about the reasons behind student non-completion. The panel suggests that the Australian Government commission further research into the reasons for non-completion.

In the meantime, action can be taken in two areas. First, prospective students can be supplied with additional information about courses so they have realistic expectations of the course on which they intend to embark. Second, additional support can be provided to assist them to complete their studies.

Encourage workers to upgrade their qualifications

Workers seeking to upgrade their skills and qualification levels must be encouraged to enrol in higher education. While data shows that many mature-age entrants to higher education are building on undergraduate qualifications, a proportion are undertaking their first undergraduate degree and more should be encouraged to take this path. While people aged 35 and over upgrading their skills will not contribute to the national attainment target, it will lead to upgrading of the skills base of the workforce.

Change funding incentives to higher education providers

A new funding system would provide incentives to a wider range of higher education providers to seek out and enrol a broader group of students and would provide them with the flexibility to respond quickly to changes in labour market and student demand. The panel's proposed new financing framework is discussed further in Chapter 4.2.

3.1.5 Academic workforce

While this review has focused its attention on the broad issue of the medium- and long-term demand for qualifications and skills in Australia, the academic labour market needs urgent attention if the recommendations in this review are to be achieved. The capacity of the higher education sector to meet future labour market needs will be critically affected by the quality and capacity of the academic workforce.

The sector faces increasing difficulty in attracting and retaining high-quality academic staff. Indeed, in its submission to the review, the Australian Technology Network suggested that this was 'the single biggest issue confronting the sector over the next decade' (p. 14).

Four key factors which contribute to this shortfall are discussed below.

An additional factor relating to the changing nature of demand for higher levels of qualifications for academics is discussed in Chapter 3.5.

Academic workforce ageing

The academic workforce is ageing, and this is a worldwide phenomenon. Figure 1 shows the extent of the challenge, in the significantly higher proportion of Australian academic staff in the 45- to 54-year and 55- to 64-year age groups than the total Australian labour force. Academics in their 20s and 30s ('Generation X') in particular are significantly under-represented (Hugo 2008).

Unless this challenge is addressed, increasing numbers of retirements over the next decade will result in staff shortages. Of particular concern is the number of staff aged over 50 in discipline areas such as education, humanities, mathematical sciences and nursing (Hugo 2008).

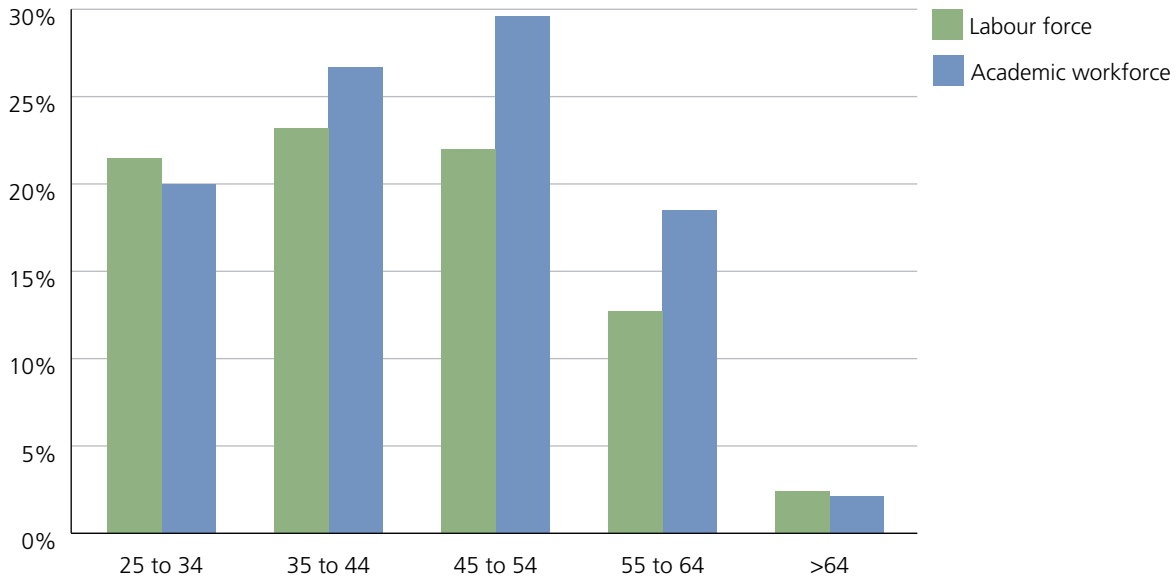
Modest growth rates in recent years in the number of people undertaking doctorates by research suggest that recruiting additional younger staff will present challenges. This is discussed further in Chapter 3.5.

Casualisation reduces attractiveness of an academic career

Australian universities are highly dependent on a casual workforce. According to the *RED Report*, published by The Australian Learning and Teaching Council (ALTC) in June 2008, all Australian universities depend heavily on sessional teaching staff, defined as 'any higher education instructors not in tenured or permanent positions, and employed on an hourly or honorary basis' (ALTC 2008, p. 4). An estimated 40 to 50 per cent of all teaching in Australian higher education is conducted by sessional staff (ALTC 2008).

Another study reported that sessional staff experience income insecurity, workloads beyond their paid hours, and feelings of isolation from the university community (Brown, Goodman & Yasukawa 2008).

Figure 1: Age profiles of the Australian labour force and the Australian academic workforce as at June 2007



Source: Australian Bureau of Statistics - Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001) June 2007; DEEWR - Selected Higher Education Statistics: Staff 2007

Other researchers caution that casualisation adversely impacts upon younger academic staff in particular: 'the use of flexible and casual working arrangements …disproportionately affects younger academics at the start of their careers and might serve to discourage young researchers from entering or remaining in the academic profession' (Kubler & DeLuca 2006, p. 67). These studies suggest that the casualisation of the academic workforce has reduced its attractiveness as a profession.

Working conditions reduce attractiveness

In a recent survey of universities in Commonwealth countries (Kubler & DeLuca 2006), Australian institutions reported moderate difficulty in recruiting academic staff and little difficulty in retaining staff. However, most anticipated both recruitment and retention of academic staff to become more challenging over the next five years, particularly in business studies, engineering, medicine and clinical sciences. The survey identified the level of remuneration as the most significant factor affecting recruitment and retention, with other important factors being research, teaching and administrative resources and pressures, and the external reputation of the institution.

According to the OECD, evidence exists that the relative attractiveness of becoming an academic has decreased globally: 'low salary levels, in particular when compared to the private sector, are a commonly cited source of dissatisfaction among academics in many countries' (OECD 2008a, vol. 2, p. 145).

International evidence exists that an increase in workloads and pressures on academics has led to reduced levels of satisfaction (OECD 2008a).

In Australia, higher student-to-staff ratios exacerbate this situation. An Australian study conducted early this decade concluded that 'Australian university staff, particularly academic

staff, are highly stressed. Diminishing resources, increased teaching loads and student-staff ratios, pressure to attract external funds, job insecurity, poor management and a lack of recognition and reward are some of the key factors driving the high level of stress' (Winefield et al. 2002, p. 8).

Coates et al. (2008) reported that the academics whom they surveyed did not encourage young people to pursue an academic career.

Global competition for high-quality academics

Competition has increased in the international academic labour market, where demand for good-quality teaching and research staff is high. English-speaking academics are in particularly high demand. As a disproportionate number of academics retire, the OECD has noted that 'OECD employers will increasingly need to look abroad for talent as new graduates will become insufficient to replace staff going into retirement' (OECD 2008a, vol.2. p. 236). This will increase the level of competition to attract and retain high-quality academic staff.

Such competition is reflected in increased global migration and the internationalisation of labour markets. As the United Nations noted in 2006:

- virtually all OECD countries are seeking skilled migrants, where in the past only a few nations, such as Australia, New Zealand, the United States and Canada were seeking immigrants;
- a high demand exists for researchers, scientists and highly productive academics; and
- a substantial increase has occurred in student migration, particularly at the postgraduate level (cited in Hugo 2008).

Historically, Australia has been a significant employer of overseas academic staff. In 2006, 40.5 per cent of Australian academic staff had a country of birth other than Australia, compared with 25.7 per cent of the total workforce and 23.9 per cent of the total Australian population. This reflects the rapid expansion of Australia's university sector in the 1960s and 1970s, when many young academics were recruited from overseas, especially the United Kingdom. The introduction in 1996 of the temporary business migration categories, which allow recipients to work in Australia for up to four years, gave universities more freedom to look overseas for academic talent, and universities are among the highest users of these visas (Hugo 2008).

However, while the use of temporary business migration visas allows the sector to compete for global talent, their temporary nature means that high staff turnover exists. Despite a net gain of academics through migration, an increasing proportion of immigrant academics are not coming to continuing positions in Australian universities. In addition, increasing numbers of Australian academics are leaving Australia to work overseas on a long-term or permanent basis (Hugo 2008).

While many Australian academics working abroad would like to return home, they feel unable to do so because of lower pay, inferior resources and difficulty of career progression (Hugo 2008). In addition, while overseas many partner and have children, reducing the likelihood of their returning to Australia.

Action required

Based on the analysis above, action is required to enhance Australia's attractiveness to current and potential academic staff through three related strategies:

- Increase the number of home-grown academics by training more postgraduate researchers in Australia. According to one study, 'those who complete their research training at home are more inclined to stay at home' (Turpin et al. 2007, p. 13). Initiatives to bolster the number of research higher degree students enrolled in the sector are discussed further in Chapter 3.5.
- Improve the relative attractiveness of working conditions. Such action has already begun, with some higher education providers offering targeted financial incentives, particularly in areas of critical staff shortages. Eighty per cent of Australian and New Zealand respondents to a survey (Kubler & DeLuca 2006) reported financial incentives to recruit staff. A recent study suggested that, by international standards, academic pay rates are relatively good in Australia (Rumbley, Pacheco & Altbach 2008). However, they may still not compare favourably with professional and private sector rates.
- Greater job security and flexibility in working arrangements must be examined as part of the solution. In that context, lower student-to-staff ratios should result in greater staff satisfaction and reduced stress.

An additional strategy is to increase the number of international students who come to Australian to undertake higher degrees by research. This is discussed further in Chapter 3.6.

3.2 Providing opportunities for all capable students to participate

Australia needs to make the most of the talents of all its people. Individuals who participate in higher education are enriched not just intellectually through engagement with local, national and global communities, but also economically by gaining access to challenging, highly-skilled and well-paid jobs. A recently-released study calculates that 'over the working lifetime of a university graduate the financial gain generated from income is more than $1.5 million or 70 per cent more than those whose highest qualification is Year 12' (NATSEM 2008, p. 1). Of course, their success benefits the whole society with its contribution to national productivity. An effective higher education sector which makes greater use of Australia's human capital enhances national productivity and global competitiveness.

However, Australia has not provided equal access to all groups from society. People from lower socio-economic backgrounds, those from regional and remote Australia as well as Indigenous Australians are under-represented in higher education compared to their incidence in the general population. Improving access and equity in higher education for these groups is a difficult task and the solutions that will help to resolve this challenge are not immediately obvious. Barriers to access for such students include their previous educational attainment, no awareness of the long-term benefits of higher education and, thus, no aspiration to participate. Once enrolled, they require higher levels of support to succeed, including financial assistance and greater academic support, mentoring and counselling services.

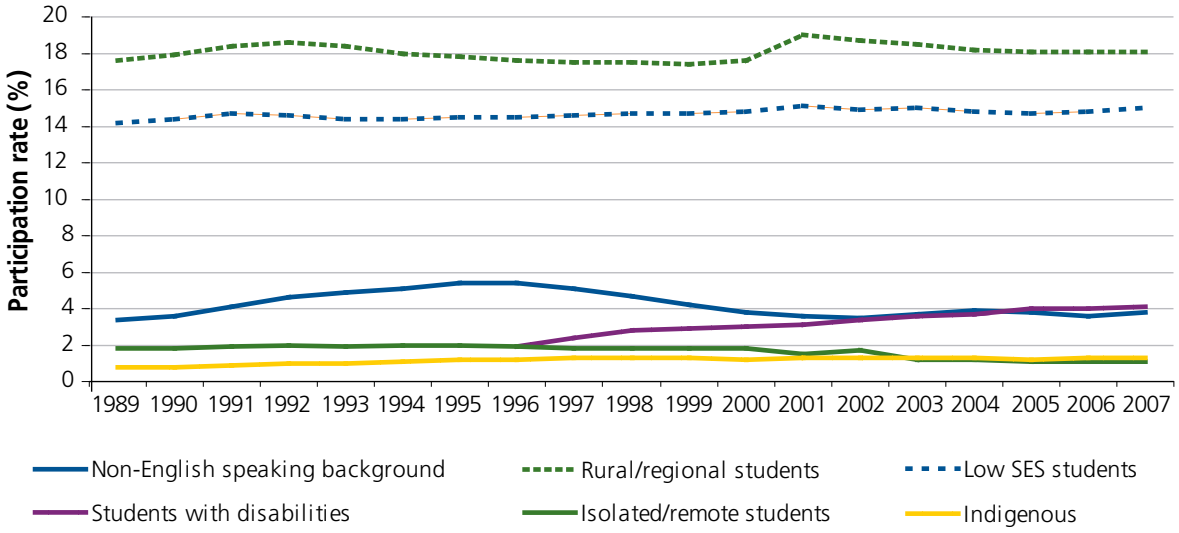
3.2.1 How well is Australia performing?

There has been an increase of up to 60,000 enrolments in the number of students from under-represented groups participating in higher education over the last decade. These increases are not even across the groups and some groups remain seriously under-represented.

However, significant progress has been made in some areas of previous under-representation. For example, women now participate in higher numbers than men although they still remain under-represented in higher degree research programs and in some non-traditional areas such as engineering and information technology.

Now, the most seriously under-represented groups are those from remote parts of Australia, Indigenous students, those from low socio-economic backgrounds and those from regional locations.

Figure 2: Participation rates by groups, 1989 to 2007



Note: a) Definitions for regional/rural and isolated/remote students were altered in 2001 causing a break in series, b) Post-2001 is based on 2006 Census SES postcode allocations, whereas prior years are based on earlier Census SES postcode allocations

Source: DEEWR (Equity Performance Indicators - national indicators), various years

While students from non-English-speaking backgrounds appear to have experienced a decline in participation over the period, this is largely due to changes in immigration policy. The current higher education profile for these students is now broadly representative of the general population (see Table 4).

In interpreting the data it is important to understand that students may be counted more than once if they belong to more than one group. For example, an Indigenous student who is from a low socio-economic background will be counted in the relevant figures for each of those categories.

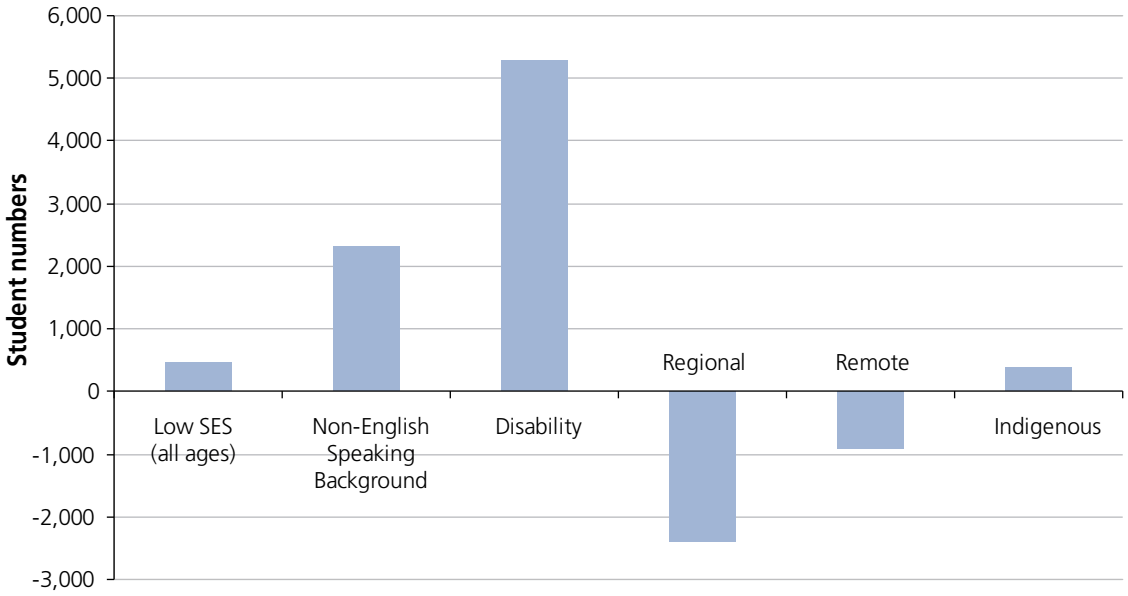
Table 4: Degree of under-representation of groups, 2007

Group	*2007 Participation rate % in higher education*	*Proportion in general population*[a]	2007 participation ratio[b]
Non-English speaking background	3.8	3.7	1.02
Students with disabilities	4.1	8.0[c]	0.51
Rural/regional	18.1	25.4	0.71
Remote	1.1	2.5	0.44
Low SES	15.0	25.0	0.60
Indigenous	1.3	2.2	0.59

Note : a) Based on ABS 2007 data, b)A participation ratio of 1 indicates appropriate representation of the equity group in the student population. c) Excludes profound and severe core activity limitation

Source: DEEWR

Figure 3: Change in numbers of various groups of students, 2002 to 2007



Source: DEEWR (Students, Selected Higher Education Statistics 2008)

Students with disabilities

Good progress has been made in improving participation[6] for students with disabilities, as shown in Figure 2, although the level is still below the group's population share. Over the six-year period from 2002 to 2007, the number of students with disabilities increased by 5,000 and the participation rate rose from 3.4 per cent to 4.1 per cent. However, this increase has not been matched by a rise in support funds, which have been static since 2004. Funding arrangements for students with disabilities must be reconsidered for the future in both the amount distributed and the mode of distribution between universities. A recommendation on increased funding for students with disabilities is made in Chapter 4.2.

Focus for the future

While participation rates for all groups which have been covered by the previous policy should continue to be monitored, it is the following three groups that remain significantly under-represented:

- Students from low socio-economic backgrounds;
- Students from regional and remote areas; and
- Indigenous students.

Patterns of access, success and retention also vary across the under-represented groups and action must be appropriately adapted and targeted for each group in order to improve participation (which is a function of these three factors).

6 The participation rate for each under-represented group is a function of the rate at which new students from the group enter higher education, the success within each year and the retention between years.

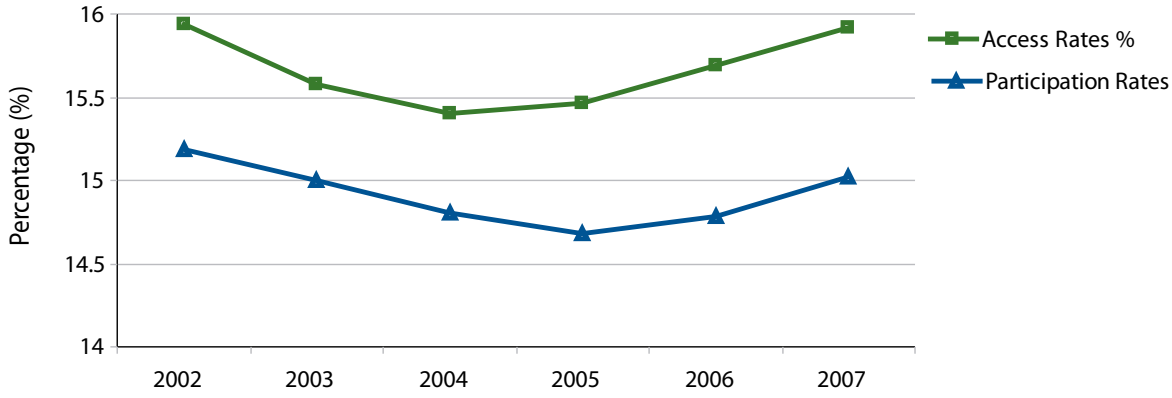
Students from low socio-economic backgrounds

A student from a high socio-economic background is about three times more likely to attend university than a student from a low socio-economic background. The current access rate[7] for this latter group is about 16 per cent, and has remained relatively unchanged since 2002. If students from this group were adequately represented, their access rate would be 25 per cent. The access and participation rates for low socio-economic status students over the last six years are shown in Figure 4.

However, these rates are not uniform across the sector. Quite distinct differences exist in low socio-economic status participation by type of institution, course level and field of study. Low socio-economic status students are poorly represented in Group of Eight universities; most highly represented in agriculture and education; and poorly represented in architecture, law and creative arts. They are particularly under-represented in medicine, dentistry and economics. Low socio-economic status students also comprise the majority of students in enabling courses.

Despite low access rates, the success rate (or tendency to pass their year's subjects) of low socio-economic status students is 97 per cent of the pass rates of their medium and high socio-economic status peers and has been very stable over the last five years.

Figure 4: Access and Participation Rates – Low socio-economic status (all ages)



Note: 25% of the Australian population is categorised as low SES

Source: DEEWR (Selected Higher Education Statistics, various years)

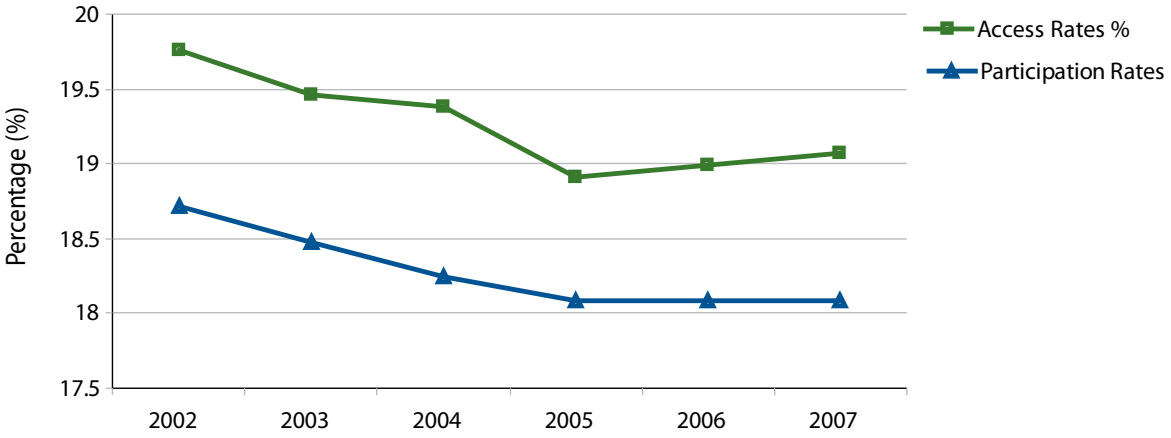
Such high pass and retention rates show that those from low socio-economic backgrounds succeed in higher education. More of these students could participate in higher education without any detrimental impact on overall academic quality. A study conducted by the Australian Council for Educational Research as part of the Longitudinal Survey of Australian Youth (LSAY) Research series found that 'if students from a low socio-economic background get to university, their background does not negatively affect their chances of completing the course' (Marks 2007, p. 27).

7 Access rates show the proportion of the group in the total intake.

Students from regional and remote areas

People from regional and remote parts of Australia remain seriously under-represented in higher education and the participation rates for both have worsened in the last five years. Access and participation rates for these students over the last six years are shown in Figures 5 and 6.

Figure 5: Access and participation rates – Regional

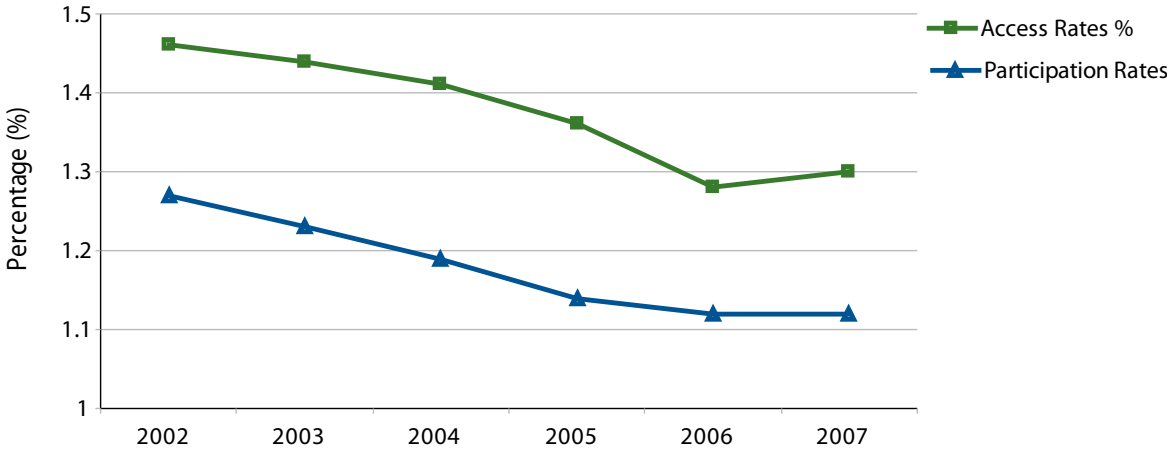


Note: 25.4% of the Australian population lives in rural/regional areas

Source: DEEWR (Selected Higher Education Statistics, various years)

Retention of the regional group has also been decreasing relative to urban students and retention rates are now 3 per cent below the rates of the remainder of the student population. The success and retention patterns for remote students are of much greater concern. The indicator levels are very low compared with their non-remote peers. For example, success rates are currently 9 per cent below and retention is 13 per cent below the rates of other students.

Figure 6: Access and participation rates – Remote



Note: 2.5% of the Australian population lives in remote areas

Source: DEEWR (Selected Higher Education Statistics, various years)

The retention rate of this group may be influenced by an overlap in group membership between remote and Indigenous students. James et al. (2004) reported that in 2002, 12 per cent of the isolated (remote) students group were Indigenous compared with only about 2 per cent for the rural group and 0.8 per cent for the urban group.

Regional and remote students are more highly represented in the fields of study of education, agriculture, health (mainly nursing) and veterinary science than other fields. Both of these groups are poorly represented in medicine, dentistry and some of the paramedical sciences as well as in law. They are also poorly represented in higher level courses, with participation in higher degree research courses at only about 10 per cent of the total pool.

Indigenous students

Indigenous people are vastly under-represented in higher education. Over the past six years access has continued a downward decline, while participation has improved slightly (see Figure 7).

Both success and retention rates have been volatile, but they remain significantly below the rates for non-Indigenous students. In 2006, Indigenous students passed their subjects at a rate 23 per cent below their non-Indigenous peers. In addition, the retention rate for Indigenous students has been between 19 per cent and 26 per cent below the rate for other students during the last six years.

Therefore, while access rates for Indigenous people remain well below the levels expected to achieve equitable representation based on population share, an equally important issue is their academic success and their retention once enrolled. Many Indigenous students leave university without an award.

Addressing access, success and retention problems for Indigenous students is a matter of the highest priority. Indigenous Australians suffer high levels of social exclusion. Higher education is one way of allowing them to realise their full potential. To do this, higher education providers must not only address their learning needs but also recognise and act on issues such as the culture of the institution, the cultural competence of all staff – academic and professional – and the nature of the curriculum.

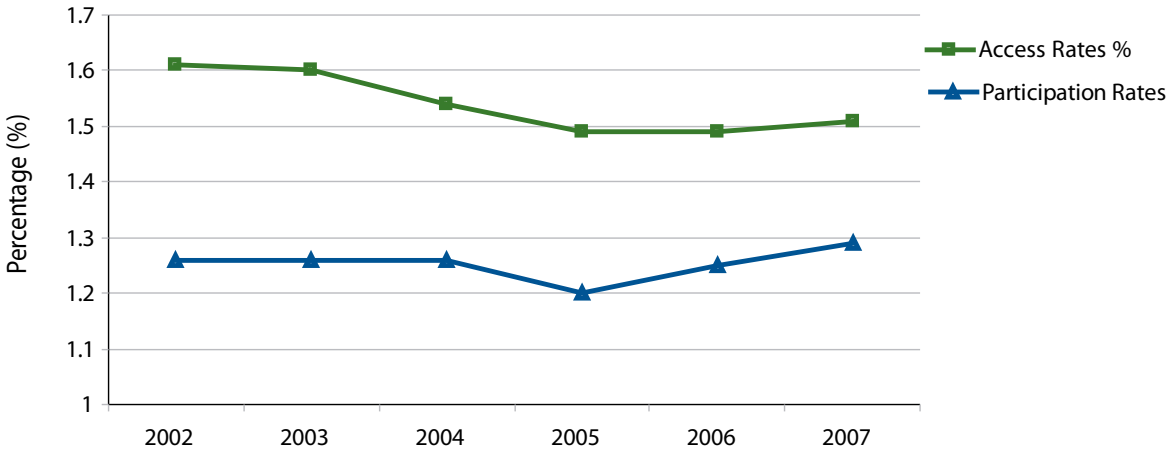
Indigenous knowledge

Indigenous involvement in higher education is not only about student participation and the employment of Indigenous staff. It is also about what is valued as knowledge in the academy. Indigenous students and staff have unique knowledge and understandings which must be brought into the curriculum for all students and must inform research and scholarship.

> Indigenous people do not come empty handed to Australia's higher education system but bring significant strengths, both in knowledge capital and human capital that enriches higher education in Australia. The recognition of Indigenous peoples' contribution as well as needs, is critical to full Indigenous engagement in higher education (Indigenous Higher Education Advisory Council submission, p. 2).

It is critical that Indigenous knowledge is recognised as an important, unique element of higher education, contributing economic productivity by equipping graduates with the capacity to work across Australian society and in particular with Indigenous communities. Arguments for incorporation of Indigenous knowledge go beyond the provision of Indigenous specific courses to embedding Indigenous cultural competency into the curriculum to ensure that all graduates have a good understanding of Indigenous culture. But, and perhaps more significantly, as the academy has contact with and addresses the forms of Indigenous knowledge, underlying assumptions in some discipline areas may themselves be challenged.

Figure 7: Access and participation rates – Indigenous



Note: 2.2% of the Australian population is Indigenous

Source: DEEWR (Selected Higher Education Statistics, various years)

Type and location of institution

Institutional performance in facilitating access for under-represented groups is not uniform across the sector. The distribution of low socio-economic status student enrolments is skewed with the Group of Eight institutions, shown in purple in Figure 8, having the lowest enrolment of low socio-economic status students, while the post-1988 universities and some of those established in the 1960s and 1970s provide more equitable access.

Universities with at least one rural or regional campus also have higher access rates for students from low socio-economic status backgrounds and for those who come from regional and remote areas. The location of regional and remote institutions, therefore, contributes in a significant way to the participation of students from neighbouring rural areas.

While it may not be possible for all institutions to attain the same levels of participation across all of the under-represented groups, the panel is of the view that it should be possible to improve the performance of all institutions, taking into account their catchment areas and admissions profiles. Social inclusion must be a core responsibility for all institutions that accept public funding, irrespective of history and circumstances.

Figure 8: Access rates for low SES students by type of university, 2007

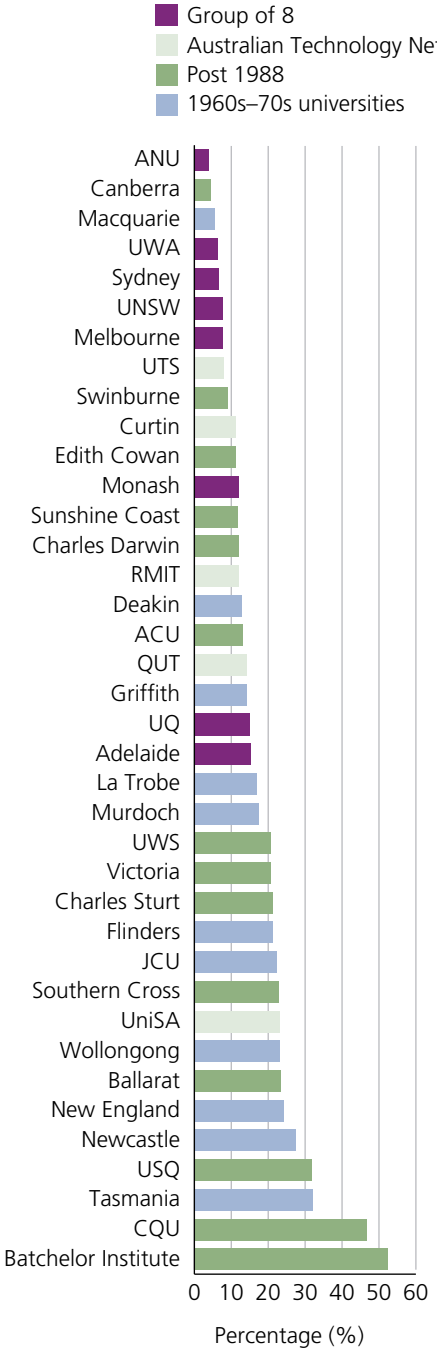
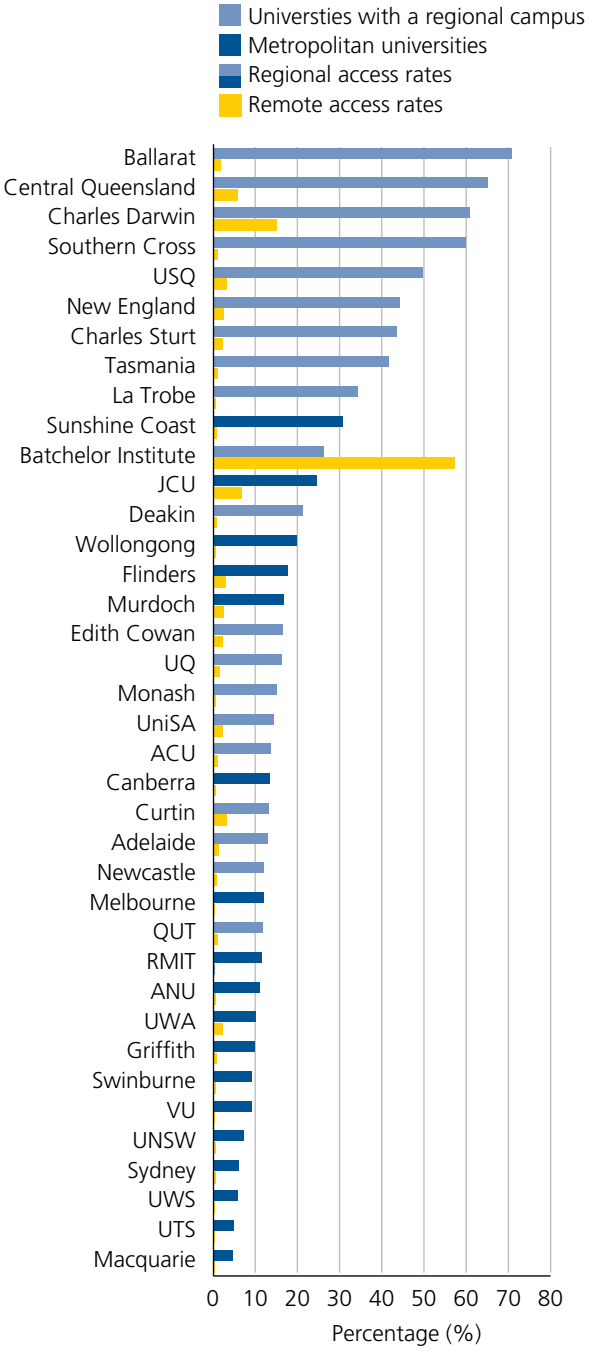


Figure 9: Access rates for regional and remote students by location of university campuses, 2007



Note: Low SES is determined using a postcode methodology. Students from low SES backgrounds are those whose permanent home address postcode falls within the lowest 25 per cent of postcodes as coded by the ABS SEIFA Index of Education and Occupation (Census 2006). Under the MCEETYA categorisation, metropolitan zones are classified as major urban statistical districts with 100,000 or more population, including ACT-Queanbeyan, Cairns, Gold Coast-Tweed, Geelong, Hobart, Newcastle, Sunshine Coast, Townsville, Wollongong. A regional campus is identified where there is an enrolment load of more than one hundred.

Source: DEEWR Students (Selected Higher Education Statistics, Institutional Assessment Framework, 2007)

International comparisons of equity performance

The persistence of low participation rates for low socio-economic status students relative to their high socio-economic status peers is a concern in many higher education systems across different cultural, political, economic and educational settings. There is also evidence of differential performance in those systems between the longer established and other institutions as in Australia.

It is difficult to make direct international comparisons between participation rates for students from low socio-economic backgrounds because the concept is defined differently in each country. However, what information is available shows parallel patterns of participation irrespective of whether low socio-economic status is defined by class or geographic area.

International comparisons of participation by socio-economic status[8]

In the United Kingdom, participation rates show a similar relationship to population benchmarks as in Australia. Young full-time, first-degree entrants from low socio-economic status groups comprise 29 per cent of enrolments compared with the population benchmark of 50 per cent[9].

Initiatives to broaden participation in higher education in the United States to date have been mainly focused on race, but it is now recognised that low socio-economic status is a primary determinant. In the United States, higher education sector enrolments have increased at a faster rate for low socio-economic status students than for more advantaged students (Baum & Ma 2007), contrary to the situation in Australia, but the system is extremely stratified in relation to performance. For each tier of the United States higher education system, the ratio of high to low socio-economic status students ranges from 24.7:1 in tier 1 institutions to 2.2:1 for tier 4 institutions. Only community colleges have a reasonably representative profile with the percentage of high socio-economic status students to low being 22:21 per cent.

The Canadian higher education system, while very different from Australia in its organisation and funding, shows similar patterns of participation. Over 75 per cent of young people from families with an income of over 75,000 Canadian dollars per year participate in higher education compared with 49 per cent of young people with a family income of less than $25,000. Eighty-one per cent of students from families with one parent who had a university education participate in higher education, compared with 53 per cent from families with parental education levels of high school or lower (Berger, Motte & Parkin 2007). Research has shown that the majority of the gap in participation between low and high socio-economic status students in Canada can be explained by educational background rather than financial constraints.

Although, superficially, the Australian record appears no worse than these countries, some have significantly improved participation rates in recent years, while Australia's participation rates have remained relatively static. Successful approaches have involved well-funded outreach and retention initiatives. For example, the United Kingdom *Improving Retention* program has significant amounts of funding associated with it (£187 million) and allocates these funds based on student profile. This and the parallel *Widening Participation* initiative have, along with other measures, resulted in considerable improvement in participation rates of under-represented group students in a relatively short time.

8 Summary derived from James et al. 2008.
9 In Australia, the population benchmark for Low SES is 25 per cent.

3.2.2 The current policy and funding framework

The current policy and funding settings have not led to more equitable higher education outcomes in Australia for under-represented groups in terms of enrolments in universities.

Policy relating to access and equity had its genesis in *Higher Education: a policy statement* (the White Paper) of 1988 (Dawkins) and *A Fair Chance for All* (DEET & NBEET 1990) which argued that Australia needed a more equitable higher education sector and that direct strategies were needed at the national, state and institutional levels to achieve this.

Since 1988, funding of higher education equity programs has been provided in three core areas: Equity Support Funding (previously Higher Education Equity Program funding); Disability Support Funding and the Indigenous Support Program. In 2004 the Commonwealth Scholarships Program was introduced and in 2008 it provided about $118 million worth of scholarships to help with the costs of higher education for low socio-economic status, rural and Indigenous students. However, this program does not appear to have helped improve access for these key groups.

The total amount provided for equity programs represents only 1.2 per cent of the government expenditure on teaching in the sector. Many students from under-represented groups require significant additional support to undertake their studies successfully. While institutions have supplemented this small amount of equity funding by cross-subsidising from other activities in order to deliver such services, and have been creative in developing a range of access initiatives, the quantum of funds provided has been insufficient to make significant headway in improving participation from under-represented groups.

Support for Indigenous students

In response to concerns about Australia's poor performance in higher education for Indigenous people a range of initiatives to increase access and success was put in place by the Australian Government in 2005. Current initiatives to support Indigenous students include:

- Indigenous Support Program which provides grants to eligible higher education providers to meet the needs of Indigenous students and advance the goals of the National Aboriginal and Torres Strait Islander Education Policy. Funding for the program is performance-based, with $34.06 million allocated in 2008.
- Indigenous Tutorial Assistance Scheme which provides funding for supplementary tuition to eligible Indigenous students. $31.6 million has been provided for the program over 2005-08.
- Away from Base funding which is provided to assist education institutions meet the costs of students or staff away from their normal place of residence as part of a mixed-mode course of study. In 2007, $28.41 million was allocated to this program.
- Indigenous Youth Mobility Program which assists young people from remote areas to relocate to major centres around Australia to take up apprenticeships, vocational education and training and higher education opportunities. A total of $2.21 million was provided for this program in 2007.
- Indigenous Access Scholarships provide a one-off payment of $4,080 (indexed annually) to Indigenous students upon commencement of an undergraduate course.

- Indigenous Enabling Scholarships form part of the Commonwealth Scholarships program and are provided for education and accommodation costs for students undertaking an approved higher education enabling course who require relocation from a regional or remote area. In 2008, 210 accommodation scholarships were provided at a cost of $908,040 and 585 education costs scholarships were provided at a cost of $1.27 million.
- Indigenous Youth Leadership program which provides scholarships worth $6,000 per annum for Indigenous students, generally from remote areas, to attend high-performing schools and universities and develop and fulfil roles as Indigenous leaders in their community. $12.9 million has been provided for 250 scholarships over 2006-09 and an additional $34.4 million has been provided for 750 three-year scholarships available over four years to 2011.
- Indigenous Staff Scholarships which provide $11,600 (indexed annually) to cover tuition fees and a non-taxable stipend of approximately $23,000 (indexed annually) for each scholarship holder. Scholarships are available to Indigenous staff who have actively encouraged Indigenous students to participate in higher education and complete their courses.

In light of the recency of changes and the comprehensiveness of the current initiatives, the panel has concluded that it is not appropriate to make any recommendations for changes to these programs at this time. It has taken account of the fact that the recommendations in this report will increase support for the bulk of Indigenous students because where an Indigenous person is also of low socio-economic status, their enrolment will attract a loading to the enrolling institution. However, the panel urges Government to keep the effectiveness and outcomes of the programs for support of Indigenous participation under regular review after advice from Indigenous Higher Education Advisory Council.

What has been learned since 1990

In the early 1990s, Australia was at the forefront of good practice in establishing student equity as an area of national priority and developing a national framework and performance measures which enabled qualitative and quantitative assessment of progress towards targets at the national and institutional levels. James et al. (2008) states that the strength of the current system is that an evidence-based strategy has been taken in relation to monitoring equity.

The success of various initiatives undertaken by the public universities has been varied, particularly in relation to low socio-economic status, rural and Indigenous students. There have been some very effective programs but the next phase of activity requires a more sophisticated approach.

What has worked

Successful projects which have improved the participation of low socio-economic status, Indigenous and rural students in Australia have been highly targeted and operated in partnership or collaboratively with other sectors.

Overseas, successful projects have often involved cross-sectoral initiatives, outreach and early education programs involving partnerships between universities, colleges and schools, the establishment of national targets and major investments in improving retention.

What hasn't worked

Provision of general growth places in the system

The belief that providing additional places would redress inequalities in participation without affirmative action has proven false. As James (2007, p. 6) notes, the imbalances by socio-economic status group have remained virtually unchanged since 1991: 'the fact that with typical variations of only tenths of percentage points annually, and no discernible overall trend – during a period of significant expansion in the number of domestic students in Australian higher education is amazing. It is tempting to conclude that university admission/selection processes are quite resilient in reproducing a certain social order.'

Outreach

While much good work has been done in the sector to establish outreach programs, they have largely been focused on Year 11 or 12 students. The problem has been seen as an issue for higher education rather than one for all education sectors.

Admissions and selection processes

In spite of the range of special entry schemes now offered in the sector and the amendment of selection and admission policies in a number of institutions, most universities rely heavily on achievement of tertiary entry scores (TERs) to select students. This leads to a replication over time of the student profile.

The tendency to use the simplest and most defensible approach to admissions (such as the TER) has been exacerbated by the high levels of competition for places in some fields of study and the need to be able to defend admissions decisions to external bodies in an increasingly litigious environment.

Some institutions have proposed the use of aptitude tests as a means of admitting more disadvantaged students. While this may provide some improvement, it is unlikely to entirely eliminate the bias in outcomes by socio-economic status. The Canadian and United States experiences show that the design of the test and the tutoring available to higher socio-economic status students lead to a greater proportion of high socio-economic status students achieving higher scores (James et al. 2008). The panel has concluded that more widespread use of other approaches to selection and admission with a broader range of criteria in addition to or replacing the TER and which recognise structural disadvantage should be trialled.

Measuring low socio-economic status

Geographic area (postcode) has been used as a surrogate for defining socio-economic status and rural background in Australian higher education. This approach has also been used in some other countries. The geographic classification scheme used to determine membership of the regional and remote equity groups has been reviewed and a more appropriate approach implemented in 2007. The current postcode methodology for socio-economic status has been used since 1994 and has been the subject of much criticism in the sector.

In their 2008 study, James et al. (2008) argue that the current postcode index may under-estimate the under-representation of low socio-economic status people and that, although cost-effective, it is 'inadequate for measuring both the aggregate patterns and the potential disadvantage of individuals, especially for some universities' (p. 17). A more adequate way to measure individual student socio-economic status needs to be found to establish a baseline against which the success of future policy initiatives can be assessed.

Several studies have been undertaken on the most appropriate way to measure socio-economic status of higher education students. Many have recommended collection of information about parental education levels and occupation, and parental or household income. Several studies, most notably Western (1998) and Jones (2002), have trialled various approaches and have concluded that collection of data from students about their parents' occupation and education is feasible and likely to yield the most reliable data, particularly over time. Collection of such information does not, *per se,* define socio-economic status. There is a need to link the distribution of data captured on these characteristics to population reference points or occupation classifications in order to define the socio-economic status group to which the student belongs. Little work has been done on such classifications and it would be required if the sector were to change the way it measures socio-economic status.

James et al. (2008) report in their analysis of student finances that parental education rather than occupation shows more substantial differences in students' financial circumstances and their capacity to study. They recommend that parental education level be used to determine socio-economic status for higher education students. The applicability of this approach to mature-age students has been questioned. However Western (1998) considered this issue and concluded that social origins could be used reliably as a measure for socio-economic status of mature-age students as well as for school-leaver entrants. They determined that a methodology based on questions of parental education or occupation was also appropriate for the older group.

Recommendation 3

That the Australian Government commission work on the measurement of the socio-economic status of students in higher education with a view to moving from the current postcode methodology to one based on the individual circumstances of each student.

3.2.3 Strategies for the future

Analysis of recent participation patterns and international comparisons shows that Australia is no longer at the forefront in this area of higher education performance. Reform of the approach to improving access and participation used over the last 15 years is required.

The challenges that must be addressed include:

- making a step change improvement in the entrenched low participation rates for under-represented groups;
- developing a more sophisticated approach to outreach activities to increase access rates for low socio-economic status, regional and remote and Indigenous students;
- appropriately recognising the levels of support required for a more diverse student profile and providing the necessary funding for institutions enrolling these students;
- removing financial barriers for students from low socio-economic backgrounds that discourage them from participating in higher education;
- funding social inclusion activities at appropriate levels to achieve the step change in participation required;
- determining a monitoring and reporting framework to ensure that social inclusion is taken seriously and that there is appropriate accountability for receipt of funds;

- working in particular with schools and with other higher education and TAFE providers to ensure the best solutions are found for under-represented groups of students; and
- determining an appropriate set of performance measures against which to measure higher education providers' progress at achieving access and participation targets.

A step change in improvement in participation

A step change in participation will flow from developing strategies specific to each of the groups identified as being the most under-represented. Improving access is a central issue for all for groups, but, for Indigenous students, retention is also a major concern.

A more sophisticated approach to increasing access

Increasingly it is recognised that to improve access for disadvantaged groups three precursors to entry need to be addressed early in the educational cycle for potential participants:

- awareness of higher education;
- aspiration to participate; and
- educational attainment to allow participation.

Awareness of higher education

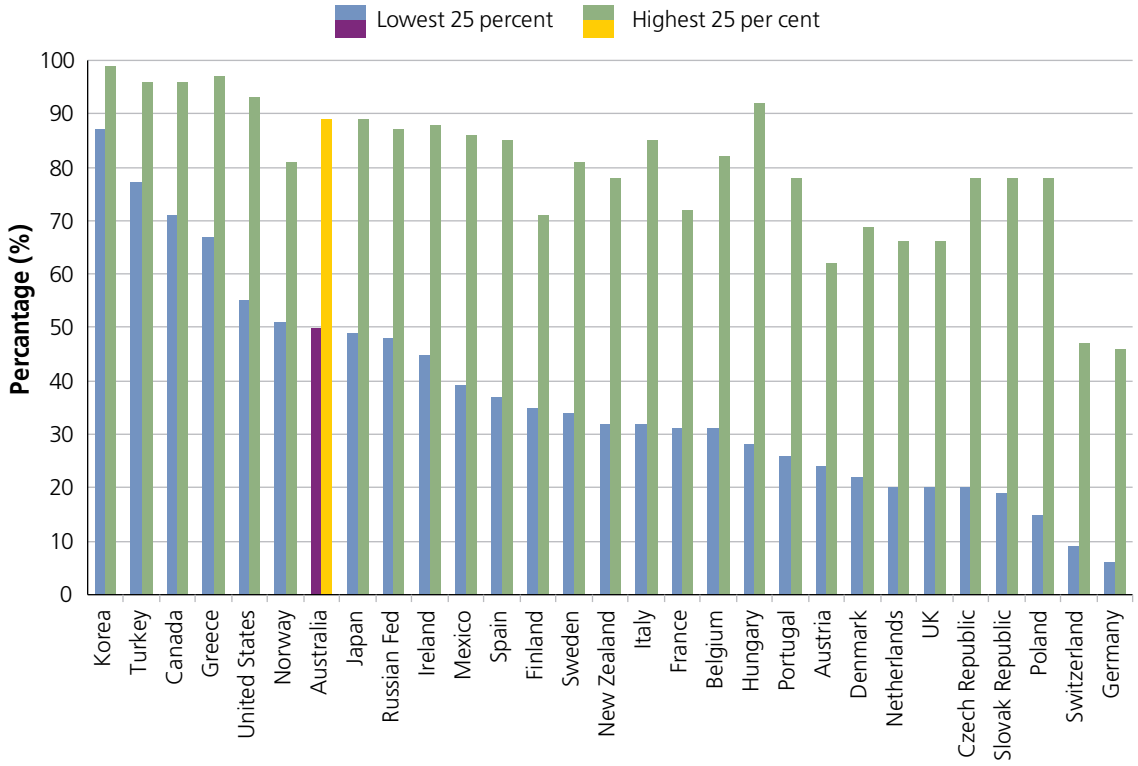
Disadvantaged students lack awareness of higher education and lack understanding of what is involved in preparing for it. Many students from low socio-economic backgrounds are not aware of the benefits of a higher education and what financial assistance is available to them, particularly if they are the first person in their family to aspire to higher education. Initiatives to improve awareness must involve working with parents and student influencers, and communicating the benefits of higher education through various outreach programs.

Aspiration to participate in higher education

Figure 10 shows the level of aspiration for tertiary study by socio-economic status quartile and country from the OECD Programme for International Student Assessment (PISA) data and identifies the scope of the problem that must be addressed. For every country, the percentage aspiring to continue with tertiary education is significantly higher for top (4th) quartile socio-economic status students than for the lowest (1st quartile).

Addressing aspiration means increasing the desire to attend university and putting it firmly on the 'radar screen' of potential higher education participants while they are still at school. James et al. (2008) report that in Australia 42 per cent of low socio-economic status Year 10-12 students surveyed in 1999 had a clear intention to attend university compared with 70 per cent of high socio-economic status students. Similar results were found for rural students compared with their urban peers. It is, therefore, necessary for any access initiatives to include encouraging potential students early in their schooling to aspire to attend university and providing information in an accessible form to such students.

Figure 10: Aspirations for tertiary study of 15-year -olds, (by quartile of the students' economic, social and cultural status PISA index, 2003)



Source: OECD PISA Database, 2003, cited in Tertiary Education for the Knowledge Society: OECD Thematic Review of Tertiary Education 2008a v. 2 p. 25

Educational Attainment

Poor educational attainment in the years leading up to higher education entry is a major factor limiting further access of low socio-economic status students to higher education. In Australia the main reasons low socio-economic status students do not attain a higher education are poor Year 12 completion rates, and progression to the vocational education and training sector or to work rather than higher education. James et al. (2008) show that the Year 12 completion rate for low socio-economic status students is 59 per cent across Australia compared with 78 per cent for high socio-economic status students. The corresponding values are 52 per cent for remote students and 69 per cent for metropolitan students.

Similar patterns are seen overseas. In the United Kingdom, projects have been directed at addressing practices in primary and secondary schooling to improve higher level secondary schooling outcomes, thereby improving the numbers entering higher education from disadvantaged backgrounds.

The OECD's Thematic Review of Higher Education *Tertiary Education for the Knowledge Society* summarises student educational attainment as follows:

> The most solidly based finding from research on school learning is that the largest source of variation in school achievement is attributable to differences in what students bring to school – their abilities and attitudes, and family and community background. Educational inequalities linked to family background tend to persist. The likelihood of staying on after the compulsory school-leaving age is linked to family background and social disadvantage in many countries. (OECD 2008a, Vol. 2, p. 36)

This underlines the entrenched nature of the problem of under-representation by these groups and the need for sophisticated responses to bring about change.

Effective solutions cannot be developed and implemented by higher education providers alone. Increasing access in higher education will require strong two-way relationships with other education providers and community organisations and will involve increasingly early interventions. In the cases of low socio-economic status students and others who have not traditionally been exposed to the sector, it will be essential to work with them and their families to raise awareness about the benefits of a higher education, to identify students early in their schooling who have academic potential, and to support them to continue with their education in order to gain entry.

Outreach and other access and entry programs appear to make the most significant difference to participation of under-represented groups. The United Kingdom and United States access initiatives which cross these educational and sectoral boundaries have been successful and the panel has concluded that additional funding should be directed to such initiatives. A recommendation that funding be provided for outreach activities is made in Chapter 4.2.

Appropriate levels of support

Action is required on the funding levels provided to support these students. Low socio-economic status and other under-represented groups of students are heavy users of academic and personal support services provided by universities, such as learning and language skill development; counselling; and financial services. As a result, the cost of educating a student from a low socio-economic background with little family experience of higher education is higher than for a higher socio-economic status student. At the University of South Australia usage rates of support services have been measured using a transparent identifier and compared with usage by other students. This has shown that the rate of support service usage by low socio-economic status students is higher than for other students. It is vital that such support services are maintained and developed to assist students from disadvantaged backgrounds.

The panel has concluded that significant additional funding needs to be provided to support the participation of students from low socio-economic backgrounds. This would recognise the additional costs of educating these students. It should be provided as a loading to the teaching grant on the basis of the numbers of low socio-economic status students enrolled at each university. A recommendation to this effect is made in Chapter 4.2.

The panel recognises that the detrimental effects of poverty on higher education participation can be compounded by where you live. The low participation rates of students from regional and remote areas are of particular concern. Students from these areas who are from low socio-economic backgrounds would attract the loading. However, the panel has concluded that more needs to be done to provide sustainable provision in regional areas because it believes that this, when combined with the outreach and support initiatives it is recommending, will help to improve the participation of students from these areas in higher education. This issue is discussed in more detail in Chapter 3.7, including a recommendation for funding for sustainable regional provision.

Indigenous students from low socio-economic backgrounds would also attract the loading, which would be provided in addition to the funding institutions currently receive for Indigenous students and the various Indigenous scholarship schemes. The current funding programs for Indigenous students, which include the Indigenous Support Program, Indigenous Tutorial Assistance Scheme, Away from Base funding and the Indigenous Youth Mobility Program should be continued.

The reporting and accountability framework

Under current arrangements, universities are required to report annually to the Department of Education, Employment and Workplace Relations on the participation and performance of under-represented groups. The data are analysed and benchmarked against similar institutions and against state and national averages. However, there is little consideration given to poor performance or remedial strategies that might be taken. Other higher education providers are not required to report on their performance in this area.

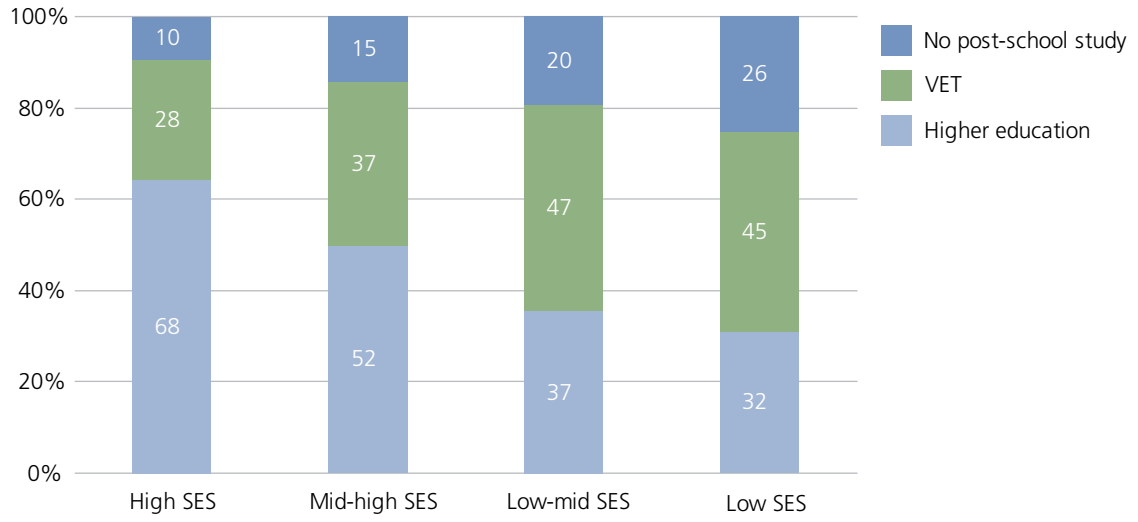
If significantly greater funds are to be provided for access and participation and allocated on the basis of achieving enrolments from the most under-represented groups in higher education and if action is to be expected from all providers in receipt of public funding, then it is critical that the reporting, monitoring and accountability processes be strengthened. If this is to be given a profile equivalent to other core functions then information about performance should be made public.

Working with other higher education and TAFE providers in a broad tertiary sector

The Australian vocational education and training (VET) sector has a socio-economic profile different from higher education. Figure 11 shows school-leaver data from the Longitudinal Survey of Australian Youth (LSAY) research report, *The VET pathway for school leavers* (Curtis 2008), and demonstrates that overall the vocational education and training sector performs better than higher education in attracting students from a low socio-economic background.

But within the VET sector there is also evidence of high levels of stratification. An analysis of student enrolments in vocational education and training by qualification level and socio-economic status category found that low socio-economic status students were concentrated in certificate I or II courses (Foley 2007). The participation rate of low socio-economic status students decreased as the level of the qualification increased and was only 6.8 per cent at diploma level or above. This closely reflects the participation rates of low socio-economic status students in universities.

Figure 11: Participation in post-school education by socio-economic status (post-school destinations of Y95 cohort in 2001)



Note: The figures sum to more than 100 per cent in some columns because some individuals undertook programs in more than one category.

Source: Longitudinal Survey of Australian Youth (LSAY), Research Report 52, The VET pathway for school leavers, D. Curtis, April 2008

Targets and performance measures

There is a need to re-establish sector-wide targets for participation of the groups which are still under-represented as was done originally in *A Fair Chance for All* (DEET & NBEET 1990). This would enable monitoring of progress against these targets in the longer term. In particular, a national target for the participation of students from low socio-economic backgrounds should be set and institutional targets that support its achievement should be agreed and monitored annually.

There should also be a set of sub-targets relating to success and retention and these should be benchmarked against the performance of other developed countries. While the use of different definitions for socio-economic status and rural background in each country makes this a difficult task, it is possible to define broad indicators which will be comparable across international boundaries against which Australia can monitor its relative performance.

The performance measures used in the sector since 1994 are still appropriate and adequately differentiate aspects of performance at the university and sector levels. They should therefore continue to be used to monitor national and institutional performance. Given the cumulative effect for Indigenous and remote students of poor retention and success rates between years, these indicators should be augmented by an additional outcome measure relating to completions.

Recommendation 4

That the Australian Government set a national target that, by 2020, 20 per cent of higher education enrolments at undergraduate level are people from low socio-economic status backgrounds.

The Department of Education, Employment and Workplace Relations should develop a set of benchmarks which provide comparable data with the United Kingdom, United States, Canada and other countries so that Australia's performance can be regularly compared with that of other developed nations.

The following table provides an indicative list of suggested targets for groups of students that are currently under-represented in the higher education system.

Table 5: Suggested targets for under-represented groups of students in higher education

Student group	Measure	Target
Low SES students	Access rate	20% based on current postcode methodology or representative of the population share for the new low SES measure developed
	Completion rate	At least 95% of the rate for high SES students.
Regional students	Access rate	Proportion of the population aged 15 to 64 years in this group as defined by the ARIA classification in the 2006 census
	Success rate	Same rates as for metropolitan students
	Retention rate	Same rates as for metropolitan students
	Completion rate	Same rates as for metropolitan students
Remote students	Access rate	Proportion of the population aged 15 to 64 years in this group as defined by the ARIA classification in the 2006 census
	Success rate	Same rates as for metropolitan students
	Retention rate	At least 90% of that for metropolitan students
	Completion rate	At least 90% of that for metropolitan students
Indigenous students	Access rate	Proportion that the Indigenous population aged 15 to 64 years represents of the general population in this age group in the 2006 census
	Success rate	At least 95% of the rates for non-Indigenous students
	Retention rate	At least 90% of the rate for non-Indigenous students
	Completion rate	At least 90% of the rate for non-Indigenous students

3.3 Providing financial support to enable students to participate

A strong correlation exists between students' socio-economic status and their participation in higher education. Income support and other financial assistance are critically important to attract financially disadvantaged students into higher education and keeping them there. The nation's need for improved productivity as well as simple fairness means that we must ensure that people from this group are able to participate. Also financial support arrangements must encourage older workers to retrain or upgrade qualifications.

Any discussions of financial support must start with the recognition that the current option to undergraduate students to defer payment of fees or student contributions through income contingent loans removes one of the most significant financial barriers to participation. However, the additional living and study costs associated with higher education enrolment, particularly for those students who need to move away from home to study, are considerable.

A major cost of tertiary education for students is the opportunity cost of foregone earnings in the years while their time is devoted to study (NATSEM 2008). This cost is significantly higher for students with dependants and those from low-income households where current earnings are crucial to their families' immediate well-being.

Anomalies in the current taxation and welfare support arrangements for students work against participation while current student financial support arrangements are complex and poorly targeted. The entire framework for provision of financial support for students needs urgent reform.

3.3.1 The current income support system

History

Current arrangements for student income support are administered through the social security system, primarily under the *Social Security Act 1991* and the *Social Security (Administration) Act 1999.* Income support for students is aimed at providing assistance for individuals from low-income backgrounds while they are participating in schooling, tertiary education or training. Hence the main purpose of the income support strategy has been to:

- increase the participation of young people, particularly Indigenous and those from low socio-economic backgrounds, in senior secondary and tertiary education and training; and
- enhance the human capital outcomes in terms of the quality and diversity of skills and qualifications from university and other tertiary education.

Between 40 and 50 per cent of the student population has historically relied upon some level of income support to enable it to participate in education. It is startling that in recent years, while the number of students in the groups which might be expected to require income support has increased, the number receiving benefits has dropped. The reasons for the decline in access to income assistance need to be understood and changes made to improve access.

Looking to the future

The current income contingent loans system will continue to be the major assistance provided to domestic higher education students by the government and will cover most or all of the student contributions or tuition fees related to enrolment. Additional financial support to assist students with other education and living expenses will need to be provided as part of a reformed student income support system. To be most effective and equitable the scheme must be better targeted to those in most need.

A set of principles for the future organisation of income support for higher education students is outlined below.

Principles underpinning the income support system

The system must:

- Allow for a fair allocation of resources and treat recipients fairly.
- Link criteria to improving participation of financially disadvantaged students by:
  - targeting at the most needy students.
  - recognising the special financial needs of Indigenous, low socio-economic status and regional and remote students.
  - providing a satisfactory level of benefits to enable students to support themselves and their dependants with only a small amount of additional income supplementation.
- Assist national productivity by encouraging initial and ongoing participation by a broader group of the Australian community to make the personal investment in higher education study.
- Be easy to understand and to access by:
  - transparently and consistently applying criteria for access to benefits.
  - ensuring that assessment of eligibility criteria and access to benefits are completed in a timely fashion on application.

Current income support benefits

Youth Allowance is the primary payment assisting young people aged 16 to 24 years and enrolled full time in undergraduate and some postgraduate coursework programs in higher education. Generally, it is means tested and so is intended to be targeted at those families and students most in need of assistance. However, analysis undertaken for the review suggests that, as what appears to be an unintended consequence of changes introduced first in 1998, Youth Allowance is now being accessed by some students who are living at home in high socio-economic status households.

Austudy provides assistance to full-time students aged 25 years and over who are studying an approved course at an approved institution, or undertaking training or a full-time Australian Apprenticeship. Rates of payment are generally comparable to Youth Allowance and are means tested.

Australian Postgraduate Awards (APAs), administered through higher education institutions, provide stipends for living costs for higher degree research students. The Australian Postgraduate Awards offer full-time students enrolled in a research higher degree a stipend valued in 2008 at $20,007 per annum.

The Commonwealth Scholarships Program was introduced in 2004 to assist domestic students from low socio-economic backgrounds, particularly those from rural and regional areas, and Indigenous students, with costs associated with higher education. In 2008, the Commonwealth Education Costs Scholarship was valued at $2,162 per annum, and the Commonwealth Accommodation Scholarship at $4,324 per annum. The value of these scholarships is indexed annually using the Higher Education Indexation Factor. While the Commonwealth Scholarships are not intended for general living expenses, they provide supplementary assistance. There are some issues about the way the scholarships program works which need to be considered in the overall review of the various forms of income support.

Appendix VII shows the range of benefits paid under basic student income support, and the criteria and conditions relating to each program. This shows the variability in the conditions and benefits associated with the types of income support. The differences in eligibility criteria have led to some inconsistent treatment between applicants, particularly in relation to those students who have been categorised as having 'independent' status in relation to the eligibility criteria.

Signs of problems with the system

Concerns about income support arrangements have been growing. There is evidence of a decline in the financial circumstances of higher education students between 2000 and 2006; failure of student income support to accurately target those most in need; and a decline in Australia's position compared with other countries in the provision of subsistence grants and scholarships. These factors may well be having an adverse impact on participation and attainment rates and the quality of the higher education experience for many.

3.3.2 The financial circumstances of Australian higher education students

Two studies on higher education student finances (Long & Hayden 2001; James et al. 2007) were commissioned by the Australian Vice-Chancellors' Committee (now Universities Australia) in 2000 and 2006. While response rates to these surveys were low, they provide useful comparative information to see whether students' financial circumstances have changed. The surveys show that undergraduate students are now worse off in financial terms than in 2000 and this has adversely affected their capacity to study effectively. Compared with the 2000 study, undergraduate students in 2006 had a greater reliance on paid work, non-cash assistance and loans in order to survive. At the same time, they received a lesser amount and proportion of total income in Commonwealth assistance from the combined sources of Austudy, Youth Allowance and Centrelink payments.

In 2006 nearly 71 per cent of full-time domestic undergraduate students reported working during semester. On average these students were working about 15 hours per week. One in six of the full-time undergraduate students who was working during the semester were working more than 20 hours per week. Paid work for full-time undergraduate students now comprises 66 per cent of their total income compared with 51 per cent in 2000. Seventy-four per cent

of full-time postgraduate coursework students and 79 per cent of full-time research degree students were working during semester, for an average of 20.3 and 11.3 hours respectively. A large proportion of students surveyed considered their paid work detrimentally affected their studies and limited their capacity to benefit from their university experience.

The 2006 study reported separately on the financial status of Indigenous students and acknowledged that these students often had distinctive family and financial situations which affected their capacity to study effectively. For example,

- Indigenous undergraduates in employment worked 3 hours more per week on average, and postgraduates 3.6 hours per week more, than non-Indigenous students;
- Indigenous students were more reliant on income support from scholarships and Centrelink payments and were less likely to rely on cash assistance from other people; and
- more part-time Indigenous students indicated they would prefer to study full time if their financial circumstances permitted it (77 per cent) than non-Indigenous part-time students (62 per cent), particularly those studying at the postgraduate level.

Students were also critical of the eligibility criteria for the two main student income support benefits (Youth Allowance and Austudy). Postgraduate students have an extremely high rate of rejection of their applications for income support. The rejection rate from Centrelink is over 16 per cent. The proportion of students who received a Centrelink benefit to support their studies, but did not receive the full rate, also increased significantly between 2000 and 2006 rising from 4 per cent of undergraduate students surveyed in 2000 to 7.3 per cent in 2006.

Even those students on the maximum benefits reported that the amount available from income support sources was insufficient to meet basic living costs. James et al. (2007) report that many students indicated that the high costs of textbooks and other learning resources were also a problem and that they were unable to afford such items. Submissions to this review from the National Union of Students and other student groups support these findings.

Impact on the quality of student experience

These issues are having a negative impact on the quality of the student experience for students at all levels of study and are causing them to change their patterns of enrolment. In their report on participation and equity in the sector, James et al. (2008) cross-referenced students' financial circumstances (as reported in the Universities Australia survey) with their socio-economic status. They found that low socio-economic status students, in spite of their access to income support benefits, experienced more financial pressure than high socio-economic status students.

Eligibility criteria and policy drivers relating to the amount of income available to students under each of the income support schemes may be contributing to a situation where students receiving such support must still work significant additional hours in paid employment to survive. This affects their ability to devote time to study and engage with the university community, leading to poorer learning outcomes.

The James et al. (2007) student finances report found that students were very concerned about the impact engagement in paid employment was having on their studies. Over half of undergraduate and postgraduate part-time students indicated that their work commitments

adversely affected their performance at university, causing them to miss classes. Slightly lower but equally concerning proportions of full-time students reported similar issues. In addition:

- 7 per cent of undergraduates indicated that they could not afford the travel costs to get to their university campus;
- 9 per cent of undergraduate and 12 per cent of postgraduate students had previously deferred their studies, sometimes for several years, because they could not afford to continue studying at the time; and
- about 5 per cent of all students expected their financial circumstances might necessitate their discontinuing their course.

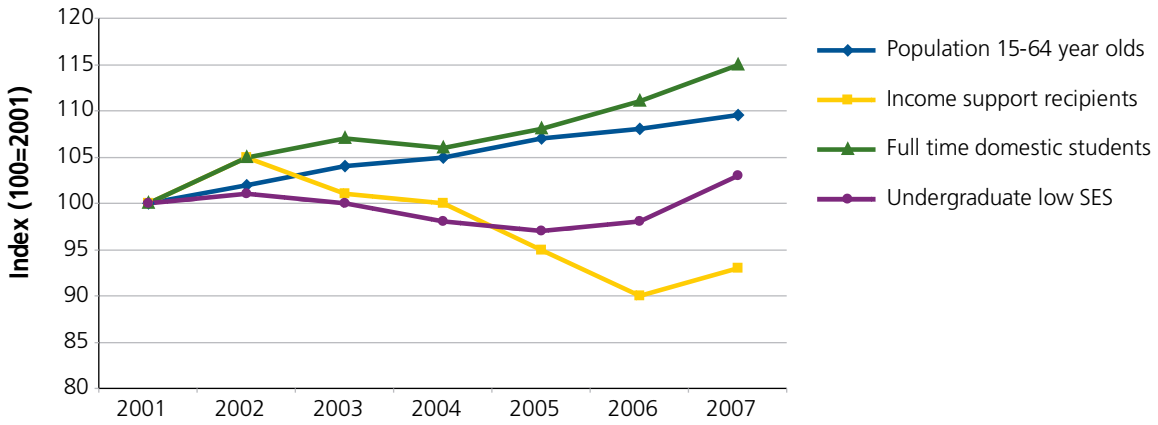
Not all respondents to the student finances survey would qualify for student income support in spite of their reported financial circumstances. But this report shows that for many students their performance is being jeopardised by the failure of the current student income support system and the consequent need to work long hours in paid employment. As a result, Australia's ability to deliver both an outstanding educational experience and a student profile that is more representative of the profile of the general population is, in part, dependent on improving the levels of financial assistance.

3.3.3 Trends in student support

Numbers of students accessing support

The number of students on income support has declined in recent years from about 160,000 in 2001 to 148,000 in June 2007, while the take-up rate in the student population has decreased.

Figure 12: Population, enrolment and income support changes, 2001 to 2007

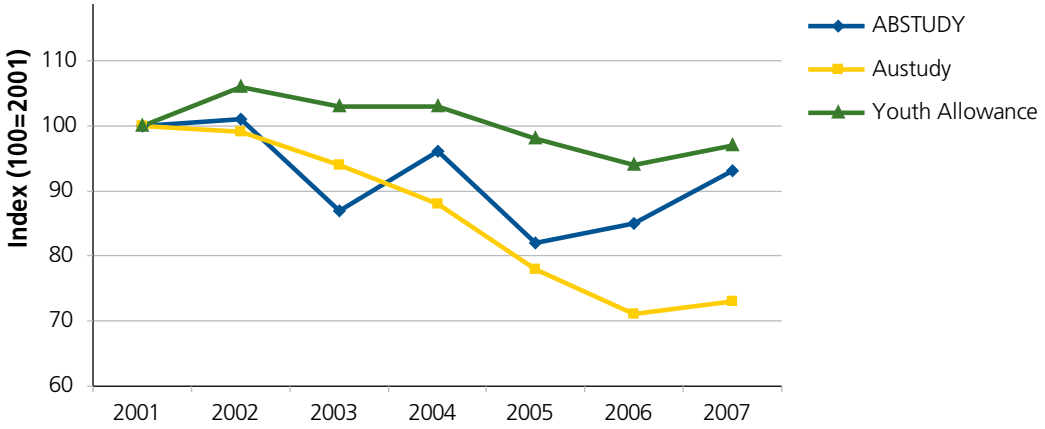


Source: ABS Census 2001and 2006 data, Centrelink administrative data and DEEWR Higher Education Collection Student and Equity Indicator data 2008

The take-up rate for income support has declined from 41 per cent in 2001 to 33 per cent in 2007. Figure 12 shows that, while, the pool of potential recipients (numbers of undergraduate full-time domestic students and the number of low socio-economic status students) has slightly increased over this period, the number of students receiving income support has been decreasing (despite a small increase in 2006-2007). Moreover, the gap between the two is widening.

There has also been a change in the type of benefits taken up by students over this period. The largest reduction in the numbers receiving benefits has been in the Austudy group, representing mature-age students. However the overall number of younger students receiving Youth Allowance has also shown a downturn, despite slightly increasing in 2007. Since the number of mature-age students in undergraduate degrees has not declined over this period, this suggests an issue relating to the eligibility conditions of access to benefits.

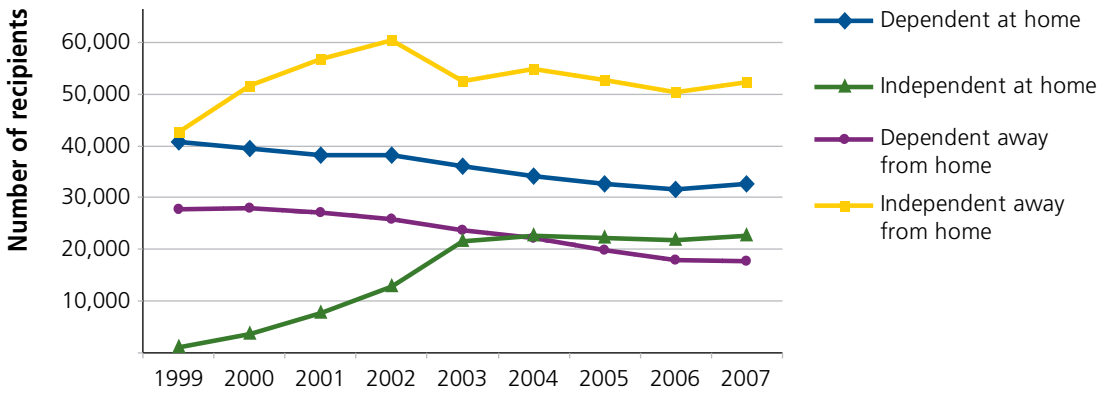
Figure 13: Students receiving income support by type of support, 2001 to 2007



Source: Centrelink administrative data, 30 June each year.

Increasing proportions of Youth Allowance recipients are now in the 'independent' category as shown in Figure 14, while numbers of students in the 'dependent' category has declined since 1999. This suggests that the criterion relating to parental income testing may be preventing students who remain dependent (either living at or away from home) accessing benefits. It appears easier for students to demonstrate independence under the eligibility rules based on their own financial circumstances.

Figure 14: Youth Allowance recipients by independent status, 1999 to 2007



Source: Centrelink administrative data, 30 June each year.

The age of independence for both Youth Allowance and Austudy has been 25 years since 1998. Students below the age of 25 may claim independent status for a range of personal and economic reasons. However, about 80 per cent of those classified as independent do so by demonstrating financial independence from family after leaving school. No parental means test is applied to recipients satisfying this independence criterion. A particularly contentious provision is that students in this group can be eligible for 'independence' by earning $18,850 in a recent 18-month period, or by working a given number of hours in paid work over a specified period of time. These criteria can be satisfied by students other than low socio-economic status students, for example by taking a gap year and working in casual employment for that period or even being 'employed' by their families. Then, subject to waiting a further six months after the end of the gap year, they can satisfy the independence criterion.

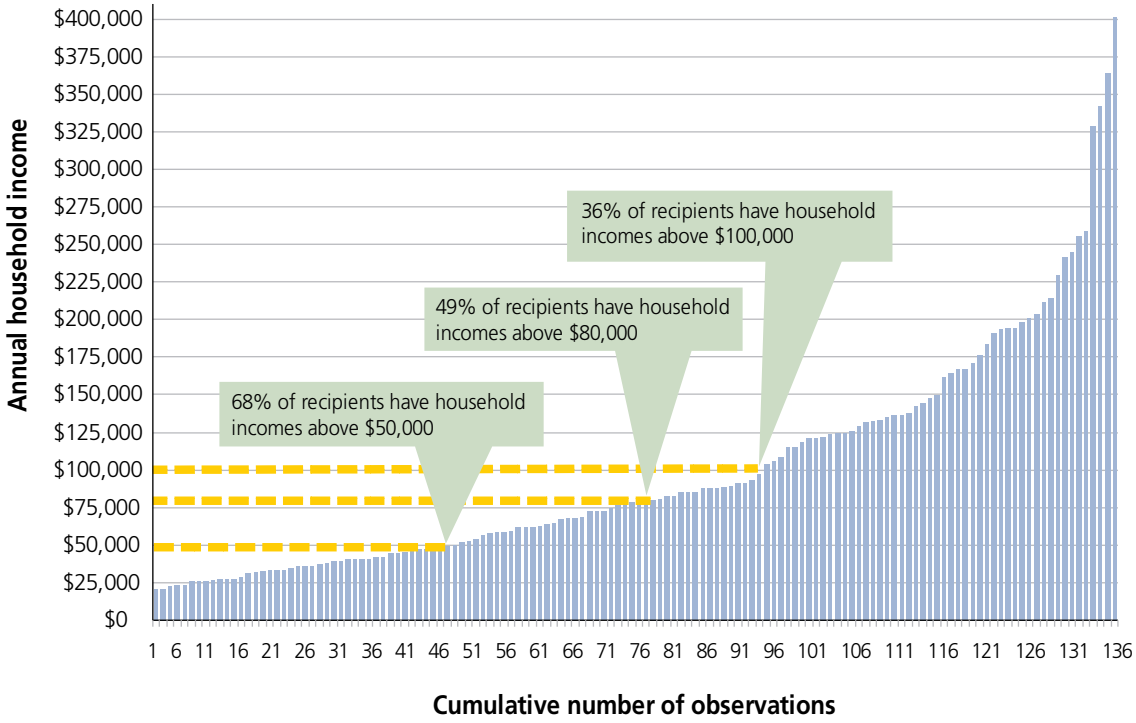
The data shown in Figure 15, which relates eligibility for independent Youth Allowance to household income for those aged less than 25 years, demonstrate that there are students who have wealthier parents receiving Youth Allowance. Figure 15 attempts to measure the distribution of annual household income for a sample of students on Youth Allowance living at home. While many of this group would be receiving Youth Allowance because of low household incomes, it shows that 49 per cent of recipients are in households above the dependent Youth Allowance threshold of $80,000 and would therefore be in receipt of Youth Allowance as independent students. Indeed 36 per cent of the recipients in this sample lived at home in families where the household income was in excess of $100,000 (in 2008 terms) per annum (Chapman & Lounkaew 2008). This provides strong evidence that this aspect of student income support is quite poorly targeted and inequitable. Several submissions to the review have raised this matter and suggested that the eligibility criteria for independence be tightened to prevent this type of likely abuse. This problem of inequitable targeting applies also to the workforce participation criteria for independence, but not to students who have qualified for independence through other means, for example, having a child or being previously married.

The weaker test for eligibility under independence criterion was introduced at the same time as the age of independence was raised from 22 to 25 years in 1998. There is a relationship between these two criteria for eligibility for income support benefits. The number of students seeking to qualify for independence under the income criterion is very likely to be reduced if the age of independence were lowered from 25 years.

In 1992, Chapman indicated that over the period 1974 to 1990, the take up of income support increased quickly in the initial years of Austudy and remained at between 45 per cent and 50 per cent of all higher education students until 1990. While the figures are not directly comparable, they suggest that as a proportion of the overall student population, the current incidence of student support at around 33 per cent is considerably lower than previously.

Given the decline in the take-up rate compared with the past, changes need to be made to ensure that the rules for accessing support do not prevent deserving financially disadvantaged students from being assisted.

Figure 15: Annual household incomes of Youth Allowance recipients 'living at home' (in 2008 dollars)



Note: The data are individual observations of students surveyed from 2001-2007 in the Household, Income and Labour Dynamics of Australia (HILDA) survey. The household incomes have been converted to $2008 with the use of the AWOTE price index. The household incomes do not include monies received for Youth Allowance.

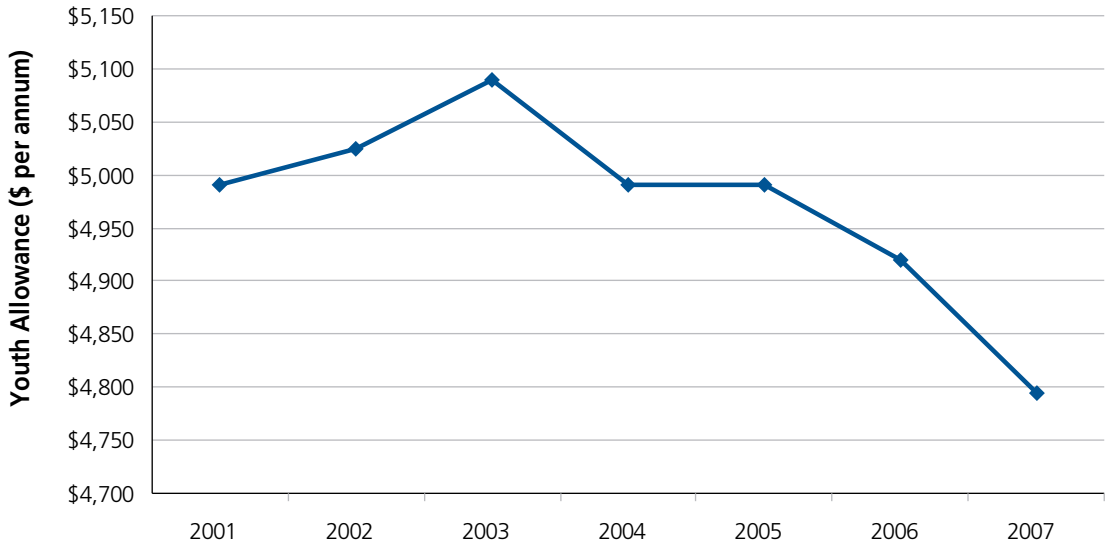
Source: Chapman and Lounkaew 2008

Size of the benefits received

The real value of the average amount of funds paid per recipient has been decreasing during the last five years. At present, the majority of recipients (over 62 per cent) receive payments of $200 or more per fortnight. The relatively high percentage of students in this group is due to the number of students obtaining independent status who access maximum benefits because they are not subject to a Parental Income Test. Students who are dependent and receive assistance come from very low-income families. They are likely to access benefits at maximum level. The existence of a taper rate in Youth Allowance payments has the effect of rapidly reducing the value of the allowance paid to applicants who are in the same family, moderating the average value of support provided. This taper rate applies for each child in the family unlike the rules associated with the Family Tax Benefit, for which the taper rate applies only once, irrespective of the number of children accessing benefits.

The average Youth Allowance benefit paid to full-time undergraduate students has declined by over 5 per cent in real terms over the last five years. Parallel drops have also occurred in the average annual stipend paid to full-time postgraduate research students receiving Australian Postgraduate Awards. The Review of the National Innovation System has recommended that the value of the stipend associated with Australian Postgraduate Awards be raised to $25,000 per year to address this decline in real value and to raise the amount to a level which allows a more reasonable standard of living for recipients. This is discussed further in Chapter 3.5.

Figure 16: Average Youth Allowance per annum (in real terms), full-time undergraduate students, 2001 to 2007

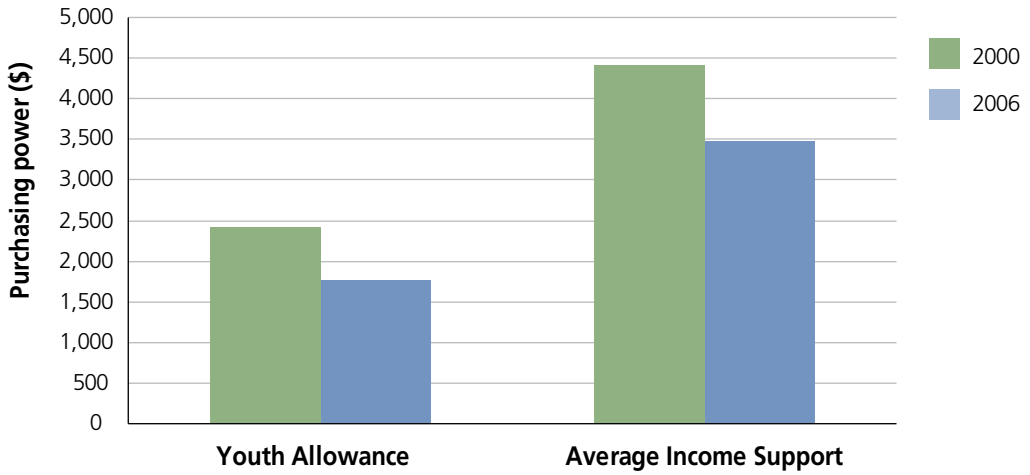


Source: Chapman and Lounkaew 2008

Purchasing power of benefits

The purchasing power of the average income support payment has dropped significantly between 2000 and 2006, as shown in Figure 17, for all benefits and for Youth Allowance. Expressed in 2000 dollar values, the average Youth Allowance benefit in 2006 buys just under 73 per cent of what the corresponding benefit purchased in 2000. The corresponding figure for average overall income support benefits is 79 per cent.

Figure 17: Purchasing power of student income support benefits, 2000 to 2006



Source : Calculated from Australian University Finances 2006, as shown in Chapman and Lounkaew 2008

There has also very likely been an adverse effect on the purchasing power of income support which can be traced in large part to the role of rent increases. Students living away from home are more likely to be using the majority of their incomes to pay rent. Calculations undertaken in Chapman and Lounkaew (2008) suggest that increased rent costs are likely to have had a significant adverse effect on the purchasing power of those on student income support, perhaps by as much as 10 per cent on average over the period 1998-2008, and nearly double this for those living in geographic areas in which rents have increased relatively rapidly such as Sydney, Canberra and Brisbane. As NATSEM noted in its report,

> While full-time students generally do not have the capacity to earn as much as people working full time, the costs of living they face are generally similar… While the average total income from all sources for full-time workers under 25 is $822 a week, the average total income of full-time students is less than a third of this at $269 weekly (NATSEM 2008).

Collectively, this data on the take-up rates, status of recipients and the size of benefits received show that the concerns expressed in a number of submissions to the review and in the surveys of student finances, particularly for low socio-economic status students and targeted disadvantaged groups, are real.

The current student support rules relating to indexation and threshold salary values are resulting in a significantly smaller proportion of the student population receiving assistance than that 15-18 years ago and in relatively reduced benefits compared with living costs. The detailed rules and eligibility criteria need to be reviewed urgently and changed for the goals of the income support scheme to be realised.

3.3.4 Scholarships

Assistance is also available to some financially disadvantaged university students through Commonwealth Education Costs Scholarships and Commonwealth Accommodation Scholarships at a total cost of about $114 million in 2008, as shown in Table 6. In addition 1,000 special Indigenous Access Scholarships are provided at a further cost of about $4 million. Universities are allocated the scholarships based on equity performance and the size of the institution via either a formula or a competitive bidding process. Not all universities have been able to award all of the scholarships allocated to them despite the number available across the sector representing only about 14 per cent of the number of low socio-economic status students, rural and Indigenous students enrolled.

Each university awards its allocation according to its own eligibility and selection criteria determined within Commonwealth Guidelines. These criteria vary but the guidelines recommend the use of receipt of student income support or a Centrelink benefit as a surrogate for financial disadvantage. Students are, therefore, often in receipt of both a Commonwealth Scholarship and an income support benefit. However, increasingly universities are defining more complex financial criteria as the basis of the award for the scholarships because there are concerns that there are students in genuine financial need not qualifying for income support benefits.

Table 6: Number and value of Commonwealth Scholarships, 2008

Type	Number	Value ($m)
Ordinary Commonwealth Education Costs Scholarships	20,259	43.8
Ordinary Commonwealth Accommodation Scholarships	14,176	61.3
Associate degree Commonwealth Education Costs Scholarships	1,025	2.2
Associate degree Commonwealth Accommodation Scholarships	975	4.2
Indigenous Enabling Commonwealth Education Costs Scholarships	700	1.5
Indigenous Enabling Commonwealth Accommodation Scholarships	210	0.9
Indigenous Access	1,000	4.3
Total	38,345	118.2

Source: DEEWR (Administrative data 2008)

The Government announced in the 2008 budget that the number of these scholarships would be increased to 88,000 overall by 2012. Two new scholarships will be introduced in 2009 – the National Priority Scholarships and the National Accommodation Scholarships. The former will target students enrolling in national priority area disciplines such as medicine, dentistry, allied health, education, nursing, physical science and information technology, and the latter will be for students relocating more than 100 kilometres in order to study the discipline of their choice when this is not available close to their home location. As some universities have been unable to award all of the scholarships allocated to them and significant unmet demand exists across the sector, the benefits of the additional scholarships may be lost unless management of the program is addressed to enable a better fit with demand for the scholarships and to allow a more targeted approach across the sector.

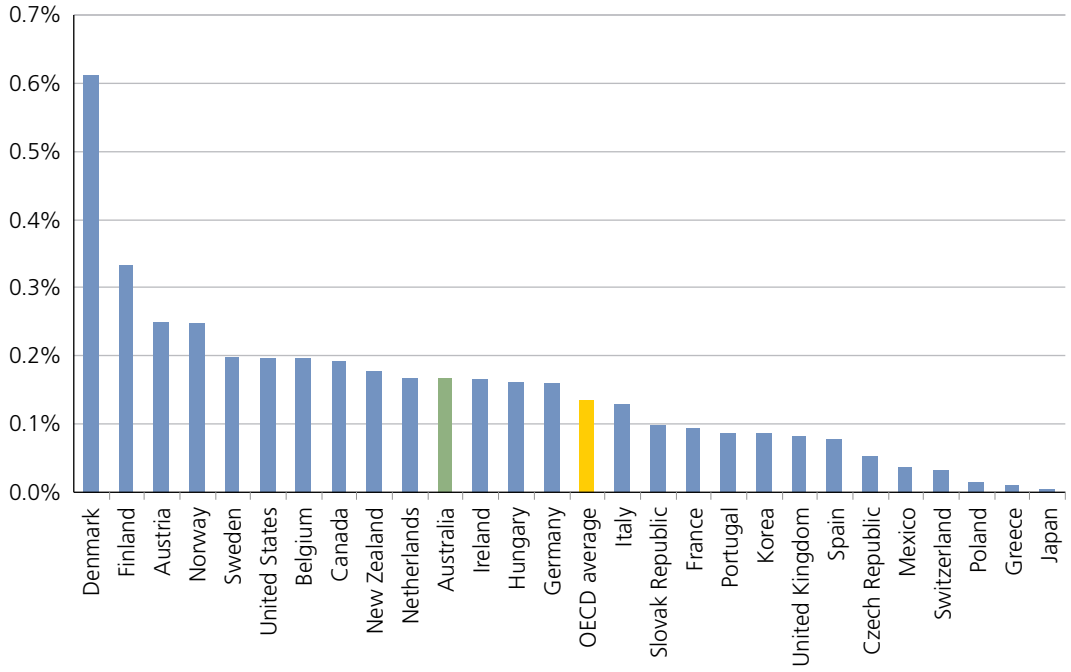
However, because the Commonwealth Scholarships program has failed to increase the participation rate of low socio-economic status or regional and remote students the panel considers the program needs more radical change.

3.3.5 International comparisons

Australia ranks fifth among OECD countries in terms of total public support for tertiary education students. This is the sum of income contingent loans, income support and scholarships. Direct public subsidies paid to households in support of participation in Australia were estimated at 0.37 per cent of GDP in 2004 compared with the OECD average of 0.25 per cent of GDP. However when the income contingent loans are removed from these statistics the picture is somewhat different. Based on income support and scholarships alone, Australia's position in the OECD falls to 14th, just above the OECD average.

The OECD (2008a) also reports that Australia ranks 23rd among 31 OECD countries in terms of students' ability to finance their education costs as measured by the ratio of tuition and living costs to available individual funding. Australian students generally face a much higher ratio of education costs to available sources of finance than their counterparts in other developed countries.

Figure 18: Public subsidies to households, including payments for student loans, 2005



Source: Calculated from Education at a Glance 2008: OECD Indicators, Table B5.2

3.3.6 What needs to be done

Higher education is becoming less affordable. The panel has concluded that the contributions made by students themselves through the income contingent loans scheme are currently appropriate and should not be increased any further. However, the arrangements for income support and publicly-funded scholarships need urgent attention.

Changing the scope and nature of the program

The student income support program is complex and difficult for students to navigate. The indexation arrangements and variable eligibility conditions are having unanticipated impacts on the number of students qualifying to receive benefits and the amount they receive. The amounts provided through the various benefit types are insufficient to live on. Some students and families are using other Centrelink benefits because they are more accessible than the standard student income support schemes. This is due to factors such as indexation and the taper rates for siblings.

At present Austudy and Youth Allowance are available to eligible applicants studying an undergraduate degree or a postgraduate certificate or diploma, but not generally for students enrolled in coursework masters degrees. The inclusion of some professional masters programs was introduced in 2007 and each institution must apply to have appropriate degrees recognised as eligible for Centrelink benefits. Over 300 masters coursework programs have now been approved for Centrelink benefits with more expected in 2009. It therefore seems reasonable that Centrelink benefits should be available for all masters coursework programs subject to students satisfying the usual eligibility conditions.

Refining the targeting of the recipients

Eligibility conditions for independence are inappropriate and the benefits are not going to the neediest students. These conditions must be changed, including the age of independence for all types of student assistance.

Updating and changing the indexation arrangements

The rates of indexation and frequency of adjustment have not been reviewed for some years leading to a relative lowering of the salary levels in the parental and personal income thresholds which have denied many students access to benefits. The income above which benefits are reduced with respect to the personal income test has not changed for 15 years. The thresholds are now about 70 per cent of what they would have been had they kept pace with actual average rates of salary increases over the period.

The value of the benefits is falling relative to average wages and some other non-study-related benefits. The average benefit rate is also reducing.

Changing the management arrangements for scholarships

One problem with the award of Commonwealth Scholarships is the timing of the notification to students of the awards. Students are generally enrolled before they are notified that they have been awarded a scholarship, although there is now agreement that universities must award the scholarships at the same time an offer of a university place is made. All providers must meet this requirement from 2010 (in practice, many are doing so now). This approach is consistent with improving access for low socio-economic status students, rural and Indigenous students who need certainty about the likelihood of receiving financial assistance for their studies.

The management arrangements for the program must be changed to address these and the problems identified earlier if the program is to be truly effective.

3.3.7 Policies and strategies for the future

While a number of other issues such as alignment of study related income support benefits with unemployment benefits, the level of benefit paid and the income bank[10] arrangements have been raised by various groups in the submissions, the most pressing policy matters requiring review and resolution are:

- the parental income threshold is too low (that is, the criteria for qualifying for benefits is too tough). This is traceable to indexing and high taper rates;
- the personal income test is too tough (traceable to zero indexing since 1993);
- the age of independence is too high;
- the earnings independence criteria is inequitable;

10 The Student Income Bank enables a recipient to earn credits when they have little or no income in a particular fortnight which can be used subsequently when the recipient has earnings above the income free area (of $236 per fortnight) to increase the amount they can earn before their income support payments are reduced. Students can accumulate any unused part of their fortnightly income free area up to a maximum of $6,000. This accumulated credit can then be used to offset higher income earned above the income free area in other fortnights such as increased earnings over extended holiday periods. When income received or earned is above the fortnightly income free area and Student Income Bank Credits are exhausted, income support payments are reduced by 50 cents in the dollar between $236 and $316, and by 60 cents in the dollar above $316.

- Commonwealth Scholarships are poorly targeted;
- Commonwealth Scholarships need different administrative arrangements; and
- there are gaps in provision.

Because of the inter-relationships between the programs, making policy changes in one area has an impact on numbers of people qualifying for benefits in other ways.

Overall rate of payment for benefits

The survey of student finances shows clearly that students believe that the current level of support provided to eligible students is insufficient to live on. This is also supported in a number of submissions to this review. The data above shows the decline in the value of the benefits over time and the loss of purchasing power provided by them (Figures 16 and 17).

Currently the maximum benefit paid for Austudy and Youth Allowance is $9,266 per annum for a student living away from home with no dependants, well below the Henderson poverty line. It is time to restore the real value of the allowances to at least that of 2001. Even at these levels it will be necessary for recipients to have some additional income to manage independently. There are currently two reviews of social security benefits underway (the Henry and Harmer reviews) which may address some of the anomalies about size of benefits and indexation arrangements that have been identified. Given that the Harmer review is examining income support benefits of all types the panel has decided not to recommend a specific level of increase in the benefits at this stage, pending the report of its outcomes.

Parental income means testing

A significant reason the coverage of Youth Allowance for dependent students has fallen so steeply since the early 2000s is likely to be the indexation rule with respect to the Parental Income Threshold (PIT). Since the benchmark for qualifying for benefits is adjusted only by the Consumer Price Index (CPI), and earnings growth is higher than that over time, fewer people will be eligible for dependent Youth Allowance since fewer young people will be from households with these low and relatively falling incomes.

Two considerations for future policy are the extent to which there needs to be a one-off adjustment to the Parental Income Threshold (by some percentage, e.g. 15 per cent), and having a new indexation arrangement on Parental Income Threshold related to changes in earnings. The Family Tax Benefit (Part A), which some families use to support students enrolled in higher education, even though this benefit is not study-related, has a much higher threshold than that of Youth Allowance, and a more generous indexation rule. The Parental Income Threshold for the Family Tax Benefit is $42,559 compared with $31,400 for the Youth Allowance and ABSTUDY.

The preferred solution to this is to align the Parental Income Threshold with the income threshold of the Family Tax Benefit. In addition, the indexation rate needs to be changed. Again aligning this with the Family Tax Benefit makes sense. It is proposed, therefore, that in future the Parental Income Threshold should be indexed by a combination of CPI and Male Total Average Weekly Earnings (MTAWE). The impact of this is estimated to be an increase to benefits for about 35,000 current Youth Allowance recipients with a further 30,000 current Family Tax Benefit recipients moving to Youth Allowance.

The taper rate for benefits for multiple students in a family

For families with incomes in excess of the Parental Income Threshold amount benefit payments are withdrawn at a rate of 25 per cent for each child until it is depleted. This per child taper rate is quite steep at 25 per cent and is applied for each child in the family receiving benefits. This is compared with a lower taper rate of 20 per cent for the Family Tax Benefit which is applied only once irrespective of the number of children in the family. When combined with the Parental Income Threshold indexation rule the result is relatively low and falling assistance and coverage.

Aligning the Youth Allowance and the Austudy taper rates with those of the Family Tax Benefit makes sense to avoid the inconsistencies of treatment which have led to shifts away from the student income support schemes into Family Tax Benefits. Reducing the taper rate from 25 per cent to 20 per cent for these benefits will result in about 33,000 current Youth Allowance customers receiving a higher payment and the movement of a further 14,000 Family Tax Benefit recipients to Youth Allowance.

Personal income means testing

The personal income test for Youth Allowance, ABSTUDY and Austudy is also too severe. Most significantly, the maximum amount that can be earned without recipients losing some Youth Allowance benefit, currently set at $236 per fortnight, has not been indexed at all since 1993. This implies that it has effectively decreased by around 80 per cent in this time. This has had a large impact on the number of students qualifying for an allowance on the basis of their own income and explains some of the large numbers of rejections received by postgraduate coursework students. Applying an index which relates to average weekly earnings suggests that the personal income threshold of $236 per fortnight should now be about $400 per fortnight.

Independence criteria

Independence status under Youth Allowance disregards parental income and asset tests in assessing an individual's eligibility and the rate of payment. The criteria for independent status are not related to whether the young person is living at home or away from home (however independent students living with their parents receive a lower rate of payment than if they live away from home).

There are two broad categories for establishing independence under Youth Allowance. Youth Allowance rules recognise that some young people will establish independence through individual circumstances such as marriage, being orphaned, having a child, being a refugee, or having parents who cannot exercise their responsibilities.

Youth Allowance rules stipulate that some young people can achieve financial independence from their parents by meeting the workforce participation criteria. To be eligible under these criteria, the young person must meet one of the following requirements:

- they have worked full time for a minimum of 30 hours a week for at least 18 months in a two-year period; or
- they have worked part time for at least 15 hours a week for at least two years since leaving school; or

- they have earned, in an 18-month period since leaving school, an amount equivalent to 75 per cent of the maximum rate of pay under Wage Level A of the Australian Pay and Classification Scale generally applicable to trainees (in 2008 this requires earnings of $18,850).

The vast majority of students become eligible for independence under Youth Allowance by meeting the third criterion (earning $18,850 of income over an 18-month period). Evidence from submissions and the data presented earlier show that this rule should be changed to ensure benefits are targeted to those in greatest need.

Evidence of independence should be based on the demonstration that a young person has established such independence from their parents by being engaged in employment that has resulted in genuine self support over time.

Removal of the second and third criteria of the workforce participation criteria for Youth Allowance recipients would not affect those are genuinely independent and would result in better targeting of income support funds. Considerable savings would be achieved if this were done, because of the large numbers achieving independence under these two elements of the workforce participation criteria, particularly the third criterion. Existing students who have already satisfied the criteria for independence would have their present benefits preserved until they finished their course. Changes to the workforce participation criteria are suggested in the context of changes to the age of independence for Youth Allowance. If this were changed, around 27,000 prospective Youth Allowance claimants would not qualify for benefits, and a further 7,000 current recipients would not become eligible for a higher rate of allowance.

The age of independence at 25 years for access to Youth Allowance is very high by international standards and could be encouraging the adverse behaviours referred to above. The National Union of Students has advocated in its submission that the age of independence be lowered to 18 years. Changing the age of independence has a significant impact on the numbers of students eligible for Youth Allowance, but if lowered sufficiently would also be likely to reduce the number of students seeking independence though other avenues. Table 7 shows the increase in the cost associated with dropping the age of independence from 25 years to various years.

The cost of reducing the age of independence to 18 years is prohibitive given other priorities, but significant benefits can be achieved by reducing it to 22 years, the level it was until 1998, when it was increased to 25 years. This is the preferred option of the panel. In addition to the 19,000 new recipients, a further 5,000 will benefit by being paid a greater level of benefit.

Table 7: Estimated cost of reducing the age of independence

New age of independence	New Youth Allowance recipients	Cost per year ($m)
24	3,000	16.3
23	8,000	37.5
22	19,000	87.5
21	54,000	262.5
18	404,000	1,850.0

Source: DEEWR 2008 administrative calculations

Treatment of masters degree students

The current approach for providing income support for masters degree students is unwieldy to administer, with institutions having to make a case for inclusion of each professional masters course to the Department of Education, Employment and Workplace Relations before students can access support. In addition, the lack of availability of student income support for students studying at this higher level discourages them from continuing with postgraduate degrees.

Given the desire to have a more highly educated workforce and to encourage lifelong learning as a means of upskilling the population, it is appropriate to extend the current provision of student income support benefits to students in all postgraduate coursework programs. The eligibility requirements would be the same as those applying for other lower level courses.

Inadequacy of payments to cover living and other tuition expenses

Several submissions, including that of the National Union of Students, have suggested that consideration should be given to providing an optional income contingent loan to cover expenses such as the purchase of books and equipment.

A possible way to address these issues is to introduce an optional income contingent loan which could be added to the HELP debt and paid back after the HECS-HELP and FEE-HELP debts are paid off. This was considered and its costs modelled but it is prohibitively expensive and the introduction of means testing will change the basic nature of these loans and affect the conceptual integrity of the HECS system. Consequently, the panel is not recommending the introduction of an income contingent loan for these expenses.

Scholarships

Commonwealth Scholarships are not scholarships in the traditional sense as they are not awarded to encourage students to enrol in higher education. They are an additional benefit paid to students who are usually on some other form of student income support to assist them with their study and accommodation costs. The program should be retained and enhanced.

However, it should be run centrally with assessment of applicants being handled by Centrelink so that demand from potential recipients can be addressed in a consistent way against a single set of criteria. In this way eligibility criteria can be simplified and consistency ensured in the provision of benefits to students of different institutions. It would also align the award of scholarships with demand for them across the sector. It would be easier for students to access the benefits and would reduce the considerable administrative load on higher education institutions in selection, payment and management of the scholarships program.

Indigenous scholarships

In recognition of the special needs of Indigenous students, the Indigenous Higher Education Advisory Council has sought flexible arrangements for assessing the eligibility of students for Indigenous-specific Commonwealth Scholarships. This would enable the assessment to include a judgment about the individual circumstances of the student and be undertaken in a culturally appropriate way. The council has argued that the assessments should be made in consultation with the institution's Indigenous-support centre.

The panel has concluded, therefore, that these scholarships should be kept separate from the other types of Commonwealth Scholarships and that responsibility for the assessment and payment of these scholarships should rest with individual higher education providers. The existing arrangements for Indigenous students who receive Indigenous Enabling Scholarships to be eligible in future years for ordinary Commonwealth Scholarships should continue.

Indigenous staff scholarships should also continue in their current form.

Addressing gaps in current provision

Apart from the issue of students on benefits not receiving sufficient income to pay for their basic living and study expenses there are some groups of students who incur additional costs associated with their studies because of their particular circumstances. These groups include:

- students who need to attend extended practicums as part of their training. These students often are required to move away from their home to country locations and suffer loss of income and have accommodation costs that are higher than at their home base;
- students who need to move away from the parental home to another part of Australia will face high moving costs that cannot always be supported by parents; and
- mature-age workers wishing to retrain who have difficulties because of high living costs associated with having dependants (Austudy is not adjusted for more than one dependant, although the Family Tax Benefit takes this into account somewhat).

There are two possible options to address these problems, although neither is supported without qualification by the panel, and important additional consideration by the government is required. The first relates to those who qualify for income support. This involves a trade-in of some Youth Allowance, Austudy or ABSTUDY benefits for more funds provided through an income contingent loan, such as FEE-HELP. This could provide eligible students with funds to meet particular needs at low cost to the budget (Chapman & Lounkaew 2008). A scheme of this type was tried from 1994 to 2003, but it was not well designed. In its submission, the National Union of Students criticised the design weaknesses of the old scheme and there is undoubted validity to these criticisms (Chapman & Lounkaew 2008). On the other hand, there are the advantages that a trade-in could help those in high rent areas, those needing to do less paid work and those needing to help finance the situations described above.

The Student Loan Supplement Scheme, as it was called, allowed students to trade $1 of income support benefit for $2 of income contingent loan. This ratio of 1:2 was ungenerous and expensive for students as the loan had to be repaid at the same time as the normal HECS debt rather than being added to the total amount owing. Hence it was not attractive. A new scheme could have the following characteristics:

- a more generous ratio of 1:3;
- the debt to be added to the student's existing HECS-HELP or FEE-HELP debt and so would be paid at the end of the tuition-fee debt and not in parallel; and
- a cap of a maximum of, say, $750 that could be traded in per year.

Chapman and Lounkaew (2008) illustrate that such a scheme would have very low subsidies from the Commonwealth budget, although additional up front funding would be needed in the short run. While the re-establishment of such a scheme with different parameters has conceptual merit and would address some of the gaps in the current income support system without adding major costs to the Government in income support provision, it is not recommended in the absence of further consideration of its implications.

A second possible option involving the use of FEE-HELP as an instrument for additional income support has emerged, with additional resources of the order of $1,000 per annum being suggested. This option is favoured with qualifications by the National Union of Students and others, in submissions, and in some public commentary (for example, from Universities Australia). The advantages of such an approach are:

- the long-run costs to the Commonwealth Budget would be minimal (Chapman & Lounkaew 2008);
- the additional funds could be used to alleviate the up-front funding costs associated with some of the issues noted above, an option not part of the HELP system which only covers tuition costs; and
- since the scheme is voluntary, by taking up the offer students would not be made worse off, and there would be no off-setting reductions in the grant parts of income support.

On the other hand, the panel highlights some important unresolved issues related to this option. They are:

- while it is very likely to be the case, as argued in Chapman and Lounkaew (2008), that there are minimal taxpayer subsidies from such an arrangement, it is still true that – unlike with HELP – the government would need to finance the initial outlays for the scheme, and these might be relatively high;
- one way to mitigate the initial outlay costs would be to restrict eligibility for the FEE-HELP income support assistance through means testing on the basis of household income; however, this would arguably introduce an element of means testing into the HECS system and this is generally considered to be undesirable (Chapman & Lounkaew 2008); and
- in administrative terms, it is not clear how this would be delivered, and how high the administrative costs would be; one possibility would be to have the resources distributed through Centrelink, and another might be to have support distributed on enrolment by higher education institutions. No assessment has been made of the relative merits of these alternative approaches.

On balance, while the advantages of extending income support with the use of income contingent loans is conceptually attractive there are currently important questions associated with how this might best, and most equitably, be adopted.

The panel is not drawn to making recommendations on the introduction of a loans-supplement scheme or using FEE-HELP as an instrument for income support on the basis of the information available to it at this stage. However, these are matters which would benefit from further consideration and more detailed analysis of their impact on students.

3.3.8 Recommendations

It is vitally important to change the higher education student income support system to ensure that financial barriers to participation of students from low socio-economic backgrounds and Indigenous students are removed. The system has become ineffective and not sufficiently targeted due to lack of attention to the impact of particular indexation decisions and the absence of regular review since its introduction in the current form in 1998. The following recommendations address the need for major change and for instituting a program of regular review to maintain efficiency and effectiveness over time.

Recommendation 5

That the Australian Government introduce the following package of reforms to the student income support system.

Item	Nature of the reform
Parental Income Test threshold	Increase threshold for Parental Income Test to $42,559, consistent with the value used for the Family Tax Benefit.
Parental Income Test indexation	Change the indexation rate to be consistent with the Family Tax Benefit index, a combination of CPI and Male Total Average Weekly Earnings (MTAWE).
Parental Income Test taper rate	Change the taper rate for reduction in benefits for each child in the family on income support benefits to 20 per cent. Apply the new taper rate only once as is the case for the Family Tax Benefit rather than for every child in the family receiving benefits.
Personal Income Test threshold	Increase the personal income threshold for Youth Allowance and Austudy to $400 per fortnight.
Personal Income Test indexation	Change the indexation of the personal income threshold from zero to a wage basis (for example, Male Total Average Weekly Earnings).
Age of independence	Reduce the age of independence for Austudy from 25 to 22 years.
Change to eligibility conditions for independence	Remove the workforce participation criteria for independence of: (a) working part time for at least 15 hours per week for at least 2 years; and (b) earning a specified amount in an 18-month period since leaving school. Introduce 'grandfathering' arrangements for existing students who have already satisfied these criteria for independence.
Eligibility of masters coursework students	Extend eligibility for benefits to students enrolled in all masters by coursework programs.
Enhance the Commonwealth Scholarships program	Continue and enhance the Commonwealth Scholarships program by providing benefits to all eligible students on Austudy or Youth Allowance for education costs and accommodation costs (for those who need to leave home) and by transferring responsibility for the payment of benefits to Centrelink.

** Based on recent costings from DEEWR, attached as Appendix VIII. Please note the caveats provided for these estimates. ** The aggregate costings do not include estimates of potential savings associated with the trade-in.*

Recommendation 6

That the Australian Government undertake a regular process of triennial review of the income support system to assess the overall effectiveness of the support payments in reducing financial barriers to participation of students in need.

3.4 Providing students with a stimulating and rewarding higher education experience

3.4.1 Why a high-quality student experience is central to the future of higher education

The Australian student body is highly diverse and changing rapidly. The traditional image of a higher education student moving straight from secondary schooling and devoting all his or her time to studying full time on campus is becoming far less the norm. For example, many students study full time while working part time, while others study part time and hold down a full-time job. There is a large and increasing cohort of mature-age students, with a significant proportion who study by distance education and may only visit a campus to receive their final award. In addition, a very substantial proportion of the Australian student body now comprises international students.

In this diverse and complex environment, providing all students with a stimulating and rewarding higher education experience is a significant challenge. However, the future success of the Australian higher education system is inextricably linked with its ability to meet this challenge.

A good student experience is important because students are more likely to complete their studies if they are satisfied. In addition, they are more likely to return to study if they have had a positive experience previously – an outcome which is necessary if Australia is to meet its productivity goals.

The most effective way to ensure that students enjoy a stimulating and rewarding educational experience is to encourage Australia's higher education sector to be responsive to student demand. Students should be given the opportunity to select the most appropriate institution for themselves and higher education providers should have the flexibility to respond to that demand and to be rewarded for the quality of their teaching and research.

3.4.2 Factors affecting student experiences and expectations

Student expectations about their higher education experience

There is a strong link between students' retention and success and the extent to which they are engaged with their fellow learners and their teachers during their studies. Factors influencing the extent of engagement include 'the social climate established on campus, the academic, social and financial support provided by the institution, student in-class and out-of-class involvement with campus life, and frequent feedback provided to students and staff about their performance' (Scott 2008, p. 32).

In a literature review on student engagement and satisfaction undertaken for the review, Professor Geoff Scott found that 'some expectations that students have about their university studies are enduring and are common for most student groups' (Scott 2008, p. 24).

These include:

- an expectation of personal and vocational relevance and coherence in what is studied and assessed and the capacity to be appropriately employed on graduation;
- ease of attendance;
- experiencing a responsive learning environment;
- clear assessment guidelines; and
- prompt and helpful feedback on their learning (Scott 2008).

These core expectations about the student experience are tested in some of the instruments currently used in the sector to seek feedback from graduates about their course and study experience and these are discussed later in the chapter.

The changing student profile

Substantial changes in the profile of the higher education student population have occurred over the last decade resulting in increased diversity. There have been shifts towards postgraduate enrolment, international enrolment, and increasing numbers of mature-age students. Different types of students have different needs and expectations of their higher education experience. For example, high proportions of international students study full time and are generally heavier users than domestic students of various social and support services provided on campus. The increasing numbers of older part-time students enrolling also have different expectations about the quality of their education and the interactions they will have with their peers and staff. In turn, those expectations are different from those of the younger cohort.

Table 8: Comparison of higher education student profile 1996 and 2007

Characteristic	1996*	2007	1996 % of total profile	2007 % of total profile
Postgraduate students	132,444	278,257	20.7%	27.0%
Undergraduate students	496,227	720,003	77.7%	69.9%
Domestic students	584,476	756,747	91.5%	73.5%
-Full-time students	340,333	481,140	53.3%	46.7%
-Part-time students	244,143	275,607	38.2%	26.8%
International students	54,020	273,099	8.5%	26.5%
-Full-time students	37,986	218,867	5.9%	21.3%
-Part-time students	16,034	54,232	2.5%	5.3%
Mature-age students (21 or over)	402,884	682,225	63.1%	66.2%
External (off-campus) students	85,938	130,277	13.5%	12.7%
Multi-modal students	17,508	71,386	2.7%	6.9%
All students	**638,496**	**1,029,846**		

*Note: * Coverage is limited to what are now Table A providers*

Source: DEEWR (Selected Higher Education Statistics, various years)

Increased student expectations about value for money

Students expect the quality of teaching and services will be commensurate with the relatively high fees and personal financial contributions they make to their education. Various changes to the rates of HECS and other fees and charges over the last decade or so have significantly increased the cost of higher education to participants and reinforced student perceptions that they are customers with a right to good service.

Students also expect that higher education providers will accommodate pressures outside of study, such as paid employment and meeting family responsibilities, through the flexible delivery of teaching, services and advice.

Changes in the sector affecting the quality of the student experience

Despite the enduring and common nature of some expectations, a number of issues in relation to the operations of universities[11] have affected students' educational experiences.

Student-staff ratios

Figure 19 shows the large increases in student-staff ratios experienced in universities since 1990 associated with the transition to a much larger higher education system. The ratio rose sharply between 1996 and 2001 and is now over 20:1. The student-staff ratio includes casual staff involved in teaching and those numbers have also risen over the last decade. Hence the mix of staff contributing to the ratio has changed and there are now relatively fewer full-time staff involved in teaching or in the delivery of courses.

Research has argued that the use of casual staff is damaging the quality of teaching at Australian universities because of the lack of effective training opportunities for casual academics; 'inconsistent management and supervision of casual staff; and a lack of integration and inclusion of casual staff in faculty arrangements' (Brown, Goodman & Yasukawa 2008).

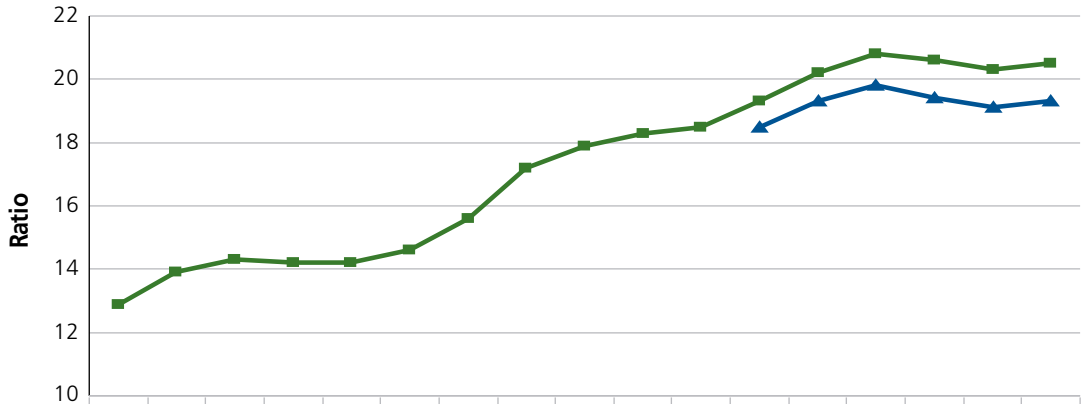
There is a limit to how far improving productivity performance by increasing student-to-staff ratios can go without damaging student outcomes. In submissions to the review from student groups, a very significant number reported negatively on aspects of the student experience, including many who complained that in their university class sizes were too large.

There is evidence from the United States that increasing class sizes have a negative impact on student learning outcomes. Kokkelenberg, Dillon and Christy (2006, p. 2) found that average grade points declined as class size increased, 'precipitously up to class sizes of twenty, and gradually but monotonically through larger class sizes'. They also quote from other work that found smaller class sizes were significant in 'courses geared toward promoting critical thinking and advanced problem solving' (McKeachie, Iran-Nejad & Berliner 1990, cited in Kokkelenberg, Dillon & Christy 2006, p. 5).

Taking all these matters into account, the panel has concluded that student-staff ratios in Australian universities have reached a point where the student experience is being threatened. This situation cannot continue without jeopardising the quality of the teaching, and the programs and learning support provided to students. Student-to-staff ratios will therefore need to be reduced as a matter of priority.

11 At present, systematic public information about student satisfaction with their higher education experience is largely limited to surveys of university students.

Figure 19: Universities Australia student-to-teacher ratio, 1990 to 2006



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SSR all load	12.9	13.9	14.3	14.2	14.2	14.6	15.6	17.2	17.9	18.3	18.5	19.3	20.2	20.8	20.6	20.3	20.5
SSR onshore load												18.5	19.3	19.8	19.4	19.1	19.3

Note: Data is for Universities Australia member universities only.

Source: Universities Australia 2008a, 2006 Student to Teacher Ratio For Academic Staff with Teaching function, October. UA cited sources are DEEWR Higher Education Student and Staff Statistics 1990 to 2000 and DEST Unit Record Files 2001 – 2006; Bond University Management Report August 2007 (data for 2001 to 2006 only).

The influence of information and communication technologies on teaching, learning and administration

The new information and communication technologies (ICT) play a significant role in teaching, learning and administrative support in universities, with most students reporting using ICT in some form in each of the subjects they study. While students generally are in favour of the use of ICT to enhance the learning experience and to provide flexibility, face-to-face teaching and learning remains highly valued.

There is debate about the impact of a heavy reliance on information and communication technologies on the quality of teaching delivered and the learning experience of students. Most research indicates that students respond best to a broad mix of learning tools and resources. However, significant use of technology-mediated methods may disadvantage students from backgrounds poor in information and communication technologies (Scott & Alexander 2000). This could have a greater effect on mature-age students who may not be as computer literate as younger students and also on students from rural and low socio-economic backgrounds who may not have access to appropriate resources or infrastructure.

Removal of compulsory non-academic fees

The abolition of compulsory non-academic fees in universities in 2005 has led to a reduction in the range of support services provided to students in some universities. Many submissions to the review commented on this issue.

3.4.3 Measuring the student experience and its quality

General outcome indicators

The effectiveness of teaching in universities and satisfaction of students with their learning experience can be partially measured by examining employment and study-outcome trends.

All public universities in Australia participate in the national Graduate Careers Australia surveys which collect information from recent graduates about their employment and future study outcomes (the Australian Graduate Survey).

As shown in Table 9, there has been an increase of 39 per cent in the number of completing undergraduate students between 1997 and 2007. The proportion of graduates in employment or further study has also improved by 2 per cent over the last decade. The proportion of graduates in full-time employment within four months of completing their degrees rose by 6 per cent. However, the panel has detected during consultations disquiet about both quality and sustainability.

Table 9: Selected student outcome indicators for undergraduates, 1997 to 2007

Indicator	1997	2007	% change
Undergraduate outcomes			
% in Full-time employment	53.2	56.7	6
% in Part-time or casual employment (includes seeking full-time and not seeking full-time)	15.1	15.1	0
% in Full-time study	21.5	19.9	-7
Total positive outcomes	89.8	91.7	2
Completions	103,834	144,040	39
Total enrolments	496,364	690,393	39
Completions as % of total enrolments	21	21	0
Demand from International students (International students enrolled)	44,399	146,469	230%

Note: Includes bachelor level qualifications only

Source: Graduate Careers Australia 1999, Grad Files, Number 1, December 1999; Graduate Careers Australia 2007a, Graduate Destination Report from the Australian Graduate Survey ; DEEWR student statistics collection.

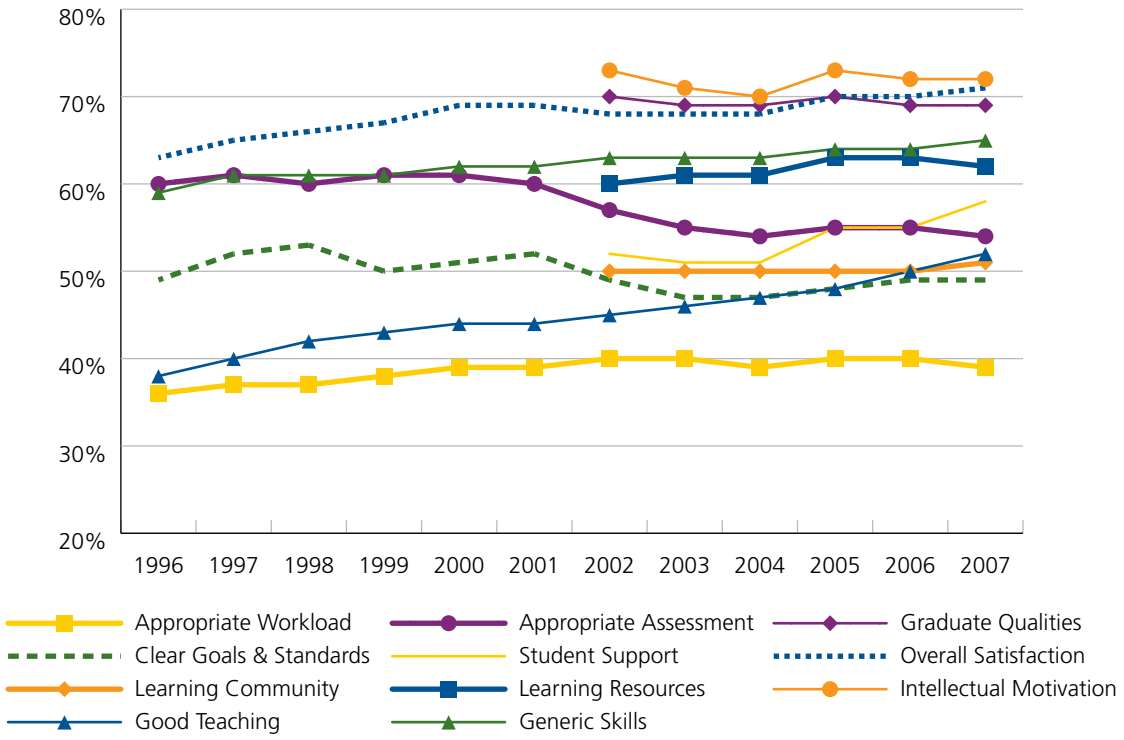
Perceptions of the quality of teaching and support

All public universities in Australia take part in the Graduate Careers Australia Course Experience Questionnaire (CEQ) which asks recent graduates to reflect on their experience of the course they have completed and to indicate their levels of satisfaction with various components of the teaching and support they have received. This covers areas such as the nature of the learning experience, whether workload levels hindered deeper forms of learning and the impact of the course on the desire to continue learning.

The results, shown in Figure 20, indicate relatively low levels of graduate satisfaction with teaching and student support services. However, one of the anomalies of the CEQ data can be observed. Overall satisfaction levels, at between 60 to 70 per cent for the last decade, are often at odds with much lower levels of satisfaction for the other more specific scales.

Satisfaction levels should be at least 66 per cent for one to be confident that the majority of students felt positively about their experience of higher education. The levels for most scales are well below that benchmark. Only 5 of the 11 scales have shown improvement between 1996 and 2007 and, in particular, levels of satisfaction on the good teaching, appropriate workload, clear goals and standards, and learning community scales have remained either about or below 50 per cent for this whole period.

Figure 20: CEQ percentage agreement by scale, Australian higher education, 1996 to 2007



Source: Reproduced from Alexander and Bajada 2008, University of Technology, Sydney submission

While the panel acknowledges the need for care in interpreting these indicators, these results seem to suggest that the greater productivity and outputs of the sector shown in the previous section are being achieved at the expense of time spent with individual students, good feedback on assessment and social interactions.

International comparisons

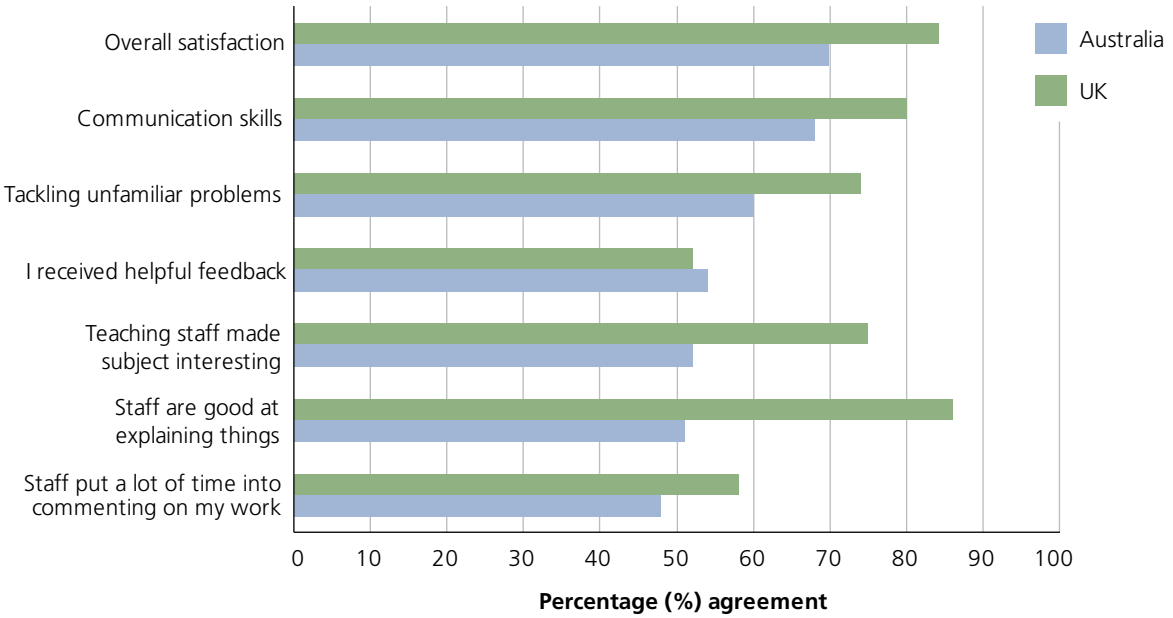
The sector must benchmark its performance against that of other countries. To date most of the focus has been on comparing performance between universities or measuring improvement year-to-year without reference to how performance compares with other countries. Recently such comparisons have become possible.

United Kingdom

The United Kingdom adopted the Course Experience Questionnaire in 2005 and administers it to students in their final year of study. Figure 21 shows the outcomes from the surveys in Australia and in the United Kingdom for seven comparable items in 2006.

In five items the performance of United Kingdom teachers is better than their Australian counterparts. Only for the *helpful feedback* question does Australian performance exceed that of teachers in the United Kingdom. For the item about *staff are good at explaining things*, the level of satisfaction in the United Kingdom is 35 per cent higher than for Australian students.

Figure 21: CEQ results for Australia and the United Kingdom for comparable items, 2006



Source : Data from Alexander and Bajada 2008, University of Technology, Sydney submission

The question on overall satisfaction is the same in the two countries, but the United Kingdom results in each of the years 2005-2007 for which comparative data exists, is between 14 per cent and 15 per cent higher than the percentage agreement achieved in Australia.

Given the slow rate of improvement in these items, it will be a long time before the Australian results are comparable to those achieved in the United Kingdom unless action is taken. A better understanding of why this differential exists, and significant intervention to address the reasons, are needed urgently.

United States and Canada

The Australasian Survey of Student Engagement (AUSSE), based on the College Student Report used in the United States National Survey of Student Engagement, has been developed and piloted by the Australian Council for Educational Research to explore the extent to which students are engaged with their community during their higher education experience. The AUSSE was administered to a sample of 20 Australian and five New Zealand universities in 2007 and provides some useful benchmarking data for international comparisons with United States and Canadian universities. Scores reported are the average of the responses received and range between 0 and 100.

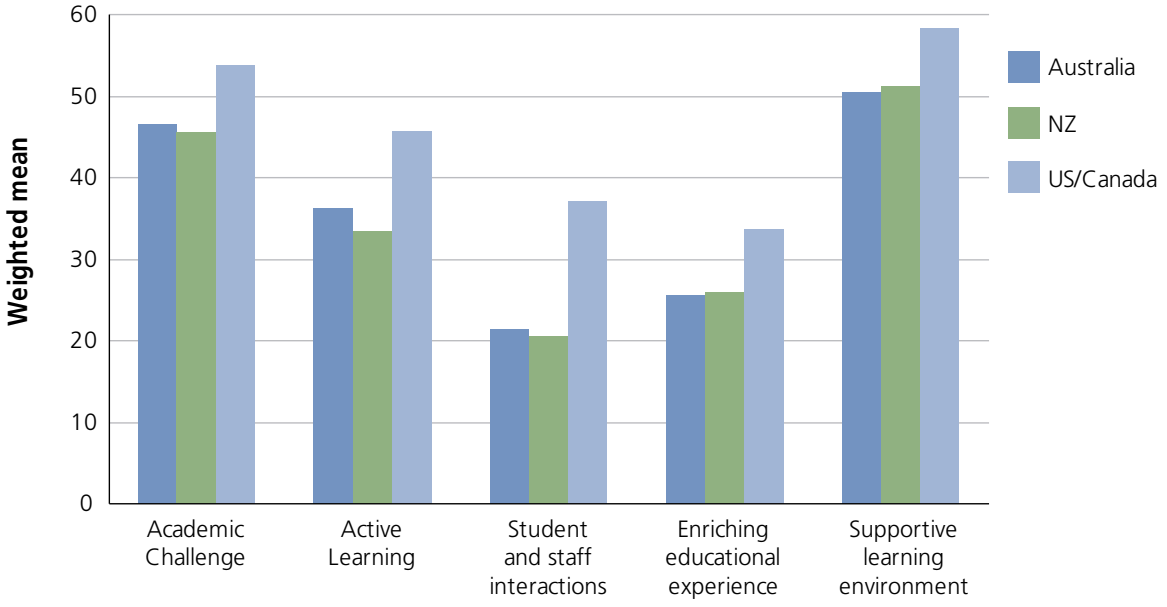
The AUSSE data for the 20 Australian institutions which participated in the trial of the survey instrument show that:

- the mean scores for the various scales range from 21.3 to 50.4. These are generally very low levels of satisfaction;
- the lowest scores are in the areas of student and staff interactions (21.3) and enriching educational experience (25.5);
- in general, first-year students rated each of the scales lower than the ratings by second- and later-year students;
- full-time study and on-campus study are predictors of the degree of participation by students in active learning and enriching educational experiences; and
- greater participation in off-campus paid work is associated with roughly the same level of engagement in other activities, except for those working more than 30 hours per week (ACER 2008).

Detailed analysis of the components for each of the scales in the AUSSE report shows significant variability in ratings within the scales.

The AUSSE trial results in 2007 are compared below with those of the United States and Canada (combined).

Figure 22: AUSSE outcomes for Australia, New Zealand & the United States/Canada, 2007



Source: ACER 2008, AUSSE Australasian University Scale Statistics Report, January, p. 43

The Australian results are well below those of the United States and Canada for every scale, although slightly above those of New Zealand in most categories. The greatest disparities are for the *student and staff interaction* and *enriching educational experiences* scales. The former is likely to result from the increasing student-staff ratios in universities in Australia.

3.4.4 What has been done to improve the quality of teaching and learning in Australia?

Various initiatives are currently in place in the sector to address the quality of teaching and learning. These include the Australian Learning and Teaching Council and the Learning and Teaching Performance Fund.

The Australian Learning and Teaching Council

The Australian Learning and Teaching Council (previously known as the Carrick Institute for Learning and Teaching in Higher Education) was established in 2005 and aims to enhance learning and teaching in higher education through:

- management of a major competitive grants scheme for innovation in learning and teaching;
- improvement of assessment practices throughout the sector, including investigation of the feasibility of a national portfolio assessment scheme;
- facilitation of benchmarking of effective learning and teaching processes at national and international levels;
- development of mechanisms for the dissemination of good practice in learning and teaching;
- management of a program for international experts in learning and teaching to visit Australian higher education providers and the development of reciprocal relationships with international jurisdictions; and
- coordination of the Australian Awards for University Teaching.

The council undertakes a range of activities to support these aims including fora and symposia on key teaching issues, national teaching awards, a fellowship program to promote excellence in teaching and learning, a national grants scheme for leadership and innovation in learning and teaching, a learning network of academics and special projects.

Submissions to this review that commented on the council were generally very supportive of its work to date and argued that it had been effective in raising the profile of teaching and learning in the sector generally and should be continued.

A review of the council was undertaken by Professor Kwong Lee Dow during 2008. He found that the council was well-established and valued within the higher education sector, and had assisted in developing an increased prominence for learning and teaching in the sector. The review recommended no major changes to the mode of operation or focus of the council (Lee Dow 2008). The panel supports his conclusions and agrees that the council should continue to play a significant role in the further improvement of Australian higher education teaching and learning.

The Learning and Teaching Performance Fund

The Learning and Teaching Performance Fund has encouraged the sector to focus on teaching and learning. However, views expressed in submissions to this review on the effectiveness of the fund were divided.

The methodology used to allocate money from the fund has been problematic and the subject of considerable negative comment by many. A positive aspect of the fund, though, has been the calculation and publication of a set of key performance indicators used to assess the quality of teaching. The publication of these indicators has drawn attention to institutional performance and has enabled development of targeted responses and initiatives.

These indicators can now form the basis of an expanded and refined set of performance measures to provide a greater focus in institutions and in the sector generally on the quality of the student experience. The panel has concluded that transparent, public reporting of such data on an annual basis will be effective in providing this focus but it does not support the continuation of the fund in its current form.

3.4.5 Key challenges and strategies for the future

Australia has now fallen behind its major competitor countries on key teaching and student experience indicators. This leads to a number of challenges which must be addressed to improve the quality of teaching and the student experience for the future by:

- improving the engagement of students with their learning environment; and
- developing a comprehensive approach to measuring and monitoring the level of student engagement and the total student experience.

Maintaining and improving the quality of teaching and learning will be a critical factor in the future success of universities and all other higher education providers. Students must be provided with the highest quality teaching and learning and a stimulating and rewarding higher education experience.

Improving the engagement of students with their learning environment

Institutions must better prepare students for the higher education experience upon commencement and then later monitor their levels of satisfaction against expectations. Student expectations will differ depending on the characteristics and background of the individual but at a minimum it is reasonable for students to expect that their experience of higher education will include the characteristics outlined in the box below.

Measuring and monitoring the level of student engagement

Student engagement is an important aspect of the quality of the learning experience and hence the quality of teaching. Institutions should monitor the perceptions of their students about the quality of teaching and support they receive and these results should be publicly available. Any framework for assessing institutional performance should include measures relating to the quality of teaching and the extent of student engagement in their education.

A quality student experience in higher education

- Access to well-designed and engaging courses that lead to good vocational outcomes.
- Teachers who are accessible and responsive to learners.
- Interaction with teachers that builds a commitment to the students' chosen disciplines.
- Good-quality teaching and learning spaces and library and information technology support.
- An accessible and sophisticated online learning environment.
- Responsive administrative and student support services.
- Being treated as an individual.
- Two-way communication about matters that pertain to their academic progress.
- Physical places and facilities that allow informal socialisation.
- Presence of a supportive peer group.
- Access to extra-curricular activities such as clubs and societies.
- A welcoming and inclusive environment.

Australia was once a world leader in the measurement of student perceptions with the development and introduction of the Course Experience Questionnaire in 1993. However, it is now time to review the approach to measuring student engagement to take account of new approaches and in particular to collect better information about the broader student experience.

The AUSSE survey piloted in 2007 is an example of an instrument that provides information on the student experience at a more forensic level than is currently available from the Course Experience Questionnaire.

As part of the accountability requirements of accredited higher education providers, more information should be available in the public domain about the Course Experience Questionnaire, Graduate Destination Survey and AUSSE outcomes for each institution. At present this detailed information is only available through the Good Universities Guide for some institutions. Information about institutional performance should be published on the Going to Uni website as well as broad details of actions taken by institutions to address issues identified through student feedback.

Measuring and monitoring the quality of teaching and learning

The panel has concluded that a comprehensive set of measures of the quality of teaching and learning should be developed. These should include measures of the student experience and form part of a broader accountability framework that is focused on the achievement of outcomes. This framework is discussed in more detail in Chapter 4.2 but a possible set of indicators relating to the quality of teaching and the broader student experience are outlined below.

Possible indicators of teaching quality for annual monitoring

- The survival rate – the proportion of a commencing cohort still enrolled in the sector.
- The completion rate – the proportion of students completing in less than or equal to minimum time plus two years.
- Student perceptions of the quality of the teaching they received in their course.
- Student perceptions of the quality of support services provided.
- Student perceptions of the quality and effectiveness of their interactions with staff (as measured through the CEQ and the AUSSE).
- Employment and study outcomes experienced by graduates.

Recommendation 7

That the Australian Government require all accredited higher education providers to administer the Graduate Destination Survey, Course Experience Questionnaire and the Australasian Survey of Student Engagement from 2009 and report annually on the findings.

3.5 Playing a vital role in the national research and innovation system

Responsibility for research and research training in higher education lies with the Minister for Innovation, Industry, Science and Research, the Hon Senator Kim Carr, who commissioned the Review of the National Innovation System and released its report in September 2008. This contains a comprehensive set of recommendations which are being assessed in the preparation of a White Paper due in early 2009.

While an extensive discussion of research in universities is outside the scope of this review, there are four issues on which the panel considers it must make specific comment as they are critical to its vision for higher education. They are outlined in this chapter and are:

- funding for research infrastructure;
- increasing the stock of high-quality academic staff for the system;
- income support for research higher degree students; and
- reforming the Commonwealth Government governance arrangements in relation to research funding for the higher education system.

3.5.1 Funding for research infrastructure

Universities are funded by the Australian Government to undertake research through a dual system of competitive grants and block grants. The Australian Government provided a total of $946 million to universities in competitive grants in 2006 (The Allen Consulting Group 2008).

Competitive grants are underpinned by Commonwealth block grant programs which provide funding for infrastructure, the indirect costs of research and research education. The main block grant programs are the Research Infrastructure Block Grants (RIBG) Scheme, Institutional Grants Scheme (IGS) and the Research Training Scheme (RTS).

- Research Infrastructure Block Grants Scheme ($208 million in 2008) is allocated to institutions on the basis of a formula which reflects their income from competitive grant programs. Costs supported through Research Infrastructure Block Grants funding include the non-capital aspects of facilities such as libraries, laboratories, computing centres and salaries of support and technical staff (DEEWR 2008a). The National Innovation Review (Cutler 2008) notes that the current level of funding provides a top-up of 20 per cent to competitive grants.
- Institutional Grants Scheme ($308 million in 2008) provides more general support for research and research training. Funding is allocated on the basis of institutional research performance using a formula which includes overall research income, research student load and publication metrics. Institutions have considerable discretion in the way they spend Institutional Grants Scheme funding (DEEWR 2008b).
- Research Training Scheme ($585 million in 2008) provides grants to eligible institutions to support research training for students undertaking doctorates and masters degrees by research (DEEWR 2008c).

The original logic of the dual funding arrangements in universities was that the research-granting agencies would pay the direct costs of the projects they supported, while the universities met from their operating grants the costs of salaries of the chief investigators and the general infrastructure needed to sustain research. Additional funding for project-related infrastructure costs was to be provided through the Research Infrastructure Block Grants (RIBG) Scheme.

However, recent reports have provided evidence that rapid growth in competitive grant funding has not been matched by similar growth in block grant funding.

In 2007 the Productivity Commission reported that 'the conceptual arguments for dual funding are sound… But changes to the funding for higher education research have increasingly eroded the share of block grants.' (2007, p. xxix)

The Allen Consulting Group (2008) also provided evidence in a recent study that the funding which universities have received from Research Infrastructure Block Grants Scheme has not kept pace with growth in competitive grants over the period 2000-01 to 2006-07.

A study commissioned for this review from Dr Thomas Barlow (2008) estimated that the share of university revenues used to cross-subsidise externally funded research increased from 8 per cent in 2000 to 12 per cent in 2006. He suggested that the level of 'co-investment' required from universities is shifting the cost structures of research in Australian universities away from those in other countries and resulting in unintended and undesirable distortions in university operations.

Barlow argued, too, that there has been a shift in the balance between disciplines because growth in competitive project grants has tended to focus on particular disciplines, such as medicine and 'hard' sciences, and block grants are distributed in proportion to competitive funds. This encourages universities to divert funding from lower-cost disciplines to those which are more successful in attracting research grants, regardless of where their best researchers are located.

In submissions to the review and in consultations, a number of universities expressed significant concern about the inadequacy of block grant funding, and stated that they had been forced to cross-subsidise research projects gained from national competitive grants from other funding sources. They suggested it was funds for teaching domestic and international students which were used to bolster the research enterprise. The University of Melbourne (p. 20) suggested in its submission that 'the more successful a university is in obtaining national competitive research grants, the more it must subsidise such research from other revenue sources. This is a perverse incentive.'

This under-funding of the indirect costs of research, which has led to cross-subsidisation from teaching funds, has affected the quality of teaching and has probably contributed to the increase in student-staff ratios in recent years. In addition, it seems that the general uncertainties about gaining research funds, combined with the under-funding of the direct and indirect costs of research, have had a negative impact on staff in terms of lack of employment security, excessive workloads and high levels of workplace stress (Winefield et al. 2008). This makes an Australian academic and research career less attractive at the point when Australia faces great competitive pressures to retain and renew this workforce.

Optimal quantum of funding for infrastructure support

The panel has focused its attention on the Research Infrastructure Block Grants Scheme which is directly linked to the size of the research income earned by each institution from competitive grants. Both the quantum of funding and the way in which it is allocated should be addressed.

In 2006 universities received 21 cents in Research Infrastructure Block Grants support per competitive grant dollar earned (Barlow 2008). Submissions to this review from universities and groups suggest that more appropriate funding of competitive grants would be achieved if the Research Infrastructure Block Grants contribution were to be raised to between 40 and 55 cents.

In its recent report, The Allen Consulting Group (2008) compared experience across a range of countries and reported that the international benchmark for funding indirect costs of research projects was 50 per cent of the value of the original grant. The Allen Consulting Group estimated that, for the year 2006, this would require an increase in the Research Infrastructure Block Grants Scheme of $286 million (27 per cent). It proposed that Australia consider a composite model based on a minimum fixed percentage of 50 per cent of project funding to cover indirect costs. Universities could receive this fixed percentage funding or opt for full project-based costing. The latter would require institutions to operate accounting systems with the capacity to attribute costs to individual research projects.

The panel prefers the simpler solution, which does not involve universities in additional reporting load. It supports an increase in the total Research Infrastructure Block Grants allocation, so that universities receive 50 cents in the dollar for the amount allocated to them through competitive grants.

Recommendation 8

That the Australian Government increase the total funding allocation for the Research Infrastructure Block Grants program by about $300 million per year. This represents an increase from about 20 cents to 50 cents in the dollar for each dollar provided through competitive grants.

3.5.2 Increasing the stock of high-quality academic staff in higher education

High-quality academics are critical to successful research and innovation, as well as to provision of quality teaching and learning. The base qualification for a stable academic career is now a doctorate and thus increasing the stock of people available to enter this career is tightly tied to the number in training to acquire this qualification. Of course, people with doctoral qualifications are also employed in other sectors, for example, in public and private research organisations.

To address shortages created by the imminent retirement of a large cohort of academics (discussed in Chapter 3.1) and to expand Australia's academic and research workforce in the longer term, universities must enrol more doctorate or masters by research (known collectively as higher degree by research) students.

Higher degree by research students in Australia

The number of domestic students completing higher degrees by research has grown steadily since the mid-1990s, from 3,439 in 1995 to 5,532 in 2007. This growth was driven by doctorate by research completions, which have more than doubled to 4,405 in 2007. Over the same period the number of students who completed masters by research declined from 1,476 in 1995 to 1,101 in 2007 (DEEWR). This decline is, no doubt, a function of the primacy of a doctoral qualification for academic and research careers.

However, growth in the number of people completing doctorates by research has slowed over the last five years. This has raised concern about the availability of people with these qualifications for the academic and research workforce.

The numbers enrolled in doctorates by research are strongly influenced by the allocation received by universities under the Research Training Scheme (RTS). There has been no increase in the scheme's base funding over the period 2001 to 2008 (DIISR 2008). In a submission to a recent House of Representatives Standing Committee inquiry into research training, the Group of Eight commented that:

> Current Australian Government funding rates for HDR [higher degree by research] student training bear no relation to actual costs of providing supervision, training, infrastructure, consumables and support services to students across different disciplines. (Group of Eight 2008b, p. 2)

The Allen Consulting Group (2008) has suggested that the cost of research training significantly exceeds revenues which universities receive for that training, and estimated the 2007 shortfall in Research Training Scheme funding for the sector as $271 million in 2006-07.

In work commissioned for this review, Barlow (2008) suggested that, while the Research Training Scheme is notionally focused on research training, in practice its funding tends to be absorbed into general revenues. He proposed a revised model to quarantine training-related costs.

While the structure of the Research Training Scheme is outside the panel's terms of reference, it considers that the minimal increase in the funding quantum in recent years does not align well with the need to attract more research higher degree students.

In 2007 it was estimated that about 1,725 additional academics would be required each year between 2006 and 2016 to replace staff leaving the academic workforce or retiring. About 4,000 domestic PhDs will be produced each year over that period, but only about 900 will seek to enter the academic labour market. The biggest shortfalls will occur in fields with low rates of PhD students to academic staff and high rates of dispersal within the labour market, such as geology, mathematics and engineering (Group of Eight 2007).

On the basis of the information available, the panel was not able to make a definitive recommendation on the number of additional Research Training Scheme places required to meet future demand for people with higher degrees by research. It concluded that further work needed to be undertaken in this area.

Recommendation 9

That the Australian Government commission research into future demand for, and supply of, people with higher degree by research qualifications and that it increase the number of Research Training Scheme places on the basis of the findings of the research.

The demography of the academic workforce in Australia, coupled with the time lags involved in research higher degrees, will make it difficult to locate sufficient well-qualified academic staff for teaching and research in universities of the future. International higher degree by research students who complete qualifications in Australia are also a significant source of prospective academics for Australia. This is discussed further in Chapter 3.6.

3.5.3 Income support for higher degree by research students

The National Innovation Review report (Cutler 2008) suggested that one factor behind the difficulty in attracting the best students to undertake research training was the level of income support available. Most domestic research higher degree students are supported by Australian Postgraduate Awards (APAs) or by scholarships provided by their institutions which usually have similar benefits to the Commonwealth-funded APAs. The APAs currently provide an annual stipend of $20,007 (tax-free) for two years for a masters by research student or three years, with a possible extension of six months, for a PhD student.

The National Innovation Review considered that the $20,007 stipend could not compete with lucrative job opportunities that would usually be available for high-quality honours graduates and was not an incentive for a student to commit to the costs involved in devoting four or more years to a PhD (Cutler 2008). The $20,007 stipend is barely above the poverty line and has not kept pace with either the Consumer Price Index or full-time adult weekly earnings.

Work undertaken for this review shows that the real value of the APA stipend for full-time students has dropped from $274 per week in 1992 to $253 per week in 2008, and the proportion that it represents of the average weekly earnings in Australia has dropped from 46 per cent to 34 per cent over the same period (Chapman and Lounkaew 2008). It will, therefore, be difficult to increase the attractiveness of research degree study to local high-achieving students unless the APA stipend is significantly increased.

The panel considers that the APA stipend should be raised to about $25,000 per annum and notes that this is in line with the recommendation of the National Innovation Review. The panel also supports, in principle, the recommendation of the National Innovation Review that the period of candidature for the doctorate by research supported by an APA should be increased from three to four years.

Recommendation 10

That the Australian Government increase the value of Australian Postgraduate Awards to $25,000 per year and increase the length of support to four years, as recommended by the National Innovation Review, to provide greater incentives for high-achieving graduates to consider a research career.

3.5.4 Reform of Commonwealth Government governance arrangements in relation to research funding within the higher education system

The role of Australia's higher education sector in the nation's innovation system cannot be considered in isolation from the sector's other roles, particularly its role in teaching and learning. This is particularly the case for Australian universities. During the conduct of this review, one central and ongoing debate has been the relevance and importance of the teaching and research nexus. The large majority of participants in this review have argued that a core role of a university is to conduct basic and applied research. In addition, they have argued that it is the link between this basic and applied research and the teaching and learning within an institution of learning that has created what we describe today as a university. The panel agrees with this view.

However, this has important implications for the way that universities are accredited and governed and what governments might consider appropriate funding arrangements for research and research training in universities. This matter is considered more fully in Chapter 4.1.

In that chapter, it will be seen that the panel is recommending that a significantly strengthened accreditation and regulatory framework should be implemented for the higher education sector. In particular, the panel is recommending that universities should be accredited to provide research higher degrees only if they have qualified academic staff who are research active in the narrow discipline area in which such degrees are to be offered.

This matter is particularly relevant to the discussion in this chapter about the funding of research and research training in Australia's universities. In practice this would mean that the Australian Government would need to be sure that universities met these enhanced regulatory requirements before funding could be allocated.

This also has implications in relation to how funding arrangements are organised within government. The accreditation and regulatory arrangements recommended by the panel imply that the most efficient administrative arrangements for government would be for the same government agency to be responsible for accreditation and regulation, and for all funding matters related to teaching and learning and research within the higher education sector.

If the current arrangements are to continue, then it implies that in relation to the higher education sector, policy and decisions about funding of research and research training in universities should be decided jointly by the Minister for Innovation, Industry, Science and Research and the Minister for Education, Employment and Workplace Relations.

3.6 International education and global engagement

Australia has been a world leader in international education. It has also been extremely successful in developing education as an important export industry and Australia's universities have been central to the development of this industry. But the Australian higher education sector will need to build on this success and broaden the focus of its international education activities if it is to remain globally competitive. A critical issue is whether our approach to promoting and regulating international education needs to change in recognition of the current stage of development of the industry in Australia and the strategies adopted by Australia's international competitors. Strengthening the sector's general regulatory, accreditation and quality assurance systems as set out in Chapter 4.1 will strengthen Australia's international education effort.

The higher education sector needs to capitalise on its considerable strengths in international education and focus on developing a long-term sustainable strategy for global engagement. There is a need to move to what is being called a 'third phase' of internationalisation characterised by a more holistic approach which would include:

- maintaining a sustainable 'trade' agenda with a more diverse international student body and a greater proportion of higher degree research students;
- better supporting students (both domestic and international) to improve their experience on campus and ensure their work readiness in the global environment;
- improving coordination across government to ensure an alignment of policies to support industry development, regulation and skilled migration; and
- focusing more on international research collaborations.

3.6.1 Strategic context

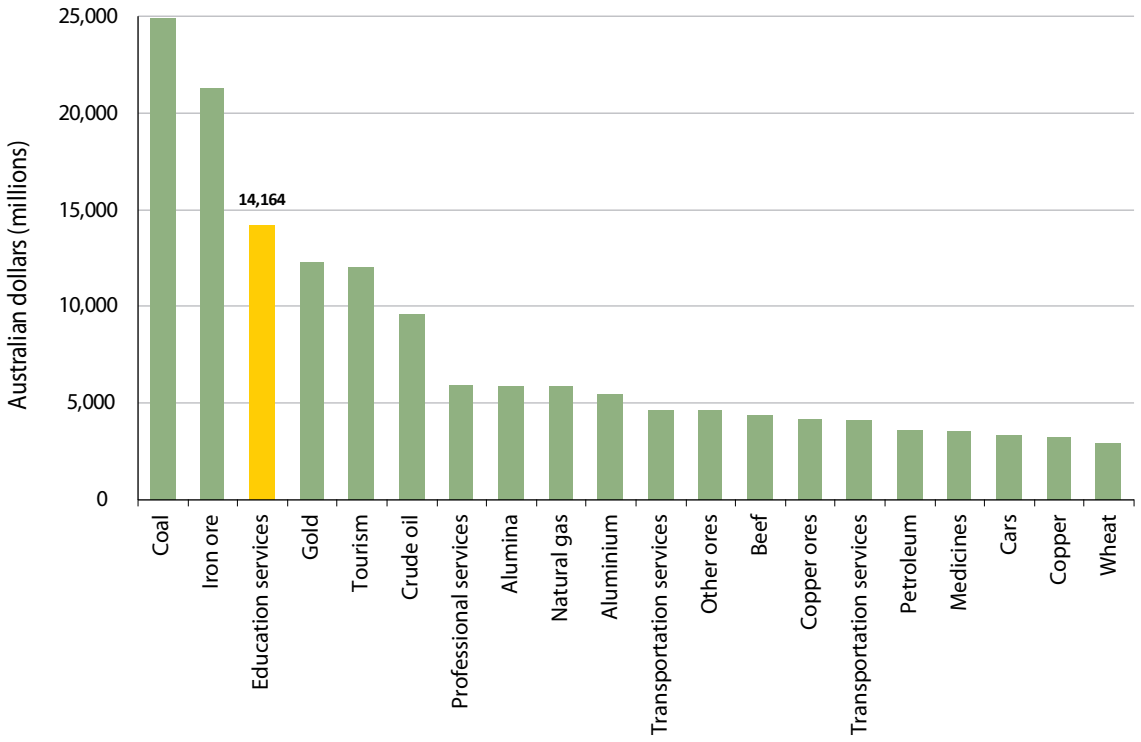
In 2007-08 Australia's education services exports were valued at $14.2 billion (ABS 2008). Of this, $13.7 billion was generated by onshore students and the rest by offshore students' fees and education consultancy services (Australian Education International 2008a). Since 1982, these exports have grown at an average annual rate of around 14 per cent in volume terms. Their share in the value of total exports increased from less than 1 per cent to almost 6 per cent in 2007 (Reserve Bank of Australia 2008). Education services have displaced leisure travel services as Australia's largest service export and are now the third-largest export overall, behind only coal and iron ore (see Figure 23). Education exports also make a significant contribution to employment (Kenyon and Koshy 2003).

Education exports are particularly significant to some states. For example, in Victoria they constituted the state's biggest export in 2007-08 and are worth $4.45 billion (Australian Education International 2008a).

More than half of the $14.2 billion earnings come from the top five source countries of China, India, South Korea, Malaysia and Hong Kong, with $3 billion from education exports to China alone (Department of Foreign Affairs and Trade 2008).

Higher education has grown rapidly and makes the largest contribution to exports of education services representing around 60 per cent of the value of education services exports in 2007 (Reserve Bank of Australia 2008).

Figure 23: Australia's top 20 exports 2007-08 financial year ($ millions)



Source: DFAT 2008 - ABS trade data on DFAT STATS database and ABS catalogue 5368.0

Global engagement is critical to our success in the knowledge economy

Australia's economy is inexorably linked with world developments and events, with increasing flows of people, information, trade and finances crossing national boarders. Australia's future will be determined by how well it performs in an economy driven by knowledge-based activities as well as its traditional industries such as resources, manufacturing or primary production. As stated in a World Bank report:

> For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor determining the standard of living – more than land, than tools, than labour. Today's most technologically advanced economies are truly knowledge-based (World Bank 1999, p. 16).

As part of this, there is a global competition for talent and knowledge and the higher education system's performance in producing high-quality graduates and research will be crucial to Australia's long-term productivity and growth outcomes.

The global reputation and standing of a country's higher education system will determine its competitiveness in attracting research collaborations, international academics and students, which in turn will drive its success in the knowledge economy. The way in which the higher education system approaches its international engagement will have a significant impact on its ability to produce relevant teaching and research to meet future challenges.
International education and global engagement are critical elements of higher education.

Global engagement has different dimensions

The global engagement of the higher education system has a number of different elements and purposes which are all vitally important. In broad terms these include:

- the important contribution of the international education export industry to Australia's economy;
- the contribution that international education plays in meeting Australia's medium-to long-term skills needs;
- the contribution international education makes to preparing Australian students for the global workforce;
- the exchange of knowledge and ideas across national boundaries which includes the well-understood and well-developed notions of collaboration between institutions, researchers and scholars; and
- the role that higher education plays in helping to meet Australia's foreign policy goals, and the educational requirements of neighbouring countries.

While these are commonly aggregated in any discussion of global engagement it is important to consider them as separate but related elements as they have very different goals and drivers. While Australia has been an undoubted success story in certain aspects of international education and global engagement, its success on each of the different elements outlined above varies as discussed below.

3.6.2 International education as an export industry

Development of the industry

International education in Australia has gone through two distinct phases. The first phase was characterised by educational aid and the second by educational trade. These are set out in the box below.

Australia has the highest proportion of international students in higher education tertiary type A programs in the OECD (see Figure 24) and accounts for one-tenth of the world market for international higher education. OECD data show that the world number of international higher education students has multiplied by three between 1985 and 2006. In Australia it has multiplied by 12.

The current phase of internationalisation has seen international students in Australian higher education grow from 21,000 in 1989 to over 250,000 in 2007: 'Australia ranked as the fifth largest recipient of overseas higher education students among OECD countries in 2005 and the third largest English-speaking destination for overseas students behind the United States and the United Kingdom' (Reserve Bank of Australia 2008, p. 15) (see Table 10).

The first two phases of international education

Phase One: 1950s – 1980

Under the Colombo Plan it is estimated that as many as 40,000 students came to study in Australia on scholarships and fellowships, mainly from Asia. The plan supported developing nations by building human capacity through a multilateral scholarship exchange program. This was seen as a key component of Australia's foreign aid policy and the foundation for its strong position in the Asia-Pacific region today. Many Colombo alumni now occupy positions of influence in their home countries while maintaining strong ties to Australia.

However, by the 1970s there was growing dissatisfaction with the effectiveness of the Colombo Plan in meeting Australia's foreign policy and foreign aid objectives. In addition there were concerns about increasing numbers of overseas students. This led to two inquiries into the overseas student programs in 1982: the Committee of Review of Private Overseas Student Policy (the Goldring Committee) and the Committee to Review the Australian Overseas Aid Program (the Jackson Committee).

Phase Two: 1980 – present

The Goldring and Jackson committees reported in 1984. Jackson recommended the end of the aid approach to international education and the introduction of unrestricted numbers of full-fee-paying international students. A full-fee program for overseas students began in 1985. This was in addition to a program under which the costs of a limited number of overseas students were subsidised by the Commonwealth and the students paid about one-third of the cost of their tuition. Institutions were encouraged to open their doors to overseas students who would pay the costs of their education.

In 1990, intakes of subsidised students ceased and from that time all new overseas students have been required to pay the full cost of their education except in certain circumstances, for example, where fees are covered by a government or university scholarship. Institutions could only accept overseas students if they charged fees at full cost. The number of foreign 'aid' students subsidised by the Australian Government fell from 20,000 in 1986 to 6,000 in 1991 while the number of full-fee students rose from 2,000 to 48,000 over the same period.

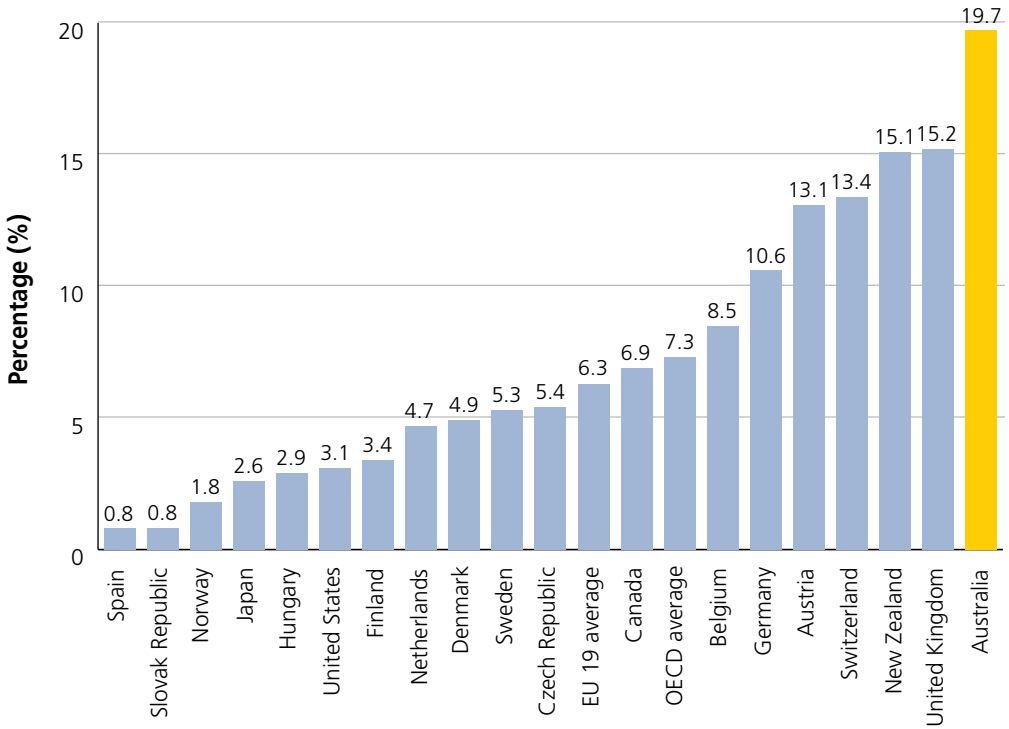
Sources: Smart, Volet and Ang 2000, Cuthbert, Smith and Boey 20008, Smart and Ang, 1996

Table 10: Overseas student numbers, higher education

Country	Number ('000s) 2006	Average annual growth (per cent) 2000-2006
United States	585	3
United Kingdom	330	7
Germany [a]	261	6
France	278	12
Australia	185	11

Source: Education At Glance: OECD Indicators 2008 [a] *Excludes advanced research programs*

Figure 24: International students as a percentage of tertiary type A enrolments (selected OECD countries), 2006



Source: Education at a Glance: OECD Indicators 2008, Table C3.1, p. 366

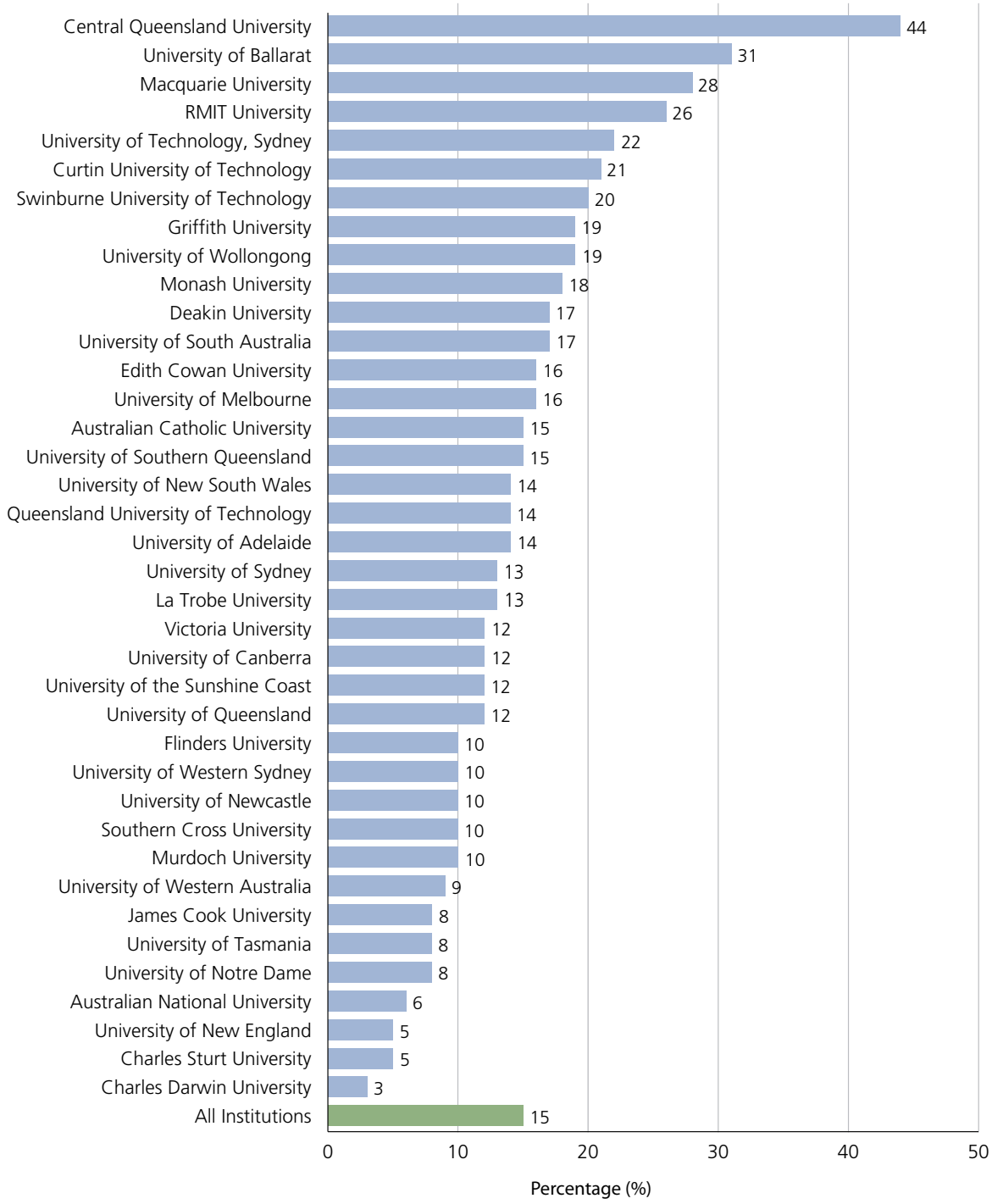
Sustainability of the international education market

While Australia has been very successful in attracting international students there is some concern about the viability and sustainability of this growth.

One aspect of this concern relates to possible over-dependence of some providers on overseas students, which leaves them vulnerable to political and economic upheavals in the markets on which they depend. Figure 25 shows that the average proportion of total revenue derived from overseas student fees is 15 per cent. However, two providers earned more than 30 per cent of their revenue from international student fees, with the highest at 44 percent.

Some institutions could also be vulnerable in the event of a sudden change in demand. A forecast of global demand for international higher education prepared for IDP Education in 2007 projected demand for places in Australia would 'grow by 4.25 per cent per year to 2010, then slow to 3 per cent per year to 2015 and then slow further' (Banks, Olsen & Pearce 2007, p. 2). It is unclear how this will be affected by recent global economic developments. While International Monetary Fund projections of economic growth are deteriorating, Australia's major source countries for international students continue to grow and major competitor countries may experience even more marked economic downturns than Australia. The rapid depreciation of the Australian dollar relative to currencies of its major competitors and source countries also may help to bolster Australia's market position (McKenzie 2008). However, the volatility of economic forecasts and currency movements requires a degree of caution in the short to medium term.

Figure 25: Overseas student fee revenue of universities as a proportion of total revenues



Source: DEEWR (Finance 2007 - Financial Reports of Higher Education Providers)

Another aspect of sustainability relates to what on the face of it might seem to be the narrowness of the international student cohort in terms of country of origin, field of study and level of study. In particular, the data show that in 2007:

- over 80 per cent of international students in Australian higher education are from Asia, including 21 per cent from mainland China;
- over half of total international students are studying in the management and commerce disciplines, with 67 per cent of the Chinese student cohort of 58,588 students undertaking degrees in these subject areas; and

- 59 per cent of the international student population is studying at the undergraduate level and a further 28 per cent is studying masters by coursework. Only 3.6 per cent is undertaking a research higher degree (DEEWR 2008).

While this sort of concentration of overseas students and the preferred course of study may indicate a comparative advantage of the Australian higher education sector, it may also lessen the value of the educational experience for both international and domestic students. A 2006 survey found that overseas students' rates of overall satisfaction with the study experience in Australia and with their course were somewhat lower than for a comparison group of Australian students. The report concluded that there is 'room for improvement' (p. 55) in terms of the international student experience. Particular areas highlighted in the survey included the quality of education and course content; involvement with, and commitment to, international students by staff; the cost of courses; and opportunities for more interaction with Australians (Australian Education International 2007).

It appears that many institutions use international student revenue to support services to domestic students and bolster research infrastructure. While the panel supports the right of institutions to manage their own affairs, it is concerned that there appears to be a systematic pattern across institutions of cross-subsidisation to supplement other institutional activities. This suggests that funds available for teaching of domestic students and for research activities may be insufficient and that services for international students would improve if more funds were made available to institutions.

Nevertheless, it is clear that, while some higher education institutions are dependent on income from full-fee-paying international students for their viability, this is not the case for others that also have a significant international student enrolment. A number of these institutions would continue the current scale and intensity of international student activity because it is central to their mission as global players in education and because of the financial flexibility that their international student activities now provide.

If structured appropriately, international student activity can operate hand-in-hand with the public funding of the Australian higher education sector. In fact, the question of appropriate public funding for higher education institutions should be considered as independent from the issues related to the support of the international education industry.

If higher education institutions receive appropriate public funding this would enable them to focus on developing a sustainable base for their international activities. It would ensure that more of the income generated from international students could be used to improve services for those students, in addition to using the funds generated from this activity for other quite appropriate purposes, such as increasing the institution's research effort.

Broader issues about higher education funding are included in Chapter 4.2.

Marketing and regulating international education

The rapid expansion of the international higher education industry reflects a number of factors. Australia is seen as an attractive destination for many students seeking a safe, English-speaking environment. It is convenient and close to home for many students from the Asia-Pacific region. Visa procedures in Australia are easier than in many other English-speaking countries (depending on the applicant's nation of origin), although visa costs are significantly higher (Universities Australia 2008b).

However, competition in the industry is intense, not only between institutions within Australia, but also between countries. Indications that the growth of the market is slowing suggest that domestic and global competition will intensify. As well, Asian countries from which Australia has traditionally recruited students are developing their local higher education capacity to meet domestic demand and are becoming players in the international student market. Demand is also price sensitive to tuition and living costs and international students are potentially very mobile if concerns about suitability, cost or quality gain traction.

Marketing arrangements in other industries

Tourism Australia

Established in 2004, Tourism Australia is an Australian Government statutory authority that promotes Australia as a tourism destination internationally and domestically and delivers research and forecasts for the sector. It has no formal policy advising role and does not have regulatory functions.

Tourism Australia was formed by merging the Australian Tourist Commission, See Australia, the Bureau of Tourism Research and the Tourism Forecasting Council to bring together knowledge about tourism from different perspectives and allow greater flexibility to shift resources in response to changes in the business environment.

Tourism Australia reports to the Cabinet Minister with responsibility for tourism. It is governed by an eight-member board that includes representatives of the tourism industry. Offices are located in Australia and overseas. In 2007-08 it had 219 staff, of which almost half were located offshore. The Australian Government significantly boosted funding for tourism marketing at the time of the creation of Tourism Australia and continues to be the main source of funding for the body.

Australian Wine and Brandy Corporation

The Australian Wine and Brandy Corporation is an Australian Government statutory authority established in 1981 to provide strategic support to the Australian wine sector. The corporation's services are designed to increase and sustain demand for Australian wine through activities in five areas: market development, information and analysis, compliance, trade, geographical indication support and client service.

The corporation is responsible for regulating wine labelling, wine descriptions and exporting through a regulatory framework that includes export licensing and auditing of wine origin and blend. It also participates in international wine organisations and has a role in providing advice to the government on bilateral and multi-lateral trade agreements.

The corporation comprises eight non-executive members appointed by the Minister from persons nominated by a wine-industry selection committee on the basis of expertise in wine making, grape growing, marketing, finance, business management and administration or government policy processes and public administration.

In 2007-08, the corporation employed 55 staff, with 12 staff located offshore. The corporation funds its activities from levies, stakeholder contributions and revenues from provision of goods and services.

Sources: Australian Government's Tourism White Paper: A Medium to Long Term Strategy for Tourism; Annual Report 2007-08 Australian Wine and Brandy Corporation

The higher education sector is similar in many respects to other export industries. The box above sets out arrangements for export promotion in tourism and wine, two other highly competitive industries in which Australia has been successful.

The recent Review of Export Policies and Programs has recommended the development of a new and national export and investment strategy to respond to the 'challenge of proximity' as the weight of the global economy shifts into Australia's time zone over the coming decade. The review also recognised the value of specialised bodies within an overall enhanced approach to coordination of export programs (Mortimer 2008).

While the need for strong leadership and coordination by government in supporting international education and training is recognised by stakeholders, there remain concerns about Australian Education International's dual roles in both promoting and regulating the industry. Universities Australia, in its submission to the Review of Export Policies and Programs (Universities Australia 2008b), suggested that there is a case for separating Australian Education International from the Department of Education, Employment and Workplace Relations and making promotional activities more directly accountable to higher education providers who contribute towards their costs. The Innovative Research Universities Australia group also supported this separation.

Universities Australia also suggested that the role of Australian Education International should be expanded to become a 'whole-of-government' advocate within Australia for international education exports. In its submission the Innovative Research Universities Australia group supported this view and suggested the body could be similar in structure to Tourism Australia and modelled on the British Council. Examples of how these functions are handled in the United Kingdom and New Zealand are set out in the box below.

These examples of approaches in other countries show the value of going beyond an export promotion focus to an approach which focuses on the development of education and training export opportunities as part of a holistic and long-term sustainable strategy for global engagement in education. This would include:

- seeking to diversify the international student body to improve the sustainability of the industry;
- attracting a higher proportion of research higher degree students to help build Australia's future research and academic workforce;
- focusing more on the quality of the experience for international students on- and off-campus and on preparing them for subsequent employment in Australia if that is what they seek;
- adopting a more coordinated approach across governments to better align policies supporting industry development, regulation and quality assurance and facilitating skilled migration; and
- increasing the focus on building international research collaborations and research networks (and the recruitment of high quality research students as part of this).

Industry development models for higher education

United Kingdom

- Education UK Partnership is a partnership of the British Council together with international education providers to promote United Kingdom education and training overseas. It is responsible for:
  - implementing the Prime Minister's Initiative for International Education, which is a strategy to secure the United Kingdom's position as a leader in international education and sustain the managed growth of international education delivered both in the United Kingdom and overseas. Targets have been set, including attracting an additional 70,000 international students and achieving demonstrable improvements to student satisfaction ratings;
  - delivering export promotion services to United Kingdom education providers building on the British Council's international network and broader public diplomacy role to give access to market research, promotional exhibitions, training events, in-country assistance and an 'Education UK' brand.
- The strategy recognises that international student recruitment to the United Kingdom depends on reputation and standing in the international arena, ensuring the quality of the student experience, forming strategic partnerships and alliances and market diversification and consolidation.
- The partnership is funded by contributions from its members. The British Council contributes through its grant from the Foreign and Commonwealth Office and United Kingdom education providers contribute through a combination of subscriptions and payment for products and services.

New Zealand

- Education New Zealand, a not-for-profit charitable trust that is governed by the New Zealand export education industry, is the umbrella industry body for education exporters.
- It has a partnership arrangement with the Ministry of Education to support export development activities, as well as a formal agreement with the New Zealand Trade and Enterprise for the promotion of New Zealand as a destination for international students. Other strategic relationships include the Ministry of Foreign Affairs and Trade, Tourism New Zealand and Immigration New Zealand.
- The Ministry of Education has responsibility for policy setting and looks to develop international relationships that support the expansion of international education opportunities that contribute to New Zealand's broader knowledge economy, trade, foreign policy and development assistance goals. The Ministry runs a number of scholarships and innovation funding and research schemes and supports an education counsellor network.
- In 2007 the New Zealand Government released its *International Education Agenda: A strategy for 2007-2012*. The document sets the direction for the government's engagement in international education and identifies priority areas for government action. The strategy goes beyond the traditional focus on hosting international students, providing a framework for the wide variety of international education providers and other organisations involved in intercultural learning and exchange.

Source: UK Partnership, http://www.britishcouncil.org/eumd.htm, Education New Zealand, www.educationnz.org.nz/about.html

The panel has concluded that the future of the industry would be best served by a marketing and development model that establishes a separate organisation to promote the sector's international student activity. The body would have considerable independence and a whole-of-government approach. The key features of a new approach would be:

- establishment of a separate body within government with a mandate to coordinate whole-of-government activity in promotion of Australian education and training overseas;
- funding of that body on a joint basis by Commonwealth, state and territory governments and education providers. Governance arrangements would reflect this partnership approach and feature significant representation from education; and
- the adoption of a holistic approach to promotion that improves the sustainability of the industry over time and strengthens Australia's capacity to prosper in the global competition for talent and knowledge.

As well, immigration policies need to be better aligned with those relating to education and skills development. In recent times, there has been greater collaboration between government departments dealing with education and immigration, but more needs to be done to ensure policy coherence. For example, changing visa classifications can have a significant impact on those students who are able to study here and can also affect the capacity of institutions to attract academic staff from abroad.

The panel has also concluded that the regulatory framework for tertiary education is in need of a major overhaul and that the regulation of international education should be considered in a broader context which involves the creation of a national regulatory body. This body should also take on responsibility for administration of the *Education Services for Overseas Students (ESOS) Act 2000*. Governmental representation and functions such as qualifications recognition and handling of trade issues would appropriately remain functions of a government department. Issues about regulation are considered in more detail in Chapters 4.1 and 4.3.

Recommendation 11

That the regulatory and other functions of Australian Education International be separated, with the regulatory functions becoming the responsibility of an independent national regulatory body.

Recommendation 12

That the industry development responsibilities of Australian Education International be revised and be undertaken by an independent agency which is accountable to Commonwealth and state and territory governments and education providers.

Protections for international students

There have been concerns raised in consultations and submissions about support for international students beyond academic matters and about the adequacy of the legislative framework to protect international students. The *Educational Services for Overseas Students Act 2000* (the *ESOS Act*) assures quality, provides consumer protection in the market and supports Australia's migration policy. It also establishes a partial duty of care on institutions through the obligation to offer services when the student is on campus.

There was mixed feedback from the sector on the ESOS arrangements. Some institutions argued that the current ESOS legislation provides a sound framework to ensure high ethical standards in the recruitment and education of international students, but called for the Government to develop accountability and reporting mechanisms without seeking to control or over-regulate. Universities Australia, in its submission to the Review of Export Policies and Programs (Universities Australia 2008b) noted that the ESOS regulatory framework is highly regarded internationally but suggests that some of the elements of the framework are unnecessarily onerous for universities.

In its submission to the review the Australian Technology Network suggested that the ESOS legislation and the accountability requirements which flow from it should be reviewed to remove unnecessary impediments to Australia's recruitment and support for international students. In particular, the Australian Technology Network suggested that Australian government current arrangements regarding the use of education recruitment agents, visa requirements, and institutional and student reporting requirements need to be examined in light of this.

An evaluation of the effectiveness and efficiency of the ESOS arrangements (PhillipsKPA & LifeLong Learning Associates 2005) found that there was support for ESOS across all sectors of international education and that the overall architecture was generally effective. The report made a number of recommendations to improve arrangements in areas such as nationally consistent provider registrations and to strengthen the standards which underpin the framework. The *ESOS Act* was amended in 2007 to implement these recommendations and the accompanying National Code of Practice for Registration Authorities and Providers of Education and Training to Overseas Students was substantially revised to increase clarity and to give institutions more flexibility.

The panel has concluded that on balance a further review of the ESOS framework is not warranted at this time and suggests that the Commonwealth Government commission an independent review of the implementation of these changes by 2012. This should take account of developments in frameworks in other countries. For example, the OECD noted in its final report on the Thematic Review of Tertiary Education that international students have unique needs that require support beyond immigration formalities and suggested that there be better support and pastoral care for international students. The organisation has praised New Zealand in particular for its code of practice (see panel below).

New Zealand Code of Practice for the Pastoral Care of International Students

This code covers a broad range of areas where international students need support: educational and linguistic preparation; assistance to adapt to a new cultural environment; advice in relation to accommodation, travel, health and welfare; information and advice on addressing harassment and discrimination; monitoring of student attendance and course progress; and mandatory communication with the families of students at risk. The enforcement of the code is assured through an independent public agency – the International Education Appeals Authority – which receives and arbitrates complaints from students.

Sources: OECD 2008a, vol. 2 pp. 274-275

3.6.3 Can international students help Australia meet its skills needs?

If Australia is to obtain the workforce it requires for 2020, it must widen the international student base. The profile of Australia's international students is skewed in disciplines, levels of study and nations of origin. It is critical that the student base is broadened, and in particular that more international students are attracted to higher degree research programs.

International education is a recognised source of skilled labour. The OECD notes that immigration policies that target international students and scholars can yield positive results and can be critical in building the necessary skilled workforce for the future. In many OECD countries, '… the recruitment of international students is part of a broader strategy to recruit highly skilled immigrants on the hope that some of them remain in their host country after their studies and at least stimulate academic life and research while they study' (OECDa 2008, vol. 2, p. 264).

Australia has facilitated this approach to internationalisation through its immigration policies. Over the years a number of policy changes have been made to encourage international students to continue to contribute to Australian economic and social development. The most recent policy adjustment made last year allows graduates of Australian tertiary education institutions to access a temporary visa for up to 18 months with full working rights. Based on Department of Immigration and Citizenship data, currently about 40 per cent of those who obtain skilled migration to Australia have an Australian qualification of at least two years' duration. However, Australia lags behind the United States (50 per cent) in the number of international students it retains in the workforce after graduation (Marginson 2008).

International students make a significant contribution to the nation's skill base and Australia needs to ensure that it has the regulatory frameworks in place to facilitate the retention of graduates. A broader range of high-quality students and more students in higher level research degrees could make a significant contribution to Australia's skills needs.

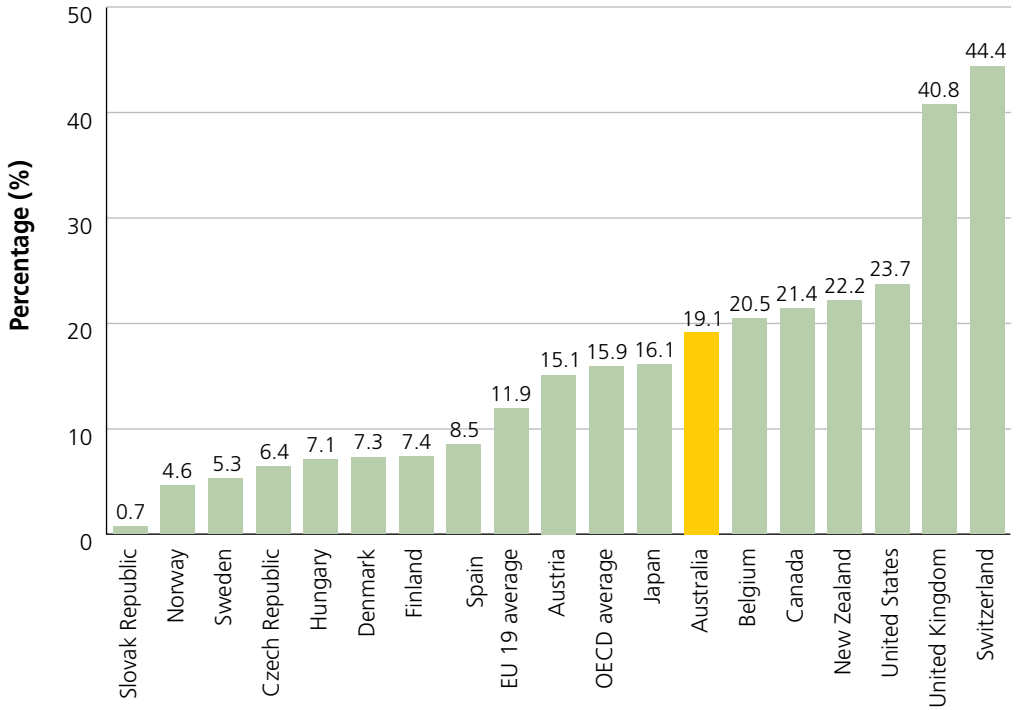
Higher degree by research students

As discussed in Chapter 3.1, a critical issue for the higher education sector is the renewal of the academic workforce. International students are a potential source of the high-level skills required for academic roles. Australia is not currently well placed to attract international students for the renewal of the academic workforce. In 2007 there were 8,513 international research doctoral students in Australia, constituting just 3.1 per cent of international higher education students, considerably less than the proportion of PhDs in the general student body (4 per cent) (DEEWR).

By comparison, international research students play a more significant role in other nations. In the United Kingdom in 2004, there were 34,533 international doctoral students, compared with 6,594 that year in Australia, although the size of the United Kingdom higher education system is only about three times that of Australia (OECD 2007). In the United States, there are over 100,000 international doctoral students per year with these students constituting almost one third of all international students enrolled in doctoral institutions (Institute of International Education 2007, cited in Marginson 2008).

This situation is particularly striking in light of the fact that, while Australia has the highest proportion of international students among OECD nations, only 19.1 per cent of advanced research students are international students – well behind other OECD nations including Switzerland (44.4 per cent), the United Kingdom (40.8 per cent) and the United States (23.7 per cent) (see Figure 26).

Figure 26: International students as a percentage of advanced research program enrolments (selected OECD countries), 2006



Source: Education at a Glance: OECD Indicators 2008, Table C3.1, p. 366

If Australia is to attract greater numbers of international students into research programs, and find ways in which to retain graduates to stay and work in Australia, research programs need to become more attractive to these high-performing students. High-quality research students will go where the money is in terms of support – scholarships and living allowances – and where there are high-quality research facilities and researchers.

In the United States over 60,000 international doctoral scholarships are provided a year and about half of the international doctoral graduates can be expected to stay on (Marginson 2008).

One significant area of concern that affects the inward movement of higher degree research students is the level of support provided by Australian governments. Compared to the United States and the United Kingdom, there are relatively few scholarships which attract these students and conditions to their visas hinder their spouses and dependants from working and studying in Australia.

Australia does not provide many scholarships with living allowances or support for dependants. This makes it uncompetitive in the global market for higher degree research students. The panel believes that this will have a long-term effect on the national innovation

system. The Review of the National Innovation System has recommended that 'Innovation policy should be aligned with immigration policies to ensure that they facilitate Australia's access to the global talent pool. In particular, human capital should carry equal or more weight than economic capital in individual migration assessments' (Cutler 2008, p. 60).

There have been no specific policies implemented to attract and retain higher degree research students in Australia. Despite the focus on the knowledge economy and forecast shortages of highly skilled workers in Australia, research higher degree students have been given a relatively low priority and little support is provided to them.

The cost of research training at Australian universities is relatively high and is a considerable barrier to participation as, in general, international students in Australia enrol on a full-fee basis. Some countries have elected to grant domestic status to some categories of international students. For example, New Zealand grants domestic status to research and doctoral students as a way of attracting such students (and at the same time the New Zealand Government has introduced policies to exempt children of doctoral students from school fees and to give their spouses work visas). The New Zealand initiative has been very successful with its proportion of international advanced research enrolments to all tertiary enrolment increasing from 16.6 per cent in 2005 to 22.2 in 2006 (OECD 2007; OECD 2008b). The Australian Government's increased investment in the Australian Scholarships program (see box below) in 2006 recognises, like the Colombo Plan before it, the need to support students from poorer countries.

Australia will need to introduce significant programs of support if it is to compete with other countries for international research students. Scholarships must include both tuition and living expenses and better support for spouses and families must be addressed.

Recommendation 13

That the Australian Government provide up to 1,000 tuition subsidy scholarships per year for international students in higher degree by research programs targeted to areas of skills shortage. The scholarships would give the recipients the benefit of being enrolled on the same basis as domestic students.

Recommendation 14

That higher education providers use a proportion of their international student income to match the Australian Government tuition scholarships by providing financial assistance for living expenses for international students in higher degrees by research.

Recommendation 15

That the Australian Government liaise with states and territories to ensure consistent policies for school fee waivers for the dependants of international research students in government-subsidised places and examine its visa arrangements to improve the conditions for spouse work visas.

Australian Scholarships

Australian Scholarships aim to promote sustainable development and excellence in education. Australian Scholarships offer educational and professional development awards to citizens of the Asia-Pacific region and beyond. These opportunities support growth in our region and build enduring links at the individual, institutional and country levels.

Awards are available to high achievers from participating countries under three programs:

- Australian Development Scholarships[12] are a bilateral program offering full-cost scholarships mostly at the postgraduate level. Fields of study are targeted to address agreed priority human resource and development needs of recipient countries, in line with Australia's bilateral aid program. Up to 1,000 Australian Development Scholarships are awarded each year across 31 countries with scholarships awarded equally between men and women.
- Australian Leadership Awards (ALA) comprise Scholarships and Fellowships. ALA Scholarships are academically elite awards offered to high achievers from the Asia-Pacific region each year to undertake postgraduate study (Masters or Doctorate) and a Leadership Development Program in Australia. About 150 scholarships are awarded each year. ALA Fellowships are highly flexible and offer Australian organisations opportunities to provide short-term study, research and professional development activities in Australia for fellows from the Asia-Pacific region.
- Endeavour Awards are internationally competitive, merit-based scholarships providing opportunities for citizens of the Asia-Pacific, Middle East, Europe and the Americas to undertake study, research and professional development in Australia. Awards are also available for Australians to do the same abroad. Over 600 scholarships are awarded each year.

Sources: Australian Scholarships, www.australianscholarships.gov.au

Strengthening English-language skills

Employers regard good written and oral communication and interpersonal skills as essential in graduates (Graduate Careers Australia 2007b). This expectation applies to all graduates, but is especially relevant to international students where English is not their first language.

In its report on the Thematic Review of Tertiary Education for the Knowledge Society, the OECD noted that international students display higher completion rates than domestic students and '… there is no difference [in quality] overall between domestic and international students, and where the latter even outperform domestic students in science, information technology, engineering, education, arts and agriculture/environment' (OECD 2008a, vol. 2, p. 285).

12 Those who receive an Australian Development Scholarship or an Australian Leadership Award Scholarship administered by AusAID cannot return to Australia to live for two years after they complete their studies. However, some will move to a third country to undertake further study or work.

Research shows that international students at Australian universities have comparable success rates to domestic students. International students successfully completed 88.8 per cent of units attempted compared with 89.4 per cent for domestic students (Olsen, Burgess & Sharma 2006).

However, the OECD has praised the New Zealand approach to addressing concerns about quality by strengthening 'language admission requirements and foundation program to ensure that students are adequately prepared to begin their studies, both academically and linguistically' (OECD 2008a, vol. 2, p. 285). Professional development programs for their staff focusing on improving delivery in classes with large international enrolments have also become a feature of the New Zealand approach. The *Code of Practice for the Pastoral Care of International Students* requires institutions to ensure minimum skills, and proposes minimum standards.

There is some evidence that the admission of international students with insufficient English-language skills is occurring because of the number of pathways where students applying onshore can bypass the International English Language Testing System (IELTS). Over 2002 to 2005 more than a quarter of international student enrolments and commencements in Australia were based on pathways other than formal test regimes. These included attending Australian secondary schools or undertaking enabling courses offered in VET and higher education (Birrell 2006). Initiatives addressing these problems are set out in the panel below.

A number of submissions to the review suggested that international students need more support during their courses, including the integration of English-language tuition into the curriculum to ensure they develop and maintain high levels of English-language competence. It was argued that improved English-language support '…should not be seen as a remedial program … but as part of the teaching which the university offers international students to prepare them for work in the global economy' (IDP Education submission, p. 7). IDP Education has also suggested that work-placement schemes should be developed for international students to give them a better understanding of Australian workplaces. Universities Australia (2008c) has also proposed a government-sponsored national internship program to cater for both domestic and international students. A number of universities already offer such programs.

Changes to migration policies now allow graduates to remain in Australia to undertake intensive English-language tuition prior to their applying for permanent migration. This is a welcome step but more needs to be done during their courses of study to ensure such tuition is unnecessary.

The panel has concluded that governments and higher education providers need to place a much greater emphasis on the preparation of international students for the world of work and particularly for working in Australia. This should include a greater focus on English-language proficiency that goes beyond the language competence required for the course and adequately prepares students for the working environment. Providers should give serious consideration to the development of work-placement programs to assist international students to become work ready in the Australian context. They should also continue to pursue initiatives to improve language testing and teaching, including by implementing the outcomes of work coordinated by the Australian Universities Quality Agency.

Improving English-language skills

A number of universities are taking initiatives in this area:

- Griffith University – from 2010 will screen all international students for English-language competency and require those who do not meet a required level to complete a for-credit English subject in their first semester;
- Curtin University of Technology – from 2009 all incoming students will be required to complete a uniEnglish diagnostic test and a communications subject;
- Australian Technology Network – investigating the introduction of an online diagnostic test of reading, writing and listening with students who do not meet a required level given intensive coaching; and
- University of Queensland – has offered to pay for students of non-English-speaking backgrounds to take the International English Language Testing System exam to demonstrate language proficiency.

The Australian Universities Quality Agency and the Centre for the Study of Higher Education have been commissioned by the Australian Government to undertake two projects, respectively to:

- identify gaps and good practice and from this develop a set of principles of good practice in English-language proficiency. A draft set of principles has been circulated for comment; and
- examine the impact of English-language proficiency and workplace readiness on the performance and outcomes of international students who enter the Australian workplace after completion of their studies.

Sources: Australian Financial Review, 10 November 2008; www.cshe.unimelb.edu.au/research/projects.html.

3.6.4 Preparing Australian students for the global workforce

There is growing demand from employers for tertiary qualifications with a strong international component – both from the perspective of the curriculum content and through exposure to different cultures to develop intercultural and language skills and competencies (Australian Institute for Mobility Overseas submission). Knowledge of other cultures and their languages is an essential life skill for future graduates if they are to engage effectively in global professional practice.

Australian students have much to gain from the internationalisation of their education through developing personal international networks, gaining access to new knowledge through exposure to the diverse viewpoints of international students and thus developing broader cultural understanding. However, these benefits have been limited by the market-driven approach of some providers and their failure to internationalise the curriculum.

As well, Australian students 'need more and better opportunities to go abroad on study programs, or to acquire international experience through internships or volunteering opportunities related to their education programs and to their future employability and productivity' (Forbes 2008). Australia has had a relatively low rate of outward student

movement compared with some other countries. In 2006 there were just over 10,000 Australian students reported to be enrolled in tertiary education in other countries (OECD 2008b, Table C3.7). While it has been suggested that uptake of overseas study options is growing, feedback received on the OS-HELP program is that its current eligibility requirements and the 20 per cent loan fee limit its effectiveness.

Suggestions in submissions to improve the program included: removing the loan fee, converting half of the loan amount to a grant and relaxing the eligibility criteria to include postgraduate students. Some submissions also argued that it should be available to students enrolled in a wider range of providers. There are also concerns that student take-up may be hindered by issues about finding accommodation and loss of part-time or casual work while students are overseas.

The panel has concluded that the loan fee for the OS-HELP program should be removed as one way to make study overseas a more attractive option. A recommendation relating to this is included in Chapter 4.2.

3.6.5 Collaborations between institutions, researchers and scholars

If the Australian higher education sector is to continue to play its pivotal role in the national research and innovation system in 2020, it will need to have effective connections to global innovation and research networks. Recommendations in Chapter 3.5 set out strategies to ensure that Australia has high-quality research infrastructure and to increase the number of research higher degree students and the stock of academic staff. In implementing these strategies it is vital that the international dimension is considered so that the effectiveness of additional investment can be maximised.

Many Australian institutions have invested considerable time in creating bilateral agreements and a small number have joined cross-border consortia. This has resulted in some successes, primarily in the area of student exchanges and twinning programs where students undertake their degrees at two institutions. Australia is also active in research collaboration and many Australian universities are well-regarded in this way, reflecting their middle-level, broad-based research capacity. Submissions to the review pointed to the need for government assistance for universities to develop much more effective research collaborations with overseas institutions and firms; the increasing costs of becoming research partners with overseas institutions; and the availability of assistance for this in countries such as Malaysia, China and Singapore.

It is clear, however, that some countries and institutions are more effective at this than others. Marginson argues that the national higher education systems of countries such as the United States, the United Kingdom, Switzerland, Singapore, Hong Kong, Denmark and Finland are 'notably effective in the global [knowledge] economy' (Marginson 2008, p. 41). At the institutional level, Marginson identifies several research universities that are highly engaged and effective in global engagement.

These systems and institutions all share certain characteristics which enable them to better compete in research and innovation and attract high-quality students and staff:

- awareness of global context – an informed understanding of the global higher education context and of the main trends shaping it;
- sense of global position – an awareness of the position of the national system and the institution within the global context, its competitive advantages and disadvantages, and possible strategic options;
- global mission – a strong sense of the national and institutional mission and project within that global context grounded in a broad-based consensus over well-defined objectives;
- strategic capacity – an effective set of strategies for pursuing the global mission, and responding flexibly and quickly to opportunities;
- resources and conditions – elements within the control of the nation and institution that are necessary to both underpin proactive cross-border activity and attract the attention and support of other national systems and institutions; and
- connectivity – the all-important capacity to engage and connect across borders in a sustained manner in different parts of the world making the best use of position and resources (Marginson 2008).

Australia must improve its capacity as a nation and that of individual universities to increase the effectiveness of global collaborations. Aspects of this have been discussed elsewhere in this report, including increasing participation in higher education, investing in research, promoting the international mobility of staff and students and attracting a greater proportion of the international pool of highly talented and skilled people. However, investment in these areas itself does not necessarily translate into global effectiveness.

The recent Review of the National Innovation System concluded that there is room for Australia to enhance its capacity to engage internationally both by opening up current granting programs to international partners and participants and by increasing funding to specific programs in order to leverage investment. To build concentrations of excellence, encourage collaboration and achieve better dissemination of knowledge, it recommended additional funding support for university and other research institutions to partner with each other and with other research organisations (nationally and internationally) (Cutler 2008).

The panel supports the recommendation of the Review of the National Innovation System in this regard. Chapter 3.5 also includes a recommendation for more appropriate funding of the indirect costs of Commonwealth sponsored research, which will improve the sustainability of Australia's university research effort more generally, including its international dimensions.

3.6.6 Australia's foreign policy goals and the region's educational requirements

As noted above, the internationalisation of higher education brings significant economic and trade benefits. Australia is not a passive participant in these processes and is actively engaged in shaping developments, especially in the immediate region.

The Australian Government has been engaged in this through the development of free trade agreements, which now cover New Zealand, Singapore, Thailand, the United States and Chile, with five others under negotiation including for ASEAN and China. Since education services are specifically excluded from most agreements, their impact so far on globalisation has been modest, but this may change as the scope of countries included increases (McKenzie 2008). Other forms of educational cooperation include support for student and staff exchange, recognition of skills and qualifications and the development of qualifications and quality assurance frameworks. For example, Australia is a very active participant in work commissioned by Asia-Pacific Education Ministers in 2006, which is aiming to improve transparency in higher education structures and systems by supporting the development and implementation of national qualifications frameworks (DEEWR 2008d).

International students generally maintain relationships with the country in which they studied throughout their lives and careers. International alumni of Australian universities form a large and influential group with the biggest concentrations in the Asia-Pacific region, especially Singapore, Malaysia and Hong Kong, but with fast-growing numbers in China, Indonesia, Vietnam and India (Forbes 2008). In some countries, international alumni play an important role in supporting the recruitment of international students and can provide a channel through which informal diplomacy can be effective when formal government relations are strained (Innovative Research Universities Australia submission).

Australian alumni associations engage in a number of activities including publishing newsletters, developing networks, running web sites and participating in education exhibitions, social events and other Australia linked activities. Australian Education International supports these alumni activities in various ways.

Individual universities have also increased their efforts to maintain and build on links with alumni. This task has been transformed by information technology. Guhr (2007) argues that online communities are changing the ways in which universities are interacting with alumni and current and prospective students.

A significant challenge in Australian foreign policy is the growing global importance of China. Australian higher education can make a significant contribution to building relationships with China through the exchange of students, academic staff and researchers. Australia is the third most popular destination for Chinese students among English-speaking countries, attracting about 12-13 per cent of those studying overseas – the United States attracts about 16 per cent and the United Kingdom about 14 per cent (Australian Education International 2008b). It will be essential for Australian institutions to maintain high standards and excellent student support services to maintain Chinese student numbers as China increases its own higher education capacity.

Australia's effective engagement in international education is critical to our success in the knowledge economy. This will become an increasingly complex and multi-faceted challenge as Australia grapples with the implications of the third phase of internationalisation.

3.7 Contributing to Australia's regions

3.7.1 Challenges in regional provision

A number of factors contribute to the challenges around provision of higher education in regional and remote areas of Australia.

Projected decline in student demand in some regional areas

In work commissioned for the review, Access Economics developed demographic forecasts for regions (including state capitals). Individual regions varied considerably in terms of expected growth in the 15- to 24-year-old population over the next decade. However, aggregate growth in the 15- to 24-year-old age group outside capital cities is expected to be lower than the total growth for Australia in every state and territory apart from Queensland. In fact, the number of 15- to 24-year-olds outside the state capital was expected to decline in Victoria, South Australia, Western Australia and Tasmania (Access Economics 2008).

Table 11: Demographic projections by labour force dissemination region, 2008 to 2038

	2008 Population (All)	Average growth to 2018	Average growth to 2038	2008 Population (15-24)	Average growth to 2018	Average growth to 2038
New South Wales	**6,964,263**	**1.1%**	**0.9%**	**950,736**	**0.3%**	**0.4%**
Sydney	4,386,738	1.2%	1.1%	618,935	0.4%	0.6%
Rest of New South Wales	2,577,525	0.9%	0.7%	331,801	0.1%	0.0%
Victoria	5,284,622	1.4%	1.2%	737,955	0.4%	0.7%
Melbourne	3,870,499	1.6%	1.4%	555,710	0.6%	0.9%
Rest of Victoria	1,414,123	0.8%	0.6%	182,245	-0.2%	0.0%
Queensland	**4,273,720**	**2.1%**	**1.8%**	**602,776**	**1.3%**	**1.3%**
Brisbane	1,897,248	2.1%	1.8%	287,088	1.3%	1.4%
Rest of Queensland	2,376,472	2.1%	1.7%	315,688	1.3%	1.2%
South Australia	**1,600,445**	**1.0%**	**0.8%**	**217,609**	**0.0%**	**0.3%**
Adelaide	1,169,922	1.0%	0.9%	167,437	0.1%	0.4%
Rest of South Australia	430,523	0.9%	0.7%	50,172	-0.6%	-0.1%
Western Australia	**2,152,914**	**2.0%**	**1.7%**	**307,089**	**0.8%**	**1.1%**
Perth	1,589,672	2.1%	1.8%	238,363	1.1%	1.3%
Rest of Western Australia	563,242	1.6%	1.3%	68,726	-0.2%	0.4%
Tasmania	**497,747**	**0.7%**	**0.5%**	**65,523**	**-0.5%**	**-0.1%**
Hobart	209,872	0.9%	0.8%	29,812	-0.5%	0.3%
Rest of Tasmania	87,875	0.4%	0.2%	35,711	-0.5%	-0.4%
Northern Territory	**219,543**	**1.5%**	**1.4%**	**34,388**	**0.5%**	**0.9%**
Darwin	120,638	1.9%	1.6%	17,875	0.7%	1.1%
Rest of Northern Territory	98,905	1.1%	1.0%	16,513	0.3%	0.7%
Australian Capital Territory	**343,806**	**1.1%**	**1.0%**	**54,374**	**-0.1%**	**0.4%**
Australia	**21,339,473**	**1.4%**	**1.2%**	**2,970,749**	**0.5%**	**0.7%**

Note: State/territory regions may not sum to total due to rounding.

Source: Access Economics 2008

Regional loading inappropriate

Under the current funding model for teaching and learning, a regional loading is provided to eligible institutions according to the number of students they enrol at regional campuses. However, it is not sufficiently targeted to those campuses which have major problems achieving and maintaining viable student numbers because of their location. The institutions in more isolated areas argue, too, that this loading bears little relationship to the actual costs of running these campuses. A number of submissions to the review argued that the current funding arrangements are inadequate to cover the additional costs of regional campuses (for example, Southern Cross University, Deakin University, Murdoch University, Curtin University of Technology).

In its review of this measure, the panel could discern little relationship in a number of cases to the existence of a loading and the location of a campus. Even more mysterious was the underlying logic of the weightings. But its greatest concern is that this loading for provision in regional and remote areas provides no clear incentive to any institution or provider to set up new programs in areas of need nor to work collaboratively with others to address the real problems of provision in localities where there are not enough people support a viable campus. It also masks signals that provision in areas currently served may now need serious review.

Current arrangements through the regional loading do not appear likely to address the problems of falling participation rates in regional and remote areas or to encourage changed patterns of provision better aligned to need. Perhaps most importantly there is little incentive for providers to seek out opportunities to provide programs in regional or remote locations. For these reasons the panel has concluded that the regional loading should be abolished and new arrangements implemented. These are outlined later in this chapter.

Patterns of regional provision haphazard

The pattern of regional provision is uneven. In some regional towns a number of universities operate while in others there is no provision. This suggests that the pattern of regional provision is based on history and local political considerations rather than a rigorous process of analysis of need and development of a sustainable and cost-effective service in response. It is time to address the question of regional provision in a more systematic and collaborative fashion.

The panel considers the question of an appropriate approach to regional provision in the future one of the most difficult policy issues it has had to consider. It is aware that the numbers of qualified applicants in some areas is likely to drop further over the next decade and is conscious that it is not realistic to expect that Australia can afford breadth of university provision in many regional towns. The need is to focus higher education provision on the particular local needs at the time rather than maintaining existing university campuses or opening additional campuses. Planning for a better pattern of provision of higher education in regional Australia is necessary for the future of the people in these regions.

Viability of regional higher education

In 2007, about 12 per cent of all students (domestic and international) enrolled in higher education in the public universities within Australia were located in regional and remote areas (DEEWR 2008).

Many regional institutions and campuses are relatively small and geographically isolated, which leads to diseconomies of scale. A number of submissions outlined the additional costs of providing higher education in regional Australia. For example, James Cook University argued that:

> Non-Metropolitan universities face additional costs in delivering programs to their target markets including the geographical dispersion of people within its catchment; higher proportion of Indigenous students and students from low socio-economic backgrounds; smaller participant numbers in programs; and the flexible mode of delivery required to meet the needs of clients (James Cook University Submission, p. 7).

Within the university sector there is informal acknowledgement that regional provision in many localities is close to unsustainable because of the cost. Many regional campuses are already non-viable without major cross-subsidisation from elsewhere in the institution, and the difficulties of maintaining these campuses will only increase, given current demographic projections.

The minimum viable size of the population in a geographical area for higher education provision has been subject to discussion for some time. For example, a Commonwealth Tertiary Education Commission report in 1986 suggested that a stand-alone university with a broad range of faculties would require a minimum population catchment of 500,000 before it could be economic with a student load of 5,000 (Hudson et al. 1986).

In the two decades since then, trends in financing for teaching and research lead the panel to believe that a student load of 5,000 is unlikely to be sufficient to support a comprehensive university in Australia. In 2007, only two public universities in Australia had a student load of less than 5,000: Charles Darwin University (3,451) and University of the Sunshine Coast (4,104). Although reliable data on enrolments by campus is not available, it appears that most regional campuses of other universities fall below this threshold.

3.7.2 A more flexible and adaptable system of regional provision

Australia needs a sustainable system of higher education provision in regional and remote areas. Provision needs to be flexible and innovative. It must anticipate and respond rapidly to local needs. Providers in regional and remote areas need to be encouraged and supported to build upon partnerships with local communities, providers in other sectors of education, businesses and industry. Such arrangements will involve institutional cross-collaboration and partnerships, including sharing the use of facilities and resources.

Collaborations of this nature are particularly suited to higher education provision in thin markets such as regional areas, where demand may be finite or declining, and limited to particular qualifications. For example, a regional community may have both a shortage of registered nurses and a viable feeder group of enrolled nurses with the experience and capability to undertake further education. Travel to a metropolitan campus may not be an option for many of these potential students due to family commitments and financial constraints.

A more flexible approach which allows existing providers to make use of a variety of teaching arrangements such as distance education, collaboration and sharing of infrastructure with local vocational education and training providers, video-conferencing and fly-in, fly-out academic staff does not require a campus with all the costs involved in its establishment. Indeed Australia

may need fewer university campuses in regional areas and more higher education service points, established to meet a need for a period of time and closed when the specific need is met.

This type of provision builds on a number of innovative models of institutional delivery. Sharing of campuses and teaching infrastructure has already developed in some regional areas, primarily between universities and TAFEs, for example, in the Western Riverina as shown in the box below.

Western Riverina Higher Education Project

The Western Riverina Higher Education Project is a TAFE, university and community collaboration which aims to enhance higher education opportunities in the Griffith region. The coalition includes Charles Sturt University (CSU), TAFE NSW-Riverina Institute, the Riverina Regional Development Board and the Griffith City Council who have formed a collaborative relationship to offer joint courses, shared facilities, shared services and dual sector qualifications.

Under this model, CSU in partnership with Riverina Institute is offering eight courses across the region to more than 230 students in 2008. Fields of study include business management, digital media, IT networks, social work and fine arts.

Some of the complexities faced in the development and implementation of these arrangements have included: competency units and subject descriptions for cross-credits; curriculum lead times; matching changes in both sectors that occur at non-aligned times; mobility of staff across each organisation; delivery (locations, logistics and modes); and administrative and fee-payment arrangements.

Sources: https://www.det.nsw.edu.au/media/downloads/dethome/yr2005/goodpracguide.pdf http://www.rit.tafensw.edu.au/adventure/universitystudycentre.aspx; http://www.csu.edu.au/study/tafe-university/joint-study.htm; and Charles Sturt University, The Western Riverina Higher Education Project at Griffith (http://www.csu.edu.au/division/plandev/submissions/iaf/20042006/AttachII-Griffith.doc)

The panel proposes that funding assistance be made available to encourage and facilitate the development of these types of arrangements. It is not defensible for funds to be provided to bolster provision which is an artefact of history and influence, rather than a response to current needs. Once agreement has been reached on more collaborative and better planned approaches, the Australian Government should provide funds to underpin effective models of delivery to meet needs in these areas.

Recommendation 16

That, after further consideration of current problems with regional provision, the Australian Government provide an additional $80 million per year from 2012 in funding for sustainable higher education provision in regional areas to replace the existing regional loading. This should include funding to develop innovative local solutions through a range of flexible and collaborative delivery arrangements in partnership with other providers such as TAFE.

Introduction of these reforms could mean that some institutions and campuses operating in regional Australia might require some form of structural adjustment to ensure their ongoing viability. This could involve a range of approaches including rationalisation, collaboration or merging for some campuses or institutions. Funding for structural adjustment to assist transition to the new funding and regulatory environment recommended in this review is discussed further in Chapter 4.2.

Innovative proposal on regional provision

Another response has been mooted to the challenges of provision in regional and remote areas. This is the establishment of a new national university, created through a merger of some existing regional universities and, perhaps, consolidation of some regional campuses of metropolitan universities. This new, consolidated university would be charged with a mission to offer accessible, high-quality education in the regions. Internationally-recognised expertise in delivery of education to regional areas and isolated communities could be concentrated in such a university and it could be given a charter to address regional provision nationally. Funding could be negotiated in recognition of the costs involved in delivery of such a mission.

While such a university may not be best positioned to serve the needs of every regional community, it could offer expertise and support to states, territories and local communities to enable the best solution to be found. The panel believes a university such as this, together with better use of existing facilities and expertise in regional areas, would provide a viable solution to the current and emerging problems it sees in regional provision.

Recommendation 17

That the Australian Government commission a study to examine the feasibility of a new national university for regional areas and, if the study indicates that a new national regional university is feasible, the Australian Government provide appropriate funding for its establishment and operation.

3.7.3 Challenges in outer metropolitan provision

Similar challenges of uneven demand exist in the outer metropolitan areas of many capital cities.

A study commissioned for the review (Birrell et al. 2008) predicted that most of the future growth in Australia's school-leaver population will occur in outer metropolitan areas of Australia's major cities.

This presents a range of challenges for higher education provision. Demand for local provision of higher education in Australia's growth corridors has been patchy. Some campuses which are operated by large metropolitan providers in outer metropolitan areas have recently been closed due to non-viability. Students in outer metropolitan areas do have choice of provision in their city and it is clear that some are willing to travel, often for long distances, to gain access to the course they want to study.

People do not automatically choose to study at the neighbourhood university and it is important to be cautious, in planning for provision in outer metropolitan areas, about projecting demand without taking account of this reality. Of course, demand for higher education from students living in outer metropolitan areas is also profoundly affected by the socio-economic status of the population in the area and by their success at secondary-school level.

The majority of outer metropolitan areas fall into the low to middle socio-economic status categories. Birrell et al. reported significant variation in participation rates of 18- to 20-year-olds between geographic areas (Birrell et al. 2008), with participation relatively low in almost all outer metropolitan areas of most capital cities (apart from the outer northern suburbs in Sydney).

The initiatives proposed in Chapter 3.2 to promote access to higher education, such as outreach activities with schools in low socio-economic areas, will be particularly relevant for higher education providers which service outer metropolitan areas. In addition, providers in these areas will attract a higher share of the loading for low socio-economic status students.

The panel has concluded that additional Australian Government funding should not be earmarked to support the continuation of small campuses in outer metropolitan areas. Rather, campuses should grow and decline in response to demand and planned decisions by providers. A need may exist for rationalisation of some smaller campuses or restructuring of provision in these areas to enhance quality, and structural adjustment funding should be made available to enable this to happen. This is discussed further in Chapter 4.2.

3.7.4 National, state and regional cooperation

More cooperative planning and negotiation must occur between key stakeholders if Australia is to address the significant challenges associated with provision of higher education in outer metropolitan and regional areas. These key stakeholders are universities currently delivering in these areas, Australian, state, territory and local governments, and other organisations such as regional development agencies. A cost-effective and sustainable approach to the complex challenges presented by the current pattern of provision of higher education in outer metropolitan and regional areas will require collaboration, common sense and considerable goodwill on the part of many disparate stakeholders.

The Australian Government should initiate a process to determine whether the current pattern of outer metropolitan and regional provision is appropriate, given current and projected needs. This should involve consultation with key stakeholders, including governments at all levels and other organisations such as regional development agencies.

Recommendation 18

That the Australian Government initiate a process with key stakeholders to determine the needs of outer metropolitan and regional areas for higher education and the best ways to respond to those needs.

4.1 A new accreditation, quality assurance and regulatory framework

In the late 1990s, Australia developed a quality assurance framework for higher education which was then at the forefront of international approaches. This framework has served us well. However, to underpin confidence in the quality of Australian higher education, it is now time to move to a new approach, which demonstrates outcomes and that appropriate standards are in place.

Strengthened accreditation and quality assurance process are needed to ensure that students receive the best possible education and that employers can have confidence in the quality of education provided to their current or potential employees. Strengthening the sector's general regulatory, accreditation and quality assurance systems will also enhance Australia's position in international education.

In addition, given the substantial public funding of the higher education sector, the Australian community needs to be assured that it is getting value for its contribution. A more deregulated and demand-driven funding system involving substantial additional public investment is proposed in Chapter 4.2, in which higher education providers have the flexibility to set their own entry criteria for students. In order to be implemented effectively, these reforms will require a rigorous system of accreditation and quality assurance to ensure that standards are maintained. Given that the standards required in universities underpin quality across the rest of the higher education system, it is imperative that the Australian community has confidence in the standards of its universities and that there is a transparent, national system in place to assure these same standards are required of all providers of higher education.

The current arrangements are complex, fragmented and inefficient. In particular:

- the quality assurance framework is too focused on inputs and processes and does not give sufficient weight to assuring and demonstrating outcomes and standards;
- different and overlapping frameworks regulate the quality and accreditation of higher education institutions, the operation of vocational education and training providers, consumer protections for overseas students studying in Australia and institutional approval for the purposes of student loan assistance;
- responsibility is divided between the Commonwealth and the states and territories, with different units of government responsible for various regulatory frameworks in each. Arrangements for mutual recognition of providers and courses operating across state and territory boundaries are inefficient and do not operate effectively;
- within higher education the framework is applied unevenly so that not all providers are reaccredited on a regular basis; and
- reliable comparative information to underpin student choice of courses and institutions is limited.

While Australia faces specific challenges given our federal system of government, in many respects these issues are not unique and mirror the pressures on contemporary higher education regulatory systems elsewhere (King 2007).

This chapter focuses on aspects of quality assurance and regulation related to higher education. Chapter 4.3 builds on this by recommending a cross-sectoral approach to regulating and funding higher education and vocational education and training (VET) to create a more flexible and responsive tertiary education and training system. The key features of the proposed arrangements for higher education are set out in the recommendation below.

Recommendation 19

That the Australian Government adopt a framework for higher education accreditation, quality assurance and regulation featuring:

- accreditation of all providers based on their capacity to deliver on core requirements including:
  - an Australian Qualifications Framework with enhanced architecture and updated and more coherent descriptors of learning outcomes;
  - strengthened requirements for universities to carry out research in the fields in which they teach so that they can contribute fully to the knowledge economy and produce graduates who embody the distinctive value of teaching that is informed by research;
  - new quality assurance arrangements involving the development of standards and implementation of a transparent process for assuring the quality of learning outcomes across all providers of higher education; and
- an independent national regulatory body responsible for regulating all types of tertiary education. In the higher education sector it would:
  - accredit new providers including new universities;
  - periodically reaccredit all providers including the existing universities on a cycle of up to 10 years depending on an assessment of risk;
  - carry out quality audits of all providers focused on the institution's academic standards and the processes for setting, monitoring and maintaining them. This would include auditing the adoption of outcomes and standards-based arrangements for assuring the quality of higher education;
  - register and audit providers for the purpose of legislation protecting overseas students studying in Australia and assuring the quality of their education;
  - provide advice to government on higher education issues referred to it or on its own initiative; and
  - supervise price capping arrangements in courses offered only on a full-fee basis where public subsidies do not apply.

4.1.1 A national regulatory body

There is a strong case for a comprehensive and independent national regulatory body to carry out accreditation and quality audit functions in the higher education sector. Chapter 4.3 further recommends that this be extended to cover the whole of tertiary education and training.

The need for a national higher education accreditation function

The establishment of the Australian Universities Quality Agency (AUQA) recognised the importance of national arrangements for universities and this new framework – which must apply across all providers – cannot be implemented under the current arrangements. It is now time for a single national body to take charge of regulating the whole of the Australian higher education sector in the foreshadowed larger, more diverse, demand-driven system.

At present non-university providers, that do not have the authority to accredit their own courses, must have each course accredited by a state or territory government accreditation authority once the institution itself has been registered. Accreditation and registration are generally for a five-year period and occur under criteria and processes set out in the National Protocols for Higher Education Approval Processes. There are around 150 such providers in Australia. Arrangements have been developed – known as mutual recognition – to simplify the accreditation process when the same course is to be offered by the same institution using similar delivery arrangements in a different state or territory.

The efficiency and effectiveness of these accreditation procedures need to be improved. In 2007 the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) commissioned an inquiry into the desirability of a national higher education accreditation body. The objective was to report on how to promote greater national consistency in recognition and accreditation, by describing and assessing current arrangements in each jurisdiction and canvassing options for improvement, including models for a national accreditation body (PhillipsKPA 2008). MCEETYA agreed to release the report and referred it to this review for consideration.

The report to MCEETYA concluded that there is a strong case for a continued focus on better regulatory practices through innovation, especially for providers operating in national markets. In particular, the arrangements for mutual recognition of accreditation decisions across jurisdictions fall considerably short of what is needed in a seamless national economy (see box below).

The report proposed four models, including the establishment of a national higher education accreditation body that would fully assume the roles and functions currently performed by the states and territories under the National Protocols (Model 4). It also noted a risk that an 'agency could increase burdens for multi-sector institutions in some jurisdictions unless the model is extended to encompass integrated registration and audit functions across both VET and higher education' (PhillipsKPA 2008, p. 63).

Submissions to this review and discussions during consultations raised a variety of issues about accreditation processes, echoing matters that arose in the consultation process of the MCEETYA inquiry. These included:

- the time taken to have courses accredited (up to 18 months) and the implications for responding to market forces and the significant advantage it gives self-accrediting institutions;
- perceptions that accreditation processes involving university academics on course assessment panels are unfair where these academics are direct competitors;

MCEETYA inquiry into the desirability of a national higher education accreditation body

The limits of 'mutual recognition'

The MCEETYA inquiry focused on issues around mutual recognition and the broad way in which the criteria in the National Protocols are expressed, arguing that:

- The approach to mutual recognition of accreditation outcomes under the National Protocols is not consistent with mutual recognition principles applied more generally as it allows for jurisdictions to re-assess compliance against the protocols in areas already assessed as compliant in the primary jurisdiction. In practical terms, this means that institutions may be required to produce evidence and undergo a full assessment process to meet the same accreditation standards already accepted by the primary jurisdiction.
- While there had been a conscious policy decision to include capacity to deliver in a secondary jurisdiction as something requiring approval in the National Protocols and Guidelines (although there is no parallel requirement in the VET sector), the evidence, assessments and outcomes of the test of local capacity to deliver is by definition jurisdiction-specific and cannot be mutually recognised in another jurisdiction.
- The criteria for assessing capacity to deliver are very broad and will probably be subject to differing interpretations by different assessment panels and decision makers in different jurisdictions from time to time.

Models for a national body

The MCEETYA inquiry was commissioned to identify possible models rather than to make recommendations. It outlined four models for improving national consistency and/or establishing a national accreditation body involving:

- stronger cross-jurisdictional coordination (Models 1 and 2);
- the establishment of a national higher education accreditation body with limited responsibility for courses offered in more than one jurisdiction or offshore (Model 3); and
- the establishment of a national higher education accreditation body that would fully assume the roles and functions currently performed by the states and territories under the National Protocols (Model 4). The body would have decision-making powers in relation to:
  - accrediting courses offered by institutions that do not have the authority to accredit their own courses;
  - approval of self-accrediting higher education institutions;
  - the establishment of new universities;
  - conducting quality audit (i.e. subsuming AUQA); and
  - registering and auditing providers in relation to protection of overseas students.

Source: Phillips KPA (2008)

- perceptions of inconsistent requirements between states and territories in terms of registration, accreditation and annual reporting. Conversely some universities queried whether some institutions or courses should be accredited in the first place expressing concerns about the quality of degrees offered;
- the need for stronger and more coherent quality assurance of higher education delivered offshore by institutions whose courses are accredited by the states and territories; and
- the compliance cost and complexity of compliance for those operating in multiple jurisdictions with duplicate processes leading to inconsistency and inefficiency.

On the other hand, state and territory government bodies responsible for higher education accreditation generally opposed the establishment of a national regulatory body. For example, the South Australian government argued that decentralised regulatory systems were better than centralised systems at understanding local context, responding to local issues and minimising regulatory burden and intrusiveness.

The panel's assessment is that there is significant existing pressure on state- and territory-based arrangements in terms of achieving consistent regulatory outcomes. Criteria and processes for accreditation rely too heavily on subjective judgments and do not sufficiently reflect the risks associated with different providers. The involvement of local university academics on course assessment panels where they are in competition with a non-university institution is not consistent with independent regulation and there would be more scope within a national regulatory body to manage such conflicts, e.g. by drawing on assessment panel members from other states or from overseas. It also considers it anomalous that existing arrangements do not require universities to demonstrate from time to time that they continue to meet the requirements of university status.

The risk of ignoring these deficiencies and concerns is considerable. To preserve our national reputation for quality provision and to ensure we are prepared for a more competitive global higher education environment we must reshape the regulatory system. There is no longer any defensible argument for the fragmentation and variation in requirements which is apparent across jurisdictions and sectors.

Roles and responsibilities

The key regulatory functions proposed for the new body are as follows:

- accrediting and reaccrediting all higher education providers including universities and other institutions with self-accrediting authority. This would include accreditation of courses where the higher education provider does not have the authority to accredit their own courses. It would accredit new universities and reaccredit existing ones. The body would maintain a national register of all accredited providers;
- conducting regular quality audits of higher education providers focusing on the institution's academic standards and processes for setting, monitoring and maintaining them; and
- taking over Commonwealth and state functions in registering and auditing providers for the purposes of the *Education Services for Overseas Students (ESOS) Act 2000*, which protects overseas students studying in Australia and assures the quality of their education (see Chapter 3.6).

Chapter 4.2 suggests an additional function related to supervising price capping arrangements in courses offered only on a full-fee basis where public subsidies do not apply. Chapter 4.3 discusses extending the body's regulatory functions to cover the whole of tertiary education and training.

Further to this, the body could have broader advisory powers to address higher education issues referred to it by government or on its own initiative. Areas in which it could do so include, for example:

- the quality, effectiveness and efficiency of the higher education sector and of government programs on a three-yearly basis; and
- the outcomes of quality assurance processes and the evidence they provide about standards in higher education.

Australian Government departments would remain responsible for direct policy advice on funding, program, quality and regulation issues. This would include advice to Minister(s) on legislation, allocation of funds, the performance of the regulatory body and appointments to it and guidelines within which the regulatory body would operate. Administration of funding programs would remain a departmental responsibility.

Establishment and governance

While this report recommends that the Australian Government should assume full responsibility for the regulation of higher education in Australia, it is important to retain a strong element of local knowledge and responsiveness in any national regulatory body and this should be reflected in its governance and operational arrangements.

The regulatory body must be independent of government to ensure objectivity in its decision making and advice. Indeed, given the accreditation function and consistent with what happens in other industries, there are clear benefits in terms of perceptions of independence in undertaking such functions in a separate statutory authority. Specialist advisory committees could provide input on specific issues.

The regulatory body should be established under Commonwealth legislation to provide a consistent national basis for its decision-making role. The body would become the ultimate decision maker on issues such as accreditation of providers and the establishment of new universities. There would need to be appropriate consultation with the states and territories on legislation, subsidiary guidelines and major decisions affecting particular jurisdictions.

Government would set the policy parameters within which the regulatory body would operate through legislation and guidelines and the body would be accountable for its performance to the Australian Government. Members of the governing board of the regulatory body as well as its chief executive officer would need to be selected on the basis of their skills and expertise in relevant areas. Board members should be appointed following consultation with the states and territories.

The organisation of higher education accreditation responsibilities currently varies from state to state and a staged approach may be needed to bring them together and to ensure a smooth transition.

Recommendation 20

That the Australian Government establish by 2010, after consultation with the states and territories, a national regulatory body to be responsible for:

- accrediting and reaccrediting all providers of higher education and accrediting their courses where the provider is not authorised to do so;
- conducting regular quality audits of higher education providers;
- providing advice on quality, effectiveness and efficiency; and
- registering and auditing providers for the purposes of the *Education Services for Overseas Students (ESOS) Act 2000*.

4.1.2 Reaccreditation of universities

The authority of all existing universities to accredit courses and award degrees is ongoing and rests on their establishment legislation. Unlike institutions that do not have the authority to accredit their own courses, universities are not at present subject to an accreditation process. This also applies to three other institutions which are not universities but have ongoing authority to accredit their own courses in legislation.

As part of the external quality audit by the Australian Universities Quality Agency (AUQA), universities are at present expected to demonstrate in their performance portfolio that they continue to meet the current criteria for university status.

Reaccreditation

Such an approach is no longer sustainable because:

- it is inappropriate and anti-competitive for a whole class of institutions to be completely exempt from the requirement to demonstrate at some regular interval that they continue to meet the requirements to operate;
- a more rigorous and independent process is needed for ensuring that existing universities continue to meet tightened criteria. The current AUQA process is not sufficiently rigorous for this purpose; and
- AUQA has no power to act if it finds that a university does not meet the criteria.

A number of submissions to the review from universities acknowledged that a more rigorous external reaccreditation or review process for all higher education institutions including universities is required.

In the panel's view, for the enhanced accreditation criteria set out below in this chapter to have meaning, they must be applied to all institutions and be overseen by a regulatory body with the independent power to remove the right to operate if necessary. Reaccreditation should be a comprehensive process looking at any provider's performance in detail across all the accreditation criteria. For universities, this includes research performance and its connection to teaching as well as academic standards and outcomes.

Universities would retain the authority to accredit their own courses as at present and the current process to allow other providers to attain self-accrediting authority would continue. Universities would undergo a reaccreditation process on a regular cycle of up to 10 years

in which they would demonstrate that they continue to meet the requirements for being a university. Accreditation would lead to a yes or no decision on whether a university continued to operate, or whether continued operation might be subject to conditions.

Interaction with quality audit

There would be value in retaining a shorter cycle quality audit process to complement accreditation. This would involve detailed examination of institutional quality assurance processes with a greater focus on improving the institution's academic standards and processes for setting, monitoring and maintaining them. In particular, the audit would focus on the institution's management of and participation in the new outcomes and standards-based arrangements to be developed as set out below.

Implementation issues

The arrangements for reaccreditation and audit will need to be developed by the Australian Government after consultation with the states and territories. This should be done during 2009 for implementation from 2010 by the independent national regulatory body.

The reaccreditation and audit processes for universities (and the other three existing institutions which are not universities but have ongoing authority to accredit their own courses) should be based on a realistic risk assessment, recognising that all of these institutions have now been audited by AUQA at least once. A formal risk assessment model would be required to underpin such a process with potentially different levels of regulatory oversight applying, including limits on a university's self-accrediting authority if necessary. One example of such a model is the Probability and Impact Rating System developed by the Australian Prudential Regulation Authority (2008).

In light of this risk assessment:

- the reaccreditation cycle for universities could be up to 10 years depending on the circumstances of the university in question with the scope and rigour of the process differing as required; and
- audits would occur between reaccreditation processes. For example, a university could be reaccredited in years 1 and 11 with quality audits in years 6 and 16.

Results of the audit would continue to be published as they are now and accreditation decisions would be public. It is important that the national regulatory body is able to take decisions on the results of reaccreditation processes in an arm's length way to ensure that its decisions are credible and robust. It also needs to have a mechanism to follow up on issues raised in reaccreditation or audit processes and to deal with issues that arise between them. The body will require clear powers to impose conditions on reaccreditation and require follow-up action on audit findings. Audit should be included as a function of the regulatory body, but with a degree of separation to ensure that its distinct focus and role is maintained.

Other higher education institutions would continue to go through regular reaccreditation on a five-year cycle as at present. Their courses would also continue to be accredited on a five-year cycle, unless the institution was approved to accredit its own courses. However, institutional and course reaccreditation processes would need to change to incorporate the institution's management of and participation in the new outcomes and standards-based quality assurance arrangements.

Recommendation 21

That the Australian Government, after consultation with the states and territories, revise the processes for higher education accreditation and audit to provide for:

- periodic reaccreditation of all higher education providers on a cycle of up to 10 years by a national regulatory body with the authority to impose conditions on reaccreditation, to require follow-up action or to remove a provider's right to operate if necessary; and
- a shorter-cycle quality audit focused on their academic standards and processes for setting, monitoring and maintaining them with the results to be publicly released and a process for follow-up on action required.

4.1.3 Research as a distinctive feature of universities

A distinctive feature of our understanding of universities in Australia is that teaching within them is informed by research to develop or apply new knowledge.

The expectation that universities undertake research together with teaching became a feature of Australian universities from the 1950s. Following the higher education reforms of the late 1980s this carried over to a larger number of institutions, each of which has, since then, actively engaged in research in at least some disciplines.

The formal requirements for evidence of research activity in universities and for scholarship in all higher education providers are set out in the National Protocols for Higher Education Approval Processes (see box below), but these postdate the establishment of all of the existing 39 universities.

Submissions to the review from universities argued that the nexus between teaching and research should remain a distinctive aspect of higher education in universities. On the other hand, a number of other providers and organisations argued that some existing universities do not do enough research to qualify, or have established teaching-only campuses and that scholarship rather than research should be sufficient to give access to university title.

At institutional level significant variations exist in research activity as measured by indicators such as weighted research publications (books, book chapters and journal articles) per full-time equivalent academic staff member. In 2006 this was 1.0 publications per academic staff member across all universities and ranged from 0.34 up to 1.64. There is also evidence that the amount of research undertaken varies significantly within institutions among disciplines, campuses and academics (Ramsden 1998).

Value of the teaching and research nexus

A unique role of universities within the knowledge economy is that they combine the vital role of teaching workforce-ready professionals and training the next generation of researchers with their direct role in research and development as 'the principal creators and disseminators of new knowledge' (Cutler 2008, p. 67). The effectiveness of the contribution universities make to innovation as well as the distinctiveness of their teaching rest to a very significant extent on their capacity to combine these functions.

Current requirements of the National Protocols for research and scholarship

Research

The National Protocols require that an Australian university 'undertakes research that leads to the creation of new knowledge and original creative endeavour in at least those broad[13] fields in which Research Masters and PhDs or equivalent Research Doctorates are offered'. At a minimum, an institution must offer research degrees and undertake research in three broad fields of study to qualify as a full university and to retain that title. In addition academic staff in any provider must be 'active in research when engaged in research student supervision'.

Research is defined in the protocols to include basic and applied research as well as experimental development and artistic endeavours. National guidelines for universities set a number of reference points against which research activity can be assessed. Performance by all existing universities is assessed by the Australian Universities Quality Agency as part of its regular cycle of university audits.

Scholarship

The National Protocols also require that the academic staff of all higher education providers, not just of universities, are 'active in scholarship that informs their teaching'. Scholarship for this purpose is defined to include such activities as demonstrating commitment to the development of teaching practice, current subject knowledge, keeping abreast of the literature and new research, encouraging students to be critical thinkers and engaging in relevant professional practice.

These requirements are set out in full in Appendix VI of this report.

The link between teaching and research is a common feature of respected universities internationally. While it is difficult to find compelling research evidence which unequivocally supports the argument that graduates with degrees from such institutions are demonstrably better than those from teaching-only institutions, it would not be in Australia's best interests to ignore the weight of international opinion and practice on this issue. The panel has concluded that this link should be strengthened as a defining feature of higher education in universities in Australia.

The reputation of Australia as a quality provider of international education depends on it being able to provide a clear and unequivocal statement about its intention to maintain a world-class university system. Retaining and strengthening the teaching and research nexus as a cornerstone of university accreditation provides that clear and unequivocal statement of intent.

In so doing, the panel accepts the argument that rapid change in knowledge places a premium on university graduates acquiring the attitudes, techniques and skills to critically assess and adapt to new developments (Henkel 2004). In such circumstances, institutions with a strong

13 The fields of study used in the National Protocols are based on the fields of education in the Australian Bureau of Statistics' *Australian Standard Classification of Education* (2001). There are three levels in the classification of fields of education: 12 'broad' fields (e.g. Society and Culture); 71 'narrow' fields (e.g. Law); and 356 'detailed' fields (e.g. Family Law). Alternatively, an institution may become a specialist university if it meets the requirements in two fields or less.

culture of research are better placed to ensure that students receive maximum benefit from research-informed teaching which assists them to acquire a sophisticated understanding of their subjects and to recognise the importance of continuing to update their knowledge and skills. Both are vital in an environment of rapid change in knowledge and techniques and the growing demand for higher level skills in the workforce.

Strengthening the requirement for research-informed teaching as the distinctive feature of universities in practice makes a clearer distinction between institutional types and thereby contributes to diversity in the sector. There is an important difference between institutions which disseminate existing knowledge and those which also create new knowledge through research in various forms, which should be reflected in the title of the institution. Nevertheless, teaching informed by scholarship is critical in any higher education setting. Wherever a program is delivered in Australia it must be taught by people who are scholars in their field. The panel sees teachers and institutions committed to scholarship as a defining feature of higher education in this country.

In reaching the conclusion that it is time to strengthen the requirement that universities demonstrate research-informed teaching, the panel understands that this may have implications for some of our universities given the international trend to concentrate research and build sustainable mass to achieve high research quality and impact. Indeed, measures recommended elsewhere in this report to increase Commonwealth funding for research infrastructure, if implemented, may well hasten and reinforce this trend in Australia. While the panel recognises that over the last 20 years it has been very difficult for some of the post-1988 universities to build scale and depth in research when sufficient funds have not been available to support that endeavour, it considers that it is in the country's best interests to insist that the generally accepted definition of a high-quality university education is enforced through the regulatory system.

Criteria for university status

Achieving a better alignment between the criteria for university status and the practice of teaching and research in universities will require a tightening of the existing criteria for accrediting universities as set out in Table 12 (areas of significant change are denoted by bold italicised text). For this purpose, the principal types of institutions are comprehensive universities teaching and researching across at least three fields of education, specialist universities concentrating in one or two fields of education only and other institutions which are not required to undertake research.

In particular, while the requirement for a university to undertake research in at least three broad fields of study may be appropriate as an entry standard for new comprehensive universities, it does not adequately express the expectations for universities once they are established. Established universities should be expected to demonstrate that they deliver higher education qualifications including research higher degrees in more than three broad fields over time and that they carry out sufficient research in **all** broad fields in which they offer coursework degrees. The existing guidelines for the National Protocols specify how much research is sufficient only to a limited extent and these would need to be expanded as accreditation criteria are developed.

In addition, it is critical in terms of maximising the value of Australia's investment in research that research education and training should only be undertaken in an environment that is capable of producing rigorous and high quality researchers. Therefore, universities should

be expected to undertake research in all **narrow** fields in which research higher degrees are offered. This would go beyond the existing requirement that academic staff are active in research when engaged in research student supervision to focus on the capacity of any particular area of an institution to conduct research training.

At present some institutions other than universities may offer research higher degrees provided that the individual staff members engaged in research supervision are research active. A number of non-university institutions offer such qualifications and some are long established in this area. In principle, research higher degrees should only be offered in comprehensive or specialist universities as these have the necessary research culture, facilities and scale to provide a high-quality research environment. However, in a very small number of cases where the quality of the research environment is equivalent to that in a university, it should remain possible for a non-university provider to offer research higher degrees, but only where research, as defined in the protocols, is evident in those narrow fields.

In tightening these criteria it is nonetheless important to retain a broad definition of what constitutes research and to use appropriate performance measures that fully recognise the different types of research activity and the diverse ways in which universities can pursue their research missions.

Table 12: Proposed types of institutions and their distinguishing features

Comprehensive universities (a)	Specialist universities	Other higher education institutions (b)
Required to create new knowledge (research) and disseminate knowledge (scholarship)	Required to create new knowledge (research) and disseminate knowledge (scholarship)	Required to disseminate knowledge (scholarship)
Deliver higher education qualifications including research higher degrees in at least 3 broad fields initially ***and a larger number over time***	Deliver higher education qualifications including research higher degrees primarily in 1 or 2 broad fields	Deliver degrees at levels and in any number of fields as they are accredited
Undertake sufficient research in at least 3 broad fields initially ***and over time in all broad fields in which coursework degrees are offered***	Undertake research in all broad fields ***in which coursework degrees are offered***	No requirement to undertake research
Undertake sufficient research in all narrow fields in which research higher degrees are offered	***Undertake research in all narrow fields in which research higher degrees are offered***	Not generally able to offer research higher degrees
Demonstrate scholarship in all narrow fields of study in which any degrees are offered	Demonstrate scholarship in all narrow fields of study in which any degrees are offered	Demonstrate scholarship in all narrow fields of study in which any degrees are offered

Notes: (a) Covers those universities in National Protocol D with an unmodified university title, i.e. not a university college or specialist university. (b) Includes institutions whose courses are accredited by government accreditation authorities under Protocol B and those with authority to accredit their own courses under Protocol C.

Other new elements in the revised National Protocols adopted in 2007 would be retained under the panel's model:

- Specialist universities could still be established, but would need to undertake research in all narrow rather than broad fields in which they offer research higher degrees.

- University colleges could still be established on a pathway to full university status by initially delivering qualifications up to masters coursework degrees in at least three broad fields of study and research masters and PhDs in at least one field and then meeting the requirement for full university title after 5 years.
- Demonstrated scholarship by staff teaching in programs would remain a common requirement across all higher education institutions.
- Non-university institutions which demonstrate a capacity to manage their own quality assurance processes and set appropriate standards could still apply for authority to accredit their own courses instead of having to have each course accredited.

Implementation issues

Responsibility for redeveloping the accreditation criteria and processes should rest primarily with the Australian Government after consultation with the states and territories. In the first instance new accreditation criteria would need to be prepared during 2009 along with Commonwealth legislation to implement them. The proposed national regulatory body would be responsible for the process by which university performance against the revised criteria would be assessed. Details of how this might work are discussed in the following section.

There may be significant implications from these changes for some individual institutions. It is not the panel's intention that this more rigorous application of the criteria for university title, especially in relation to research activity, should lead to existing universities losing university title as such. Some may, however, need to undertake significant internal restructuring to ensure a better match between their teaching and research profile across fields of study, or consider mergers with other institutions to retain that status. Such adjustment may take some time to be worked through and this will need to be reflected in the timing of regulatory processes, as well as through the availability of structural adjustment funding for affected universities. It is not possible at this stage to be definitive about how long this process should take and this could be a matter on which the national regulatory body could advise government.

Recommendation 22

That the Australian Government, after consultation with the states and territories, develop more rigorous criteria for accrediting universities and other higher education providers based around strengthening the link between teaching and research as a defining characteristic of university accreditation and reaccreditation. In particular, universities should be required to:

- deliver higher education qualifications including research higher degrees in at least three broad fields of education initially and a larger number over time;
- undertake sufficient research in at least three broad fields initially and over time in all broad fields in which coursework degrees are offered; and
- undertake sufficient research in all narrow fields in which research higher degrees are offered.

4.1.4 Demonstrating outcomes and standards

Australia must enhance its capacity to demonstrate outcomes and appropriate standards in higher education if it is to remain internationally competitive and implement a demand-driven funding model. More systematic processes will be needed at both the institutional and the individual discipline level to provide stronger assurance of organisational and academic standards. Improved accreditation and quality assurance arrangements will not be simple to develop but, without a serious and concerted effort to put better arrangements in place, Australian higher education could become vulnerable in the longer term to questions about its quality.

Quality in higher education

Extensive debate has occurred over many years about the nature of quality in higher education and the different ways in which it can be conceptualised. For example, Harvey (2006) distinguishes five conceptions of quality as:

- something exceptional or excellent in the sense of exceeding high outcome standards;
- perfection, consistency or absence of defects as measured against process standards;
- 'fitness for purpose', typically as stated by an institution or a program within it;
- 'value for money' or return on investment; and
- 'transformation' or qualitative change from one state to another as applied to the development of students through the learning process or the creation of new knowledge.

Of these, 'fitness for purpose' and 'excellence and standards' have been most influential around the world in the development of higher education quality assurance. Fitness for purpose approaches explicitly acknowledge diverse institutional missions and the differences in what they achieve. Standards-based approaches emphasise what institutions should have in common, especially in terms of the nature and level of learning outcomes that students are expected to demonstrate in their university studies (James, McInnis & Devlin 2002).

Adequacy of current arrangements

In the late 1990s Australia developed a quality assurance framework for higher education which was then at the forefront of international approaches. The six principal components are set out in the box below.

Of these, the key components relevant to universities are institutional self-regulation and quality audit through the Australian Universities Quality Agency (AUQA). For other types of higher education providers the main elements of external quality assurance are the Australian Qualifications Framework (AQF) and the National Protocols for Higher Education Approval Processes. Significantly, these protocols require that courses accredited to other higher education providers must be comparable in requirements and learning outcomes[14] to a course at the same level in a similar field at an Australian university. Hence the standards applied in universities underpin quality across the higher education sector and this section focuses on the processes for assuring those standards.

14 A statement of what the learner is expected to know, understand or be able to do as a result of a learning process (as defined by the University of Western Australia Centre for the Advancement of Teaching and Learning).

Summary of the current Australian Higher Education Quality Assurance Framework

Component	How it works
1) Qualifications	• *Australian Qualifications Framework* specifies qualification titles, their characteristic learning outcomes and pathways to them. Institutions refer to this in developing courses. • Institutions and professional bodies recognise and evaluate Australian and overseas credentials (with advice from the National Office of Overseas Skills Recognition).
2) Accreditation and approval	• *National Protocols for Higher Education Approval Processes* set out criteria and processes for approving universities and other types of higher education institutions. State and territory governments accredit courses where the institution is not authorised to do so. • *Education Services for Overseas Students Act 2000* governs the approval of courses and institutions offering courses to overseas students within Australia. • Institutions approved for Commonwealth funding and assistance must meet the requirements of the *Higher Education Support Act 2003*, undergo a regular quality audit and meet other quality requirements. • Professional bodies accredit courses on a compulsory or voluntary basis in some disciplines.
3) Institutional self-regulation	• As bodies that are responsible for accrediting their own courses, universities and certain other institutions approve, monitor and review the courses they offer through internal peer review and quality assurance. • Other institutions apply internal quality assurance practices subject to having their courses accredited by State and territory governments under the *National Protocols*. • Institutions may follow voluntary codes of practice or collaborate to improve practice.
4) Independent quality audit	• Australian Universities Quality Agency conducts regular quality audits of universities, some other institutions and government accreditation authorities. Reports are published.
5) Information provision	• Official registers of approved institutions and courses. • Collection of data for performance indicators, e.g. Graduate Destination Survey and Course Experience Questionnaire. • Consumer information and websites (e.g. Study in Australia, Going to Uni) backed by requirements of the *Higher Education Support Act 2003*.
6) External monitoring	• Various monitoring and annual or other reporting requirements associated with accreditation, approval or audit.

University self-regulation

Australian universities have been established under state and territory or Commonwealth legislation, so that they accredit their own courses (subject to professional accreditation where relevant) and bear primary responsibility for the quality and standards of the degrees they award.

The main internal quality assurance processes include: approval processes for new courses and units of study; regular review of courses and units; internal reviews of departments, faculties and research centres; student evaluations of teaching; use of external examiners for higher degree research theses; surveys of graduates to assess satisfaction with courses; soundings of employers on the suitability of graduates for the workforce; and benchmarking of these areas against performance in other similar universities.

Rigorous processes for assessing student achievement are the most important safeguard of academic standards. Australian universities generally have well-developed statements of expected learning outcomes for each subject and course but expected levels of achievement are more difficult to specify (internationally most university systems confront the same difficulties). Most universities, at least formally, no longer use a norm for grade distributions. At undergraduate and postgraduate coursework level, assessments are generally moderated internally with external examiners used only in some cases for honours degree assessment.

There is mixed evidence about whether the incidence of higher grades is rising. National data on subject grades awarded are not collected. Collected data is limited to pass, fail, withdrawn or not assessed, in part because universities use different grading systems. One survey of Australian academics found that about 40 per cent reported an increase in the award of high grades and that about one-quarter believed this was a change for the worse. (Anderson, Johnson & Saha 2002). Another survey reported that academics believed their grading practices strictly reflected levels of student achievement (Coates et al. 2008).

Findings from quality audits

AUQA's first cycle of quality audits of universities suggested that internal quality assurance processes were generally effective, while highlighting the need for improvement in some areas, especially in relation to the quality of some offshore operations; support for graduate students; dealing with plagiarism; and enhancing institutional governance. It suggested that other areas for attention included ensuring academic control of courses through academic boards, the student experience and the English-language skills of overseas students (AUQA submission). An overview of university benchmarking practices in the first cycle of audits identified scope to strengthen academic standards in areas such as: 'standards for final year undergraduate assessment; graduate outcomes and satisfaction; use of international examiners for doctoral theses; and research performance against that of similar national and overseas universities' (Stella & Woodhouse 2007, p. 29).

The second cycle of institutional audits that commenced in 2008 has been conducted with a greater focus on how institutions manage academic standards and outcomes. Those audits conducted so far suggest that this is taken very seriously by universities, although AUQA has suggested that improvements could be made in areas such as moderation policy and procedures for awarding grades. There is evidence that institutions are moving towards more external validation of standards such as benchmarking arrangements between individual

institutions and between some Australian and overseas universities, but these are not yet well-developed. It is not yet common practice across the sector to benchmark the standard of work required for a particular grade at course or program level across universities (AUQA 2008).

Practice in other countries

Systematic processes for comparing standards between universities at discipline level are used in some other countries. For example, in the United Kingdom external examiners are used to assure academic standards across higher education awards. Requirements for this are set out in the Quality Assurance Agency's Code of Practice and arrangements are audited as part of institutional audit. External examiners are also used in Ireland.

The United Kingdom also developed subject benchmark statements beginning in the late 1990s to set out expectations of standards of degrees in a range of subject areas. These statements were developed by members of the academic community and define what can be expected of a graduate in terms of the abilities and skills needed to develop understanding or competence in the subject at honours level. Statements have been developed for about 60 disciplines so far with a number of others underway. Some benchmark statements combine or make reference to professional standards set by external professional or regulatory bodies. They are now used in course development, form a reference point in institutional audits and complement the practice of using external examiners in moderating undergraduate assessment.

In Ireland, Scotland and some provinces of Canada there are other processes for scrutiny of standards at discipline level such as requirements for formal and regular, subject-level reviews undertaken by institutions (with or without external involvement).

Australia has taken steps in this direction previously. The Commonwealth Tertiary Education Commission conducted a series of one-off reviews of major fields in Australian universities from 1985 to 1991 after which a whole-of-institution approach to quality was taken. The Australian Vice-Chancellors' Committee also undertook a series of discipline reviews between 1987 and 1993 in response to concerns about apparent variations in standards and criteria for the award of degrees. At the time the Vice-Chancellors considered introducing a national system of annual, external examining of honours degrees along the lines of the British practice, but it was decided that the costs would be much higher in a country with larger distances and that a system of regular visits by small expert panels to review disciplines would be more effective (Lee Dow 1992).

Since then Australian quality assurance processes have largely focused at institutional level. From 1993 to 1995 the Committee for Quality Assurance in Higher Education assessed annual submissions from each university on their processes for ensuring quality and distributed some funds. This was followed by a requirement on universities to submit annual quality improvement plans as part of overall strategic planning. These were overtaken in turn by the establishment of the Australian Universities Quality Agency.

However, an exception relates to accreditation of higher education courses by professional bodies in certain disciplines as a legislative requirement or to grant professional recognition for entry. These bodies generally set standards which cover expected learning outcomes and professional competencies.

The Australian Universities Quality Agency

The Australian Universities Quality Agency (AUQA) was established to ensure the accountability and international credibility of the higher education system. The need for such a body in Australia was recognised as other countries moved in this direction and Australia acknowledged the need for a systematic, national approach to quality assurance.

Fitness for purpose

In setting AUQA's objectives, ministers struck a balance between audits focusing on the processes and arrangements for securing quality and audits that would assess the quality of outcomes against standards. This reflected arguments that any serious attempt at assessing outputs and academic standards was likely to raise difficult methodological issues and be regarded as intrusive and unnecessary in terms of credibility (Harman & Meek 2000).

In its first cycle of audits AUQA adopted a fitness for purpose approach investigating the extent to which the institutions were achieving their missions and objectives. It assessed the adequacy of the institution's quality assurance arrangements in the key areas of teaching and learning, research and management. The agency was also tasked by ministers with reporting periodically on the relative standards and outcomes of the Australian higher education system and its institutions, processes and international standing. An analysis of first cycle audit reports and recommendations for 25 institutions concluded that better data and benchmarking were needed to demonstrate the international standing of Australian universities. Audit reports contained very little information that could be used to report on relative standards (Stella 2006).

An independent review of AUQA in 2006 found that it had established a credible peer review approach to quality audit in the first cycle, that it was a sound and efficient organisation which had delivered well on its objectives and that it had had a positive impact on raising the awareness of quality and a commitment to quality enhancement across the sector. The review noted that 'the issue of a standards-based approach will continue to be a significant policy issue in the Australian higher education sector'.

Standards-based approaches

Following this review the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) agreed to revised objectives for AUQA. These have moved it towards a more outcomes-focused approach that involves the following key elements:

- shifting the focus from the whole-of-institution level to themes selected by AUQA in consultation with the institution. The selection of themes will be informed by early consideration of academic risk. In 2008 one of the themes is internationalisation;
- using external reference points (in particular the National Protocols for Higher Education Approval Processes); and
- more explicitly including academic standards and outcomes and their management with a greater emphasis on institutional standards and performance outcomes, attention to benchmarking activities and their effect on standards and outcomes and investigation of how academic standards are determined, applied, maintained, monitored and met.

To address this last point AUQA has developed a framework for risk assessment and a framework for standards and outcome measures.

While this is a step in the right direction, a critical issue is whether this framework is likely to address underlying issues about standards and quality or whether a fundamentally different approach is needed to provide a more robust assurance of quality. Many of the submissions to the review argued that there needed to be a greater focus on outcomes and standards to ensure that students and society can be confident about the quality of Australian degrees.

Key points raised included:

- while Australia has been at the forefront internationally of measuring student employment and study outcomes and satisfaction, other countries are developing these kinds of measures and Australia now lags in hard measures of learning outcomes;
- there is a need to develop Australia's capacity to document, measure and improve student learning outcomes; and
- with the increasing diversification of the higher education sector, there needs to be a transparent, national system in place which assures at least minimum standards of quality of educational qualifications across all higher education providers.

In particular, AUQA's submission to this review argued that a comprehensive standards check requires a more systemic standards infrastructure and would need to include something like the United Kingdom's subject benchmark statements as well as more systematic external moderation of assessment.

Work is already under way in the sector to start articulating academic standards in a more sophisticated way. For example, the Australian Technology Network group of universities has commenced a project on academic standards which could be used to benchmark across institutions. While this is an important initiative, what is needed is more rapid and systematic implementation of a coherent national framework that applies to all higher education providers.

Significant evidence exists internationally of an increasing need for quality assurance based on achievement of standards and a shift away from the earlier predominance of the fitness for purpose approach (Martin & Stella 2007). Australia is at risk of being left behind if it fails to respond to these international pressures. The 2006 Spellings Commission in the United States called for increased accountability through the development of instruments to assess student learning, including the growth or 'value-add' of learning within an institution over time (U.S. Department of Education 2006). The Organisation for Economic Co-operation and Development's (OECD) recent Thematic Review of Tertiary Education similarly called for the focus of quality assurance to be shifted to student outcomes relative to input factors (OECD 2008a).

Future directions

A discipline-based approach will be required to strengthen the quality assurance framework as the nature and level of learning outcomes in higher education depend heavily on the particular field of study and reflect the judgments of those who are expert in it. While generic standards in the National Protocols or the Australian Qualifications Framework provide important reference points, by themselves they can only describe the nature and level of expected learning outcomes to a limited extent without being contextualised in specific disciplines. Moreover, standards evolve and are not absolute or timeless – rather they are continually being re-defined and created as knowledge grows in existing fields and as new

fields emerge (James, McInnis & Devlin 2002, p. 2). Standards that do not capture this dynamism will not be credible.

To do what is necessary will not be simple either conceptually or practically. However, it is imperative in the competitive global environment that Australia demonstrate the quality of its higher education learning outcomes. This will be particularly important in a funding environment that is driven by student demand and a regulatory framework that lays greater stress on outcomes than inputs.

There are two broad approaches to providing stronger assurance of learning outcomes in the future:

- develop indicators and instruments to assess and compare learning outcomes directly; or
- develop formal statements of academic standards by discipline for use in course design and approval processes as well as assessment and moderation processes across all institutions.

Implementation of one approach does not rule out implementation of the other.

Direct assessment of learning outcomes

The OECD is conducting a feasibility study of an Assessment of Higher Education Learning Outcomes that will allow comparison between higher education institutions across countries. This would follow on from its successful development of the Programme for International Student Assessment, which measures educational achievement of 15-year-olds in the schools sector. The assessment would be done at institutional level at the end of a bachelor program and cover critical thinking and problem-solving skills, combined with a subject specific test relating to one or two disciplines. The study will be completed by the end of 2010. Australia is participating in the feasibility study for the discipline of engineering. In submissions, a number of universities and peak bodies expressed support for the study and keen interest in participation is evident.

It will be some time before the feasibility of the OECD project is apparent and for the shape of any possible future assessment program to become clear. There are concerns about whether the study will be able to measure the value added by institutions to student learning, rather than measure student performance at the end of degrees only. Australia has attempted previously to measure the value added by higher education with the Graduate Skills Assessment developed in 2000 to measure generic skills but this proved to be difficult for a range of technical and practical reasons and there was very low acceptance and participation. Nevertheless, if this study produces a workable model, Australia should participate in any such international assessment program.

Discipline-level quality assurance processes

The second approach is to develop formal statements of academic standards by discipline for use across all institutions as well as processes for applying those standards. These could cover course design and approval as well as assessment and moderation processes. In the first instance, the development and application of these could be trialled in one or more disciplines. These discipline level standards would dovetail with the generic learning outcomes for higher education qualifications set out in the Australian Qualifications Framework and provide a more in-depth description of the learning outcomes expected for a particular qualification. They would also need to have a clear relation to professional body standards in disciplines where these apply.

Processes for using such standards have been suggested previously and could involve regular external moderation of a sample of assessment scripts or the formation of standards networks involving discipline experts to improve assessment practices (see box below). Other approaches might be possible and there are more recent developments that may be relevant to how this could be implemented, e.g. the Discipline-Based Initiatives scheme of the Australian Learning and Teaching Council, which encourages greater sharing of quality practice and learning within and across discipline communities and is developing discipline-specific agendas for curriculum regeneration.

Submissions to this review supported the development of such standards, including an adaptation of the United Kingdom subject benchmark statement concept. However, caution was expressed about the time and resources likely to be required to develop and gain acceptance for them.

An approach along these lines would facilitate a more effective and comprehensive demonstration of standards achieved in higher education. Although it would require substantial work, articulating those standards explicitly in the first place would provide a more substantial infrastructure around which discipline communities could crystallise expected learning outcomes. Applying those standards through a rigorous process involving all providers as a requirement of their accreditation would send a strong message that Australia takes the demonstrated achievement of standards seriously.

Possible processes for applying academic standards at discipline level

External moderation of a sample of results by an expert panel

Anderson (2002) proposed external moderation of results on a sample basis by an independent agency established for that purpose by universities.

- Departments in each university would retain in digital form for all of their courses the examination scripts or any other assessment methods used to determine outcomes for candidates from either side of the pass-fail line and from other critical points in the distribution of results.
- Each year the agency would decide the fields and universities to be audited and the sampling parameters. The selected departments would send selected scripts to the agency for transmission to the expert panels comprised of senior academics. Panel chairs would take the lead in establishing criteria, analytic marking schemes and reliability checks. Chairs would also convey the results of examiners' assessments and a report on the exercise to the agency.
- Each university department would receive a confidential report enabling it to compare its own results with the field or discipline generally and with standards for pass, distinctions etc. deemed by the panel to be appropriate. The agency would periodically publish reports on the academic standards in particular disciplines or fields.
- It would be up to each university to decide whether it would participate but there would be incentives to do so in terms of the educational value of feedback, public confidence and reputation.

System-level approach

James, McInnis and Devlin (2002) proposed the formation of 'Standards Networks' or groups of academics formed around common field of study interests and based on existing councils and associations of deans to take responsibility for setting and monitoring broad standards at a national level. This national system-level approach to articulating and monitoring academic standards would:

- Provide a forum for ongoing dialogue and consensus-building on standards within the Australian academic community since the responsibility for standards ultimately rests with individual academic staff, informed by the collective views of their academic peers.
- Focus primarily within fields of study since student learning outcomes are generally specific to the fields in which they are studying.
- Concentrate on assessment and grading practices and how these underpin standards since the maintenance of standards through entry pre-requisites and 'time spent on task' are significantly less important than they once were.
- Articulate a discipline-based assessment framework that includes broad criteria for learning outcomes and levels of achievement.
- Cover how standards are defined and monitored across the whole range of student achievement, from 'adequate' achievement to 'high' achievement rather than just threshold levels of minimum achievement.
- Recognise and accommodate course diversity so that standards can evolve through the consideration of all perspectives within a diverse and changing system.
- Generate public documents describing learning criteria, levels of achievement and how these are assessed.
- Contribute directly to enhancing teaching and learning through the articulation of clear goals and expectations.

Next steps

To progress this, the Australian Government should commission and appropriately fund work exploring both the direct assessment of learning outcomes and discipline-level quality assurance processes. In each case, the aim should be to judge whether this methodology will assist Australia to put into practice the most systematic and advanced system of assurance of learning outcomes as soon as possible.

This work should:

- take account of work already underway in the sector and internationally, including by supporting Australian participation in the OECD's Assessment of Higher Education Learning Outcomes feasibility study and by drawing upon a wide range of expertise in the higher education sector;
- establish assessment processes and standards at discipline level with clear links to learning outcomes at the appropriate level of the Australian Qualifications Framework and to professional body standards where applicable;
- recognise and encourage appropriate diversity in courses and promote innovation;

- result in a transparent process which applies across all higher education providers for assuring the quality of learning outcomes, with adoption monitored through auditing or accreditation processes;
- ensure that processes are cost-effective and sustainable in the long term; and
- if successfully developed and implemented, lead to less input and process controls through accreditation and accountability.

Providers would be required to participate in the arrangements as a condition of accreditation and performance would be considered as part of reaccreditation.

Recommendation 23

That the Australian Government commission and appropriately fund work on the development of new quality assurance arrangements for higher education as part of the new framework set out in Recommendation 19. This would involve:

- a set of indicators and instruments to directly assess and compare learning outcomes; and
- a set of formal statements of academic standards by discipline along with processes for applying those standards.

4.1.5 Australian Qualifications Framework

The Australian Qualifications Framework (AQF) was adopted by Commonwealth, state and territory education ministers in 1995 and phased in by 2000. It defines higher education in terms of certain qualification types and provides descriptors of learning outcomes to be achieved for the particular qualification and pathways to the qualification. The National Protocols require that where an institution offers Australian higher education qualifications, it complies with the AQF higher education titles and descriptors.

Submissions to the review argued that the AQF needs to be updated and strengthened so that it applies more consistently across educational sectors and clarifies expected learning outcomes. Variations in the length and level of study involved in some qualifications were also raised as an issue along with the need to preserve the framework's flexibility.

The panel considered these issues along with the cross-sectoral aspects of the AQF, which are discussed in Chapter 4.3. A review of the structure and nature of the AQF is timely. Australia was one of the first countries in the world to develop a national qualifications framework in the mid 1990s. Since then, more countries have developed frameworks or enhanced their frameworks. The higher education descriptors were last reviewed in 2000 and apart from the addition of the Associate Degree in 2004, there has been little change since the AQF was first introduced. The AQF now needs to be modernised to provide an enhanced architecture and updated and more coherent descriptors of learning outcomes.

Governance arrangements for the AQF should also be considered as the national regulatory body takes on a wider range of VET and higher education functions and a single ministerial council is established covering the post-secondary sectors. Since the AQF is a key element of the quality assurance framework for both VET and higher education, responsibility for it should rest with the national regulatory body.

Recommendation 24

That the Australian Government, in consultation with the states and territories, review the Australian Qualifications Framework to improve and clarify its structure and qualifications descriptors. Ongoing responsibility for a revised qualifications framework should rest with the national regulatory body.

4.1.6 Better information for students

The availability of good quality information for actual and potential students on courses and institutions and for the public about higher education generally is a form of 'soft' regulation that can help to improve the workings of our system. A student-entitlement model as proposed in this report will heighten the importance of such information.

Influences on student choice

Institutions play a significant role in information provision as part of their marketing to students. Some commercial publications also provide comparative information while governments play a role in providing information as a public service. Government information provision includes:

- the Australian Qualifications Framework Register of Recognised Education Institutions and websites of government accreditation authorities which list approved providers;
- funding support for Graduate Careers Australia to collect data on course experience and graduate destination through surveys of graduating students;
- establishment of websites providing information for potential students such as GoingtoUni (information about available courses, cost, entry requirements and assistance), MyFuture (careers information) and Study in Australia (for overseas students); and
- public availability of Australian Universities Quality Agency audit reports on institutions.

In submissions to the review there were a number of comments about the importance of students being provided with independent, accurate and timely information to guide their choices, including early identification of the pathways open to them. Expanding the GoingtoUni website was suggested to provide more integrated advice for students, although others argued that this would place extra demands on institutions to supply the necessary information. Other suggestions included requiring aggregated teacher, course and student survey data to be available in a consistent format on university websites for benchmarking purposes and the Commonwealth issuing an annual 'Learning & Teaching Report' including indicators from a wide range of measures of learning outcomes in a standard format for each institution, similar to (or part of) the current Institutional Assessment Framework, and also including a profile of the incoming student cohort.

A role for better information

The factors that influence student choice are complex and include the opinions of peers, prestige, history and exclusivity as well as public information about institutional performance. Nonetheless, reliable and credible information remains crucial. There is a need for better information for students and the public more generally to underpin choice. This could be achieved in a number of ways:

- enhancing the GoingtoUni website to include results from the Course Experience Questionnaire, the Graduate Destination Survey, the Australasian Survey of Student Engagement and other relevant sources to bring together information for students in ways that better meet their needs. This needs to be done in a cost-effective way that does not place an undue burden on institutions, so any redevelopment should be preceded by research on how student information needs are best met and an examination of a range of options against that;
- strengthening accreditation requirements on providers to provide information to the public about the courses they offer. At present all higher education institutions are required to ensure that students are informed about their contractual arrangements with the institution and have access to information about all charges, conditions, refunds and tuition assurance arrangements, but there is no requirement to provide information like the results of surveys or audits. Depending on the nature of the new outcomes- and standards-based arrangements, providers could be required to make available information on how they perform in those arrangements; and
- as recommended in Chapter 4.3 on the broad tertiary education and training system, enhanced research and analysis is needed to inform the public and policymakers about the state of higher education, developing trends and their implications for future directions. This would be carried out on a higher level than course offerings, but would provide valuable commentary which could contribute to a more informed understanding of higher education.

The panel concluded that there should be further research into the best way to improve information for students to underpin choice and an examination of a range of options against the results of that work. In particular, as recommended in Chapter 3.4 all accredited providers, whether or not they are in receipt of Commonwealth funding, should be required to collect and make available survey results about student employment and study outcomes as well as on the satisfaction and engagement of students with their higher education experience. Providers should also be required to provide annual data on student numbers and characteristics as a condition of their accreditation.

4.2 Investing in a new higher education system

If the vision for higher education is to be achieved, we must lift public investment. Our higher education system must provide more highly qualified graduates, and nurture, support and reward those who produce new ideas and new ways of doing things to prepare us to compete more effectively as the global race for talent intensifies.

Higher education financing arrangements must support this vision. They must:

- provide adequate resourcing and flexibility in terms of student entitlement and choice to enable a step change in the numbers of people with higher education qualifications to meet attainment targets (Chapter 3.1);
- lift participation and success for under-represented groups, including Indigenous students and those from low socio-economic backgrounds and regional and remote areas (Chapter 3.2);
- contain costs for students and improve income support for those in need so that they can complete their studies without being unreasonably worried about surviving financially (Chapter 3.3);
- attract and retain academic staff and reduce student-to-staff ratios to improve the quality of the learning environment and outcomes (Chapter 3.4); and
- strengthen our universities in their mission to underpin the country's research and innovation effort (Chapter 3.5).

As argued in Chapter 4.1, funding needs to be provided within a regulatory and quality assurance framework which gives the public confidence that quality and standards are internationally competitive.

4.2.1 Current arrangements

Over the last 20 years the public policy directions relating to financing of universities and other higher education providers have changed significantly. Universities have sought new sources of income in response to partial indexation and in the context of relaxation of constraints around the enrolment of fee-paying local and international students. This has allowed expansion in the higher education system within constrained public outlays. Productivity and efficiency gains have been achieved in the public universities, principally by limiting public funding per student for tuition and general operating purposes, but also through targeted productivity programs. The elements of the current financing framework for higher education are shown in the box below.

There has also been a major policy shift towards increasing the contribution students make to the costs of their tuition. This approach recognises the private as well as public benefits of higher education and the advantaged position of higher education graduates. Australian students now pay fees which are among the highest in the world for places at public universities (OECD 2008b), although they have access to income contingent loans to remove any up-front costs.

Various competitive, conditional and performance-based funding mechanisms have been introduced as a substitute for increasing the base grants for teaching and research to the public universities.

The financing framework for Australian higher education, 2008

Funding for Teaching and Learning

Government funding

- The Commonwealth Grant Scheme funds teaching and learning, administration and general capital needs based on the distribution of student load across a set of seven broad discipline based funding clusters (which include a component for clinical placements and practicums in some disciplines).
- Loadings for enabling places and regional campuses.
- Performance-based funding to improve the quality of teaching though the Learning and Teaching Performance Fund.

Revenue from students

- Contributions from students in Commonwealth supported places, with maximum amounts set across four bands.
- Revenue from fee-paying domestic and international students.

Subsidies for students

- An income contingent loan scheme for both Commonwealth supported and domestic fee-paying students allows them to defer payment of their tuition with no real rate of interest.

Funding for research and research training

- Performance-based block grant research funding delivered through the Research Training Scheme, the Institutional Grants Scheme, Research Infrastructure Block Grants, the Regional Protection Scheme and the Australian Postgraduate Awards Scheme.
- A National Competitive Grants Program which provides funds through the Australian Research Council and National Health and Medical Research Council for allocation to research projects on a competitive basis for basic and applied research.

Funding for improving access and participation

- Funding to support equity and access initiatives including the Equity Support Fund, the Disability Support Fund, Additional Support for Students with Disabilities and Indigenous Support Fund.
- Commonwealth Scholarships to support financially disadvantaged, Indigenous and rural students with education and accommodation costs respectively.

Infrastructure funding

- Capital Development Pool funding.
- The single year Better Universities Renewal Fund in the 2008 budget.
- The Education Investment Fund, which subsumes the previous Higher Education Endowment Fund to assist with capital development and renewal and refurbishment of the sector.

Other initiatives

- Contestable funding for a Workplace Productivity Program.
- A Diversity and Structural Reform Fund.

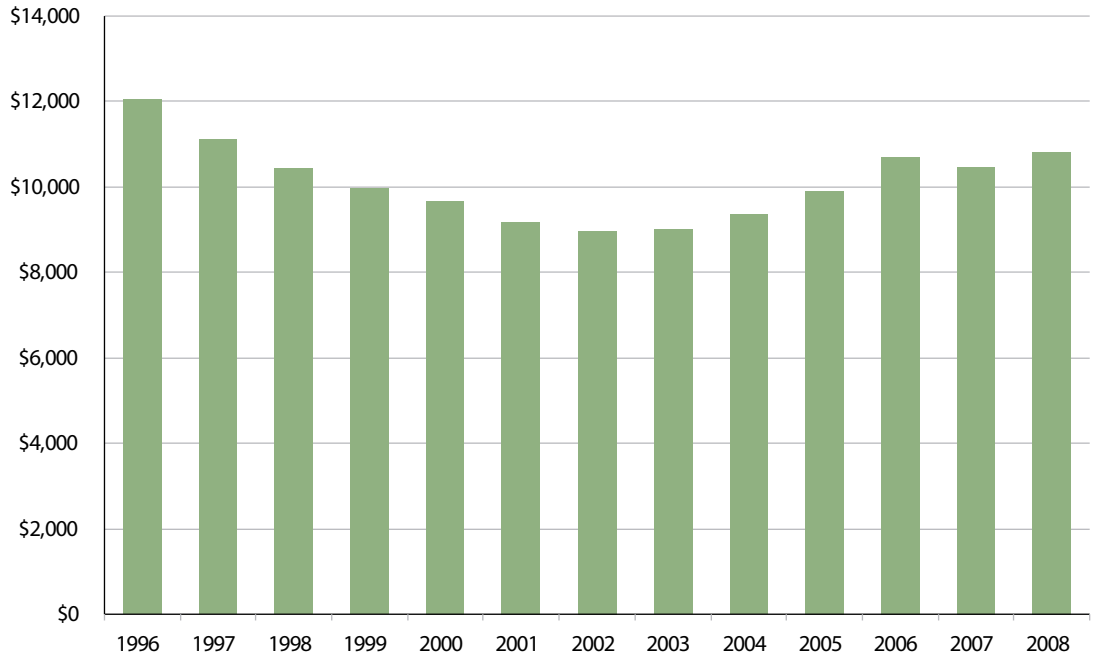
These mechanisms have included increasing the contestability of research funding among the public universities and allocating a greater share of resources based on performance. In addition, there has been a general shift towards an architecture of deregulation in the sector, with the extension of income contingent loans to all approved higher education providers, including private providers and the local campus of an overseas institution.

The funding of teaching through the Commonwealth Grant Scheme (CGS) has been based on planned student load in various discipline clusters, determined largely on an historical basis with changes subject to approval by the Commonwealth. Additional load (and funds) for places in particular areas have been allocated to institutions through a national bidding system. In recent years there has been some relaxation of the rules relating to institutions meeting their student load targets within negotiated funding agreements, including additional funding for over-enrolments.

This financing framework consists of a large number of categories of funding, many of which are contestable and require submission of bids to the particular Commonwealth department or funding body for relatively small amounts of funding.

Other components of the financing framework are driven by complex and separate relative funding formulae (the research and the teaching performance funds). Some of these have led to distributions of funds in a perverse and unintended way compared with the intended policy directions. A number of submissions have commented on one or more of these aspects and, in general, they are supportive of a higher proportion of overall public funds being allocated using simpler, transparent formulae.

Figure 27: Commonwealth Government grants per subsidised EFTSL, 1996 to 2008 (2008 prices - CPI)



Source: Calculated from DEEWR Higher Education Reports and Student Statistics Collection

Total revenue to the sector has grown dramatically in the last 10 years from $10.2 billion in 1996 to $16.8 billion in 2007 (in real terms). The last major reforms of the funding arrangements for the sector were introduced in 2003 and provided an increase in investment in the sector by Government of $11 billion over 10 years. In spite of this injection of funds in the last four years, Commonwealth funding per subsidised student in 2008 was about 10 per cent lower in real terms than it was in 1996 (see Figure 27). This was the result of a combination of direct cuts, constrained indexation and shifting of the balance towards higher student contributions. Recent initiatives will have some effect in raising government funding per subsidised student over the next few years, but partial indexation will see a subsequent decline in real terms in the amount of Government funding for each subsidised student.

4.2.2 The case for funding reform

The changing breadth of the sector

When the Higher Education Contribution Scheme was introduced in 1989 to support the large expansion in university enrolments during the 1990s, there were few private higher education providers, and the publicly-funded universities received the vast majority of their revenue from the Australian Government. Today, there are around 70 private higher education providers receiving various degrees of support, and the public universities on average receive only 55 per cent of their payments from the Commonwealth. Income for higher education from student fees, charges and HELP payments on behalf of students now represents 38 per cent of income for public universities.

There is considerable diversity in the proportion of funding from different sources received by universities. In 2007, one of Australia's public universities received only 34 per cent of its revenue from Australian Government grants and from payments by the Australian Government for HELP, while at the other end of the spectrum another university received 72 per cent of its total income from these sources.

Providers other than the public universities (which are listed in Table A of the *Higher Education Support Act 2003*) have access to a range of Commonwealth sources of funding and the extent of this access is not widely understood either in the sector itself or in the broader community. The benefits received by private and other providers include access to Commonwealth supported places in teaching and nursing and the FEE-HELP loans scheme. In addition, the so-called private universities (those listed in Table B) have access to research training and infrastructure grants. Students' access to income support is based on a different set of criteria again.

While the *Higher Education Support Act 2003* sets out a transparent framework of requirements to be approved as a higher education provider, the allocation of institutions to Tables A and B is by legislative amendment which, while requiring the higher bar of approval by Parliament, is not necessarily based on consideration of the requirements set out in the Act. Distinctions between public and private institutions have been relied upon in the past as a rationale for funding eligibility.

This is the policy environment in which the higher education sector works. It is not a simple system, as Figure 28 shows. This chart summarises the types of higher education providers with access to various types of funding and public subsidies.

Figure 28: Eligibility of higher education providers and their students to types of financing, 2008

Type of Financing	Higher Education Providers					Other accredited higher education institutions (e)
	Table A providers (a)	Table B providers (b)	Table C providers (c)	Other approved higher education providers (d)	Open Universities Australia	
ELIGIBILITY OF PROVIDERS FOR GOVERNMENT FINANCING BY HIGHER EDUCATION PROVIDER TYPE						
COMMONWEALTH GRANT SCHEME						
All grants						
National priority areas only		National priorities only		National priorities only		
OTHER COMMONWEALTH GRANTS UNDER HESA						
Equity, disability						
Productivity						
Learning and teaching performance						
National Institutes	ANU, AMC, Batchelor					
Capital development						
Superannuation						
Research Block Grants						
Research Training Grants						
Diversity and structural reform		Excluding MCD				
Systemic infrastructure						
RESEARCH GRANTS						
ARC Centres of Excellence						
ARC Discovery and Linkage Grants						
ARC Fellowships						
NHMRC grants	Any institution that conducts medical research and meets the requirements to be registered as an NHMRC Administering Institution					
OTHER SUPPORT FOR HIGHER EDUCATION						
Open Learning Initiative						
ELIGIBILITY OF STUDENTS FOR GOVERNMENT FINANCING BY HIGHER EDUCATION PROVIDER TYPE						
STUDENT LOANS						
HECS-HELP		National priorities only		National priorities only		
FEE-HELP						
OS HELP						
COMMONWEALTH SCHOLARSHIPS						
Undergraduate scholarships						
Postgraduate research scholarships						
STUDENT INCOME SUPPORT						
Youth Allowance and Austudy						
Australian Development Scholarships	Excluding Batchelor	Excluding MCD	Until 2010			

Light green = provider is eligible Light blue = provider is not eligible

Note: Includes all eligible providers not just providers currently receiving assistance under a program (a) Public universities and Batchelor Institute of Indigenous Tertiary Education. (b) Bond University, The University of Notre Dame, Australia and Melbourne College of Divinty. (c) Carnegie Mellon University.(d) As at 19 November 2008 there were 73 approved higher education providers. Currently Tabor Adelaide, Tabor Victoria, Christian Heritage College and Avondale College have Commonwealth supported places in National Priority areas. (e) Approximately 70 other accredited higher education institutions.

The light green areas indicate the types of public financing available to the provider and the light blue where such subsidies are not available. Some of the inconsistencies in treatment include:

- tuition subsidies through the Commonwealth Grant Scheme are available only to students in the public institutions or in specified national priority areas in some private institutions but not for equivalent students in other approved providers;
- capital, research and special purpose grants are available to some but not all institutions eligible for tuition subsidies;
- eligibility for income support is broader than eligibility for scholarships and tuition subsidies;
- provider eligibility to offer FEE-HELP loans is much broader than eligibility for tuition subsidies; and
- students in VET programs have little access to income contingent loans in any type of provider, including universities, but:
  - full-fee-paying students undertaking a VET diploma in TAFE are eligible for VET FEE-HELP; but
  - publicly-funded students undertaking a VET diploma in TAFE are not eligible for income contingent loans, although as of next year the Victorian government, with assistance from the Commonwealth Government, will extend VET FEE-HELP to all Diploma areas of TAFE, increasing the differences between the states/territories in TAFE funding arrangements.

These arrangements arise from a series of historical decisions. While the basis of each decision may have been clear at the time, a system has evolved as a result which lacks a clear rationale or purpose. Consequently, the system of financing the higher education sector is complex and confusing.

Reform is urgently required to make the financing system more consistent among the various categories of higher education providers. The higher education financing regime for the future needs to address these inconsistencies and simplify eligibility criteria for access to Commonwealth subsidies.

International comparisons

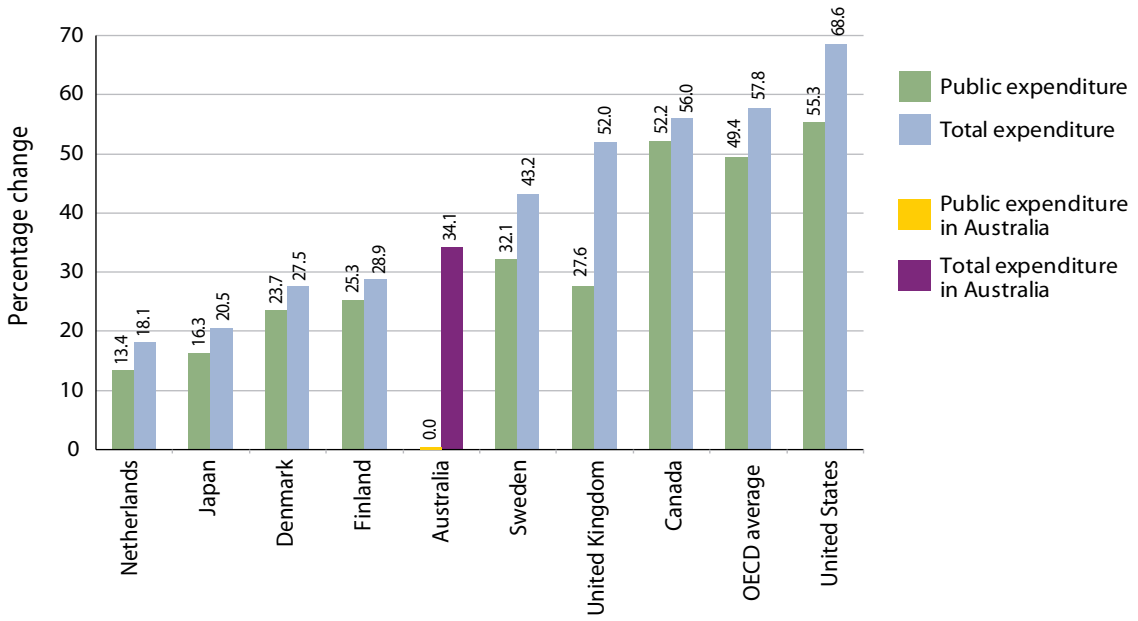
It is not easy to make appropriate international comparisons of expenditures on higher education because of the very significant differences between nations in relation to the structure, focus and history of their higher education sectors. The measure generally used to make comparisons is the percentage of gross domestic product (GDP) devoted to tertiary education.

Australia's total expenditure on tertiary education from all sources is relatively high in international terms at about 1.6 per cent of GDP in 2005 (OECD, 2008b). This was lower than in the United States, Sweden and Korea but higher than the United Kingdom and above the OECD average.

However, other OECD countries have recently increased their expenditure on tertiary education more quickly than Australia did from 1995 to 2005 (OECD, 2008b). Australia ranked 17th out of 25 reporting countries in terms of growth in expenditure on tertiary institutions from 1995 to 2005. Total national expenditure on tertiary institutions in Australia grew more slowly (34 per cent) than GDP (42 per cent) and significantly less than the OECD average (58 per cent).

The increase in expenditure on tertiary education in Australia was mainly due to increased private expenditure, primarily through student contributions and tuition fees. Public expenditure in Australia was at the same level in 2005 as a decade before but the private contribution had increased significantly. It is worth highlighting that in other countries the trend between 1995 and 2005 was to increase the level of both private and public expenditure (OECD 2008b). Where Australia has used increased private expenditure to substitute for the government contribution, other countries used private expenditure as a supplement to continued growth in government support for tertiary education (see Figure 29).

Figure 29: Percentage change in real expenditure on tertiary education institutions, selected OECD countries, 1995 to 2005



Source: Calculated from Education at a Glance 2008: OECD Indicators

The total levels of resourcing in Australian universities vary widely and even the best resourced institution in per capita terms (the Australian National University) falls significantly below the levels of top international universities.

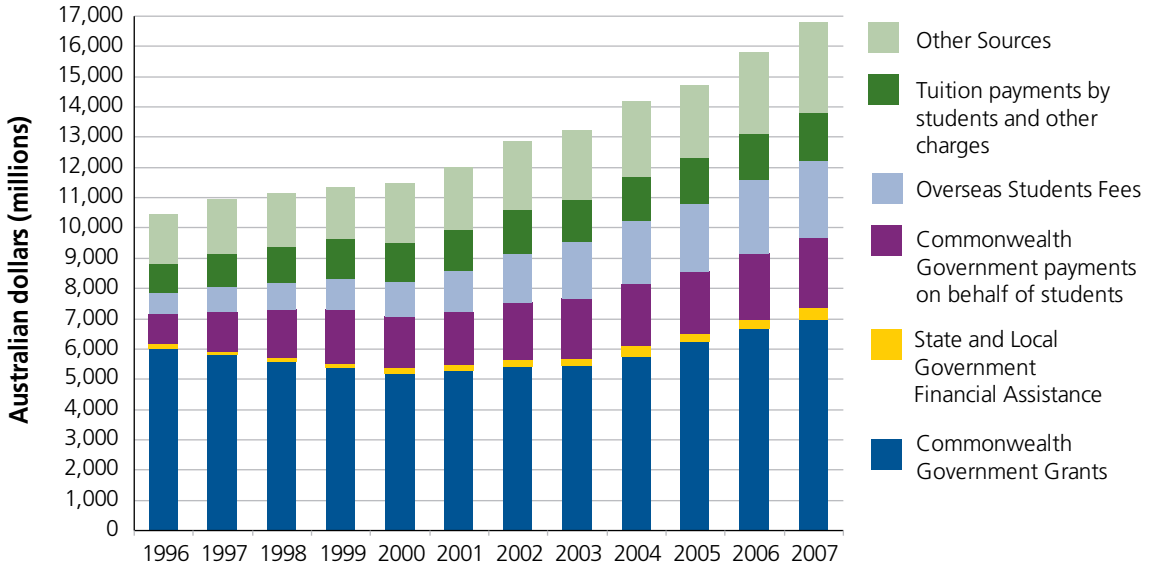
The difficulties in using internationally comparative data are recognised, but even using less than perfect comparators it is evident that other countries have moved earlier than Australia to address performance and investment in higher education.

The mix of public funding and private contributions

Over the last decade private contributions from HECS, fees and charges rose strongly as did aggregate revenue from all sources other than direct Commonwealth funding. In real terms, direct Commonwealth funding fell from 1997 to 2001 before beginning to grow again mainly through the injection of funds associated with *Backing Australia's Ability* in 2001 and then *Backing Australia's Future* from 2004. As a result, private funding and private contributions account for a larger proportion of funding in Australia than in most other developed countries (OECD, 2008b).

As a result of these different rates of growth between revenue sources, there has been a marked change in the composition of funding for the sector as shown in Figure 30. In 2007 universities received 55 per cent of their revenue as payments from the Commonwealth. Forty-two per cent was from Commonwealth grants (down from 58 per cent in 1996) and the rest was as payments on behalf of student loans. The proportion from predominantly student sources rose from 25 per cent to 38 per cent over the same period. International fee revenue rose from 7 per cent to 15 per cent of total income over this time. As discussed in Chapter 3.6, the outlook for this continued rate of growth in international student enrolments is uncertain.

Figure 30: Higher education revenue by source, 1996 to 2007 (2007 constant dollars)



Source: DEEWR (based on Finance Selected Higher Education Statistics, various years)

Opportunities and challenges in the current university funding model

This shift in the sources of funding means that universities are less reliant on government and more able to determine their own futures, but that their incomes are increasingly contingent on their ability to compete for non-government sources of revenue.

These trends allow universities to operate at greater scale with increased operational autonomy, but the financial risks have increased.

Some universities are operating on relatively fine margins. Annual monitoring of financial performance shows that eight of Australia's public universities (20 per cent) recorded operating margins of less than 4 per cent in 2007, with six operating in deficit (15 per cent).

Increased reliance on more competitive forms of funding can also make it more difficult to maintain over time the levels of infrastructure support and assistance necessary to ensure a good student experience.

The panel has concluded that a diversity of funding sources and operational autonomy for universities is desirable, but considers that greater public investment in higher education is now warranted, given developments elsewhere.

Higher education funding must be rebalanced by increasing the level of public funding to secure an adequate and stable base from which additional sources of revenue can be pursued – as an addition to public funding, not a substitute for it.

Investing in social inclusion

During the last 15 years there has been a long term failure to increase the rate of participation of low socio-economic status, Indigenous and regional and remote students. This has happened at a time where some other nations have begun to see results from their social inclusion initiatives.

The total amount provided for current equity programs represents only 1.2 per cent of the government expenditure on teaching in the sector. Students from under-represented groups require significant additional support to undertake their studies successfully. While institutions have supplemented this by cross-subsidising from other activities, and have been creative in developing a range of access initiatives, the quantum of funds provided has been insufficient to make significant headway. Changes to the approach and the financing of equity and access in the sector are therefore urgently needed.

Chapter 3.2 outlined a set of national targets for groups of students that are currently under-represented in the higher education system and found that these should be benchmarked with comparable groups in other developed nations on a regular basis. These targets for 2020 include:

- 20 per cent of higher education enrolments at undergraduate level should be people from low socio-economic backgrounds (compared to 15 per cent now); and
- Indigenous students should access higher education at the same rate as the proportion of the Indigenous population aged 15 to 64 years in the general population in this age group in the 2006 census (2.2 per cent compared to 1.5 per cent now).

Achieving a step change improvement in the entrenched low participation rates for these under-represented groups will require multiple strategies including increased public investment.

Pressures on the quality of teaching

In the public universities financial pressures have been increasing for some years because these institutions have only limited opportunities to improve their general productivity. As the level of funding per student declined, most universities increased student-to-staff ratios as the primary means of remaining financially viable. In aggregate the student-to-staff ratio increased by 57 per cent from 1990 to 2007.

Other evidence that the sector has experienced sustained and cumulative financial pressure over the last decade is that total funding (private and public) per government subsidised place was below 1989 levels in real terms from 1997 to 2004. The amount of Commonwealth funding per subsidised place in real terms remains substantially below 1989 levels having declined from $12,335 in 1989 to $10,802 in 2008 (2008 dollars adjusted by the Consumer Price Index (CPI)). Over the same period staff and non-staff costs of teaching and research have risen sharply.

These cost pressures have been met to date by teaching on average in much larger classes, and by academic staff working long hours, having fewer opportunities for one-to-one contact with individual students, and reducing their involvement in scholarship and research. The data

presented on student satisfaction and engagement in Chapter 3.4 show that this has affected the quality of the student learning experience, which places Australia below the United Kingdom, the United States and Canada in responsiveness to students' learning needs.

While there is no generally accepted ideal student-to-staff ratio, the panel has concluded that the evidence in relation to the decline in student satisfaction over this period strongly suggests that the current ratio is too high, and is now having an impact on the quality of the educational experience provided to students. This points to the need to increase significantly the public funding quantum for teaching to enable universities to reverse this trend.

Funding allocations to support teaching

Financial support for teaching domestic students is a function of the number of students taught (or demand for places in each institution), the amount of the Commonwealth subsidy per student, and the prices that can be charged. The student contributions for Commonwealth supported places in each discipline area are currently capped, while there is no upper limit on the amount charged for domestic or international fee-paying students.

From 2009 the policy on full-fee-paying students in public universities will change, with public universities unable to enrol new undergraduate domestic fee-paying students. This leads to anomalies with private higher education providers who continue to be able to charge full fees, provide access to FEE-HELP for their students and, when allocated Commonwealth supported places, enrol Commonwealth subsidised and fee-paying students in the same course.

In addition to the base grants for teaching (which includes medical student loading and notional components for clinical and practicum training in the disciplines of nursing and education), there are issues about a number of other aspects of supplementary funding:

- loadings for students in regional campuses bear little relationship to actual costs;
- loadings for clinical and practicum training in the disciplines of nursing and education fall short of the actual costs of provision; and
- as discussed in Chapter 3.4, the methodology of the Learning and Teaching Performance Fund has been problematic.

Funding to support research

Chapter 3.5 noted that the Research Infrastructure Block Grant scheme does not provide sufficient funding for the indirect costs associated with competitive grants for research.

Complexity and contestability of the funding system

Many of the components of the current financing framework involve time-consuming processes for allocating small amounts of funds, which are designed to drive and shape institutional behaviour.

It would be more efficient if there were fewer small, specific-purpose programs delivering funding for which universities had to account separately. Nonetheless, institutions should still be required to demonstrate performance and accountability if they receive larger amounts of untied funding.

Indexation

There will be continuing pressure on institutional budgets over the next few years because the current indexation formula, which delivers an increase of only about 2 per cent per year on Government grants and maximum student contribution amounts, is much less than expected salary movements of around 4 per cent per annum.

The current indexation arrangements for higher education grants were introduced in 1996 as part of a Commonwealth-wide change to indexation of most government programs. The Higher Education Indexation Factor uses movements in the Safety Net Adjustment for the notional salary-related component of the index (75 per cent) and the Consumer Price Index for the notional non-salary component (25 per cent). The rationale for the use of the Safety Net Adjustment was to remove productivity-based wage gains from the indexation adjustment. The underlying principles for this were confirmed in the 2005 review of indexation (DEST 2005).

Over time the use of the Safety Net Adjustment has led to adjustments to funding, which are smaller than the real rate of change in average wages (the main operating cost in the higher education sector) and certainly well below the rate of change in academic salaries. The effect of the current indexation arrangements can be seen most starkly in their application to the Commonwealth Grant Scheme cluster funding rates. Unlike the previous operating grant, the cluster rates make clear what funding (government and private) is received for each Commonwealth supported place in a unit of study. The change in cluster rates show that less funding in real terms is provided for the same unit of study year on year. For example, the 2009 cluster rates will be 2.1 per cent above 2008 amounts, which is significantly below changes to the Labour Price Index [Professional] and the Consumer Price Index which are in the order of 4 per cent.

When the Safety Net Adjustment was originally selected as the indexation factor for the salary-related component in the mid 1990s, it was the only available measure of wages growth that did not include some productivity component. However, it is debatable whether it has struck the right balance between the purpose of indexation to maintain adequate government investment in services over time while dealing with the technical issue of not funding wage increases which should be funded through productivity gains negotiated between employers and employees.

4.2.3 A new financing framework

A new financing framework needs to be developed which addresses these imperatives to take Australian higher education forward over the next decade. The framework must address the overall financing of the sector; the funding to support the core activities of teaching and learning and research; and the funding changes needed to advance the social inclusion objectives of the government. The funding of teaching has a number of components which include the public and private contributions and the HELP loans system. The new financing system for the next decade should be based on the principles set out in Recommendation 25.

Recommendation 25

That the higher education financing system be designed around the following principles to:

- provide students with increased opportunities to decide for themselves what and where they will study through an entitlement;
- maintain the existing income contingent loans schemes that overcome up-front barriers to study;
- allocate government funding through an approach that is:
  - driven by student demand and so largely formula-based with fewer separate, small components of funding;
  - fair, transparent and as simple as possible to understand and administer while retaining the integrity of the policy framework;
- reward providers for performance against agreed outcomes by containing a component which is based on achievement of targets; and
- ensure that Australia remains competitive in the provision of higher education compared with other countries by:
  - providing adequate levels of funding for each of the core activities of teaching and research;
  - supporting growth in higher education participation as part of achieving attainment targets; and
  - preserving the real value of the government's public investment in the sector over time.

Increasing the base

From the trends in funding levels for the sector over the last decade and the international comparative data, the panel has concluded there is a need to both adjust the level of base funding[15] for higher education and ensure through indexation that the real value of this public contribution is maintained. For Australia to have a sustainable, internationally competitive higher education system, the combined total of funding from the two principal sources – Commonwealth base funding and student fees – must be sufficient for institutions to recruit and retain high-quality staff in the face of increasing global demand for academic staff and an ageing academic workforce. It must also be sufficient to provide and update facilities, services and materials to ensure quality learning experiences for students.

Given the relatively high proportion of private contribution to expenditure on higher education in Australia compared with other countries, the panel believes that there is no strong case for further general increases in the costs to students. Rather, the emphasis of reform should be on increasing the public funding base and setting it in a framework appropriate for a more diverse and dynamic higher education sector.

Many of the submissions received addressed the need for additional public investment. Universities Australia proposed as a goal that higher education expenditure be at 2 per cent

15 'Base' funding includes all current government grants for teaching and learning. Government funding for teaching and learning is broader than funding under the Commonwealth Grant Scheme. The component programs are listed in *Methodology* at the end of this report.

of GDP by 2015 to provide a single clear objective with respect to Australia's international competitiveness, social objectives and other national needs. The figure suggested by Universities Australia is benchmarked against the European Commission's Lisbon strategy commitment to expenditure of 2 per cent of GDP on higher education. This represents the total expenditure from both public and private sources and is primarily a call for an increased level of private contribution in the European context. In the Australian context, the high proportion of private contribution suggests a similar increase would need to be pursued through increased government funding.

Real reductions in funding to universities have occurred over a prolonged period of time. Increases in funding since 2005 have undoubtedly stabilised the financial situation in the sector but do not match the cumulative funding gap for Commonwealth subsidised places each year from 1997 to 2004 (and also reductions for periods prior to 1996). In order to have an internationally benchmarked higher education system based on high-quality teaching and general excellence in the student experience it will be necessary to redress this historical shortfall for teaching and learning in the same way that the Education Investment Fund (and previously the Higher Education Endowment Fund) tackles persistent under-investment in education infrastructure.

In Chapter 1 the panel supported progressive increases in the level of public funding for higher education to position Australia in the top group of OECD countries in terms of total funding.

The magnitude of any increase must be more than the yearly 2.5 per cent conditional increases in Commonwealth Grant Scheme funding over the last three years, which has substituted for effective indexation in the short term. What is required is an injection of funding into the system that allows universities to improve, not just maintain, their existing funding base. To ensure the improvement in base funding is sufficient to allow class sizes to fall and student engagement to increase, it is recommended there be a 10 per cent increase in total grants for teaching and learning. This would require an additional public investment over four years of close to $1.8 billion.

Recommendation 26

That the Australian Government increase the base funding for teaching and learning in higher education by 10 per cent from 2010.

Improving indexation

If this is the only step taken, partial indexation will again erode the impact of this increased investment over time, leaving universities vulnerable to continued declines in revenue.

The review of indexation (DEST 2005) noted the increased sources of non-government revenues that universities have developed since 1996. In considering the additional revenues that have been derived since 1996, the panel concluded that those sources of revenue cannot be viably increased at historical rates. A slow down in the rate of growth in revenue from both domestic and international students under the current indexation arrangements would have serious consequences for Australian universities.

The panel has concluded that the salary-related component of the Higher Education Indexation Factor should be replaced by the Labour Price Index (Professional). In addition, the Labour Price Index (Professional) should be discounted by 10 per cent to require higher education institutions to pursue ongoing productivity gains. The Consumer Price Index should continue to be used for the non-salary component of the Higher Education Index Factor.

The use of the historically higher Labour Price Index raises moral hazards in that salary increases could be negotiated knowing that the indexation arrangements would fund them. These hazards are mitigated by the use of the 'professional' component of the Labour Price Index and by the 10 per cent discount for the productivity component. They are also mitigated by the smaller share than previously that government revenue represents in university income streams. This will be accentuated in a demand-driven system. In this environment, it is unrealistic to think that salary negotiations at universities will proceed by considering movements in only half of their revenue streams.

Implementing the revised index as stated would result in an increased government expenditure in the first year of $70 million and a total cost over four years of $1.1 billion based on increased indexation of amounts in the *Higher Education Support Act 2003* including the increased base funding and other recommended funding measures. The revised index would also replace the Higher Education Indexation Factor in adjusting maximum student contribution amounts.

Recommendation 27

That the Australian Government maintain the future value of increased base funding for higher education by an indexation formula that is based on 90 per cent of the Labour Price Index (Professional) plus the Consumer Price Index with weightings of 75 per cent and 25 per cent respectively.

While appropriate indexation will help to maintain the value of the public funding base, there is also a need to ensure that the base remains comparable with that in similar nations and is adjusted from time to time to reflect significant changes affecting the cost of providing a high quality higher education system. Accordingly, an independent review should occur every three years of the level of funding for learning and teaching.

Recommendation 28

That the Australian Government commission an independent triennial review of the base funding levels for learning and teaching in higher education to ensure that funding levels remain internationally competitive and appropriate for the sector.

A demand-driven, student-entitlement system

As indicated above, universities are currently resourced through funding agreements which effectively cap the number of places for which public funding will be provided. This approach focuses on inputs by using student load rather than graduate output as the

main basis of planning and funding for teaching and general operating purposes. The level of micro-management by government has been reduced in the last three years and from 2008 universities are, in practical terms, free to enrol as many students as they wish (as very few have reached the limit of funded over-enrolments) and to vary the discipline mix of the profile as long as the changes to plan are not significant.

Many contributors to the review favoured a system of planning and funding that is more responsive to student demand and argued for an entitlement or voucher system to be introduced. They contended that the market should be allowed to operate without substantial intervention and that public funding should follow the student to their institution of choice, as it does substantially in the schools sector and increasingly in the vocational education and training sector. Some contributors also argued that there should be no caps on student fees, even for students in Commonwealth subsidised places.

The panel has concluded that a demand-driven, student-entitlement model of funding higher education teaching is necessary if Australia is to achieve better attainment of higher education qualifications. This would give students stronger incentives to participate and provide institutions with the flexibility to decide the courses they will offer and the number of students they will admit. In such a system, choice, underpinned by good information and stronger quality assurance, will drive both a higher quality student experience and institutional diversity.

The major concerns about a totally market and student demand-driven system for funding are: the capacity of the government to fund the sector if student demand were rapidly to increase; the potential for sudden changes for some institutions and campuses if other universities were to significantly increase the numbers of students taken; the quality of entrants admitted in some institutions if funding were to be demand-driven; and the risk of mismatch between student choice of fields of study and the requirements of the workforce.

Each of these issues is discussed below.

Long-term growth in the system

It is likely that a demand-driven system would see an increase in the number of students undertaking higher education and hence an increase in Commonwealth outlays. For the reasons set out earlier in this report, the panel views an increase in higher education participation as a desirable outcome.

The panel has recommended a 40 per cent attainment target for 25- to 34-year-olds by 2020. As discussed, this target will position Australia among other high performing OECD counties. Also, the Access Economics report has identified a cumulative shortfall of 370,000 graduates by 2018 and suggests a failure to meet this demand may undermine Australia's future productivity. If the number of graduates is to be increased, there will have to be a substantial increase in the number of higher education places funded by the Commonwealth.

Some of the demand for qualified graduates will continue to be met through migration to Australia by overseas graduates or overseas students who settle in Australia. While there are difficulties in using migration to meet skills shortages (Birrell et al. 2008), it is still likely that migration will reduce the number of places the Commonwealth must fund to meet labour market needs.

Previous experiences suggest that the current economic downturn will result in increased demand for higher education and greater outlays by the Commonwealth. The spike in rates of unmet demand during the 1990 downturn indicates that the caps on places that existed at the time stopped greater growth in participation and attainment than would have otherwise been the case in a demand-driven system. Caps on places control the call on Commonwealth funds, but in a tightly planned system the government faces the likelihood that action to increase places will lag behind peaks in demand. In an environment where the challenge is now to increase participation substantially, a demand-driven system is best able to use the cyclical changes to deliver improvements in the level of education of the Australian population.

The panel concluded that a demand-driven system should also apply at the postgraduate coursework level. It is quite possible however, that in general terms, the private benefit of study is greater at the postgraduate than at the undergraduate level and, if so, the system at postgraduate level would have to be implemented in a way that reflects that balance. From the available information the panel was unable to reach a conclusion about the balance of public and private benefits and hence the appropriate contribution that postgraduate students should make to their study. Further work must be undertaken before extension of the demand-driven entitlement model to coursework postgraduates.

Impact on some institutions and campuses

It is true that no one can be certain how the sector would respond to a fully demand-driven, market-based system. In particular, the panel is cautious about the removal of caps on student fees, as discussed below. However, the panel supports the removal of the 'volume caps' on the number of Commonwealth supported students that institutions can enrol.

In this respect it is instructive to note that, following a policy change that took effect this year, institutions are effectively able in 2008 to enrol as many Commonwealth supported students as they wish. They will be fully funded up to 5 per cent over the target funding allocation set in their funding agreement and may retain any student contributions paid by students enrolled above this level. Hence the funding system that exists from 2008 is already substantially demand-driven for each institution.

These changes have not led to large increases in enrolment levels. In 2007 only three of the 37 public universities exceeded the 5 per cent limit for full funding and, despite the policy change, this is not expected to increase in 2008. This reflects the generally low level of unmet demand for higher education places across the sector. It also reflects the desire of many institutions to maintain entry standards. Some universities have also made it clear that they do not wish to pursue major growth in their undergraduate cohorts, placing greater priority at the higher degree level.

Nonetheless, a demand-driven system could see a shift of students and funding toward those institutions that wish to grow and that can attract increased numbers of students. This is precisely what is intended: to allow funding to shift between institutions in response to student demand and to create a system in which each institution's funding is determined dynamically by the quality of its performance rather than by an historically-based system of centrally-planned student load allocations.

Risks to quality of intake

The panel considered an option in which funding would only be demand-driven in respect of students entering higher education on the basis of tertiary entrance ranks (or equivalent assessment scores) above a specified level. While this approach has some attraction, it falls well short of a fully demand-driven system given that around half of all higher education students currently enter on a basis other than a recent tertiary entrance score. The panel's preferred approach is to allow higher education providers to set their own entry criteria within a rigorous system of accreditation and quality assurance as described in Chapter 4.1.

Given that it may take some time for the new regulatory and quality assurance arrangements to be set in place, eligibility for the entitlement system should be restricted initially to public universities (Table A providers under the *Higher Education Support Act 2003*). Extension to other providers should follow development and implementation of new regulatory arrangements. In the meantime, governments would be able to purchase additional student places from other higher education providers on a fee-for-service basis.

Potential mismatch between student choice and workforce needs

The current system provides very little labour market information to help reduce the risk of mismatch between student choice of fields of study and the requirements of the workforce. An effective demand-driven funding system requires that all students are able to make informed choices about what, where and when to study.

Characteristics of a demand-driven entitlement model for higher education

All domestic students accepted into an eligible, accredited higher education course at a recognised higher education provider would be entitled to a Commonwealth subsidised place.

Initially only public universities (Table A providers under the *Higher Education Support Act 2003*) would be recognised for this purpose, but this would be extended to other approved providers when new regulatory arrangements are in place.

There would be no time or dollar limit on the value of the entitlement. The current student learning entitlement would be abolished.

There would be no nationally specified criteria for selection of students and eligible providers would set their own entry standards and determine which students to enrol.

Recognised higher education providers would be able to enrol as many entitlement holders as they wish and receive corresponding Commonwealth funding (ie the volume caps would be removed for each institution).

Providers would be free to change the mix of student load by discipline cluster.

Postgraduate coursework level courses would be included in the entitlement system subject to further work on the balance of public and private benefits at that level of study.

The Commonwealth could exclude a course of study from the demand-driven system if it wished to regulate student or graduate numbers.

There are also other, more effective mechanisms available to help align student choice with labour market needs than the blunt instrument of student load planning. These could include the targeted purchase of student places on a fee-for-service basis by the Commonwealth, a state government or any other employer or agency to ensure that a course is available in a specific location or to meet a priority workforce need. Incentives for students to enter and remain in occupations in demand could also be used. In certain limited circumstances, there may be a case to exclude certain courses of study from the demand-driven arrangements. For example, courses currently paid for by an employer would not be eligible to become Commonwealth subsidised under the new arrangements.

The panel concludes that it is now time to introduce a demand-driven, student-entitlement system to meet the needs of students and the community. The characteristics of the proposed model are set out in the box above. The panel expects that a fully demand-driven system and pursuit of higher levels of attainment would increase student load in the higher education system gradually in the early years of implementation and would not exceed current over enrolment levels until 2011. The cost of funding additional places at undergraduate and postgraduate levels above the current over-enrolment levels would add $1.1 billion to outlays over four years.

Recommendation 29

That the Australian Government introduce a demand-driven entitlement system for domestic higher education students, in which recognised providers are free to enrol as many eligible students as they wish in eligible higher education courses and receive corresponding government subsidies for those students. The arrangements would:

- apply initially to undergraduate courses but then be extended to postgraduate coursework level courses subject to further work on the balance of public and private benefits at that level of study;
- apply initially only to public universities (Table A providers under the *Higher Education Support Act 2003*), but would be extended to other approved providers when new regulatory arrangements are in place;
- set no time or dollar limit on the value of the entitlement;
- allow eligible providers to set their own entry standards, and determine which and how many students to enrol;
- allow providers to change the mix of student load by discipline cluster in response to demand; and
- allow the government to exclude a course of study from the demand-driven system if it wished to regulate student or graduate numbers.

Supporting social inclusion

Key issues that need to be addressed are:

- the quantum of funding provided;
- institutional eligibility;
- access issues and how best to link into schools and vocational education and training (VET) institutions to achieve better outcomes; and
- the approach to allocation of any quantum of funds provided.

The quantum of funds currently provided for these purposes is extremely small compared with the size of the challenge. The static rate of access for under-represented groups suggests that the current approach of simply increasing the number of higher education places available will not overcome the barriers. A significant quantum of additional funding to address the higher cost of attracting and graduating students from low socio-economic backgrounds is required.

To achieve better results, it is proposed that 4 per cent of the total grant for teaching and learning should be applied to increasing access and success for students from low socio-economic status backgrounds, Indigenous students and students with disabilities.

The panel envisages that opportunities for Indigenous people will increase as a result of several initiatives proposed in this report. These include:

- setting access and other targets as discussed in Chapter 3.2;
- an outreach program set out below, which will play an important role in encouraging universities to make relevant community links and foster Indigenous aspirations to further study; and
- the proposed performance-based funding set out in the following section (which includes Indigenous progress rates as an indicator) with institution-specific stretch targets to be negotiated will also help to drive increased Indigenous participation.

In the light of this and a package of changes in 2005, the panel has not recommended any changes to the Indigenous Support Program at this time. However, the panel considers that this program and other initiatives should be kept under regular review by government in consultation with Indigenous representatives to ensure that they are effective in improving higher education access and outcomes for Indigenous people.

Recommendation 30

That the Australian Government regularly review the effectiveness of measures to improve higher education access and outcomes for Indigenous people in consultation with the Indigenous Higher Education Advisory Council.

The current disability support funding initiatives, including the highly-targeted additional support for students with disabilities, have been successful and should be continued in their current form. Funding should be increased to $20 million per year in recognition of the increasing costs of disability support.

Funds for the Indigenous and disability programs above would be a first call on the 4 per cent of the grant applied to increasing access and success. This would mean that, in 2010, some $165 million would then be available to replace the current Equity Support Program with a single widening-access initiative with two components:

- an outreach program linking universities with schools, vocational education and training providers and community groups to increase levels of higher education attainment among low socio-economic status, Indigenous, regional and remote students. Projects would be evaluated and the results disseminated nationally as part of the terms of receiving funds; and
- a student-related component accounting for the bulk of the funding. This would be paid as a loading based on the numbers of low socio-economic status students achieved in the enrolment profile of each institution.

Recommendation 31

That the Australian Government increase the funding for the access and participation of under-represented groups of students to a level equivalent to 4 per cent of the total grants for teaching. This would be allocated through a new program for outreach activities and a loading paid to institutions enrolling students from low socio-economic backgrounds. Funding for the Disability Support Program would be increased to $20 million per year.

Performance-based funding

The panel favours allocation of some funds on the basis of performance. The funds allocated for research are generally performance-based and there is a case for some funds being allocated through a similar arrangement on the teaching side.

The approach proposed is that an amount of 2.5 per cent of the total funding for teaching and learning to each higher education provider be quarantined and paid as a bonus when satisfactory performance on an agreed set of performance measures is achieved. This is quite a different approach from the Learning and Teaching Performance Fund (see discussion in Chapter 3.4), although some of the indicators used for that fund would apply. Possible indicators are set out in the following box.

Possible indicators for performance funding

An appropriate but limited set of indicators would include:

- Participation rates of low socio-economic status, Indigenous, regional and remote students;
- Completion rates for the institution as a whole and for low socio-economic status, Indigenous and regional and remote students;
- Progress rates for the institution and for low socio-economic status, Indigenous and regional and remote students;
- Overall level of satisfaction on the Course Experience Questionnaire (CEQ);
- Level of satisfaction on the CEQ good teaching scale;
- Engagement score on the Australasian Survey of Student Engagement (AUSSE) scale of staff student interactions;
- Engagement score on the AUSSE scale of enriching education experiences;
- Improvement in the student-to-staff ratio for the institution; and
- Direct measures of learning outcomes to be developed.

Stretch targets for each of these indicators would need to be developed for each institution. This could be negotiated annually between the Commonwealth and the institution taking into account the particular characteristics and past performance of the institution. The quarantined 2.5 per cent of funds would be released on demonstration of actual achievement of the agreed targets. An expert panel could assist the department to advise on any technical measurement

issues and increase transparency of this process. Implementation arrangements would need to be developed reflecting the lag in the availability of data on student characteristics and experience.

Recommendation 32

That the Australian Government quarantine 2.5 per cent of the total government funding for teaching and learning for each provider to be allocated on the basis of achievement against a set of institutional performance targets which would be negotiated annually.

Balancing public and private contributions by discipline

Part of the increase of 10 per cent in funds for teaching should lead to an increase to the Commonwealth Grant Scheme funding clusters. However, this does not necessarily imply that there should be a uniform percentage increase across all funding clusters.

The amount of funding received by a higher education provider for any student is the sum of the Commonwealth contribution and the student contribution. Currently, both the Commonwealth contribution rates and the maximum student contribution amounts differ markedly between fields of study. The combined totals for each field of study still largely reflect decisions taken in the early 1980s about the relative costs of teaching in different disciplines. Despite a review undertaken by the former Department of Education, Science and Training in 2007 which led to some changes in the relativities, it is clear that there is much dissatisfaction with the current rates. Over 30 submissions were received relating to the need for changes in the discipline funding cluster rates.

The current range of Commonwealth subsidies across fields of study appears to bear little relationship to the actual cost of teaching or to any notional public benefits. Similarly, the range of maximum student contributions has no strong policy or empirical basis. The funding share paid by the student ranges from 27 per cent for nursing to 84 per cent for law, accounting, administration, economics and commerce. The panel is concerned about the extent of variation in the proportions of the cost contributed by the Commonwealth and the student in different disciplines and the lack of any clear and consistent basis for this variation. These differences are not clearly justified and may be having unintended consequences. For example, a submission by stakeholders in the Australian accounting industry suggested that the current funding for the accounting, administration, economics and commerce discipline cluster levels have, in part, driven universities to pursue a high level of enrolments from domestic and international full-fee paying students in these disciplines at the expense of Commonwealth supported students.

A range of options was considered for changing the Commonwealth and student contributions to produce a simpler and more consistent approach. For example, the panel examined options to set the Commonwealth contribution at a common proportion, say 65 per cent, of the funding for a student place in all disciplines, with the balance of 35 per cent to be contributed by the student. However, there is inadequate data on which to base judgments about the 'right' level of funding in total for the costs of teaching in any discipline, and no easy basis on which to determine the 'right' mix of public and private contributions. Any major changes from the current arrangements which increase the proportion of funding contributed by

the Commonwealth and reduce the student contribution could result in substantial costs to the taxpayer with only part of that flowing to the higher education institutions as additional resources.

Encouraging activity-based costing

There were some representations about striking a higher teaching funding rate for postgraduate coursework load. The panel considered these but reached the view that there is insufficient evidence to justify a general, higher rate of funding for this level of study, particularly given recent moves to restructure provision in some institutions with a shift of introductory professional training from the undergraduate to the postgraduate level.

These are complex issues which should be kept under review in the context of the proposed independent triennial reviews of funding for teaching to be commissioned by the Australian Government. In particular, institutions should be encouraged to develop better data on costs of delivery within a robust activity-based costing system before this issue is progressed.

At present funding for the creative arts has serious anomalies, with some institutions resourced through general higher education funding disadvantaged in comparison with institutions resourced through other arrangements. The panel considers that this issue should be considered as part of setting new funding rates by discipline.

Recommendation 33

That the Australian Government commission work on options for achieving a more rational and consistent sharing of costs between students and across discipline clusters in the context of triennial reviews of base funding for learning and teaching.

The private contribution

Price caps for Commonwealth subsidised students

Private contributions to higher education are primarily the student contribution payment in the case of Commonwealth supported places and tuition fees for domestic and international fee-paying students. There are price caps applied in the former case with the maximum student contribution amounts in 2005 set at 25 per cent above the 2004 HECS charges (except for nursing and teaching which were frozen at the 2004 HECS levels). These caps are indexed annually.

Several submissions argued strongly for the abolition of the fee caps for Commonwealth supported places. If this were accepted, the system would become one where fees of any size could be charged for undergraduate students. While removal of price caps would be consistent with the broad approach to reforming the financing framework set out in this chapter, the panel believes that there are reasons to be cautious about such a proposal at least in the near term.

The case for removal of price caps is essentially based on the view that freedom to set prices will deliver efficiency through the operation of competitive forces, and will help ensure that Australian higher education maintains and improves quality. At least implicitly, proponents of full price discretion assume that market forces within the higher education sector would prevent prices rising to excessive levels. This view needs to be tested.

There are several reasons to believe that prices overall would rise, perhaps quite significantly, if the current price caps were to be removed. One reason is that the more established institutions have considerable market power, associated with locational advantages, reputational status, and the existence of quasi-monopolies in certain courses of study. These factors, plus the status of a degree from such an institution as a positional good, mean that there is a high likelihood that prices at these types of institutions would rise very sharply resulting in the delivery of considerable economic rents for more established institutions. Whether or not sufficient competitive pressures would eventually emerge to constrain such price increases is a matter for conjecture.

A second set of reasons relates to the availability of income contingent loans to cover tuition fees. With HELP loans the price signal to the student is very different from, and effectively much lower than, the up-front level of the fee. Students are much less likely to seek out alternative, lower-priced courses when they are able to defer the fee and repay it on an income contingent basis. While these are complex and unresolved matters for economic theory (Chapman 2006), there is a clear prediction: the prices set by the institutions will be higher where income contingent loans are available than they would otherwise be, and the effect of market forces on pricing behaviour is likely to be more muted.

There is some empirical experience which supports this prediction. In Australia, there are two points of reference: the lack of change in student demand in 1997 when HECS rates for some disciplines more than doubled, suggesting that there was scope for even greater increases without behavioural consequences; and the fact that almost all institutions moved immediately to set their student contributions at the maximum level when given the freedom to do so in 2005.

In New Zealand, where a HECS-type scheme was instituted in 1992, the universities were allowed to set their own prices, but after experiencing ongoing real rises in fees the government in 2003 instituted so-called fee maxima (price caps), which were justified with reference to both affordability and future price certainty. In the United Kingdom, when the original price cap was lifted very significantly to £3,000 per full-time student year, all institutions chose the highest possible level.

If prices do increase considerably, at least initially, there will be some level of HELP debt above which it is not possible under current repayment arrangements to collect the debt – people will simply run out of time while earning. Recent re-estimations by Chapman and Lounkaew (2008) suggest that, at around total individual debt levels of $120,000, significant amounts of unpaid loans become more common despite a person earning above the repayment threshold.

The above arguments are not enough on their own to make the case that tuition fees should remain capped forever. In the future, there could eventually be competitive advantages from full price discretion and so further deregulation or total removal of the price caps should be considered subject to the effective implementation of the other aspects of the new financing framework and the development of a more competitive and dynamic Australian higher education sector. However, given that Australian undergraduates are currently paying among the highest levels of tuition fees in the world, the panel does not recommend immediate removal of the price caps on fees for students in Commonwealth funded places.

Fee-charging arrangements

While price caps remain in force there are some significant anomalies and inconsistencies in the fee-charging arrangements across the sector, which need to be addressed. The fee-charging arrangements for students commencing in 2009 are summarised in Table 13. The complexity and inconsistency of the arrangements is apparent. For example, Table A providers may not charge full fees to commencing domestic undergraduate students (with limited exceptions) while other higher education providers may charge full fees to domestic undergraduates so long as they are not in Commonwealth supported places. While Table A providers are precluded from charging full fees to domestic undergraduates, no such restriction applies to domestic postgraduates, even in very similar courses or units of study.

Table 13: Capacity to charge fees for new higher education students from 2009

	Type of student					
Type of provider	Domestic undergraduate or postgraduate in C'wealth subsidised place	Domestic undergraduate not in C'wealth subsidised place	Domestic postgraduate (coursework) not in C'wealth subsidised place	Domestic postgraduate (research) in Research Training Scheme place	Domestic postgraduate (research) not in Research Training Scheme place	Overseas student
Table A provider	Student contribution capped	Not allowed (limited exceptions)	Yes, no cap	Exempt	Yes, no cap	Yes, no cap
Table B provider	Student contribution capped	Yes, no cap	Yes, no cap	Exempt	Yes, no cap	Yes, no cap
Table C provider	Not applicable	Yes, no cap	Yes, no cap	Not applicable	Yes, no cap	Yes, no cap
Other higher education provider	If applicable, student contribution capped	Yes, no cap	Yes, no cap	Not applicable	Yes, no cap	Yes, no cap

The panel considers that these arrangements should be rationalised so that price capping operates in a consistent way across all providers and levels of study. This is particularly important if a demand-driven entitlement system is introduced as proposed. In essence, a new approach would involve the following:

- the student contribution amount would continue to be capped for all students in higher education courses for which Commonwealth subsidies are provided, regardless of institution;
- for undergraduate courses all providers could offer full-fee courses, with no price caps, where no Commonwealth subsidies apply to that particular course of study; and
- for postgraduate coursework all providers could offer both fee-paying and Commonwealth subsidised places within a course.

This approach would introduce a consistent basis for fee-charging across all higher education providers. It would mean that the public universities, and private providers, could offer undergraduate courses on a full-fee basis provided that no Commonwealth tuition subsidies are offered to students admitted to those courses. The panel believes that this represents an acceptable strategy for simplifying the multiple fee-charging arrangements currently operating

and preserving the principle that students accepted into undergraduate courses should all have met the minimum standards for entry.

At the postgraduate coursework level there is already a consistent set of fee-charging arrangements across all types of higher education providers so the panel does not see any need for change.

It would be appropriate for the national regulatory body to monitor the operation of these arrangements to ensure that there are no unintended consequences. This approach is described in more detail in the following text box.

The proposed future system for pricing and charging in higher education

Undergraduates

- Maximum student contribution amounts would continue to be set for domestic students in undergraduate higher education courses where public subsidies apply. This includes both public and private higher education providers.
- All higher education providers, including the public universities, would be able to offer undergraduate courses on a full-fee basis in cases where no public subsidy is received for students in that particular course of study (FEE-HELP loans would apply if eligible).
- If a higher education provider wishes to receive Commonwealth subsidies for any undergraduate students in a course of study, it must designate that course as a Commonwealth subsidised course. Students admitted to such courses would have an entitlement to a Commonwealth tuition subsidy. The maximum student contribution amounts must apply to all students admitted to a Commonwealth subsidised course.
- Conversely a higher education provider may designate an undergraduate course of study as non-Commonwealth subsidised. Students admitted to these courses would not be eligible for a Commonwealth tuition subsidy. The provider would set the fee in these cases and there would be no capping on the amount that could be charged.

Coursework postgraduates

- Current arrangements would continue to apply so that providers could offer both fee-paying and Commonwealth subsidised places within a course for which Commonwealth subsidised places are permitted. Where a student is in a publicly-subsidised place, the maximum student contribution amount would apply.

Recommendation 34

That the Australian Government implement an approach to tuition fees in which maximum student contribution amounts (price caps) apply for any domestic undergraduate or coursework postgraduate students for whom the provider receives a public subsidy for their course.

Recommendation 35

That the Australian Government implement an approach to tuition fees for domestic undergraduate students in which all providers are able to offer courses on a full-fee basis where public subsidies are not received for any students in that particular course.

Student contributions in nursing and education

As noted above, the panel does not believe that there is any strong case for further general increases in the costs to students. However, a number of comments made at the consultations and in submissions pointed to significant difficulties with the current funding arrangements for the disciplines of nursing and education.

The price caps on student contributions were not raised for nursing and education at the time that the caps for all other fields were lifted by 25 per cent. Unlike the subsequent changes to maximum student contribution amounts for accounting and related disciplines and then maths and science, changes in government funding did not compensate fully for not allowing the increase for these fields. These two factors combine to limit the funding received per student by institutions providing courses in these disciplines.

There is no evidence that the lower price cap has had any positive impact on student demand for the disciplines. Indeed, the combination of the above factors has had the opposite effect to that intended by the government when the national priority areas of teaching and nursing were defined: a number of universities are finding it necessary to scale down activity or are considering ceasing to offer the courses in these two areas because of the large inter-institutional cross-subsidies required to conduct these courses.

The government's election commitments for maths and science will mean a lower maximum student contribution amount will continue to apply for those disciplines. This change has only recently been introduced and the panel believes that sufficient time should be given before judging its effectiveness.

To encourage students to enrol in these disciplines and work in the teaching and nursing professions and to encourage institutions to provide courses in these areas of study, the government could adopt the same sort of approach as that now applying for maths and science graduates who enter relevant occupations, i.e. the students should have their HELP debt reduced each year they work in the relevant field for up to the equivalent of five years.

In a related area the panel is satisfied that there is sufficient evidence to make a further immediate adjustment to funding levels and relativities. The levels of Commonwealth funding provided for clinical nursing and teaching practicum placements fall short of the actual costs of provision in these areas. As part of the distribution of any increase in Commonwealth Grant Scheme funding clusters, priority should be given to increasing the funding for nursing clinical placements and teaching practicums. The cost of funding a HELP remission for teaching and nursing graduates and raising the maximum student contribution amount for units of study in these areas would add $180 million to outlays over four years.

Recommendation 36

That the Australian Government:

- increase the maximum student contribution amount for nursing and education units of study for students commencing from 2010 to the band 1 rate; and
- encourage people to enrol and work in nursing and teaching by reducing HELP debts for graduates who work in those professions by $1,500 per annum for each of five years, at the same time as their HELP repayment requirements are forgiven to an equivalent amount.

Reforming income contingent loans

The income contingent loans schemes provided under the Higher Education Loan Program generally work well and no major changes are proposed to the basic structure of the loan schemes. This view is also supported by the Nielsen survey undertaken in 2008 on the community's perception of these loans (The Australian National University 2008).

The panel did, however, consider issues concerning the benefits and subsidies provided through HELP loans. The HECS-HELP discount provided to Commonwealth supported students who pay up-front is one benefit provided through HELP (an amount equivalent to the discount is paid to the provider) but there are also subsidies to people associated with there being no real rate of interest on debts and the income contingent repayment conditions (which means some loans are unlikely to ever be repaid).

The conditions of taking a HELP loan vary between different types of loans and students. There is a 20 per cent loan fee for OS-HELP loans and FEE-HELP loans for fee-paying undergraduate students (the loan fee is added to the debt but no additional payment is made to the provider). There is no loan fee or discount for postgraduate students, Open Universities Australia students or students in bridging or enabling courses. The different arrangements create different levels of potential subsidy or benefit. In effect, the loan fee reduces the subsidy obtained by the student as it offsets the subsidies inherent in the loan repayment arrangements described above.

While the panel was concerned that the variation in subsidies and benefits provided through HELP was *ad hoc*, it was not convinced that subsidies should be standardised across the different components of HELP. The panel accepts that there can be a legitimate rationale for varying levels of subsidies through HELP. However, it encourages the government periodically to review the distribution of these subsidies to ensure that they continue to meet ongoing requirements of the Australian higher education system and are not simply historical artefacts. In respect of coursework postgraduates, the panel concluded that the review of the balance of public and private benefit in extending the demand-driven entitlement to coursework postgraduates (Recommendation 29) should also consider the appropriate level of public subsidies available to fee-paying coursework postgraduates through FEE-HELP arrangements.

The panel has concluded, however, that there are some adjustments that should be made to HELP to better give effect to current policies about the level of subsidies to students.

The tuition fees that can be set for fee-paying undergraduate students are uncapped and so can be substantially higher than for Commonwealth supported students or postgraduate students who have lower course costs due to, respectively, price caps and shorter course length. Modelling by Chapman has shown that for relatively low levels of HELP debt (for example, about $25,000) there is virtually no implicit subsidy of the debt incurred by the average student (0.7 per cent). However, when the level of debt rises significantly (for example, above $96,000) the average male and female subsidies rise to 19 per cent and 30 per cent respectively.

The loan fee is intended to recover some of the costs to the Commonwealth associated with the repayment subsidies. The question is whether the level of the loan fee at 20 per cent is sufficient to achieve this when tuition fees are uncapped. In light of the potential for high levels of debt for fee-paying students, the panel has concluded that the undergraduate loan fee may not adequately cover the subsidies provided through the HELP repayment arrangements and should be increased to 25 per cent.

As discussed in Chapter 3.6, Australian students need more and better opportunities to go abroad on study programs as part of their studies. Feedback received on the OS-HELP program is that its current eligibility requirements and the 20 per cent loan fee limit its effectiveness. To improve Australia's relatively low rate of outward student movement and to recognise the benefit to Australia of students undertaking study overseas, the loan fee should be removed from OS-HELP loans.

A final issue examined by the panel is the non-repayment of loans while students are living overseas. Even if students return to Australia and eventually repay all of their outstanding HELP debt, Australian taxpayers implicitly still bear the cost of the real rate of interest subsidy on the unpaid debt while the former student is overseas. There are two options to correct this situation:

i. A requirement for compulsory HELP repayments for debtors who reside overseas, modelled on the New Zealand system. The system requires a minimum repayment amount and applies penalties for non-payment; or
ii. Including HELP repayments in the mutual taxation arrangements with those countries in which these arrangements currently exist. An example is the arrangements that exist with a number of countries to collect child support payments.

It was not possible for the panel to conclude which of these is feasible and preferable (although the New Zealand model could lead to a situation where unpaid compulsory repayments and penalties become a disincentive to people to return home) so it considers that, while this issue must be addressed, further work should be undertaken on the two options to decide which is more feasible.

The changes to the loan fee arrangements would result in a savings of $35 million over four years.

Recommendation 37

That the Australian Government:

- increase the loan fee for FEE-HELP for fee-paying undergraduate students to 25 per cent; and
- remove the loan fee on OS-HELP loans to encourage more Australian students to undertake part of their studies overseas.

Supporting research

Chapter 3.5 recommended that the Commonwealth increase the total funding allocation for the Research Infrastructure Block Grants program by around $300 million a year to raise the proportion of competitive grants matched from about 20 cents to 50 cents in the dollar.

The two other recommendations in Chapter 3.5 relate to increasing the stock of high quality academic staff in higher education by attracting more students into research higher degrees and ultimately a research career. This would involve increasing the number of places funded through the Research Training Scheme as well as increasing the length and value of Australian Postgraduate Awards in order to provide greater incentives for high-achieving graduates to consider a research career.

Supporting knowledge transfer and engagement

The panel received a number of submissions suggesting that a separate stream of funding is needed to support institutional activities in relation to knowledge transfer and community engagement.

Engaged teaching and research should be the norm in universities. However, institutional resources to support engagement have been placed under pressure as a result of the reductions in the real level of public funding per student for teaching and related purposes, and the failure to provide full funding for the costs of Commonwealth sponsored research.

The panel concluded that, given the integral nature of this engagement, a separate stream of funding is not desirable. Hence, provided that the Commonwealth contribution for teaching and research block grants is increased as proposed above and that appropriate indexation is applied, there should not be separate 'third stream' funding for knowledge transfer or engagement.

Supporting delivery of higher education in regional areas

A regional loading is currently provided to selected universities with campuses in regional locations. A regional campus is defined as one located outside a mainland capital city other than Darwin and in a population centre with fewer than 250,000 people (with the exception of Wollongong). Having satisfied the initial definition of being 'regional', a campus is recognised within one of five bands, established according to two criteria: distance from the closest mainland state capital; and size of institution (see Table 14). The loading was applied in initial funding rounds according to the equivalent full time student load (EFTSL) provided at regional campuses (loadings were frozen from 2007). The loading provides funding of about $30.5 million per year.

The panel has not been able to discern any logical basis for the current allocation of regional loading and it seems unrelated to any actual cost factors associated with participation of regional and remote students.

Table 14: Regional loading bands

BAND (a)	Loading criteria	Regional loading
1	Northern Territory	30%
2	Distant and small	7.5%
3	Proximate and small or distant and large	5%
4	Proximate and large	2.5%
5	Wollongong	1.5%

Note: (a) Band 1: Campus located in the Northern Territory; Band 2: Campus is more than 300 km from nearest mainland capital city and provider has fewer than 10,000 EFTSL; Band 3: Campus is more than 300 km from nearest mainland capital city and provider has more than 10,000 Commonwealth supported EFTSL or Campus is less than 300 km from nearest mainland capital city and provider has fewer than 10,000 Commonwealth supported EFTSL ; Band 4: Campus is less than 300 km from a mainland capital city and provider has more than 10,000 Commonwealth supported EFTSL; and Band 5: Campus located in Wollongong.

As discussed in Chapter 3.7, Australia needs a more sustainable system of higher education provision in outer metropolitan, regional and remote areas. This could involve more flexible and innovative provision relying on institutional cross-collaboration and partnerships as well as the possible establishment of a new national university with a regional mission by merger of some existing regional universities and campuses.

In order to rationalise provision and ensure that it is placed on a sustainable, long-term footing, the panel considers that:

- the regional loading should continue until 2011 but during this time there should be structural adjustment funding for regional and outer metropolitan provision and rationalisation where it is not sustainable in the longer term (see next section);
- an ongoing regional provision fund to support sustainable higher education provision in regional areas commencing in 2012 after the structural adjustment in the first stage takes effect. The regional fund would be set at $80 million per year, considerably above the existing regional loading, in recognition of the higher costs of regional provision; and
- a process of discussion and negotiation be initiated with stakeholders to determine the higher education needs of regional and outer metropolitan areas and responses to those needs.

Recommendations to this effect were included in Chapter 3.7.

Structural adjustment

The Diversity and Structural Adjustment Fund covers the period 2008-2011 and is valued at $200 million for the four-year period. This will need to be enhanced as part of the package proposed here. In the course of, and in submissions to, the review, there has been significant comment on the future structure of the higher education system. This debate has included specific and wide-ranging proposals to address the sustainability of institutions, as a means to concentrate research investment and effort, to create greater diversity, to create new forms

of institutions and to improve the interface between higher education and VET. Most of these proposals require government-driven or government-mandated restructuring of higher education.

The panel has closely considered such proposals but does not believe that it is appropriate for it, or for the government, to support particular structural models. Rather, the panel has proposed a funding and regulatory framework which, if adopted, will require institutions to consider and if necessary revise their missions and develop the most effective strategies to achieve those missions. These strategies may include restructuring within and between institutions. Outcomes will primarily be driven by student choice and the success of institutions in competitive funding allocations, in attracting revenue from other sources and through effective governance.

Within this framework institutions may need assistance to support structural adjustment. Consistent with structural adjustment funding available to other industries and in the light of changes in the policy framework recommended, the panel believes there is a need for an increase in structural adjustment funding for institutions. Allocation of this funding will require the government to make judgments from time to time about the merits of particular proposals for assistance.

Beyond this process, the panel is not drawn to recommend a formal process to restructure higher education and sees no need to develop a narrow legislative or funding framework to identify which higher education institutions should do what. This would invite high levels of government intervention in the affairs of institutions and would require point-in-time judgments which will limit innovation and dynamism in the sector into the future. Widespread government-imposed proposals for structural change would involve a major and distracting debate when institutions need to able to adjust quickly and with certainty to the new environment.

The national framework recommended by the panel will allow progressive change to occur over time as institutions and governments respond to emerging trends in the environment. Such a framework should permit a diversity of approaches by institutions while also encouraging excellence and accountability. It should also encourage institutions to collaborate and compete in achieving their missions and meeting the future vision and challenges set out in this report.

Recommendation 38

That the Australian Government establish a new Structural Adjustment Fund amounting to about $400 million in funding over a four-year period from 2009-10 to assist the sector to adapt to the reforms recommended in this report.

Infrastructure funding

Over the last decade there has been relatively limited funding available specifically for the development of capital infrastructure or its refurbishment. This has meant that there is a backlog of renewal and refurbishment projects in the sector and some facilities are now sub-standard and inadequate for teaching and research purposes.

The previous government moved to address the financing of capital needs for the sector in 2007 by introducing the Higher Education Endowment Fund and this has now been rolled into the Education Investment Fund by the current government and has received additional funding. The investment fund has been extended to include capital projects not only in universities but also in vocational institutions, research facilities and major research institutions. The capital funding needs of universities were also addressed by the Better Universities Renewal Fund, which provided $500 million to universities in 2008.

The panel has concluded, after consultation with the chair of the Education Investment Fund and examination of current and proposed guidelines, that the fund should be sufficient to meet major infrastructure needs of the sector over the coming decade, provided that the capital in the fund is not drawn down at a rapid rate, i.e. over a period shorter than 20 years. There is an ongoing role for the Capital Development Pool in assisting individual institutions with new capital projects of modest scale.

The panel believes that there is no compelling case for a fund to support routine maintenance within universities. Examination of the deferred maintenance needs of the universities as reported over time to the Department of Education, Employment and Workplace Relations leads to the conclusion that individual universities have made management decisions about where to direct their resources. Some have clearly failed to set aside an appropriate level of funds to address routine maintenance while others have done this. There is no consistent pattern to suggest any particular group of institutions is disadvantaged. For that reason, the panel concludes that ongoing maintenance should be the responsibility of individual institutions to manage within their general resources.

Other funding issues

Philanthropy

While most of the public universities seek additional income from philanthropic sources, it is not expected that this source of funding will be a significant proportion of overall revenue in the medium term. This source of funds will not provide an immediate solution to the resource constraints facing the sector, although it may assist.

Increasing philanthropy in Australian higher education will require substantial cultural change. The Higher Education Funding Council of England has made a large investment of £200 million for the period 2008-2011 'to achieve a step change in voluntary giving'.

In Australia, the Business, Industry and Higher Education Collaboration Council (BIHECC) has proposed that funding should be provided to allow universities to establish or revitalise endowments and funds for the development of infrastructure and institutional capacity building to encourage philanthropy, and to provide a matching scheme for philanthropic donations.

This proposal and the type of donations to universities that might be eligible for matching funding has been considered and the potential cost of a scheme similar to that proposed by BIHECC identified. Based on BIHECC's recommendations, a matching scheme similar to that operating in England could be implemented at a cost about $200 million over four years. Given other high-priority items for funding in the sector, the panel considers that no funds should be provided for establishing development offices and mechanisms but that an amount be provided to match new donations received in 2010 (with matched funding paid in 2011) and subsequently that the amount provided should be capped per institution.

Recommendation 39

That the Australian Government provide funds to match new philanthropic donations received in the sector as a means of stimulating an additional revenue stream from this source with the cost capped per institution, and in total at $200 million over three years.

Eligibility for public funding

At present there is a lack of transparency in the criteria used to determine access to Commonwealth funding for learning and teaching.

In principle, eligibility for funding should be transparent, with clear and objective criteria set out in legislation and guidelines and a process through which applicants can be assessed. It should not depend on corporate structure as such, but relate to the purposes for which funding is provided and the degree to which the institution and course serve broader public purposes. Suggested principles that should govern access to public funding are set out in Chapter 1.

Recommendation 40

That Australian Government legislation and guidelines contain clear and objective criteria for determining access to different types of funding and assistance for higher education. These criteria should:

- reflect the public nature of the purposes for which funding is provided;
- ensure that funds for learning and teaching are directed only to institutions with the capacity to deliver courses of the requisite standard; and
- ensure that funds for research and research training are directed only to those higher education institutions which are accredited and have appropriately qualified and suitable researchers and the capability to achieve an acceptable return on public investment.

Workplace Productivity Program

The last competitive funding round under the Workplace Productivity Program occurred in 2007. The panel sees no need to retain this program and its funding should be redirected to the general funding for teaching and learning.

Implementation funding

The last 20 years has seen near constant change in the higher education sector.
While change is to be expected and must be budgeted for by any organisation, the changes proposed in this report will have widespread implications for administration within education institutions and government departments. The scale of the changes requires that funding be allocated for implementation. Funding should cover additional staffing resources, information and communications technology resources and system development and recommended projects. The panel believes that most of the work will occur in 2010 and 2011 with some support still needed in 2012. The panel believes that funding of $130 million should be allocated over four years towards the costs of implementing these reforms.

Recommendation 41

That the Australian Government provide funds of $130 million over four years towards the costs of implementing these reforms.

4.2.4 Public accountability framework

The funding system proposed requires an appropriate public accountability framework to ensure that governments and the community can have confidence in higher education and to ensure the efficient and effective use of public funding.

There have been increasing concerns among universities over the last few years about the nature and cost of accountability requirements (PhillipsKPA 2006a). In submissions to the review only a limited number of universities raised issues about this, in part perhaps because changes to the Commonwealth Grant Scheme in the 2007-08 Budget have addressed earlier concerns by relaxing caps on student numbers. The removal of funding conditions related to governance protocols and workplace relations requirements has also addressed this issue.

The new accountability framework recommended by the panel should sit within and be consistent with the broader funding, governance and regulatory framework for higher education. The public accountability framework for higher education must operate at the system and institutional levels.

Accountability at system level

The overall performance of institutions against accreditation standards will be the responsibility of the proposed new national regulatory body in terms of reaccreditation processes and periodic quality assurance processes.

In the panel's view, these broad governance and regulatory arrangements are more than sufficient to ensure that the public interest in the quality and performance of the sector is protected. If this framework is accepted, there will not be a need for very detailed agreements between government and higher education providers or periodic assessment of institutional performance outside this framework.

Accountability at institutional level

In a student demand-driven system funding will follow students to a greater extent than occurs now. However, there will still be a need to negotiate some aspects of funding. The main area of non-formula-driven funding would be the proposed 2.5 per cent of teaching funds which would be allocated to an institution on achievement of an agreed set of performance measures as set out above. Targets would need to be negotiated and reviewed between the department and each institution on a regular basis. Negotiation might also occur where the Commonwealth undertakes targeted purchasing of student places on a fee-for-service basis to address specific skill shortages, in which case accountability would be contractually based.

Institutions would still need to forecast their student load over, say, the next three years, and to discuss this with government for funds to be made available in advance of the actual enrolment of students. A mechanism for reconciling forecast and actual student numbers would also be needed. Issues arising at any stage about the financial viability of institutions

might trigger discussions with government. Payments to institutions could occur within a high level, rolling funding agreement between them and the Commonwealth, which would reflect the demand-driven funding system and include the negotiated performance targets for the 2.5 per cent bonus.

Accountability for public universities

For public universities, the current governance framework places primary accountability for the performance of universities on their governing bodies. Under the current framework, the general mission and strategic direction and the level of student load cannot be implemented or applied in any practical sense without the approval of the Commonwealth government to ensure that sufficient public funds are available for the university to achieve its preferred mission and strategy.

In addition, universities are subject to annual reporting requirements to state parliaments involving audit by state Auditors-General. They must also comply with all other statutory requirements.

In the framework proposed here, each university will define its own mission and strategic direction within its legislative framework. The university would be funded to achieve its preferred mission and strategy only if it was successful in attracting publicly-funded undergraduate and postgraduate students, full-fee paying domestic and international students, and publicly-funded research and commercial opportunities, based on the quality of its teaching and learning and its research effort.

Accountability for setting and achieving the strategic directions would solely reside with the governing body of the institution and would not be subject to further endorsement by government, except in relation to any very specific targets associated with the provision of public funding, such as ensuring appropriate access for under-represented groups.

Accountability in a demand-based funding system

There is, however, a need for specific accountability by higher education providers for public funding within the largely demand-based funding framework proposed by the panel. The elements of the funding framework are:

- demand-based funding for undergraduate and, in time, coursework postgraduate places. Funding levels will be driven by actual student numbers at the relevant funding cluster rate, supplemented by conditional funding for performance against targets;
- funding for specific purposes including provision in 'thin markets', for structural adjustment and for special capital projects. Access to funding for these programs will be by submission against transparent guidelines and administered through contracts in relation to each program.

Universities would also be accountable to government in relation to funding for research and innovation, which would also be driven by transparent funding guidelines and by specific outcomes.

Accountability for the performance of the institutions and public funding within this framework would be relatively simple, clear and transparent.

In addition, from time to time it would be normal for the Commonwealth Government to want to enter into specific arrangements with institutions for the provision of very specific educational outcomes. These might relate to, for example, an increase in the provision of graduates in certain professions. The public accountability framework proposed here would easily accommodate these special arrangements.

This would require outcomes to be agreed for performance-based funding and for specific programs with judgments made about performance by the appropriate departments. These processes may require discussions and negotiations with individual institutions directly related to the relevant outcomes and programs, but would not require a broad-ranging agreement between the university and the departments about overall mission and strategy.

If the panel's proposals for funding for structural adjustment are accepted, the government may also agree to provide funding to assist in the achievement of structural change in the sector and for individual institutions. This would require agreement by the government that the proposed structural change was in the public interest. Funds would be allocated for specific purposes or milestones.

This framework reflects a very significant departure from the existing approach to accountability for the allocation of public funding for higher education. In the proposed model, governments and the community could feel confident in holding the management, staff and governing body of a university fully accountable for the performance of the institution.

Recommendation 42

That the Australian Government develop and implement an accountability framework for the new higher education funding system that is consistent with the broader funding, governance and regulatory framework. In particular it should:

- place primary accountability for performance with the provider's governing body;
- provide for accountability that is simple, clear and transparent where funding follows student demand;
- reflect negotiated targets in relation to performance-based funding; and
- ensure that accountability for other specific-purpose funding occurs under transparent guidelines and is administered through contracts in relation to each program.

4.2.5 Financial summary of proposals

The tables in Appendix IX summarise the panel's estimation of the financial impacts of its recommendations. The amounts are provided primarily to give an order of magnitude of expenditure required to reform and position Australia's higher education system for the future. Some of the estimates are based on growth in the system that the panel hopes will occur over the next decade. In other cases an indicative cost is given for a proposal to make clear a recommendation will require funding but the panel acknowledges that the actual final amount and timing of funding will need to be determined during implementation.

Many of the components of this funding framework are linked and the estimates attempt to take into account related impacts of different recommendations. However, the panel realises the scope of the proposed reforms means that it is possible further impacts will be identified. The panel expects the department will provide further guidance on these matters during the implementation phase.

All proposals commence in 2010 unless stated otherwise. Negative amounts indicate an additional cost to the Australian Government and positive amounts indicate a saving.

4.3 A broader tertiary education and training system

One of the terms of reference for the review is to establish the place of higher education in the broader tertiary education system, especially in building an integrated relationship with vocational education and training (VET). This chapter makes a series of recommendations which build on those set out earlier in relation to higher education. The intention of these is to create a more flexible and responsive tertiary education and training system.

4.3.1 The need for closer links between vocational education and training and higher education

Various efforts to strengthen the connections between higher education and VET have been made in Australia over the last twenty-five years with limited success, due to structural rigidities as well as to differences in curriculum, pedagogy and assessment. The review has considered both why a better interface between higher education and VET is now imperative as well as the broad range of ways in which it could be pursued. While the issues to be dealt with are complex, reform is vital if a fully effective tertiary system with the characteristics set out in the box below is to be achieved. This will require significant changes affecting funding, regulation and system governance in both sectors.

Key characteristics of an effective tertiary education and training system

The principal characteristics of a fully effective tertiary system would be:

- the equal value given to both VET and higher education, reflecting the importance of their different roles in the development of skills and knowledge and their contributions to our economy and society;
- the recognition that institutions may have a primary mission in one sector, but should still be able to offer qualifications in the other sector as under current arrangements;
- a shared and coordinated information base and approach to anticipating future labour market needs, industry needs and demographic trends;
- a capacity for the whole system to provide integrated responses to workforce needs for industries and enterprises, including those in specific localities and communities like outer metropolitan and regional areas where there is significant population growth, low levels of educational attainment and participation and uneven provision;
- an efficient regulatory and accountability framework; and
- clearer and stronger pathways between the sectors in both directions.

The value of distinctive sectors

It is no longer helpful to see stark contrasts between higher education and VET in the level and types of qualifications they deliver. Traditionally higher education has concentrated on delivering longer study programs with a strong element of general education and adaptable skills largely for professional occupations, whereas VET has focused on more immediate vocational outcomes in trades and paraprofessional occupations. However, these differences are shifting. The vocational and professional focus of higher education has grown in recent years and VET has responded to the demands of industry for higher level skills by re-focusing on middle-level and advanced training (Richardson & Teese 2008).

However, diversity in tertiary education provision remains necessary to ensure that the full range of learner, industry and social needs can be met. The broader tertiary education and training system must support development of generic and specific skills, knowledge and understandings for new workforce entrants and for those seeking skills deepening or broadening. It must also cater to young people experiencing difficulty in making successful transitions and to existing unqualified or low-skilled workers. In regional areas there are particular requirements to meet local skill and innovation needs. Given this variety of needs, it is critical that higher education and VET remain distinct in their educational offerings and roles.

Submissions to the review from universities and public VET providers generally supported continued differentiation in the roles of VET and higher education, but recognised that convergence is occurring. State governments also supported retaining distinct VET and higher education sectors. Employers argued for an integrated post-secondary skills environment where the differences between the sectors do not restrict the capacity of individuals to move between them. Arguments for an integrated higher education or tertiary education system delivering all post-school qualifications were put most strongly by some private providers and their representatives. A number of submissions to the review highlighted existing examples of successful higher education and VET collaborations and called for these to be extended, in particular, to ensure access in regional areas.

A more coherent system

The panel has concluded that although distinct sectors are important, it is also vital that that there should be better connections across tertiary education and training to meet economic and social needs which are dynamic and not readily defined by sectoral boundaries. Apart from some professional, associate professional and trade jobs, there is no neat relationship between the level or field of qualifications obtained by students and subsequent occupations. Most firms demand a mixture of workforce skills acquired from either or both sectors and skills acquired on the job become more important the longer someone has been in the labour force.

Demand for higher level skills is growing, driven by the expansion of the public and private service industries and 'skill deepening', or the demand of employers over time for a wider range of skills from their workers (Birrell et al. 2008). Estimates of skills demand vary, but suggest that it will be greatest for those with higher levels of skills, qualifications and experience. Work by Access Economics (2008) commissioned for this review projects demand over the next decade for people with postgraduate qualifications will grow by 3.6 per cent per annum and for those with undergraduate qualifications by 2.9 per cent per annum, compared to 1.6 per cent per annum employment growth overall.

Reflecting this trend and the need to raise Australia's skills profile, the Council of Australian Governments has adopted targets to halve the proportion of Australians aged 20 to 64 years without qualifications at certificate III and above between 2009 and 2020 and to double the number of higher qualification completions (diploma and advanced diploma) between 2009 and 2020 (MCEETYA - MCVTE 2008). The first of these targets includes higher education qualifications.

Demand for skills is volatile and a more flexible tertiary education and training system is critical if changing skills needs are to be met (see Chapter 3.1). Therefore it is essential that governments take a long-term and holistic view of the performance of tertiary education and training. Experience of the last downturn in the 1990s points to the need for considerable retraining as part of economic recovery because continuing change in the labour market increases the premium on higher qualifications and skills and disadvantages those without them.

At present Australia's capacity to monitor and anticipate these trends is limited. Strategic policy making in the tertiary education and training system is not well-coordinated or underpinned by information on labour market needs and other research across the industries and occupations served by both sectors. Better and shared information on future labour market needs, industry needs and demographic trends is required if integrated responses to community and workforce demand are to be met and the targets proposed in this report and those already adopted by the Council of Australian Governments are to be achieved. This is especially the case for specific localities and communities such as outer metropolitan areas where there is significant population growth, low levels of educational attainment and participation and uneven provision.

A more flexible system

The tertiary education and training system must be able to move more rapidly to meet needs for high-level skills, and to be more responsive to the needs of students and accommodate providers operating across state or sectoral boundaries. Nevertheless, the panel wishes to be clear about why Australia needs a more flexible system and that it does not see VET as primarily a feeder for higher education. The VET system meets urgent and vital national needs for particular vocational skills and its primary purposes must not be unreasonably distorted by any need to increase higher education participation. Harmonised planning, advice about needs and coordination of delivery are what is needed – not the subsuming of one sector by the other.

There is, however, substantial evidence of rigidities, inflexibilities and obstacles to responsiveness. The current system is complex for students to navigate, including for young people who have not made a successful transition into the workforce and for older people who wish to upgrade their skills through an initial or second qualification. A recent national study on credit transfer from VET to higher education shows that much remains to be done to improve connectedness and ensure that pathways operate effectively. It also identified a range of successful models (PhillipsKPA 2006b).

Anomalies and inconsistencies exist between higher education and VET in areas such as funding and tuition financing. These potentially distort decisions about training and education. VET diplomas and advanced diplomas are planned and funded on a different basis from higher education diplomas and advanced diplomas even though VET and higher education graduates are in direct competition in the labour market. Despite signs of the beginning of some convergence, there are also substantial differences between VET and higher education in access to income contingent loan arrangements to assist with tuition costs.

A recent Organisation for Economic Co-operation and Development (OECD) review of VET in Australia refers to the 'bewilderingly variable and complex' fees charged to students and the different options for help in meeting them (Hoeckel et al. 2008, p. 17). It also queried why higher education and higher level VET students should pay different amounts in different ways and the effect of these different funding regimes on incentives for education and training.

The current regulatory arrangements are also complex for providers, especially where they are operating across sectoral or state and territory boundaries. The implementation of the VET and higher education regulatory frameworks through the states and territories and separately for each sector is inefficient. A more flexible tertiary education and training system is needed to streamline regulatory processes as much as possible and recognise that while institutions will have a primary mission in one sector, they should still be able to offer some qualifications in the other sector to meet needs effectively.

4.3.2 Realigning governmental responsibilities

A threshold question to be addressed is whether all Australian governments sharing responsibility for VET and higher education continues to be effective and desirable.

Over time the Australian Government has taken an increased role in funding both VET and higher education because of the emergence of labour market and skill needs that require a coordinated national response. This has proceeded further in higher education where the Commonwealth assumed financial responsibility in the 1970s, although the states and territories retain legislative authority over most universities and accredit other higher education institutions. The Australian Government proposed assuming full responsibility for funding VET in the early 1990s but this did not proceed.

The Premier of Queensland, the Hon Anna Bligh MP, recently suggested in the context of a broader realignment of Commonwealth and state responsibilities for education and training that 'the Commonwealth assume primary responsibility for the delivery of post-school qualifications in the VET system and universities' to help in developing a seamless national economy and 'delivering the skilled workforce we need as a nation' (Bligh 2008, pp. 11-12). Premier Bligh also suggested that this would improve efficiency by reducing red tape and duplication in financial and performance accountability requirements and increase national and international portability of workforce skills.

The need for significant change and a national approach

The panel considers that the case is stronger than ever for primary responsibility for regulation and funding of tertiary education to be located at the national level.

In a globalised world, higher education and skills development are central to national productivity growth, which is the key to our economic future. Major employers and providers of education and training operate across state and territory boundaries. No longer are education and skills 'state-specific' or 'state-centred'. In an integrated national economy, education and skills are required to be nationally consistent and certified.

It appears too, that some states and territories face major fiscal constraints, which may lead them to reduce their investment in VET in the near future, leading to skewed and uneven investment between the sectors over time if a demand-based funding model is adopted for higher education.

For these reasons, the panel considers that it is now time for the Australian government to take primary responsibility for the broad tertiary education and training system in Australia.

What is needed is not two sectors configured as at present, but a continuum of tertiary skills provision primarily funded by a single level of government and nationally regulated, which delivers skills development in ways that are efficient, fit for purpose and meet the needs of individuals and the economy. Bringing together responsibility for funding and regulation nationally would also assist in addressing the key barriers to forging closer links between VET and higher education. In particular, it would:

- streamline the regulatory framework for both VET and higher education;
- facilitate the implementation of a tertiary entitlement funding model across higher education and upper level VET; and
- strengthen the overall coordination of the tertiary education and training system in terms of strategic decision-making informed by better labour market intelligence and policy-relevant research and analysis.

Streamlining regulation

Chapter 4.1 recommended the establishment of a national regulatory body responsible for accreditation and quality audits of all providers of higher education. The body would also advise the Commonwealth on higher education issues referred to it or on its own initiative.

Building on this, responsibility for regulation of the whole tertiary system needs to be consolidated at a national level to ensure that it is dealt with in a more integrated and streamlined way. In 2007 the Joint Committee on Higher Education on behalf of the Ministerial Council on Education, Employment, Training and Youth Affairs commissioned an inquiry into the desirability of a national higher education accreditation body. That inquiry concluded that a regulatory body dealing only with higher education might increase burdens for multi-sector institutions in some jurisdictions where an integrated model across VET and higher education already applies (PhillipsKPA 2008).

However, a national tertiary regulatory body would:

- build on moves towards a national agency in the VET sector where a National Audit and Registration Agency was established in 2006 to operate a national registration, audit and approval function for multi-jurisdictional training providers. To date, South Australia, Queensland, Tasmania and the Australian Capital Territory have delegated their audit and registration functions to the agency and Victoria has passed legislation to this effect;

- oversee quality assurance and ensure national consistency in the VET sector through the application of the Australian Quality Training Framework standards for the audit and registration of training providers and endorse Training Packages and other aspects of quality assurance under the National Skills Framework;
- allow regulatory arrangements to be simplified where providers operate across sectoral or state and territory boundaries. While maintaining the distinctive characteristics of VET and higher education, a tertiary regulatory body would have the capacity to streamline arrangements where requirements are similar or overlap (e.g. evidence of compliance in one sector could count towards compliance in another and institutions with a prior registration in one sector may be able to offer courses in the other where they meet appropriate standards);
- achieve a scale to operate to a consistently high standard across jurisdictions and sectors as well as a presence in each state and territory; and
- facilitate bringing together cross-sectoral regulation such as overseeing the Australian Qualifications Framework and registering and auditing providers in relation to protection of overseas students.

Under a national tertiary regulatory body, the VET and higher education sectors would retain their distinctive characteristics and the regulatory body would need to have the capacity to work across these differences.

The organisation of higher education and VET accreditation responsibilities currently varies from state to state and a staged approach may be needed to bring them together and to ensure a smooth transition. To begin, the national body could incorporate the higher education accreditation functions of the states and territories and the functions of the National Audit and Registration Agency in relation to multi-jurisdiction VET providers. As well, in states or territories where VET and higher education accreditation is already combined in a single body, both could be included in the national body from its commencement to ensure no loss of service to institutions in those states.

The remainder of VET sector accreditation functions could be brought into the new body in a staged approach to ensure continuity. Given the size of VET and higher education sector accreditation activity in state and territory governments and the need for a smooth transition to new arrangements, the Australian Government should negotiate with the states and territories on a timeframe for the transfer of functions and staff to the new regulatory body.

Recommendation 43

That the Australian Government negotiate with the states and territories to expand the national regulatory and quality assurance agency (Recommendation 20) to cover the entire tertiary sector (including vocational education and training and higher education) and that the Australian Government assume full responsibility for the regulation of tertiary education and training in Australia by 2010.

4.3.3 A tertiary entitlement funding model

Chapter 4.2 recommended the introduction of a demand-driven entitlement funding model for higher education in which all domestic students enrolled in an eligible, accredited higher education course at a recognised higher education provider would be entitled to a Commonwealth subsidised place.

However, moving to a demand-based approach to funding higher education cannot be done in isolation from VET. Changing higher education funding but leaving VET funding untouched would compound existing distortions. Research shows that VET diploma and advanced diploma graduates are in direct competition with and are substitutes for higher education diploma and bachelor graduates in the labour market (Stanwick 2006; Foster et al. 2007), although VET diploma graduates are generally older than those completing a higher education qualification (Birrell et al. 2008).

The recent OECD report on the Australian VET system called for the introduction of an entitlement funding model in the VET sector with funds directed to the provider selected by the student subject to certain conditions and the willingness of employers to offer training places where relevant. The report concluded that this would require the establishment of simple entitlement principles in VET on eligibility for free or subsidised education and consistent funding arrangements in higher education and upper level VET (Hoeckel et al. 2008).

Aligning funding arrangements would mean:

- higher level VET qualifications from diploma upwards would be funded through the same arrangements as higher education qualifications. The Australian Government would directly fund all VET providers for VET diplomas and advanced diplomas on the same demand basis as for higher education; and
- a common income contingent loans scheme from diploma level upwards across VET and higher education. This would remove distortions in decisions by students about what and where to study and minimise the disincentive of up-front fees.

These steps would help to meet Australia's need for higher level skills, but demand-based funding can only be implemented efficiently and effectively at a national level as it requires national legislation and administrative mechanisms. It also needs to be linked to policies for income support for students to avoid inconsistencies in eligibility criteria.

Funding diplomas and advanced diplomas on a consistent basis in higher education and VET

Funding higher level VET qualifications through the same arrangements as higher education qualifications would:

- ensure that student choices are not distorted by different levels of public subsidy for similar education and training depending on the sector in which it is delivered;
- align decisions about training at the diploma and advanced diploma level across higher education and VET and so help to better meet Australia's need for higher level skills;
- accord better with international definitions of higher education such as the International Standard Classification of Education (ISCED) under which the upper levels of VET are considered to be part of higher education; and

- complement monitoring achievement of the Council Of Australian Governments' target to double the number of diploma and advanced diploma completions between 2009 and 2020.

This would change only how these qualifications are funded. VET providers that teach at diploma level and above would continue to do so and those qualifications would continue to reflect the distinctive requirements of the VET sector. This entitlement could then be progressively extended to other VET qualifications.

There may be cost implications for the Australian Government if places were funded by the Commonwealth rather than by the states and territories. Adjustments could be made to general revenue assistance to the states and territories to offset this cost, but due to the complexity of this process any changes should not be implemented to commence before 2010.

Recommendation 44

That the Australian Government negotiate with the states and territories to introduce a tertiary entitlement funding model across higher education and vocational education and training (VET) commencing with the upper levels of VET (diplomas and advanced diplomas) and progressing to the other levels as soon as practicable.

A common income contingent loans scheme

There is a strong argument for a common loans scheme across higher education and upper level VET qualifications to remove distortions in decisions by students about what and where to study and to minimise the disincentive effects of up-front fees.

For some time there has been debate over whether income contingent loans schemes such as operate in the higher education sector should also be available in the VET sector. One recent proposal argued for the extension of a FEE-HELP style loan for students undertaking diplomas and advanced diplomas in VET and particularly TAFE (Chapman, Rodrigues & Ryan 2007). However, others have expressed concerns that doing so would reduce access to VET for disadvantaged groups. These concerns are difficult to justify as the introduction of income contingent loans in higher education did not lead to any discernible changes in the patterns of participation by disadvantaged groups.

There is growing support for extending income contingent loans to the upper levels of VET. The Victorian Government recently announced that it would introduce a HECS style scheme for publicly-subsidised VET from 2009. In submissions to the review there was also support for examining the issue from the New South Wales TAFE Commission Board and the South Australian Government as well as the Australian Chamber of Commerce and Industry. This would complement the Commonwealth's VET FEE-HELP scheme to assist eligible full-fee-paying students to pay for all or part of their tuition fees.

Recommendation 45

That the Australian Government negotiate with the states and territories to extend income contingent loans to students enrolled in VET diplomas and advanced diplomas.

4.3.4 The ongoing roles of the states and territories

The states and territories would continue to have a considerable role in the tertiary sector under the funding and regulatory model proposed above.

In VET, their primary ongoing responsibility would be as the 'owners' of TAFE and other public VET providers and, they would continue to have legislative responsibility for almost all universities.

The capacity to provide funding outside of the tertiary entitlement to meet VET or higher education priorities in particular sectors, occupations or regions and responsibility for the ongoing funding of vocational education and training delivered in schools would remain with the states.

The states and territories would play a major role in the overall coordination of the tertiary education and training system in three key areas:

- strategic decision-making by the Council of Australian Governments and its ministerial councils and the setting of broad policy directions for the tertiary education system;
- ensuring that better labour market intelligence underpins decision-making so that the national skills system reflects state and local as well as national needs; and
- working with the Australian Government and with tertiary education institutions to help shape provision and demand in areas of rapid population growth.

Each of these is discussed below. Beyond these specific responsibilities, most states have significant investments in areas such as innovation and research, including important partnerships with universities and these should continue. Most also play active roles in promotion and facilitation of education export across all sectors of education. Chapter 3.6 recommended a whole-of-government approach to such work in the future through an independent agency which would be accountable to Commonwealth and state and territory governments and education providers and funded and governed on a joint basis.

More strategic systems governance

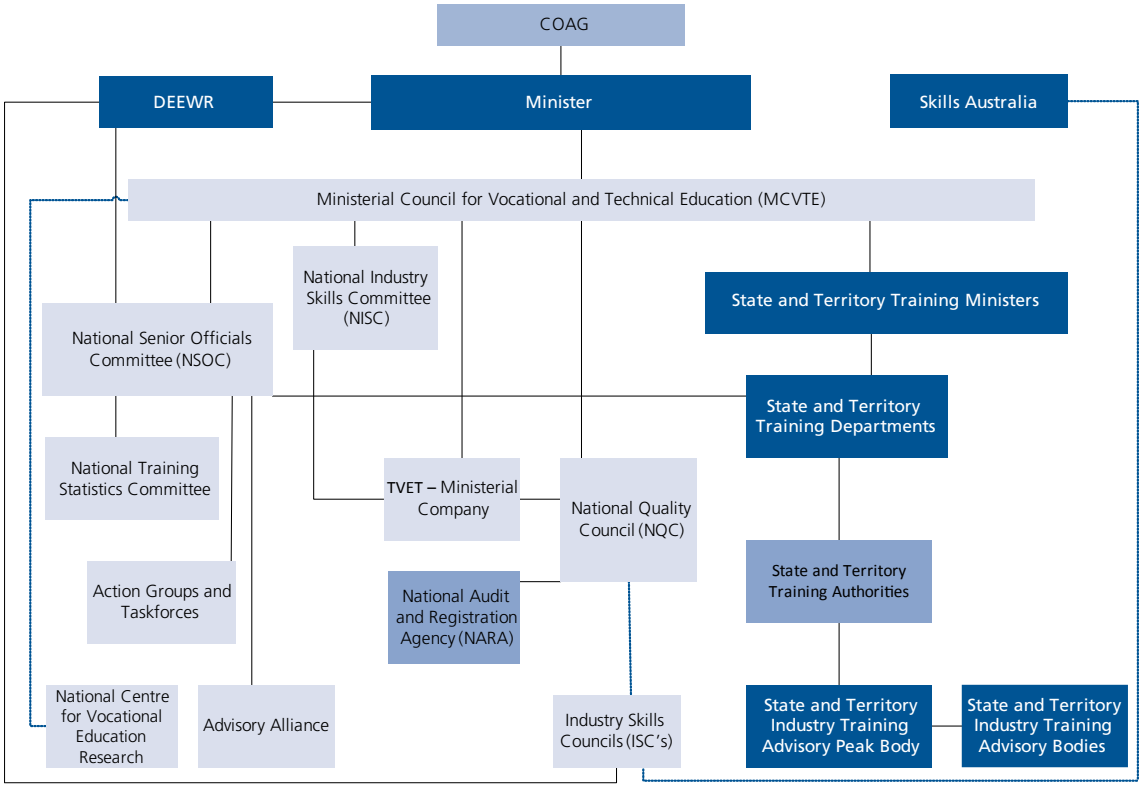
At present the governance of the VET and higher education systems is complex and fragmented. It rests with separate ministerial councils reporting to the Council of Australian Governments (see Figures 31 and 32).

Currently, the Ministerial Council for Vocational and Technical Education (MCVTE) has overall responsibility for the national training system, including strategic policy, priority setting, planning and performance and key cross sectoral issues impacting on the training system (such as skills forecasting, workforce planning (including skills needs) and articulation between higher education and VET).

The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) has responsibility for higher education along with pre-primary education, primary and secondary education, employment and linkages between employment, labour market programs and education and training, adult and community education, youth policy programs and cross-sectoral matters.

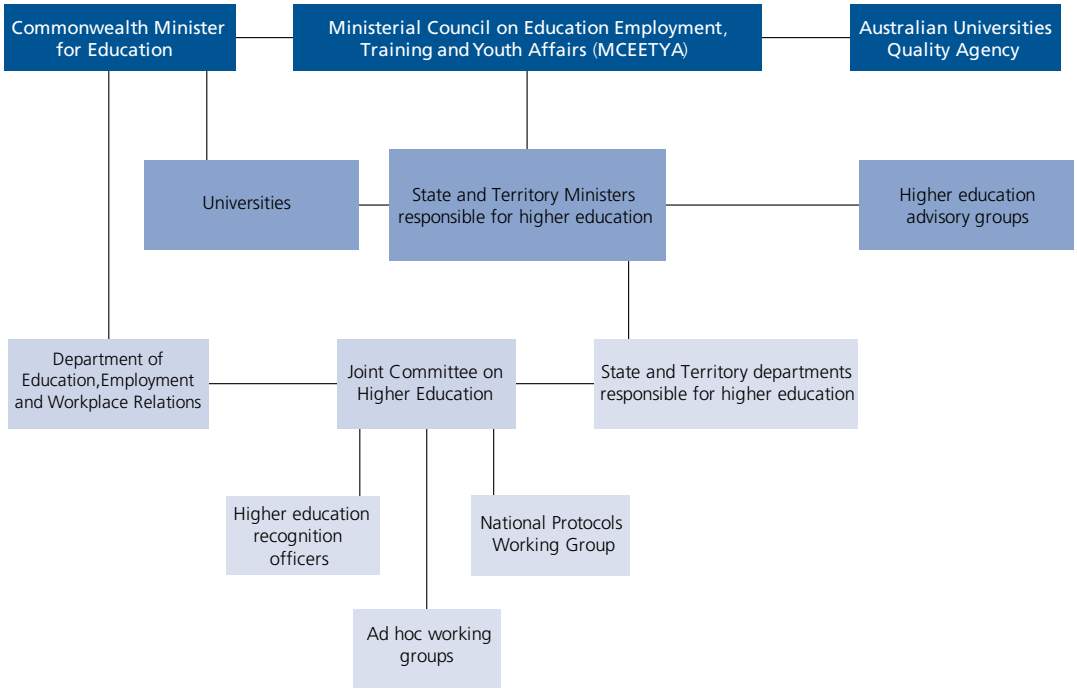
At its meeting on 20 November 2008 MCVTE agreed to seek the Council of Australian Governments' agreement to re-align the responsibilities of the Council, with MCVTE taking on post-school education issues (including VET, higher, international and adult education

Figure 31: Existing governance arrangements in the national training system



Source: Skills Australia 2008

Figure 32: Existing governance arrangements in the higher education system



and possibly the Australian Qualifications Framework) and employment. It was agreed that an expanded role for the council would provide for better coordination and linkages for articulation between the VET and higher education sectors while continuing to address issues such as skills shortages (Gillard 2008).

The panel supports this initiative and agrees that creation of a single ministerial council for tertiary education and training would allow a more integrated and strategic approach to policy-making. There appears to be a growing recognition of this among states and territories with a number of submissions to the review expressing support for this direction.

Oversight of the national tertiary education regulatory body

As argued in Chapter 4.1, it is important to retain a strong element of local knowledge and responsiveness in any national regulatory body and this should be reflected in its governance and operational arrangements. Reflecting the role of the states and territories in setting directions and taking key decisions on tertiary education, board members should be appointed after consultation with the states and territories. As discussed in Chapter 4.1, members of the governing board of the regulatory body as well as its chief executive officer should be selected for appropriate skills and expertise.

Labour market intelligence

A demand-driven tertiary sector will require higher quality and more timely labour market intelligence if it is to work effectively. Despite their methodological problems, skills forecasts across occupations and regions will be essential to ensure that students, employers and institutions can make decisions with a sufficient level of understanding of the likely consequences (Hoeckel et al. 2008). Labour market analysis will need to cover both qualitative aspects (e.g. the types of skills required) as well as the quantitative aspects in terms of shortages or surpluses.

This will be a difficult undertaking when the time lags in obtaining some qualifications can extend over several years. In the context of the VET sector, Richardson and Tan suggest a combination of strategies to achieve this including checking forecasts against other sources of information, confining them to around five years and updating them regularly and, where a regional labour market is important, using local information to refine the broad projections. Separate, bottom-up, high-quality studies of expected skills demands were also suggested for 'those major skills that take a long time to learn and gear up to teach' (Richardson & Tan 2007, p. 34).

In the VET sector most states and territories have a statutory body charged with providing strategic advice on workforce needs and skills developments, often in conjunction with regulatory functions. At the national level Skills Australia has been established by the Australian Government to provide expert and independent advice to the Minister on matters relating to Australia's current, emerging and future workforce skills and development needs. Industry skills councils also conduct a regular environmental scan of their industries as part of anticipating changes in skills requirements, shortages and priorities for action.

Most of these bodies focus largely on VET sector skills rather than broad tertiary skills needs. The Department of Education, Employment and Workplace Relations prepares forecasts of skill requirements which include higher education and VET as part of its broader labour

market analysis. There was support in some submissions to the review for joint planning and coordination between the sectors to undertake better labour market analysis to address skills shortages.

Skills Australia has recently issued a discussion paper which raises questions about how current arrangements could be improved to better link state-based and national skills advisory arrangements. State and territory governments have important interests in this, particularly in areas like education and health, where they are large employers, as well as more generally in the workforce and skills development of their populations and economies. Cooperative arrangements should, therefore, be developed across all levels of government to improve labour market information in an efficient way with the proposed independent regulatory body playing a coordinating role. The role of Skills Australia would need to be considered as part of those arrangements.

Enhancing policy-relevant research, analysis and data

There is a pressing case for better policy-relevant research and analysis in higher education to support strategic decision-making.

The National Centre for Vocational Education Research (NCVER) undertakes a program of VET research and collects and analyses national VET statistics and survey data. The Department of Education, Employment and Workplace Relations is responsible for higher education data collection.

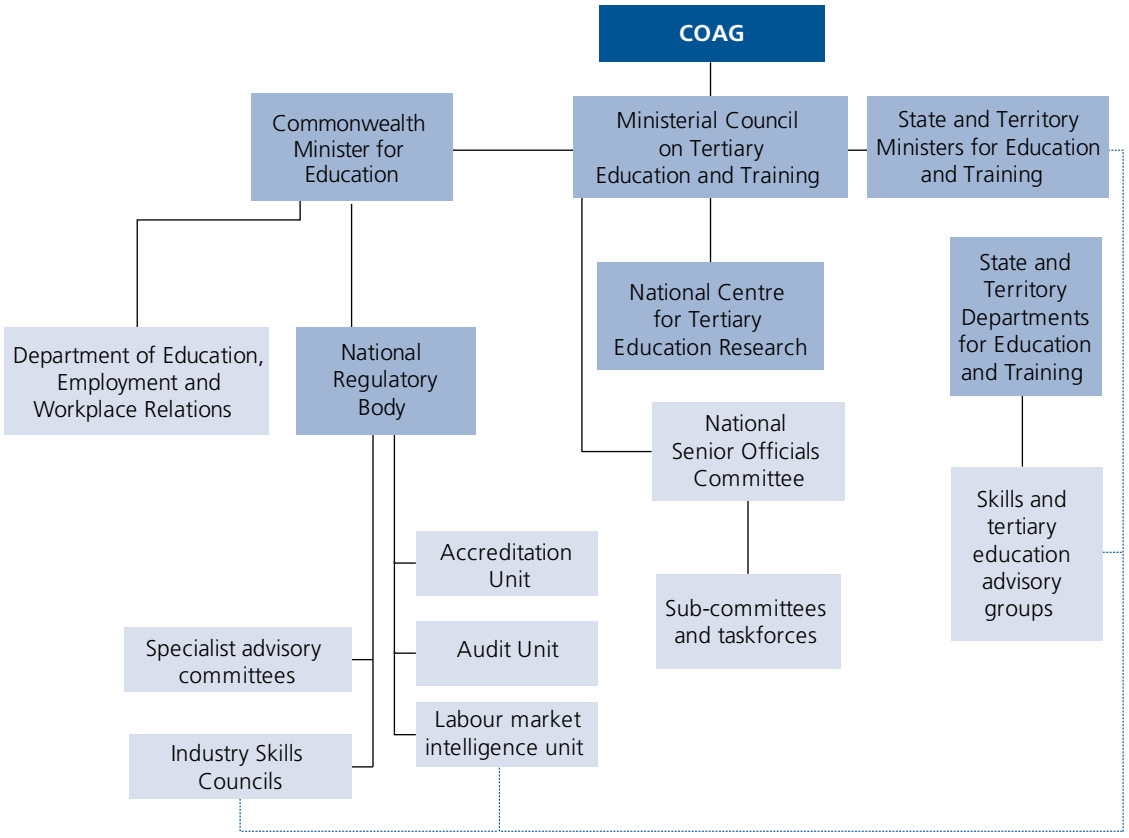
While Australia has various well-regarded research institutes in universities that concentrate on higher education (e.g. the Centre for the Study of Higher Education at The University of Melbourne and the Centre for Higher Education Management and Policy at University of New England), there is no equivalent body to NCVER that provides an independent and credible repository of analytical capacity and data.

The panel has concluded that, rather than create a new higher education research body, the NCVER's remit should be widened to cover research, analysis and data collection for the whole tertiary sector. This would require an expansion of the organisation's research capability by the recruitment of higher education specialists and the development of a policy-led research agenda.

Systems governance

The establishment of a new funding and regulatory framework and a new tertiary regulatory body will require the development of revised arrangements for governance of the tertiary education and training system. Key elements of the new governance arrangements would be the creation of a single ministerial council for tertiary education and training, the tertiary regulatory body itself, enhanced policy-relevant research and analysis covering the whole tertiary sector and coordination of labour market intelligence. Proposed arrangements are set out in Figure 33.

Figure 33: Proposed systems governance for tertiary education and training



Recommendation 46

That the Australian Government and the governments of the states and territories agree to:

- establish a single ministerial council with responsibility for all tertiary education and training;
- improve the scope and coordination of labour market intelligence so that it covers the whole tertiary sector and supports a more responsive and dynamic role for both vocational education and training and higher education; and
- expand the purpose and role of the National Centre for Vocational Education Research so that it covers the whole tertiary sector.

4.3.5 Strengthening pathways for students

Implementing the recommendations set out earlier in this chapter to better align responsibility, funding and regulation for VET and higher education and to improve systems governance will establish much stronger connections between VET and higher education. Low rates of credit transfer between sectors are a symptom of these structural barriers and, by addressing the underlying issues, rates of credit transfer will be driven up over time.

Nature of the problem

Improving pathways for students between VET and higher education has been a focus of sector attention and government policy since the early 1980s and the evidence suggests that there has been a gradual improvement over time. The proportion of domestic commencing undergraduate students admitted on the basis of prior TAFE study increased from 5.8 per cent in 1994 to 10.1 per cent in 2006. The proportion of students gaining credit (or exemption) for previous TAFE study increased from 2.4 per cent to 4.3 per cent over the same period. There are large differences between universities in the proportion of students admitted on the basis of TAFE qualifications or receiving credit for TAFE studies.

Submissions to the review put a range of views about the issues and solutions. Some VET stakeholders argued that the problem was that universities have failed to respond adequately and that funding incentives were required. Universities emphasised the different ways in which students learn and are assessed in the two sectors. State governments called for improved credit transfer to be made a condition of university funding or a part of the accreditation processes in higher education.

There is also debate over how much of a problem there is in this area, with some studies from the 1990s showing that the main reason students do not apply for credit when transferring to higher education is that they are studying an unrelated course (Griffith University submission). More recent NCVER studies show that, although there are real difficulties for students in navigating across the sectors, pathways are functional for most young people (Harris, Sumner & Rainey 2005; Harris, Rainey & Sumner 2006). Targeted, accessible and accurate information and career advice is critical, particularly for those moving from VET to higher education. Reverse movement from higher education to VET has been growing and generally seems to occur more smoothly as students are older and more experienced.

Identifying solutions

A national study of credit transfer, which was commissioned by MCEETYA, concluded that:

> …although there is recent evidence of increased efforts to maximise opportunities for credit transfer between VET and higher education, there is still much more that could be done. The case studies particularly highlight that, even in those institutions both committed to and successful in creating pathways for students to move with credit from VET to higher education, barriers continue to hamper efforts and these pathways do not always operate as smoothly, efficiently or effectively as they might (PhillipsKPA 2006b, p. ii).

The report made 17 recommendations directed to governments, peak bodies and institutions involving funding incentives, graded assessment in VET, better Australian Qualifications Framework descriptors, further research and data collection and developing a common set of terms and definitions that could be used in both sectors to make it easier for students to navigate between them.

Work on implementing some of these recommendations is already underway. In particular, the development and adoption of a common terminology for describing credit and articulation and the implementation of graded assessment in the upper levels of VET are critical to building confidence to support increased cross-sectoral transfer. Depending on progress, governments could at some future point consider the need for further initiatives such as whether

maintenance or further improvement in credit transfer rates should be made a condition of institutional funding, with individual institutional targets to be set. A key challenge in doing so would be to have the capacity to specify robust targets that drive intended institutional behaviour.

The panel concluded that the VET and higher education sectors should continue to enhance pathways for students through the development and implementation of common terminology and graded assessment in the upper levels of VET.

4.3.6 Modernising the Australian Qualifications Framework

The Australian Qualifications Framework (AQF) plays a key role in tertiary education and training by defining the characteristics of qualifications and assigning them to a specific sector for accreditation and quality assurance (Figure 34). Higher education aspects of the AQF were considered in Chapter 4.1, but there are also significant differences in the way VET and higher education qualifications and their learning outcomes, or 'competencies', are described in the framework.

Figure 34: Australian Qualifications Framework qualifications by sector of accreditation

Schools sector accreditation	Vocational education and training sector accreditation	Higher education sector accreditation
		Doctoral Degree
		Masters Degree
	Vocational Graduate Diploma	Graduate Diploma
	Vocational Graduate Certificate	Graduate Certificate
		Bachelor Degree
	Advanced Diploma	Associate Degree, Advanced Diploma
	Diploma	Diploma
	Certificate IV	
Senior Secondary Certificate of Education	Certificate III	
	Certificate II	
	Certificate I	

Source: Australian Qualifications Framework Implementation Handbook, Fourth Edition, 2007

Key cross-sectoral issues that need to be looked at as part of work on the AQF include:

- whether, like more recent overseas qualifications frameworks, the AQF should be based on a structure of explicit levels onto which qualifications are mapped. An explicit levels framework could help to make the relationships between qualifications clearer and provide more flexibility to handle new qualifications which emerge over time; and
- whether the AQF should include or be associated with a formal credit framework that sets more explicit requirements in terms of the minimum characteristics of the level and volume of learning involved in qualifications. The Credit Matrix being developed in Victoria to provide a common way of describing and comparing learning across all courses and qualifications has taken a step in this direction and a new credit framework has been adopted recently for higher education in England. This is an alternative to specifying expected learning in terms of duration, as the AQF does.

In combination with a structure of levels, a credit framework could help to clarify the nature of different qualifications and set clearer expectations of required learning outcomes and study durations. It might also assist in improving credit transfer across sectors and help to clarify the higher education and VET boundary and extent of overlap. These issues about the future architecture of the AQF are complex and there are likely to be different views across and within both sectors. These issues should be explored in depth as part of the review of the AQF recommended in Chapter 4.1.

Other issues that should be considered include making titles clearer where they overlap across sectors to reduce confusion for students and employers, e.g. to better distinguish VET and higher education diplomas and advanced diplomas.

Regardless of its future structure, it is also important to improve the descriptors of learning outcomes so that the AQF can fulfil its function as a benchmark definition of qualifications for students, the public and employers. The descriptors for VET qualifications were reviewed in 2005, but this process was not completed as the proposed changes raised broader issues about the structure of the AQF which could not be made in isolation from higher education qualifications.

In particular, the AQF VET and higher education descriptors should be redeveloped to achieve a more conceptually coherent and contemporary statement of the similarities and differences between qualifications at and across levels. The objective in doing so would not be to remove sectoral distinctions as such, but to bring out implicit relationships and contrasts so that the nature of qualifications is more easily understood. This would assist in building links between courses at the design stage so that student transfer would be improved.

Acronyms or abbreviations of titles

ABS	Australian Bureau of Statistics
ACER	Australian Council for Educational Research
ACT	Australian Capital Territory
ACU	Australian Catholic University
Adelaide	The University of Adelaide
AEI	Australian Education International
ALA	Australian Leadership Awards
AMC	Australian Maritime College
ANU	Australian National University
APA	Australian Postgraduate Award
AQF	Australian Qualifications Framework
ARIA	Accessibility/Remoteness Index of Australia
AUQA	Australian Universities Quality Agency
AUSSE	Australasian Survey of Student Engagement
AVCC	Australian Vice-Chancellors' Committee
Ballarat	University of Ballarat
Canberra	University of Canberra
CEQ	Course Experience Questionnaire
Charles Darwin	Charles Darwin University
CSU	Charles Sturt University
COAG	Council of Australian Governments
CPI	Consumer Price Index
CQU	Central Queensland University
Curtin	Curtin University of Technology
Deakin	Deakin University
DEEWR	Department of Education, Employment and Workplace Relations
DEST	Department of Education, Science and Training
DFAT	Department of Foreign Affairs and Trade
DIISR	Department of Innovation, Industry, Science and Research
EAG	Education at a Glance
Edith Cowan	Edith Cowan University
ESOS	*Education Services for Overseas Students (ESOS) Act 2000*
EFTSL	Equivalent full-time student load
EU	European Union
FEE-HELP	see Glossary
Flinders	The Flinders University of South Australia

GDP	Gross Domestic Product
Go8	Group of Eight
Griffith	Griffith University
HDR	Higher Degree by Research
HECS	Higher Education Contribution Scheme
HECS-HELP	see Glossary
HEIF	Higher Education Indexation Factor
HELP	Higher Education Loan Program, see Glossary
HESA	*Higher Education Support Act 2003*
HILDA	Household, Income and Labour Dynamics of Australia
IELTS	International English Language Testing System
IGS	Institutional Grants Scheme
ISCED	International Standard Classification of Education
ISCs	Industry Skills Councils
JCU	James Cook University
La Trobe	La Trobe University
LSAY	Longitudinal Survey of Australian Youth
Macquarie	Macquarie University
MCD	Melbourne College of Divinity
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MCVTE	Ministerial Council for Vocational and Technical Education
Melbourne	The University of Melbourne
Monash	Monash University
MTAWE	Male Total Average Weekly Earnings
Murdoch	Murdoch University
NARA	National Audit and Registration Agency
NATSEM	National Centre for Social and Economic Modelling
NCVER	National Centre for Vocational Education Research
Newcastle	University of Newcastle
New England	University of New England
NISC	National Industry Skills Committee
NQC	National Quality Council
NSOC	National Senior Officials Committee
OECD	Organisation for Economic Co-operation and Development
OS-HELP	see Glossary
PISA	Programme for International Student Assessment
PIT	Parental Income Threshold

QA	Quality Assurance
QUT	Queensland University of Technology
R&D	Research and Development
RIGB	Research Infrastructure Block Grants
RMIT	RMIT University
RTS	Research Training Scheme
SES	Socio-economic status
Southern Cross	Southern Cross University
SSR	Student-staff ratios
Sunshine Coast	University of the Sunshine Coast
Swinburne	Swinburne University of Technology
Sydney	The University of Sydney
TAFE	Technical and Further Education, see Glossary
Tasmania	University of Tasmania
TER(s)	Tertiary Entrance Rank(s)
UK	United Kingdom
UniSA	University of South Australia
UNSW	University of New South Wales
UQ	The University of Queensland
USA	United States of America
USQ	University of Southern Queensland
UTS	University of Technology, Sydney
UWA	The University of Western Australia
UWS	University of Western Sydney
VET	Vocational Education And Training
VET FEE-HELP	see Glossary
VU	Victoria University (p. 34)
Wollongong	University of Wollongong
YA	Youth Allowance

Glossary and definitions

Actual prices – Actual prices are prices in nominal value. Nominal value is the value of grants expressed in money of the day.

Attainment – The OECD definition for educational attainment is: 'Educational attainment is expressed by the highest completed level of education, defined according to the International Standard Classification of Education (ISCED)' (OCED 2007b). Attainment in this document, therefore, refers to the completion of a qualification.

Community engagement – See 'Third stream activities'.

Commonwealth supported place – A higher education place which is funded by the Commonwealth Government through the Commonwealth Grant Scheme. Previously called a 'HECS' place.

Equivalent full-time student load (EFTSL) – One EFTSL is a measure of the study load, for a year, of a student undertaking a course of study on a full-time basis.

FEE-HELP – see Higher Education Loan Program below.

Full time equivalent (FTE) – A member of staff who at a reference date has a full-time work contract in respect of their current duties has an FTE of 1.00. The FTE for a member of staff who at a particular reference date has a fractional full-time work contract in respect of their current duties (i.e. is working a fraction of a normal full-time working week) will be less than 1.0.

Globalisation – The OECD definition of globalisation is: 'The process of globalisation can be defined as "the widening, deepening and speeding up of worldwide interconnectedness" (Held et al., 1999) and the emergence over the last three decades of "complex electronically networked relations between institutions and between people, creating an open information environment and synchronous communications in real time" (Marginson, 2004)' (OECD 2008a, vol. 2, p. 235).

Higher education – Education involving qualifications under the Australian Qualification Framework at associate degree and above, as well as diploma and advanced diploma qualifications accredited under higher education arrangements.

Higher Education Contribution Scheme (HECS) – The system introduced in 1989 which required higher education students in places subsidised by the Commonwealth Government to make a contribution to the cost of their course, underpinned by income contingent loans. 'HECS' places are now called Commonwealth supported places for which there is a 'student contribution amount' with loans and discounts for up front payment under HECS-HELP.

Higher education institutions – Refers to all institutions offering accredited higher education qualifications. This includes both public and private and self-accrediting and non-self-accrediting institutions.

Higher Education Loan Program (HELP) – A program to help eligible students pay their student contributions (HECS-HELP), tuition fees (FEE-HELP) and overseas study expenses (OS-HELP) through loans that are repaid through the taxation system (through either compulsory or voluntary repayments). HECS-HELP also covers the discount that Commonwealth supported students receive if they pay student contributions up front. There are bonuses for voluntary repayments.

Income contingent loan – A loan for which repayments are not required unless a person's income reaches a certain threshold and with repayments that vary according to income above that threshold. HELP loans (and previously HECS and loans under other schemes that have been subsumed by HELP) have income contingent repayment arrangements.

Internationalisation – The OECD definition of internationalisation is: '… the process of internationalisation relates to "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of tertiary education" (Knight, 2003)' (OECD 2008a, vol. 2, p. 236).

Knowledge transfer – See 'Third stream activities'.

Low socio-economic status (SES) students – The Index of Education and Occupation from the latest available Australian Bureau of Statistics (ABS) Socio-Economic Indexes for Areas (SEIFA) is used. The Index value for each postcode is used to identify a postcode nationally as low (bottom 25 per cent of the population), medium (middle 50 per cent) or high (top 25 per cent). The number of students from a low SES background is then calculated by summing the number of students whose home postcodes as reported by university enrolment data are low SES postcodes.

OS-HELP – see Higher Education Loan Program above.

Post-secondary education – all education and training undertaken after secondary schooling, including vocational education and training, higher education and adult and community education.

Productivity – Productivity is defined as the ratio of output to input for a specific production situation. Productivity changes can be caused by either movements in the 'best practice' production technology, or a change in the level of efficiency.

Real terms (Constant prices) – Nominal value is the value of the grants expressed in the money of the day, that is, the actual amount of cash received by the universities each year. Real value is the nominal value adjusted for the effects of inflation so as to show the change in the purchasing power of the funding received. Unless otherwise stated in this paper the index used to calculate constant prices is the Consumer Price Index (CPI) Weighted Average of Eight Capital Cities [Australian Bureau of Statistics Cat No. 6401.0] and the base year is 2006.

Research – See the definition in Appendix VI (National Protocols).

Scholarship – See the definition in Appendix VI (National Protocols).

Sector – Categories of educational activity which are defined in terms of course type and award. Sectors within tertiary education are the higher education sector and the vocational education and training sector.

TAFE institution – A Technical and Further Education (TAFE) institution is a registered training organisation owned and operated by a state government. TAFE institutes deliver the majority of publicly-funded vocational education and training.

Tertiary education – The OECD defines tertiary education as programs at International Standard Classification of Education (ISCED) levels 5B, 5A and 6. Programs below ISCED level 5B are not considered tertiary level (OECD 2008). The OECD definition has been used throughout this report.

Third stream activities – Activities concerned with the generation, use, application and exploitation of knowledge and other university capabilities outside academic environments. In other words, the third stream is about the interactions between universities and the rest of society. Third stream activities are also discussed under the terms 'community engagement' and 'knowledge transfer'.

University – An Australian university is an institution which meets nationally agreed criteria and is established or recognised as a university under state, territory or Commonwealth legislation (*National Protocols for Higher Education Approval Processes,* Section 1.13).

Vocational education and training (VET) – Vocational education and training provides skills and knowledge for work through a national system of public and private Registered Training Organisations. Registered Training Organisations deliver certificates I-IV, VET diplomas and advanced diplomas and VET graduate certificates.

VET FEE-HELP – VET FEE-HELP is an income contingent loan scheme for the Vocational Education and Training (VET) sector that is part of the Higher Education Loan Program (HELP). It is an extension of the higher education FEE-HELP arrangements.

Methodology

Calculation of constant dollars

Unless otherwise stated, amounts in 'constant dollars' are calculated using the Consumer Price Index, Weighted Average of Eight Capital Cities (CPI). The use of the CPI does not constitute a view on the appropriate index for measuring the real value of grants for educational purposes.

Calculation of Commonwealth funding per student place

As stated in the review's Discussion Paper, changes to Commonwealth funding programs and collection of higher education data make it difficult to calculate comparable figures for the amount of Commonwealth funding per student place over an extended period of time. The calculation used for the review's Discussion Paper has also been used for the calculation of funding per student place for 2007 and 2008 in Chapter 4.2 of this report.

The amounts calculated are based on an estimate of Commonwealth Government funding to higher education institutions each year for costs associated with supporting subsidised undergraduate and postgraduate students (including research students) and an estimate of the number of student places occupied by these students. The majority of subsided students are in Commonwealth supported places (or previously HECS places) or, for higher degree by research students from 2001, in Research Training Scheme places.

In general, research funding has been excluded except if granted for the purpose of research training. Prior to 2001, the Commonwealth included funding for research and research training in operating grants to universities. Estimates of the funding for research in the operating grant, as stated in Commonwealth Budget papers, have been used to remove research funding, except when the funding was for research training.

Some Commonwealth programs for research cannot easily be disaggregated into research training and research components and have been excluded. Similarly, Commonwealth programs for higher education that fund organisations other than higher education institutions have also been excluded, even if higher education institutions receive some funding under the program. The effect is that the total funding is probably lower than would otherwise be the case but not significantly given the scale of the excluded programs. The amount excluded from the calculation in this category in 2006 is around $35 million.

Commonwealth funding for Australian Postgraduate Awards and other grant scholarships have also been excluded.

Student places have been included in the calculation when the Commonwealth provides funding. All places offered under a particular program are included even if Commonwealth funding was limited to a set number of places. Places are included even if the Commonwealth does not provide the majority of the funding for the place. Student places occupied by overseas students are included if the Commonwealth provided funding (for example, overseas students subject to the overseas student charge which was funded through operating grants until 2000. This excludes all full-fee-paying overseas students).

The methodology used for calculating the grants from 1989 to 2008 is focused on comparability of amounts over that period rather than being a judgment about what should properly be considered 'teaching and learning' grants. Sometimes a program is included in the calculation of the total grant amount primarily because reliable comparison over the extended period of time requires it.

In contrast, when calculating the increased teaching and learning grant there needs to be a judgment about what should be considered for future funding purposes. The calculation of the 10 per cent increase to base funding (Recommendation 26) uses a different set of programs for this reason. The programs included are:

- Commonwealth Grant Scheme (including the regional and enabling loadings)
- Indigenous Support Program
- Workplace Productivity Program
- Learning and Teaching Performance Fund
- Higher Education Equity Support Program
- Higher Education Disability Support Program
- Workplace Reform Program
- Diversity & Structural Adjustment Fund
- National Institutes
- Improving the Practical Component of Teacher Education Initiative.

The panel believes this is a reasonable basis for quantifying the teaching and learning grant but its main concern is that any assessment of the teaching and learning grant be understood more broadly than the Commonwealth Grant Scheme and that increased funding be calculated using a broader range of programs.

Appendix I. Terms of reference

The Review of Australian Higher Education will examine and report to the Hon Julia Gillard MP, Deputy Prime Minister and Minister for Education, Employment, Workplace Relations and Social Inclusion, on the future direction of the higher education sector, its fitness for purpose in meeting the needs of the Australian community and economy and the options for ongoing reform.

It will build on the Rudd Government's key higher education initiatives in progress and the Government's overall economic and social policy settings.

It will be led by an expert panel drawing from the tertiary education sector and wider industry. The Review Panel is to be chaired by Emeritus Professor Denise Bradley AC. It will provide its report on priority action by the end of October 2008, and final report by the end of the year.

In particular, the Review Panel will examine the current state of the Australian higher education system against international best practice and assess whether the education system is capable of:

- contributing to the innovation and productivity gains required for long term economic development and growth; and
- ensuring that there is a broad-based tertiary education system producing professionals for both national and local labour market needs.

The Review Panel will advise Government on possible key objectives for higher education in Australia, starting with the themes below, and how these could be achieved through reform of the sector and changes to regulation and funding arrangements.

Diverse, high performing institutions with a global focus

Developing a diverse, globally focused and competitive higher education sector with quality, responsive institutions following clear, distinctive missions to provide higher education opportunities to students throughout Australia.

Productivity and participation

Enhancing the role of the higher education sector in contributing to national productivity, increased participation in the labour market and responding to the needs of industry. This includes the responsiveness of the sector in altering the course mix in response to student and employer demand and an understanding of trends in the economy, demography and the labour markets served by higher education.

Effective and efficient investment

Improving funding arrangements for higher education institutions as they relate to teaching responsibilities, taking into account public and private benefits and contributions to inform the development of funding compacts between the Australian Government and institutions.

Underpinning social inclusion through access and opportunity

Supporting and widening access to higher education, including participation by students from a wide range of backgrounds.

Enhanced quality and high standards

Implementing arrangements to ensure that quality higher education is provided by public and private providers and that this is widely understood and recognised by clients of the higher education sector.

A broad tertiary education and training sector

Establishing the place of higher education in the broader tertiary education sector, especially in building an integrated relationship with vocational education and training.

Policy linkages

The review will collaborate with and take account of the work of the Review of the National Innovation System and Skills Australia. It will also consult with state and territory tertiary education authorities.

Appendix II. Review process and personnel

Review process

On 13 March 2008, the Deputy Prime Minister and Minister for Education, the Hon Julia Gillard MP, announced a major review of Australia's higher education system to examine and report on the future direction of the higher education sector, its fitness for purpose in meeting the needs of the Australian community and economy and the options for ongoing reform.

The purpose of the review was to consider the many issues and challenges facing the Australian higher education sector. The aim was to inform the preparation of the Government's policy agenda for higher education through 2009 and 2010. It was also to help develop a long-term vision for higher education into the next decade and beyond.

The review was led by an Expert Panel, chaired by **Emeritus Professor Denise Bradley AC**. The other members of panel were:

Mr Peter Noonan, Director of Peter Noonan Consulting;

Dr Helen Nugent AO, Non-Executive Director of Macquarie Group, Origin Energy and Freehills. Chairman of Funds SA and Swiss Re Life & Health (Australia); and

Mr Bill Scales AO, Chancellor of Swinburne University of Technology, Chairman of the Port of Melbourne Corporation and Australian Safety and Compensation Council, and Board Member of the Australian Nuclear Science and Technology Organisation.

In April, Professor Bradley wrote to key stakeholders, seeking their preliminary input on the high-level issues to be addressed by the Review. Over 100 responses were received.

A *Discussion Paper*, released in June, initiated the formal consultation and submission process for the review. It is available online at: www.deewr.gov.au/he_review_discussionpaper

National consultations were held in capital cities and several regional areas during June and July. The panel met with a range of stakeholders, including representatives from universities, private higher education providers, student associations, business, state and territory governments and TAFEs. Details of the consultations are provided in Appendix V.

Submissions closed at the end of July. Some 350 submissions were received. The submissions are summarised in Appendix III, and are listed by group in Appendix IV. The submissions are available online at: www.deewr.gov.au/he_review_submissions

Secretariat

The secretariat comprised:

Anne Baly	Secretary
Lin Martin	Senior Adviser (seconded from Deakin University from 4 August 2008 to 31 October 2008)
Fran Wylie	Director
Shane Samuelson	Director (until 19 September 2008)
Paul White	Director (from 1 September 2008)
Marguerite de Sousa	Executive Officer (Sydney)

Bernadine Caruana	Assistant Director
Megan Catlin	Assistant Director
Mathew Pearson	Assistant Director
Susan Aitkin	Assistant Director (from 1 September 2008)
Claire Leach	Assistant Director (from 11 September 2008)
Laura Twible	Administrative Officer
Lianne Oliver	Executive Assistant
Elizabeth Counsel	Administrative Assistant (from 4 June to 24 October 2008).

Consultants

David Phillips and Professor Bruce Chapman (PhillipsKPA Pty Ltd) gave advice to the panel particularly in the areas of institutional and student financing.

Commissioned research

The panel commissioned research on:

Global position of Australian higher education until 2020 – a research-based report on the global positioning of Australian higher education from now until 2020, and the policy implications for Australia.

Professor Simon Marginson, Centre for the Study of Higher Education, University of Melbourne

Institutional revenue streams and cost-revenue dynamics – research and analysis to identify the elements of the internal cost-revenue dynamics of 12 Australian universities and to assess the potential effect of movement in costs or revenue.

PricewaterhouseCoopers

Future demand for higher education – research and analysis on the future demographic demand for higher education to contribute to an informed discussion on the likely quantum and nature of demand for higher education by prospective students over the next decade.

Dr Bob Birrell, Centre for Population and Urban Research, University of Melbourne

Future demand for higher education (demographic and labour market demand) – research and analysis on the future demand for higher education to contribute to an informed discussion on the likely quantum and nature of demand for higher education over the next decade by prospective students and industry.

Access Economics

University student engagement and satisfaction with learning and teaching – this literature review of student engagement and changes in student expectations in the Australian context was provided on a *pro bono* basis.

Professor Geoff Scott, Pro Vice-Chancellor (Quality), University of Western Sydney

Full funding for research – this paper looked at the shift in research co-investment requirements and the effect of current funding arrangements for research.

Dr Thomas Barlow, Thomas Barlow Advisory Services

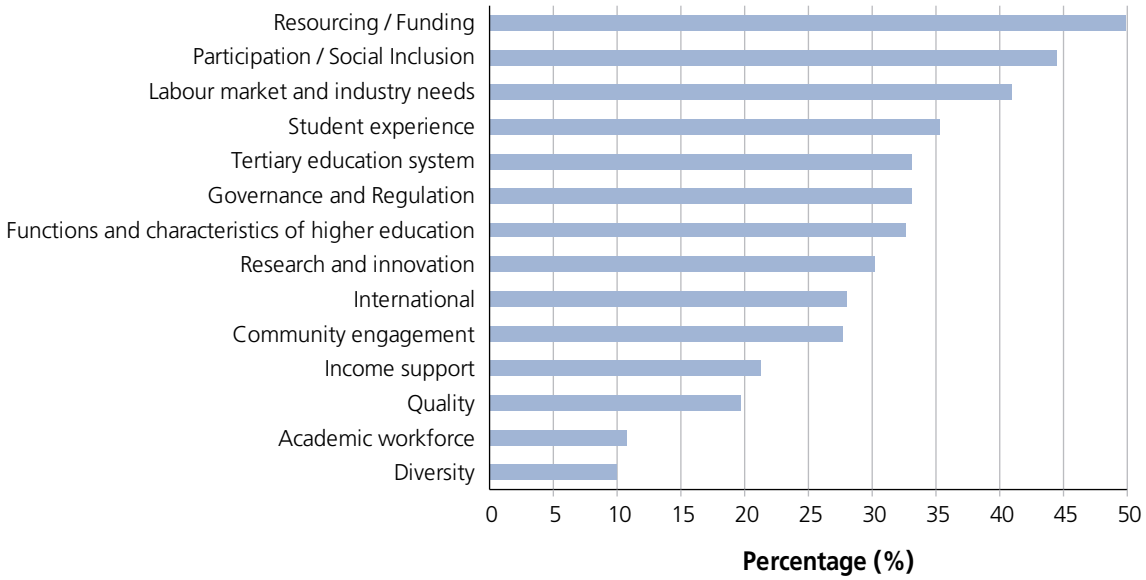
Appendix III. Submissions summary

The *Discussion Paper* elicited more than 350 submissions from individuals and institutions, as well as peak bodies in education, industry and the professions.

The largest percentage of submissions addressed the subject areas of:

- resourcing and funding;
- participation and social inclusion;
- labour market and industry needs; and
- student experience.

Figure 35: Submissions by topic



Source: Review of Australian Higher Education

Labour market and industry needs

Submissions identified several impediments to the higher education sector's ability to innovate in the development of courses and programs. Submissions from both business and industry peak bodies and the higher education sector highlighted the need for information on the future supply of and demand for skills. The lack of information was identified as a key barrier to effective and efficient course and program development.

Higher education providers identified inflexibility in the regulatory and funding regimes as major barriers to course and program innovation. Of particular concern to universities was the perceived barriers to moving Commonwealth supported places between funding clusters and, for non self-accrediting providers, the regulatory burden associated with the accreditation of new courses. The time and cost involved in developing new courses, as well as additional pressure on academic staff, were identified as barriers.

Many submissions emphasised a need for improved communication and collaboration between industry and higher education providers to identify areas of need and develop courses and programs. Business and industry called for greater flexibility and responsiveness in the delivery of courses, for example through short-term courses for upskilling of the existing workforce.

Submissions from business and industry, in particular, discussed the types of skills sought in graduates. Technical skills and generic employability skills (such as communication and language skills) were considered to be of equal importance. Some submissions suggested that many graduates lacked general skills and that greater emphasis was needed in this area in higher education curricula. Coordinated internship programs and increased funding for clinical placements were two suggestions on how to increase such skills.

Higher education's collaboration activities with industry and business were described in many submissions as largely *ad hoc* arrangements. While there was considerable support for a more coordinated national approach to encourage business and industry engagement, submissions did not generally support a central labour force planning model for the allocation of higher education funding.

Participation

A majority of submissions supported a national approach to improving access and success of students from a low socio-economic background and Indigenous participation in higher education. Many respondents suggested national targets should be set and improving participation of these disadvantaged groups should form an integral part of the strategic priorities of higher education providers.

Many submissions suggested that participation of students from a low socio-economic background and Indigenous students would be increased through improved secondary-school outcomes and there was significant support for higher education providers to undertake outreach activities in disadvantaged communities. Many submissions emphasised the importance of raising the aspirations of students at the secondary-school level, particularly for students from families with little or no experience of higher education.

In addition to improving outcomes to enable Indigenous students and students from a low socio-economic background to attend higher education, submissions also stressed that support for such students once they had enrolled in higher education was vital for their retention and success.

Financial hardship was identified as a major barrier to continued participation in higher education. Respondents expressed widespread concern about the income support system, including the age of independence, income and asset tests and the general level of payments. Many submissions suggested payments should be increased to enable students to live above the poverty line. Submissions identified anomalies in the application of the income support system and concerns were expressed about the eligibility criteria for the 'independent living at home' category of Youth Allowance.

Scholarships were considered an important source of financial assistance to students. Suggestions for increased support included expansion and simplification of the current Commonwealth Scholarships program and increasing the number and value of Australian Postgraduate Awards.

A major identified barrier to higher education participation was remoteness. Students who need to move away from home to undertake higher education were identified by submissions as under particular financial pressure and therefore less likely to participate.

The student experience

The student experience was one of the most commonly raised issues in submissions.

Student representative bodies identified a number of factors which they believe adversely affect the student experience. These included financial pressures on students due to the cost of living (particularly accommodation costs) and the expense of textbooks and course materials. The need to meet the costs of study and accommodation was identified as the catalyst for increased hours of paid work. Many submissions acknowledged the benefits for students of undertaking some work during their studies; however, it was suggested that the need to work significant hours each week adversely affected students' performance.

Several submissions highlighted the importance of student welfare and support services and extra-curricular activities. Concern was expressed about the apparent decline of student services and the non-academic aspects of campus life following the introduction of Voluntary Student Unionism. Indigenous centres were considered a vital service and students suggested stabilisation of funding levels and adequate staffing to ensure the continuing provision of services.

Student representative bodies identified accessibility to staff as an important factor in students' learning experience. Submissions suggested that increasing student-staff ratios have led to increased class sizes and staff being less accessible to students outside contact hours. Access to staff was a matter of particular concern for distance and Indigenous students.

Submissions also discussed the role of information and communication technology. While seen as an important adjunct to contact hours and a necessary and useful tool for off-campus students, submissions advocated the use of information and communication technology only as an addition to face-to-face teaching, not as a replacement. Several submissions highlighted the need for effective and reliable information and communication technology infrastructure in higher education institutions, particularly those with regional and multiple campuses.

Indigenous students emphasised the importance of the Indigenous Tutorial Assistance Scheme and called for measures to ensure Indigenous students receive adequate tutorial assistance.

Community Engagement

Response to the issue of community engagement was mixed.

Submissions defined the term 'community engagement' in varying ways. Most definitions suggested that community engagement involved collaborative or two-way relationships with parties external to the higher education provider. Some definitions specified that relationships could be established with community groups, industry, governments and other groups, while others provided a more general definition, suggesting it involved relationships with the host community or region. A number of submissions which sought to define community engagement argued that its purpose was for the mutual benefit of both the provider and the community or group.

Some submissions considered community engagement activities as a natural and integral part of a higher education provider's teaching and research activities. Of these, some considered the level of engagement was an indicator of successful teaching and research.

Alternatively, submissions viewed community engagement as a third and separate core function of higher education. Submissions indicated a perception that most of the higher education providers with specific community engagement programs were those in regional areas and whose local economies depend greatly on their existence. Some submissions emphasised the value of community engagement in the development of each provider's strategic teaching and research priorities.

Opinion differed on whether community engagement should be the basis for a third and separate stream of funding for higher education providers. Of those submissions that supported funding for community engagement activities, some did so on the basis that it was a separate core activity and some stated that higher education's economic and social contribution to regions and communities should be acknowledged through outcomes-based funding. Others supported funding on the basis that community engagement formed an integral part of teaching and research. Submissions that did not support additional funding for such activities suggested that community engagement was a standard element of higher education providers' core activities and as such did not warrant additional financial support.

Role of higher education and VET in tertiary education

Submissions from both vocational education and training providers and higher education providers consistently emphasised the importance of the differing roles and missions of the VET and higher education sectors within tertiary education. VET and higher education were differentiated by submissions on the basis of higher education's emphasis on research and scholarship and VET's emphasis on competency-based assessment.

Most submissions that discussed this issue suggested that better articulation and credit transfer was needed to meet labour market and industry needs (particularly through upskilling and retraining) and to increase participation in higher education. Submissions were generally supportive of a national approach. Articulation from VET to higher education was seen as vital to increasing participation, although several submissions also noted the growing importance of articulation from higher education to VET in order for graduates to gain skills needed in particular workplaces.

Submissions suggested that greater strategic coordination of the VET and higher education sectors was necessary to meet Australia's skills requirements. Several submissions also suggested that economies of scale could be achieved through the sharing of facilities and infrastructure, particularly in regional areas.

Many submissions also discussed the blurring of the boundaries between higher education and VET that had occurred in recent years, particularly at the diploma and advanced diploma levels and through an increase in dual-sector providers. Opinion was divided on whether diploma and advanced diploma qualifications should be classified as higher education courses and funded as such. Some submissions suggested that qualifications were on a continuum and should be funded regardless of the institution in which they are offered, whereas others supported a more distinct institutional boundary between the sectors.

International

In addition to acknowledging the importance of international education as an export industry, a significant number of submissions identified many benefits of internationalisation. They included increases to Australia's skills base, greater global awareness among Australian graduates, increased international research collaboration and improved international business and diplomatic relationships.

The government's role in international education was seen to be primarily one of quality assurance, which was considered vital to the maintenance and continued growth of the industry. Many submissions also discussed the role of government in the promotion and marketing of Australian higher education to potential international students.

Submissions emphasised the importance of attracting to Australia international students undertaking higher degrees by research. Several suggested government scholarships should be introduced or Australian Postgraduate Awards extended to international students to encourage young researchers to Australia.

Submissions highlighted the benefits to Australian students of undertaking part of their study overseas and supported greater financial assistance to students for this purpose. Financial hardship was identified as the main reason students do not take up opportunities to study overseas. This was particularly the case for students from a low socio-economic background or those living away from home. In addition to the costs of travel, submissions indicated that students are deterred by the need to resign from their casual or part-time jobs with no guarantee of employment upon return to Australia.

Resourcing

Funding was the most frequently addressed topic in submissions. There was strong support for an increase in overall funding for the higher education sector.

Funding levels and indexation arrangements were not believed to reflect the real costs faced by universities, particularly salary costs and the costs associated with operating multiple and regional campuses. While submissions acknowledged that a decrease in reliance on government funding as a source of revenue had encouraged universities to become more efficient and innovative in their operations, it was suggested that efficiency gains had been all but exhausted and the sector was now at a tipping point.

Submissions identified several negative unintended consequences of the current higher education funding arrangements. They included increased student-staff ratios, casualisation of the academic workforce, difficulty in attracting and retaining staff and under-investment in infrastructure. Many submissions also expressed concern about cross-subsidisation within universities, particularly the use of international student fees to subsidise the teaching of domestic students and the use of teaching grants to fund research.

Concern was frequently expressed by higher education providers about the number of small funding programs and the negative effects of competitive funding. Submissions described the current multiplicity of funding programs as inefficient, costly and creating additional and unnecessary regulation. There was considerable support for the continuation and extension of formula-driven funding models.

It was generally agreed that current funding arrangements were unsustainable and would not provide Australia's higher education system with the resources needed to remain globally competitive.

Submissions varied in their proposed funding models for higher education. However, there was considerable support among business and industry groups and the higher education sector for a new model to give primacy to demand from students. The main reason for support of a model driven by student demand was to increase flexibility. Current funding arrangements, including volume and price caps for each funding cluster, were considered by higher education providers to be unnecessarily rigid.

Some submissions suggested the removal of price caps for student contributions. Many submissions that took this approach suggested a gradual removal, with careful consideration of the possible price implications of low market competition in some regions.

Of submissions that supported a student-demand-driven or otherwise substantially deregulated funding model, many suggested that the Government should fund areas of national priority or where social or national benefits of particular courses or activities were not reflected in market outcomes. Areas proposed for separate government investment included areas of skills shortage, high-cost courses, and specific funding for increasing the numbers of students from a low socio-economic background and Indigenous participation.

The level and indexation of core funding was a main topic of concern for universities. Many suggested indexation of core funding to the Consumer Price Index or other indices to take into consideration movements in costs, particularly wages. Many suggested a base level of core funding linked to a percentage of Gross Domestic Product or calculated on comparison with competitor nations.

Many universities and private higher education providers expressed concern about anomalies within the current Higher Education Loan Program, such as the availability of FEE-HELP to private higher education providers. A number of private higher education providers advocated that funding should be uniform across the sector through the extension of Commonwealth Supported Places (and HECS-HELP) to their institutions. Several submissions suggested that the current income contingent loans be replaced by a single loan type.

Private higher education providers suggested their contribution to the sector should also be acknowledged through eligibility for infrastructure and other funding pools.

Many submissions advocated the distribution of funding, or a portion of it, based on performance against outcome targets and the provider's mission. Most submissions addressing this issue envisioned that the establishment of targets and missions could be achieved through a compacts process.

National innovation system

Submissions generally supported the current block grant arrangements for research funding and advocated increases to funding levels to cover the full cost of research. Submissions also called for increased research infrastructure funding.

Some submissions supported the concentration of research in a small number of universities, but others suggested that high-quality research should be funded regardless of its location.

Private higher education providers advocated the extension of eligibility for research funding to all higher education providers with research capacity.

Governance and regulation

A major theme of submissions was excessive or inefficient regulation.

Private higher education providers consistently expressed concern regarding the length of time, cost and complexity of course accreditation processes. There was generally considered to be fragmentation and duplication of regulatory and reporting requirements between the states and the Commonwealth. This was of particular concern to dual-sector providers and those operating across several jurisdictions, many of whom expressed concern about inconsistent application of mutual recognition in different states. Many submissions suggested that a clearer definition of the respective roles of the states and Commonwealth was needed.

Private higher education providers argued that current regulatory requirements prevented diversity and innovation in curricula. They highlighted the difficulties in benchmarking proposed new courses against existing courses in self-accrediting institutions.

Submissions from across the higher education sector supported the streamlining of current reporting requirements and accreditation processes, with nationally consistent standards of accreditation and quality assurance applying to all higher education providers. There was considerable support for an independent 'buffer body' to carry out these functions.

Submissions generally did not support the introduction of teaching only universities and were of the view that the term 'university' should only be available to institutions which conduct research. Several submissions supported access to a modified form of university title for self-accrediting institutions which, although having significant scholarship activities, did not meet the research requirements of the National Protocols for a full university title.

The Australian Universities Quality Agency (AUQA) audit process was generally believed to be valuable and useful to higher education providers in improving their quality assurance processes. However, there was support for greater focus on outcomes measures within Australia's quality assurance regime. Many self-accrediting providers believed that, although student satisfaction surveys were useful indicators, the introduction of measurable benchmarks and outcomes would better assist quality improvement.

Concern was expressed regarding the ability of the current Australian Qualifications Framework (AQF) to adapt to new and diverse qualifications and to changes in international standards. Submissions suggested amendments to the AQF to ensure greater clarity and less complexity.

Several submissions also called for review of the *Education Services for Overseas Students (ESOS) Act 2000* and accountability requirements to provide a more coherent regulatory framework.

Appendix IV. Submissions list

Note: These public submissions are listed in alphabetical order. Submissions with multiple authors are listed under the name of the first author. The submissions below are posted on the Review of Australian Higher Education page of the website of the Department of Education, Employment and Workplace Relations. Search by the submission number. The web address is: www.deewr.gov.au/he_review_submissions

Name	Submission Number
Professor Kym Abbott	298
ACM Laing and Associates	21
Adelaide University Union	338
Agri-Food Industry Skills Council	316
Allco Equity Partners Limited	133
David L Allen	48
Glenn Anderson	216
Professor Lawrence Angus	72
Association for Tertiary Education Management	230
Association for the Public University	282
Association of Architecture School of Australasia	292
Association of Consulting Engineers Australia	241
Association of Heads of Australian University Colleges and Halls Inc	278
Yiannis Attikiouzel and John Barker	254
AusSchol Inc	225
Australasian Association for Information Systems, Australian Council of Professors and Heads of Information Systems, Information Systems Board of the Australian Computer Society	260
Australasian Association of Philosophy	240
Australasian Council of Deans of Arts, Social Sciences and Humanities	287
Australasian Council on Open, Distance and e-Learning	109
Australasian Institute of Mining and Metallurgy, The	300
Australasian Institute of Mining and Metallurgy – Illawarra Branch	47
Australasian Society for HIV Medicine	258
Australasian Veterinary Deans Committee	297
Australia and New Zealand Student Services Association	213
Australia China Professional Network	78
Australian Academy of Science	111
Australian Academy of the Humanities, The	267
Australian Academy of Technological Sciences and Engineering	81
Australian and New Zealand Association of Theological Schools, The	96
Australian and New Zealand Academy of Management	45
Australian and New Zealand College of Anaesthetists	315
Australian Association of Graduate Employers	214
Australian Capital Territory Department of Education and Training	345
Australian Catholic University	166

Miriam Dayhew	116
Deakin University	93
Deakin University Student Association	263
Richard DeAngelis	31
Dept of Education Services and Department of Education and Training Western Australia	203
Department of Families, Housing, Community Services and Indigenous Affairs	74
Department of Health and Ageing	350
Department of Health, Western Australia	87
Professor Marcia Devlin	40
Dieticians Association of Australia	220
Drummond Street Relationship Centre	272
Susan Dunn	35
Professor Dave Dunstan	158
Dusseldorp Skills Forum	277
Dale Edgar	320
Edith Cowan University	195
Edith Cowan University Student Guild	212
Education Adelaide	265
Education.au	60
Engineers Australia	269
Equal Opportunity Practitioners in Higher Education Australia	259
Faculty of Science Industry Advisory Group, The University of Melbourne	114
Federal Council of the Isolated Children's Parents' Association of Australia	16
Terrie Ferman	9
Financial Management Association of Australia	336
Philippa Findlay	71
Robyn Flack	70
Flinders University of South Australia, The	198
Professor Bill Ford and Professor Michael Coper	274
Dr Mark Frankland	335
Professor James Franklin	27
Peter Freere	236
Ephiny Gale, Miriam Glasby, Adam Taranto and Mathew Hilakari	238
Professor Steve Garlick	86
General Sir John Monash Foundation, The	317
Geraldton University Access Group	273
Peter Gilchrist	15
Naomi Godden	279
Gold Coast City Council	131
John Goldring	18
Gordon Institute of TAFE	217
The Hon Gary Gray, MP, Federal Member for Brand	95
Griffith University	19
Group of Eight Limited, The	100

Monash Student Association	290
Monash Student Association, Welfare Department	253
Monash University	124
Monash University Student Guild	224
Murdoch University	186
Murdoch University Guild of Students	293
Museum of Contemporary Art	105
Phillip Nance	251
National Association of Graduate Careers Advisory Services, The	102
National Centre for Student Equity in Higher Education	141
National Centre for Vocational Education Research Ltd	208
National Farmers' Federation	252
National Health and Medical Research Council	90
National Herbalists Association of Australia	142
National Institute of Governance	122
National Labor Students	309
National Liaison Committee for International Students	304
National Tertiary Education Industry Union	231
National Tertiary Education Industry Union - NSW Division	130
National Tertiary Education Union	140
National Union of Students	326
National Union of Students - Indigenous Department	327
National Union of Students - Victoria Branch	305
National Welfare Rights Network	343
Navitas Limited	268
New South Wales Government	347
New South Wales Nurses' Association	280
New South Wales TAFE Commission Board	161
New South Wales Young Lawyers Civil Litigation Committee	211
Newcastle University Students Association Inc	271
Roger Nillsen	264
John Norman	8
Northern Melbourne Institute of TAFE	88
Northern Territory Department of Employment, Education and Training	221
Northern Territory Department of Health and Families	325
Andrew Norton	91
Carol O'Donnell	242
Office of Knowledge Capital	266
Open Universities Australia	296
Professor Stephen Parker	189
Professor Allan Patience	69
Physiotherapy Clinical Placement Working Group Western Australia	164
Professions Australia	58
Queensland Government	353
Queensland Resources Council	323

Queensland Tourism Industry Council	61
Queensland University of Technology	147
Queensland University of Technology Student Guild	123
Raffles College of Design and Commerce	234
Research Australia	113
Peter Retallick	5
RMIT University	178
Royal Australian College of Physicians, The	30
Royal Australasian College of Surgeons	294
Royal Australian Chemical Institute	49
Royal College of Nursing Australia	200
Angela Rozali	85
Professor Hyam Rubenstein and Professor Philip Broadbridge	261
Dr John Russell	80
Dr Robin Ryan	13
Howard Sachs	17
Nev Schefe	23
Professor Steven Schwartz	66
Service Skills Australia	281
Benedict Sheehy	151
Robert Simpson	2
Smith Family, The	340
South West Group	128
Southern Cross University	110
Speech Pathology Australia	219
Dr Anthony Stokes and Dr Sarah Wright	22
Lyndon Storey	257
Student Equity and Disabilities Unit, University of New South Wales	117
Student Financial Advisers Network	152
Anna Sutherland	73
Swan TAFE	249
Swinburne University of Technology	207
Sydney College of Divinity	157
Sydney Conservatorium of Music	244
Sydney University Postgraduate Representative Association	307
TAFE Directors Australia	180
TAFE Queensland	127
TAFE South Australia Network Executive	119
Professor M Thornton	89
Dr Keith Tognetti	75
Dr Dario Toncich, Dr Rowan Deam, Dr David Liley, Dr Engida Lemma and John Bishop	14
Phillip Toner	329
Alicia Toohey and Elizabeth Ruinard	284
Robert Traill	235

Trinity College	121
Professor Patrick Troy	321
Universities Australia	179
University of Adelaide, The	101
University of Ballarat	50
University of Canberra Students' Association Inc	286
University of Melbourne, The	289
University of Melbourne Student Union, The	303
University of New England	190
University of New South Wales	184
University of New South Wales Student Representative Council	237
University of Newcastle	108
University of Notre Dame Australia, The	191
University of Queensland, The	187
University of South Australia	169
University of Southern Queensland	194
University of Sydney Union	239
University of Tasmania	112
University of Technology, Sydney	193
University of the Sunshine Coast	46
University of Sydney, The	167
University of Sydney Students' Representative Council, The	308
University of Western Australia	165
University of Western Australia Student Guild	288
University of Western Sydney	175
University of Western Sydney Conference and Residential Colleges Limited	39
University of Wollongong	148
Victoria University	185
Victorian College of the Arts	132
Victorian Government	346
Victorian TAFE Association	270
Professor Helen Ware	170
Warrnambool City Council	256
Donald W Watts	10
Wellington Shire Council	64
Western Australia Health	146
Western Sydney Regional Organisation of Councils Ltd	310
Dr Andrew Wetzig	34
William Angliss Institute of TAFE	206
Wyatt Benevolent Institution Inc, The	55
Dr Keiko Yasukawa and Dr Tony Brown	125
Professor Ian Young	52

Appendix V. Attendance at consultations

Notes:

1. As not all participants signed the attendance sheets, the lists below are not exhaustive.
2. The panel or its chair also met with various other people during the course of the review including:

   Mr Philip Bullock, Chair of Skills Australia;
   Mr Phillip Clark AM, Chair of the Higher Education Endowment Fund Advisory Board;
   Dr Terry Cutler, Chair of the Review of the National Innovation System; and
   Mr Anthony Pollock, Chief Executive, IDP Education Pty Ltd.

3. The discussions held in these sessions helped to inform the views of the panel and, while notes were taken, there was no formal record kept of these discussions.

Sydney: 18–20 June 2008

State government representatives

Name	Organisation
Chris Burvill	Department of Education and Training, NSW
Sarah Dudgeon	Department of Education and Training, NSW
Martin Graham	Department of Education and Training, NSW
Megan Jones	Department of Education and Training, NSW
Leslie Loble	Department of Education and Training, NSW
Marie Persson	Department of Education and Training, NSW
Andrew Rolfe	Department of Education and Training, NSW
Graham Wood	Department of Education and Training, NSW

Universities

Name	Institution
Professor Carol Armour	The University of Sydney
Nicola Best	Southern Cross University
Professor Peter Booth	University of Technology, Sydney
Mark Burdack	Charles Sturt University
John Cameron	Australian Catholic University
Professor Stuart Campbell	University of Western Sydney
Margaret Connolly	University of Technology, Sydney
Jason Coombs	University of New South Wales
Professor Greg Craven	Australian Catholic University
Professor Merlin Crossley	The University of Sydney
Professor Stephen Crump	University of Newcastle
Professor Anne Cusick	University of Western Sydney
Professor Mitchell Dean	Macquarie University
Fleur Edwards	Australian Catholic University

Katy Fernandez	The University of Sydney
Victoria Finlay	University of New South Wales
Professor Barry Glover	University of Newcastle
Professor Lyn Gorman	Charles Sturt University
Professor Ian Goulter	Charles Sturt University
Professor Fred Hilmer	University of New South Wales
Damien Israel	University of Wollongong
Professor William MacGillivray	Southern Cross University
Professor Gabrielle McMullen	Australian Catholic University
Professor Ross Milbourne	University of Technology, Sydney
Professor Don Nutbeam	University of Sydney
Chris Patton	University of New England
Professor Alan Pettigrew	University of New England
Professor Jim Piper	Macquarie University
Professor Janice Reid	University of Western Sydney
Adrian Robinson	University of New England
Professor Steven Schwartz	Macquarie University
Professor Geoff Scott	University of Western Sydney
Colin Sharp	Charles Sturt University
Aden Steinke	University of Wollongong
Professor Gerard Sutton	University of Wollongong
Dr Peter Tannock	University of Notre Dame Australia
Caroline Trotman	University of Technology, Sydney
Eve Woodberry	University of New England

Peak bodies

Name	Organisation
Peter Burn	Australian Industry Group
Alan Finch	Council of Private Higher Education Inc
The Hon Patricia Forsyth	Sydney Chamber of Commerce
Megan Lilly	Australian Industry Group
Kara Martin	Council of Private Higher Education Inc
Adrian McComb	Council of Private Higher Education Inc
Dr Brian Millis	Council of Private Higher Education Inc
Kathy Rankin	NSW Business Chamber

Student associations

Name	Organisation
Phuong Au	Arc Representative Council, UNSW
Elise Auriac	QUT Student Guild
Kate Barnsley	Sydney University Postgraduate Representative Association
David Barrow	National Union of Students
Phil Betts	Macquarie University Postgraduate Representative Association
Michael Bonning	Australian Medical Students Association

Kobie Howe	University of Canberra Students Association
Kate Laing	University of Sydney SRC
Beth Maloney	Newcastle University Students Association
Angus McFarland	National Union of Students
Eric Pang	National Liaison Committee
Jamila Rizvi	ANU Students Association

Professional bodies

Name	Organisation
Professor Ken Buckle	Australian Institute of Food Science and Technology
Jim Callan	Australian Market and Social Research Society
Dr Maria Craig	Australasian Paediatric Endocrine Group
Helga Diamond	Advertising Federation of Australia
Dr Sharyn Eaton	Chiropractors' Association of Australia (National)
Ruth Ferra	Taxation Institute of Australia
Annie Gibbins	Australian Orthopaedic Association
Liz Hammer	National Herbalists Association of Australia
Dr Dennis Mather	Australian Institute of Nuclear Science and Engineering
Dennis Sligar	Royal Australia & NZ College of Ophthalmology for Eye Surgeons
Maria Spies	Institute of Internal Auditors

Private providers

Name	Institution
Helen Batey	Blue Mountains Hotel School
Guy Bentley	Blue Mountains Hotel School
Jenny Bridge	Australian Institute of Music
Dr George Brown	Think: Colleges Pty Ltd
Rev Dr Peter Carblis	Tabor College NSW
Dr Maggie Christensen	Nature Care College
Dr John Cox	Avondale College
Andrew Dawkins	Sydney Institute of Business Technology
Adrian Deans	College of Law
Dr Scott Dickson	Australian College of Physical Education
James Fitzgibbon	Tabor College NSW
Rev Dr John Fleming	Campion College
Gary Greig	Australian College of Applied Psychology
Dr Phil Hamdorf	Australian College of Physical Education
Tony Heywood	Campion College
Alan Hohne	Moore Theological College
Jonathon Howe	Raffles College of Design and Commerce
Bruce Hunter	Australian Film Television and Radio School
Sonia Jeffars	Sydney Institute of Business Technology
Professor Zbys Klich	SAE Institute
James Langridge	ITC Education Ltd

Dr Raffaele Marcellino	Australian Institute of Music
George Markakis	JMC Academy
Matthew Mellsop	Australian College of Applied Psychology
Ass. Professor Gerard Moore	Sydney College of Divinity
Jane Mourao	Raffles College of Design and Commerce
Janet Olliver	Think: Colleges Pty Ltd
Peter Ryan	SAE Institute
The Rev. Dr Bill Salier	Moore Theological College
Dr Diane Speed	Sydney College of Divinity
Ian Tobin	ITC Education Ltd
Robyn Tudor	JMC Academy
Ian Tudor	Whitehouse Institute of Design, Australia
Dr Ken Wade	Australian College of Theology
Dr Vivienne Watts	Avondale College

Melbourne: 23–25 June 2008, 16 July 2008

State government representatives

Name	Organisation
The Hon Jacinta Allan, MP	Minister for Skills and Workforce Participation, Victoria
Philip Clarke	Skills Victoria, Dept Innovation, Industry & Regional Development
Professor Peter Dawkins	Department of Education and Early Childhood Education, Victoria
Sandy Forbes	Department of Planning and Community Development, Victoria
Katy Haire	Department of Premier and Cabinet, Victoria
Rick Johnson	Department of Treasury and Finance, Victoria
Steve Kozel	Department of Human Services, Victoria
Kim Little	Department of Premier and Cabinet, Victoria
George McLean	Department of Education and Early Childhood Education, Victoria
Howard Ronaldson	Dept of Innovation, Industry and Regional Development, Victoria
Brendan Sheehan	Dept of Innovation, Industry and Regional Development, Victoria
Kim Sykes	Department of Human Services, Victoria

Universities

Name	Institution
Professor Jim Barber	RMIT University
Professor David Battersby	University of Ballarat
Michael Beaton-Wells	The University of Melbourne
Professor Mary Ann Bin-Sallik	Charles Darwin University
Professor Tim Brown	La Trobe University
Dr Rob Brown	Victoria University
Professor Richard Carter	Victoria University
Professor Ian Chubb	Australian National University
Professor Paul Clark	Southern Cross University, Universities Australia
Professor Peter Coaldrake	Queensland University of Technology, Universities Australia

Professor Edwina Cornish	Monash University
Joseph Costigan	Open Universities Australia
Professor Kerry Cox	Edith Cowan University
Professor Glyn Davis	University of Melbourne
Professor David de Vaus	La Trobe University
Professor Marcia Devlin	Deakin University
Professor Susan Elliott	University of Melbourne
Michael Gallagher	Group of Eight
Professor Margaret Gardner	RMIT University
Professor Helen Garnett	Charles Darwin University, Universities Australia
Graeme Gower	Edith Cowan University
Stuart Hamilton	Open Universities Australia
Dr Rebecca Harris	Universities Australia
Professor Richard Henry	University of New South Wales
Darren Holland	University of Ballarat
Conor King	Victoria University
Professor Richard Larkins	Monash University, Universities Australia
Professor Daryl Le Grew	University of Tasmania, Universities Australia
Professor Garry Marchant	Bond University
Ian Marshman	University of Melbourne
Lin Martin	Deakin University
Professor Fred McDougall	The University of Adelaide
Jill Milroy	University of Western Australia,
Andrew Norton	The University of Melbourne
Professor Stephen Parker	University of Canberra
David Pitt	Monash University
Professor Belinda Probert	La Trobe University
Professor Boni Robertson	Griffith University
Professor Wayne Robinson	University of Ballarat
Professor Alan Robson	The University of Western Australia
Peter Rodely	Universities Australia
Professor John Rosenberg	Deakin University
Valerie Runyan	University of Ballarat
Gary Shipp	Charles Sturt University
Professor Adam Shoemaker	Monash University
Fiona Simpson	Open Universities Australia
Andrew Simpson	Deakin University
Dr Michael Spence	The University of Sydney
Professor Hal Swerissen	La Trobe University
Professor Roger Thomas	University of Adelaide
Professor Paul Thomas	University of the Sunshine Coast
Professor Sally Walker	Deakin University
Dr Julie Wells	RMIT University
Professor Sue Willis	Monash University

Dr Glenn Withers	Universities Australia
Professor Ian Young	Swinburne University of Technology

Peak bodies

Name	Organisation
John Van Beveren	Australian Council for Private Education and Training
Professor Mary Ann Bin-Sallik	Indigenous Higher Education Advisory Council
Neil Edwards	Australian Council for Private Education and Training
Patrick Coleman	Business Council of Australia
Graeme Gower	Indigenous Higher Education Advisory Council
Jenny Hayes	Australian Council for Private Education and Training
Professor Jeannie Herbert	Indigenous Higher Education Advisory Council
Paul Large	Indigenous Higher Education Advisory Council
Jill Milroy	Indigenous Higher Education Advisory Council
Professor Boni Robertson	Indigenous Higher Education Advisory Council
Professor Mark Rose	Indigenous Higher Education Advisory Council
Gary Shipp	Indigenous Higher Education Advisory Council
Andrew Smith	Australian Council for Private Education and Training
Professor Roger Thomas	Indigenous Higher Education Advisory Council
Dr Maggie Walter	Indigenous Higher Education Advisory Council

Student associations

Name	Organisation
Peter Boyle	La Trobe University Students Representative Association
Libby Buckingham	University of Melbourne Student Union
Caspar Cumming	Swinburne Student Union
Nadike Edirisinghe	Victoria University Students Association
Cayla Edwards	Deakin University Student Association
Lavina Emmett-Grey	Adelaide University Union
Anthony Fricker	Monash Postgraduate Association
Graham Hastings	National Union of Students
Mathew Hilakari	Monash Student Association
Tom Morgan	Swinburne Student Union
Katherine Nix	Bendigo Student Association
Nigel Palmer	Council of Australian Postgraduate Associations
Joseph Provenzano	Flinders University Postgraduate Student Society
Leslie Anne Schmidt	Monash University Gippsland Student Union
Lachie Slade	Wodonga Student Association
Sharon Smith	National Union of Students
Rob Stephenson	Bendigo Student Association
Collette Swindells	Curtin Student Guild
Michelle Tatyzo	Flinders University Student Council
Tony Williams	University of Melbourne Postgraduate Association

Vocational education and training providers

Name	Institution
Maxine Degraaff	Gippsland TAFE
Mary Favaone	Holmesglen Institute of TAFE
Neil Fernandes	Central TAFE Perth
Louise Palmer	Swinburne University of Technology
Martin Riordan	TAFE Directors Australia
Christine Robertson	RMIT University
V Simmons	Chisholm Institute of TAFE
Greg Waddell	Kangan Batman Institute of TAFE
David Williams	Victorian TAFE Association
Susan Young	Victoria University

Professional associations

Name	Organisation
Joy Acquaro	Law Institute of Victoria
Caroline Armstrong	CPA Australia Ltd
Marie Atherton	Speech Pathology Australia
Emile Badawy	Australian Institute of Radiography
Richard Blythe	Royal Australian Institute of Architects
Peter Chaffey	Office of Knowledge Capital, Melbourne City Council
David Collier	Australian Institute of Radiography
Tricia Hughes	Australian Association of Massage Therapists
Carolyn Hughes	Australian Institute of Refrigeration Air Conditioning and Heating
Bo Li	The Australian Psychological Society
Professor Lyn Littlefield	The Australian Psychological Society
Julie McCormack	Law Institute of Victoria
Dr Mel Miller	Royal Australasian College of Physicians
Dorothy Morgan	National Institute of Accountants
Michael Nazzari	The Institute of Chartered Accountants
Leanne Percy	Australian Institute of Management
Ian D Rae	Royal Australian Chemical Institute
Helen Steel	Office of Knowledge Capital, Melbourne City Council
Spero Tsindos	Australian Naturopathic Practitioners Association
Dr Peter White	Royal Australian and New Zealand College of Obstetricians

Private providers

Name	Institution
Elizabeth Anderson	Melbourne College of Divinity
Dr Paul Beirne	Melbourne College of Divinity
Assoc Professor Meeuwis Boelen	Northern Melbourne Institute of TAFE
Dr Coral Brown	Cairnmillar Institute
Jennifer Burrows	Box Hill Institute
Professor Peter Carpenter	Melbourne College of Divinity
Dr Angelo Cettolin	Harvest Bible College
Prof. Nicodemos Charalambous	Oceania Polytechnic Institute of Education
Robert Close	Melbourne Institute of Business and Technology
Dr Greg Cusack	Monash College
Rev Dr John Capper	Tabor Victoria
Dr John Duncan	Melbourne Institute of Business and Technology
Mary Faraone	Holmesglen Institute of TAFE
Tony Hudson	Marcus Oldham College
Dr Ern Knoop	Australian Guild of Music Education
Dr Warren Lett	The Melbourne Institute for Experiential Creative Arts Therapy
Vanessa Los	William Angliss Institute of TAFE
Bruce MacKenzie	Holmesglen Institute of TAFE
John Miles	Marcus Oldham College
Jo Mithen	Monash College
Stephen Nagle	Holmes Institute
Bernadette Norton	Australian Guild of Music Education
Jennifer Oliver	Box Hill Institute
Rev Dr Frank Rees	Melbourne College of Divinity
Dr Peter Schmidt	Holmes Institute
Professor Raymond Stebbins	Australian Academy of Design
Dr Robert Treseder	Australian Academy of Design

Perth: 3–4 July 2008

State government representatives

Name	Organisation
The Hon Mark Gowan, MLA	Minister for Education and Training, WA
David Lloyd	Department of Education Services, WA
Alan Marshall	Department of Education Services, WA
Robert Player	Department of Education Services, WA
Richard Strickland	Department of Education Services, WA
Terry Werner	Department of Education Services, WA

Universities

Name	Institution
Les Ammon	Curtin University of Technology
Ian Callahan	Murdoch University
Prof. Brenda Cherednichenko	Edith Cowan University
Professor Kerry Cox	Edith Cowan University
Peter Curtis	The University of Western Australia
Professor Jane den Hollander	Curtin University of Technology
Professor John Finlay-Jones	Edith Cowan University
Peter Glasson	University of Notre Dame Australia
Professor Celia Hammond	University of Notre Dame Australia
Rob McCormack	The University of Western Australia
Professor Mark McKenna	University of Notre Dame Australia
Gaye McMath	The University of Western Australia
Professor Arshad Omari	Edith Cowan University
John Pike	Murdoch University
Professor Robyn Quin	Curtin University of Technology
Professor Jim Reynoldson	Murdoch University
Professor Margaret Seares	The University of Western Australia
Dr Peter Tannock	University of Notre Dame Australia
Professor Jan Thomas	Murdoch University
Dr Melinda Thompson	Curtin University of Technology

Peak bodies and professional associations

Name	Organisation
Paul Flatau	Murdoch Business School
Anne Griffiths	Australian Chamber of Commerce and Industry
Janis Lake	Engineers Australia
Tony Noonan	MacMahon Contractors
Laura Price	Australian Chamber of Commerce and Industry
Sandra Robinson	Skills Strategies International
Don Sanders	Australian Petroleum Production and Exploration Association
Sean Wrigley	Australian Chamber of Commerce and Industry

Student associations

Name	Organisation
Nik Barron	UWA Student Guild
Gina Barron	UWA Student Guild
Paul Buise	National Australian Pharmacy Students Association
Shane Cucow	ECU Student Guild
James Henderson	Notre Dame Student Association
Manish Jhowry	Curtin International Students
Magdeline Lum	Murdoch Postgraduate Students Association

Amy McAlpine	ECU Postgraduate Students Association
Clare Middlemas	Murdoch Student Guild
Gillianne Nichol	Murdoch University regional representative
Eden Ridgeway	National Union of Students
Glen Stasiuk	Murdoch University Indigenous rep
Collette Swindells	Curtin Student Guild

Vocational education and training and private providers

Name	Institution
Lynette Farrell	Swan TAFE
Kim Wood	Swan TAFE
Andrew Crevald	Perth Institute of Business and Technology
Lina Ridley	Perth Institute of Business and Technology
Dr Maria Fiocco	Curtin International College

Brisbane: 7 July 2008

State government representatives

Name	Organisation
The Hon Rodney Welford, MP	Minister for Education and Training and Minister for the Arts
Ian Hawke	Department of Education, Training and the Arts, Qld
Ian Kimber	Office of Higher Education Qld
Linda Schlanger	Department of Education, Training and the Arts, Qld
Dick Steel	Department of Primary Industries and Fisheries, Qld
Greg Thurlow	Office of Higher Education, Qld
Carol Webb	TAFE Queensland
Karen Wharton	Department of Tourism, Regional Development and Industry, Qld

Universities

Name	Institution
Professor Graham Baker	University of Southern Queensland
John Clarke	University of Southern Queensland
Professor Peter Coaldrake	Queensland University of Technology
Rennie Fritschy	Central Queensland University
Professor David Gardiner	Queensland University of Technology
Professor Debra Henly	Bond University
Professor Greg Hill	University of the Sunshine Coast
Professor Michael Keniger	The University of Queensland
Professor Jennelle Kyd	Central Queensland University
Margaret Lavery	The University of Queensland
Professor Alan Lawson	The University of Queensland
Professor Lynne Hunt	University of Southern Queensland
Professor Garry Marchant	Bond University

Colin McAndrew	Griffith University
Professor Marilyn McMeniman	Griffith University
Dr Gavin Moodie	Griffith University
Professor Raoul Mortley	Bond University
Mark Nugent	University of the Sunshine Coast
Professor Ned Pankhurst	Griffith University
Lindsay Parker	The University of Queensland
Dr Neil Peach	University of Southern Queensland
Professor Arun Sharma	Queensland University of Technology
Scott Sheppard	Queensland University of Technology
Professor Rod Simpson	University of the Sunshine Coast
Professor Robert Stable	Bond University
Dr Lawrence Stedman	Queensland University of Technology
Peter Sullivan	University of the Sunshine Coast
Jim Tolhurst	Central Queensland University
Ken Window	Central Queensland University

Peak bodies

Name	Organisation
Professor John Hay	Australian Learning and Teaching Council
Professor Richard Johnstone	Australian Learning and Teaching Council

Vocational education and training and private providers

Name	Institution
Dr Les Ball	Brisbane College of Theology
Linda Brown	Metropolitan South Institute of TAFE
Dr Terry Clark	Southbank Institute of Technology
Faye Crane	Christian Heritage College
Mike Diezmann	Brisbane North Institute of TAFE
John Feenie	Australian College of Natural Medicine & College of Natural Beauty
Cameron Lloyd	Shafston Institute of Technology
Dr Brian Millis	Christian Heritage College
Ann Poiner	Queensland Institute of Business and Technology
Mark Shoring	Australian College of Natural Medicine & College of Natural Beauty
Heather Tinsley	Queensland Institute of Business and Technology
Robyn Tyler	Southbank Institute of Technology

Darwin: 8 July 2008

Universities

Name	Institution
Claire Baxter	Charles Darwin University
Dr Sharon Chirgwin	Batchelor Institute of Indigenous Tertiary Education
Professor Joe Fraser	Batchelor Institute of Indigenous Tertiary Education
Peter Garrigan	Batchelor Institute of Indigenous Tertiary Education
Professor Jeannie Herbert	Batchelor Institute of Indigenous Tertiary Education
Martin Heskins	Batchelor Institute of Indigenous Tertiary Education
Graham Pegg	Charles Darwin University
Professor Adrian Walter	Charles Darwin University
Professor Bob Wassen	Charles Darwin University

Territory government representatives

Name	Organisation
Margaret Banks	Department of Employment, Education and Training, NT
Ken Davies	Department of Employment, Education and Training, NT
John Hassed	Department of Employment, Education and Training, NT
Kim Jenkinson	Department of Employment, Education and Training, NT

Adelaide: 15 July 2008

State government representatives

Name	Organisation
The Hon Dr J. Lomax Smith, MP	Minister for Education, SA
Jan Andrews	Department of Education and Children's Services, SA
Elaine Bensted	Dept of Further Education, Employment, Science & Technology, SA
Brian Cunningham	Dept of Further Education, Employment, Science & Technology, SA
Craig Fowler	Dept of Further Education, Employment, Science &Technology, SA
Jo Hoiles	Department of Health, SA
Dr Sophia Matiasz	Dept of Further Education, Employment, Science & Technology, SA
Dr Susie O'Connor	Department of Premier and Cabinet, SA
Robyn Parkes	Department of Health, SA
Richard Symonds	Dept of Further Education, Employment, Science & Technology, SA
Rosemary Whitten	Department for Families and Communities, SA

Universities

Name	Institution
Professor Mike Brooks	The University of Adelaide
Paul Duldig	The University of Adelaide
Professor Dean Forbes	Flinders University
Professor TK Lim	Carnegie Mellon University

Hayden MacGinnes	Carnegie Mellon University
Professor Caroline McMillen	University of South Australia
Professor James McWha	The University of Adelaide
Karyn Moore	Carnegie Mellon University
Dr Sally Nimon	University of South Australia
Professor Andrew Parkin	Flinders University
Peter Prest	University of South Australia
Professor Rick Russell	The University of Adelaide
Professor Hilary Winchester	University of South Australia

Vocational education and training and private providers

Name	Institution
Sally Dukic	Adelaide Central School of Art
Ursula Franck	Australian Lutheran College
Dr Stephen Haar	Australian Lutheran College
Peter Miller	Navitas, South Australia
Dr Don Owers	Tabor College Adelaide
Malcolm Raedel	Navitas, South Australia
Dr Stephen Spence	Tabor College Adelaide
Associate Professor Rod Taylor	Adelaide Central School of Art

Hobart: 17 July 2008

State government representatives

Name	Organisation
Mike Brough	Skills Tasmania
Rob Dobson	Skills Tasmania
Terry Macarthur	Department of Premier and Cabinet, Tasmania
John Smyth	Department of Education, Tasmania
Keith Thompson	Skills Tasmania
Rob Thompson	Department of Education, Tasmania

Universities

Name	Institution
Paul Barnett	University of Tasmania
Professor Gail Hart	University of Tasmania
Professor Daryl Le Grew	University of Tasmania
Aileen Lyle	Tabor College Tasmania
John Morse	Tabor College Tasmania
Professor Malek Pourzanjani	University of Tasmania

Canberra: 24–25 July 2008

Territory government representatives

Name	Organisation
Andrew Barr, MLA	Minister for Education and Training
Ross Hughes	ACT Department of Education and Training

Universities

Name	Institution
David Akers	The Australian National University
Andrew Bailey	University of Canberra
Professor Michael Barber	Flinders University
Professor George Cho	University of Canberra
Professor Ian Chubb	The Australian National University
Professor Peter Coaldrake	Queensland University of Technology
Lenore Cooper	Innovative Research Universities Australia
Professor Elizabeth Deane	The Australian National University
Professor Margaret Gardner	RMIT University
Professor Sandra Harding	James Cook University
Professor Paul Johnson	La Trobe University
Professor Carole Kayrooz	University of Canberra
Professor Peter Lee	University of South Australia
Professor Ross Milbourne	University of Technology, Sydney
Professor Ian O'Connor	Griffith University
Anne Randell	Innovative Research Universities Australia
Professor Nick Saunders	University of Newcastle
Vicki Thompson	Australian Technology Network
Professor John Yovich	Murdoch University

Peak bodies

Name	Organisation
Mary Hicks	Australian Chamber of Commerce and Industry
Caroline Ostrowski	Association of Consulting Engineers Australia
Dr David Woodhouse	Australian Universities Quality Agency

Student associations

Name	Organisation
Graham Hastings	National Union of Students
Liz Larbalestier	National Union of Students
Angus McFarland	National Union of Students
Lucy Saunders	National Union of Students
Sheena Watt	National Union of Students

Professional bodies

Name	Organisation
Maurice Allen	Engineers Australia
Kandie Allen-Kelly	Australian Association of Social Workers
Ian Argall	Australian Higher Education Industrial Association
Emeritus Professor Alan Bradley	Engineers Australia
Dr John Aspley Davis	ACT Veterinary Sciences Board
Dr John Bell	Australian Academy of Technological Sciences and Engineering
Levinia Crooks	Australasian Society for HIV Medicine
Dr Kevin Doyle	ACT Veterinary Association
Malcolm Farrow	Professions Australia
Christine Harding	Architects Accreditation Council of Australia
Dr Lindsay Heywood	National Accreditation Authority for Translators and Interpreters
Sue Hutley	Australian Library and Information Service
Andrew McCredie	Australian Services Roundtable
Professor Ross Milbourne	Australian Higher Education Industrial Association
Robin Parisotto	Australian Pharmacy Council
Belinda Russell	Australian Medical Association
Terry Sanders	Australian Institute of Quantity Surveyors
Professor Dick Smallwood	Australian Medical Council
Leanne Wells	Australian General Practice Network
Rachel Yates	Australian General Practice Network

Vocational education and training providers

Name	Institution
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Martha Kinsman	TAFE Directors Australia
Kaye O'Hara	Canberra Institute of Technology
Martin Riordan	TAFE Directors Australia

Townsville: 28 July 2008

Name	Organisation
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Tricia Brand	James Cook University
Professor Chris Cocklin	James Cook University
Trevor Cowling	Roberts Nehmer McKee
Dr Felicity Croker	Northern Area Health Service
Robyn Dyer	Great Barrier Reef Institute of TAFE
Professor Sandra Harding	James Cook University
Peter Mellor	Department of Tourism, Regional Development and Industry
Dr Ian Poiner	Australian Institute of Marine Science
Don Pollock	North Queensland Area Consultative Committee

Kiel Shuttleworth	James Cook University Student Association
Professor Ian Wronski	James Cook University

Albury/Wodonga: 7 August 2008

Name	Organisation
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Stuart Baker	Albury City Council
Dr Craig Beverly	Department of Primary Industries
Jack Chubb	Murray Catchment Management Authority
Sue Clarke	Primary Care Partnership, Loddon
Dr Lin Crase	La Trobe University
Ian Crossley	Albury High School
David Ensor	La Trobe University
Professor David Finlay	La Trobe University
Dr Arthur Fraunfelder	Hume Animal Hospital
Professor Ben Gawne	Murray Darling Freshwater Research Centre
Professor Ian Goulter	Charles Sturt University
Peter Harper	Border Dental Study Group
Professor Terry Hillman	Regional Advisory Board Wodonga
Professor Paul Johnson	La Trobe University
David Jones	City of Greater Bendigo
Angela Killingsworth	Catholic College Wodonga
Tony Kolbe	Centre for Public Health
Bob Laing	City of Greater Shepparton
Professor Lorraine Ling	La Trobe University
Robert Logan	Riverina Institute of TAFE
Melissa Lucus	Albury Base Hospital
Professor John Martin	La Trobe University
Virginia Mitsch	South West Brain Injury Rehabilitation Service
Peter O'Neill	Trinity Anglican College
Fabian Reid	Regional Advisory Board Bendigo
John Riddiford	North East Catchment Management Authority
Peter Ryan	Goulburn Ovens Institute of TAFE
Andrew Saxby	Hume Building Society
Brian Smith	Wodonga Institute of TAFE
Joy Stocker	Riverina Institute of TAFE
Lynda Summers	Murray Regional Development Board
Professor Hal Swerissen	La Trobe University
Professor Gail Whiteford	Charles Sturt University

Appendix VI. National Protocols

Requirements for approval and accreditation under the National Protocols for Higher Education Approval Processes

Under the National Protocols there are five separate Protocols that set out nationally agreed criteria and processes for higher education approvals as follows:

- Protocol A relates to all higher education institutions;
- Protocol B relates to the registration of non self-accrediting higher education institutions and the accreditation of their higher education course/s;
- Protocol C relates to awarding self-accrediting authority to higher education institutions other than universities;
- Protocol D relates to establishing Australian universities; and
- Protocol E relates to overseas higher education institutions seeking to operate in Australia.

Protocol A – All higher education institutions

An institution involved in Australian higher education delivery must meet the following criteria:

A1. is a legal entity which has been established or recognised by or under an Australian legislative instrument;

A2. contributes to the goals of higher education in Australia as set out in the Part 1 (Introduction) of the National Protocols;

A3. has a clearly articulated higher education purpose that includes a commitment to and support for free intellectual inquiry in the institution's academic endeavours;

A4. delivers teaching and learning that engage with advanced knowledge and inquiry;

A5. has governance arrangements, quality assurance processes and a staffing profile appropriate to its goals and academic purposes;

A6. has sound financial and business management practices and sufficient financial and other resources to sustain the delivery of the institution's programs into the future;

A7. where it offers Australian higher education qualifications, complies with the AQF higher education titles and descriptors;

A8. its academic staff are active in scholarship that informs their teaching, and are active in research when engaged in research student supervision;

A9. provides sufficient support and infrastructure for effective student learning;

A10. provides for protection of students in the event of closure of the entity or any of its courses.

Protocol B – Non self-accrediting higher education institutions

In addition to meeting the nationally agreed general criteria for higher education delivery in Protocol A, a non self-accrediting higher education institution will meet the following criterion:

B1. has delivery arrangements, including matters of institutional governance, facilities, staffing and student services, that are appropriate to higher education and enable successful delivery of the course/s to achieve outcomes at the level proposed.

In addition to meeting the nationally agreed general criteria for higher education delivery in Protocol A, a higher education course delivered by a non self-accrediting institution will meet the following criterion:

B2. is comparable in requirements and learning outcomes to a course at the same level in a similar field at Australian universities.

Protocol C – Self-accrediting authority

In addition to meeting the nationally agreed general criteria for higher education delivery in Protocol A, a higher education institution with self-accrediting authority will meet the following criteria:

C1. demonstrates effectiveness and equivalence to existing Australian self-accrediting higher education institutions in:
- — governance and decision-making;
- — teaching, learning, scholarship and, if relevant, research;
- — compliance with the National Protocols;

C2. has effective and comprehensive structures and processes to set standards for AQF qualifications equivalent to Australian and, where relevant, international standards;

C3. has quality assurance processes and systems consistent with those in existing Australian institutions with self-accrediting authority;

C4. demonstrates commitment to quality assurance and continuous quality improvement in the provision of higher education, including arrangements for external benchmarking of teaching and learning and underpinning quality systems.

Protocol D – Australian universities

In addition to meeting the nationally agreed general criteria for higher education delivery in Protocol A, an Australian university will meet the following criteria:

D1. demonstrates a culture of sustained scholarship which informs teaching and learning in all fields in which courses are offered;

D2. undertakes research that leads to the creation of new knowledge and original creative endeavour at least in those fields in which Research Masters and PhDs or equivalent Research Doctorates are offered;

D3. demonstrates commitment of teachers, researchers, course designers and assessors to free inquiry and the systematic advancement of knowledge;

D4. demonstrates governance, procedural rules, organisational structure, admission policies, financial arrangements and quality assurance processes which are underpinned by the values and goals of universities and which ensure the integrity of the institution's academic programs.

In addition:

- Institutions with an unmodified university title will:
  D5. deliver AQF higher education qualifications across a range of broad fields of study (including Research Masters and PhDs or equivalent Research Doctorates in at least three broad fields of study) and sets standards for those qualifications which are equivalent to Australian and international standards.

- Institutions with a university college title will meet the following criterion at the point of establishment and build towards meeting criterion D5 for operating with an unmodified university title no more than five years after that:
  D6. delivers AQF higher education qualifications across a range of broad fields of study (including up to Masters coursework degrees in at least three broad fields of study and Research Masters and PhDs or equivalent Research Doctorates in at least one broad field of study) and sets standards for those qualifications which are equivalent to Australian and international standards.

- Institutions with a specialised university title will:
  D7. deliver AQF higher education qualifications (including Research Masters and PhDs or equivalent Research Doctorates) in one or two broad fields of study only and sets standards for those qualifications which are equivalent to Australian and international standards.

Protocol E – Overseas higher education institutions

In addition to meeting the nationally agreed general criteria for higher education delivery in Protocol A, an overseas higher education institution will meet the following criteria to gain approval to operate in Australia:

E1. is legally established in one or more overseas countries;
E2. demonstrates that the institution and the courses to be offered are of an appropriate standard and standing;
E3. offers courses that have been properly accredited either through appropriate, authorised self accreditation or by an overseas accreditation authority that, in the opinion of the Australian jurisdiction's decision-maker, has appropriate standing and authority;
E4. has arrangements for delivery within Australia, including the arrangements for academic oversight and quality assurance proposed by the overseas institution, that are at least comparable to those of equivalent Australian higher education institutions;
E5. if it has local partners or agents, they have appropriate standing;
E6. has appropriate financial and other arrangements to permit the successful delivery of the course/s in Australia.

Definitions

Research comprises creative work and artistic endeavours undertaken systematically in order to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications. Research is characterised by originality and includes creative activity and performance. It has investigation as a primary

objective, the outcome of which is new knowledge, with or without a specific practical application, or new or improved materials, products, devices, processes or services. Research ends when work is no longer primarily investigative.

There are three broad types of research activity:

- Basic research is experimental and theoretical work undertaken primarily to acquire new knowledge without a specific application in view. It consists of pure basic research which is work undertaken to acquire new knowledge without looking for long term benefits other than advancement of knowledge and strategic basic research which is work directed into specific broad areas in the expectation of useful discoveries thus providing the broad base of knowledge necessary for the solution of recognised practical problems.
- Applied research is original work undertaken primarily to acquire new knowledge with a specific application in view. It is undertaken either to determine possible uses for the findings of basic research or to determine new ways of achieving some specific and predetermined objectives.
- Experimental development is systematic work, using existing knowledge gained from research or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

Scholarship in relation to learning and teaching involves:

- demonstrating current subject knowledge and an ongoing intellectual engagement in primary and allied disciplines, and their theoretical underpinnings;
- keeping abreast of the literature and new research, including by interaction with peers, and using that knowledge to inform learning and teaching;
- encouraging students to be critical, creative thinkers and enhancing teaching understanding through interaction with students;
- engaging in relevant professional practice where appropriate to the discipline;
- being informed about the literature of learning and teaching in relevant disciplines and being committed to ongoing development of teaching practice; and
- focusing on the learning outcomes of students.

Appendix VII. Income support programs

Table 15: Characteristics of student income support programs, 2008

Characteristics	Youth Allowance (students)	Youth Allowance (other)	Austudy	ABSTUDY
Maximum benefit	$355.40 per fortnight (16-24 years, away from home) $465 per fortnight (Single with children)	$355.40 per fortnight (16-24 years, away from home) $465 per fortnight (Single with children)	$355.40 per fortnight (single) $465 per fortnight (Single with children) $390 per fortnight (partnered with children)	$394.40 per fortnight (partnered with children) $472.80 (partnered no children)
Age criterion	16-24	16-20	25+	21+
Eligibility conditions	Full time Education, Training or apprenticeship studies, also can be awarded to masters by coursework students	Part-time study Engaged in job search Other workforce participation	Full time Education, training or apprenticeship, Masters by coursework students	Full-time education, training or apprenticeship Indigenous Australian
Means tested	Parental Income Threshold (PIT), the family assets test and the Family Actual Means Test, Assets must be less than $547,000 Personal income threshold	Parental Income Threshold (PIT), the family assets test and the Family Actual Means Test Assets must be less than $547,000 Personal income threshold	Personal income threshold only Student Income Bank assists student to accumulate shortfalls in income earned against future earnings which may exceed the weekly threshold	Parental Income Threshold (PIT), the family assets test and the Family Actual Means Test
Independence criterion	Age 25 or demonstrated independence through family circumstances or earnings over 18-month period	Age 25 or demonstrated independence through family circumstances or earnings over 18-month period	Automatic because of age of eligibility	Age 25 or demonstrated independence through family circumstances or employment or earnings over 18-month period
Allowed earnings	$236 per fortnight	$236 per fortnight	$236 per fortnight	$236 per fortnight

Characteristics	Youth Allowance (students)	Youth Allowance (other)	Austudy	ABSTUDY
Indexation of payments	Consumer Price Index (CPI)	0 since 1993	CPI	CPI
Indexation **How and when PIT last indexed**	Parental Income Threshold is indexed by Consumer Price Index annually. The base was last reviewed In 1993		Personal income threshold not indexed since 1993	PIT is indexed by CPI annually. The base was last reviewed in 1993
Other benefits	Rent assistance based on circumstances Health care card Fares allowance Remote area allowance Advance payments	Rent assistance based on circumstances Health care card Fares allowance Remote area allowance Advance payments	Rent assistance based on circumstances Health care card Fares allowance Remote area allowance Advance payments	Rent assistance, Remote area allowance, Pharmaceutical allowance, Crisis and bereavement payments, Pensioner Education Supplement, travel expenses Incidentals allowance

Appendix VIII. Income support – indicative costs

Table 16 : Estimated costings of suggested income support changes

Option	Description	Estimated. cost over 4 years	Estimated customer impact (initial year - assumed implementation date of 1 January 2010)	Comments
1a	Increase Parental Income Test threshold to $35,000 and introduce 20% family taper	$782m	About 29,000 current Youth Allowance (YA) customers would receive a higher payment, and a further 28,000 current Family Tax Benefit Part A customers would move to Youth Allowance.	Includes all Youth Allowance Assumes 20% family taper is equivalent to 15% per child taper
1b	Increase Parental Income Test threshold to $40,000 and introduce 20% family taper	$1,022m	About 29,000 current Youth Allowance customers would receive a higher payment, and a further 40,000 current Family Tax Benefit Part A customers would move to Youth Allowance.	Includes all Youth Allowance Assumes 20% family taper is equivalent to 15% per child taper
1c	Increase Parental Income Test threshold to $42,559 and introduce 20% family taper	$1,172m	About 29,000 current Youth Allowance customers would receive a higher payment, and a further 49,000 current Family Tax Benefit Part A customers would move to Youth Allowance.	Includes all Youth Allowance Assumes 20% family taper is equivalent to 15% per child taper
2	Change the indexation of the Parental Income Test base to Male Total Average Weekly Earnings (MTAWE).	$109m	Based on existing Parental Income Test (PIT) threshold. Does not include any adjustment should a change to the Parental Income Test be considered.	Does not factor in increasing eligibility due to this measure as this assumes that Male Total Average Weekly Earnings maintains the existing level of eligibility within the community. The degree to which existing estimates might include an adjustment for declining eligibility has not been considered.
3	Increase Youth Allowance Personal Income Test threshold to $400 per fortnight	$421m	About 60,000 current Youth Allowance and Austudy customers would receive a higher payment, and an additional 5,000 would qualify for payment.	Maintain 50% taper after income free area, with 60% taper cutting in at free area plus $80 Does not include an estimate of behavioural change

Option	Description	Estimated. cost over 4 years	Estimated customer impact (initial year - assumed implementation date of 1 January 2010)	Comments
4	Index Personal income test by Male Total Average Weekly Earnings	$40m	This would benefit about 65,000 Youth Allowance and Austudy customers annually	
5	Reduce the age of independence to 22 years	$349m	About 10,000 current Youth Allowance customers would receive a higher payment, and a further 54,000 students would become eligible for Youth Allowance.	Costings and customer impacts are for full-time students only, that is, they do not include estimates of increased uptake by apprentices
6	Extend eligibility to all masters by coursework programs	$186m	An additional 5,925 students would receive support	Costing includes Youth Allowance for full-time students, Austudy and Rent Assistance
7	Remove independence earnings criterion	- $1,670m (savings)	About 27,000 prospective Youth Allowance claimants would not qualify for payment and a further 7,000 current Youth Allowance recipients would not become eligible for a higher rate.	Includes all Youth Allowance Remove independence criterion recognising earnings of 75% of the maximum National Training Wage Award rate in 18 months since leaving school. Remove the independence criterion recognising having worked part-time for at least 15 hours a week for at least two years since leaving school. Assumes grandfathering of current customers qualifying under this criterion.

NOTE:

These costing estimates are indicative and relate to income support impacts only. They do not take account of additional administrative costs (that is, implementation and ongoing service delivery costs). They are issued on the basis of providing an appreciation of the magnitude that might be implied by adopting particular options.

Option 1 (involving sub-options 1a, 1b and 1c) provides a rough estimation of the interaction between raising the Parental Income Threshold and adopting a family-based taper. However, it is important to note that there is no estimation of the interactions between this option and the other options listed or between any of the other options provided.

Appendix IX. Indicative costs of proposals

Table 17: Indicative costs of proposals

Increasing the base	2009-10 $ million	2010-11 $ million	2011-12 $ million	2012-13 $ million	4-year total $ million	Recommendation	Chapter	
Overall package for teaching and learning - Increase grant by 10 per cent	-250	-500	-520	-540	-1,810	26	4.2	The estimate of the 10 per cent is based on 'teaching and learning' programs as listed in the 'Methodology' section in the Appendices.
Growth in the system								
Demand-driven entitlement system for domestic undergraduate students	0	-70	-340	-720	-1,130	29	4.2	The cost of the demand-driven system has been estimated to take into account the attainment target set out in Recommendation 2. The cost has been estimated on staggered growth in graduates over the next decade. Detailed macroeconomic modelling would be required to accurately predict the likely pattern of future graduates. Growth within the current Commonwealth Grant Scheme over enrolment targets is not included in the cost.
Teaching and nursing						36	4.2	
Changes to maximum student contribution amounts for nursing and teaching	-10	-20	-30	-30	-90			The cost of this measure is based on teaching and nursing units of study being subject to the higher Band 1 maximum student contribution amount from 2010. The new rate would apply only to commencing students.
Changes to loan repayments to provide incentives re labour market needs	0	-10	-30	-50	-90			The cost for this measure is based on the extension of the current HECS-HELP benefit for maths and science graduates to teaching and nursing graduates.
Changes to loan fee for FEE-HELP	5	10	10	10	35	37	4.2	The cost of changes to the loan fee is based on an increased loan fee from 2010 for applicable fee-paying students and the removal of the loan fee for OS-HELP loans.
Sub – total	**-5**	**-90**	**-390**	**-790**	**-1,275**			

Other measures	2009-10 $ million	2010-11 $ million	2011-12 $ million	2012-13 $ million	4-year total $ million	Recommendation	Chapter	
Revised Higher Education Indexation Factor (HEIF)	-70	-200	-350	-520	-1,140	27	4.2	The cost for the new HEIF is based on the Labour Price Index [Professional] (LPI) replacing the Safety Net Adjustment in the calculation of Higher Education Indexation Factor (HEIF) in 2010. A nominal 4 per cent rate has been used for the LPI.
New advisory/regulatory/QA architecture	-20	-50	-60	-60	-190	20	4.1	The cost of new regulatory body is indicative and based on it having a role for the entire tertiary sector. The staffing levels estimated are based on regulatory, research and compliance roles.
Additional funding for Structural adjustment	-30	-100	-50	-50	-230	38	4.2	The cost of this measure is based on the assumption of additional structural adjustment funding being needed for changes arising from adoption of the report recommendations. The amounts shown here are additional to existing funding which together with this totals over $400 million over four years. The amounts are indicative only. The actual amounts and timing of funding will depend on possible future sector rationalisation.
Regional provision fund			-40	-80	-120	16	3.7	The cost for this measure is indicative only. The proposal is timed to commence at the completion of the current regional loading program.
Matching fund for philanthropy		-40	-80	-80	-200	39	4.2	Costs for this measure are based on recommendations of the Business, Industry and Higher Education Collaboration Council.
Subsidies for international HDR students	-10	-20	-40	-50	-120	13	3.6	The cost for this measure has been estimated using the Commonwealth Grant Scheme funding clusters but a different calculation of subsidies may need to be provided during implementation.
Implementation funding	-25	-50	-40	-15	-130	41	4.2	Costs for this measure are an indicative estimate of assistance to higher education providers to implement the proposed reforms and additional resourcing for government departments.
Sub – total – Other measures	**-155**	**-460**	**-660**	**-855**	**-2,130**			

	2009-10 $ million	2010-11 $ million	2011-12 $ million	2012-13 $ million	4-year total $ million	Recommendation	Chapter	
Sub - total for teaching and learning	**-410**	**-1,050**	**-1,570**	**-2,185**	**-5,215**			
Income support reform	-80	-150	-150	-150	-530	5	3.3	See Appendix VIII for details.
Total	**-490**	**-1,200**	**-1,720**	**-2,335**	**-5,745**			

Table 18: Indicative commitment to equity and performance funding

Identified funding	2010 $ million	2011 $ million	2012 $ million	2013 $ million	4-year total $ million	Recommendation	Chapter	
Supporting social inclusion (4 per cent of base)	230	250	290	310	1,080	31	4.2	The amount of the 4 per cent funding is calculated using the revised total grant for teaching and learning.
Performance based funding (2.5 per cent of base)	140	160	180	200	680	32	4.2	The amount of the 2.5 per cent funding is calculated using the revised total grant for teaching and learning.

References

Access Economics 2008, *Future Demand for Higher Education - report for Department of Education, Employment and Workplace Relations*, November.

Alexander, S & Bajada, C 2008, *The Quality of Teaching and Learning in Australia: an Analysis*, Appendix of the submission to the Review of Australian Higher Education, University of Technology, Sydney.

Anderson, D 2002, *An Academic Standards Agency: a submission to the Higher Education Review*, October,
http://www.backingaustraliasfuture.gov.au/submissions/issues_sub/pdf/i363.pdf

Anderson, D, Johnson, R & Saha, L 2002, *Changes in Academic Work – Implications for Universities of the Changing Age Distribution and Work Roles of Academic Staff*, Department of Education, Employment and Workplace Relations,
http://www.dest.gov.au/archive/highered/otherpub/academic_work.pdf

Australian Council of Educational Research (ACER) 2008, *Australian Survey of Student Engagement (AUSSE) Australasian University Scale Statistics Report*, January.

Australian Bureau of Statistics (ABS) 2007, *Labour Force, Australia*, cat. no. 6291.0.55.001, June,
http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyReleaseDate/D8C8B1AB914BB0FBCA2572F9001D1C1B?OpenDocument

Australian Bureau of Statistics (ABS) 2008, *International Trade in Services by Country, by State and by Detailed Services Category, Financial Year, 2007-08* (5368.0.55.003),
http://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/20A6655C4A802207CA257164007C9BF5?OpenDocument

Australian Education International 2007, *2006 International Student Survey – Higher Education Summary Report*, September,
http://aei.gov.au/AEI/Shop/Products/Publications/Publication604

Australian Education International 2008a, 'Export Income to Australia from Education Services in 2007-08', *Research Snapshot*, No 42, November,
http://aei.gov.au/AEI/PublicationsAndResearch/Snapshots/42SS08_pdf.pdf

Australian Education International 2008b, *2008 AEI Industry Forum Market Information Report*, for the AEI Industry Forum: Globally Connected, Canberra.

Australian Learning and Teaching Council (ALTC) 2008, *The RED Report: Recognition, Enhancement, Development, The contribution of sessional teachers to higher education*, Strawberry Hills, June.

Australian Prudential Regulation Authority 2008, *2008 Probability and Impact Rating System*,
http://www.apra.gov.au/PAIRS/upload/PAIRS_Final_May_2008_External_Version.pdf

Australian Qualifications Framework (AQF) 2007, *Australian Qualifications Framework Implementation Handbook, Fourth Edition*,
http://www.aqf.edu.au/implem.htm

Australian University Quality Agency (AUQA) 2008, *Report of an Audit of The University of Newcastle*, Melbourne, June,
http://www.auqa.edu.au/qualityaudit/reports/auditreport_newcastle_2008.pdf

Banks, M, Olsen, A & Pearce, D 2007, *Global Student Mobility: An Australian Perspective Five Years On*, IDP Education Pty Ltd., Melbourne.

Barlow, T 2008, *Full Funding for Research*, background paper for Review of Australian Higher Education, October.

Baum, S & Ma, J 2007, *Education Pays: The benefits of higher education for individuals and society*, Trends in Higher Education Series, College Board, Washington.

Berger, J, Motte, A & Parkin, A 2007, *The Price of Knowledge 2006-07: Chapter 2 — Barriers to Post-Secondary Education*, The Canada Millennium Scholarship Foundation, Montreal.

Birrell, B 2006, 'Implications of Low English Standards Among Overseas Students at Australian Universities', *People and Place*, vol. 14 no. 4.

Birrell, B, Healy, E, Edwards, D & Dobson, I 2008, *Higher education in Australia: Demand and supply issues — a report for the Review of Australian Higher Education*, Centre for Population and Urban Research, Monash University, October.

Bligh, A 2008, Speech at the inaugural Australian and New Zealand School of Government *Public Lecture*, Brisbane, 4 July,
http://www.thepremier.qld.gov.au/newsroom/speeches/2008/index.aspx

Brown, T, Goodman, J & Yasukawa, K 2008, 'Casualisation of Academic Work: Industrial Justice and Quality Education' *Dialogue*, vol. 27, 1/2008, pp. 17-29.

Chapman, B 1992, AUSTUDY, *Towards a more flexible approach: An options paper*, Australian Government Publishing Service, Canberra.

Chapman, B 2006, *Government Managing Risk: Income Contingent Loans for Social and Economic Progress*, Routledge, London, July.

Chapman, B, Rodrigues, M & Ryan, C 2007, *HECS for TAFE: the case for extending income contingent loans to the vocational education and training sector*, Treasury Working Paper 2007-2, April,
http://www.treasury.gov.au/documents/1252/PDF/TWP07-02.pdf

Chapman, B & Lounkaew, K 2008 (in process), *Higher Education Financing Issues in Australia*, report for Department of Education, Employment and Workplace Relations, Crawford School of Economics and Government, Australian National University.

Clancy, P & Goastellec, G 2007, 'Exploring Access and Equity in Higher Education : Policy and Performance in a Comparative Perspective', *Higher Education Quarterly*, vol. 61, no. 2.

Coates, H, Godegebuure, L, van der Lee, J & Meek, L 2008, *The Australian Academic Profession in 2007: A First Analysis of the Survey Results*, Australian Council of Education Research and Centre for Higher Education Management, March,
http://www.une.edu.au/chemp/resources/project/cap/cap080311analysis.pdf

Curtis, D 2008, 'Longitudinal Surveys of Australian Youth (LSAY) Research Report 52', *VET pathways taken by school leavers*, National Centre for Vocational Education Research, Canberra.

Cuthbert, D, Smith, W & Boey, J 2008, 'What Do We Really Know About the Outcomes of Australian International Education? A Critical Review and Prospectus for Future Research', *Journal of Studies in International Education*, vol. 12, no. 3, Sage Publications, Fall 2008, pp. 255-275.

Cutler, T 2008, *venturousaustralia: building strength in innovation*, report to the Review of the National Innovation System, North Melbourne, August, http://www.innovation.gov.au/innovationreview/Documents/NIS_review_Web3.pdf

Dawkins, The Hon J S 1988, *Higher Education – A policy statement*, Australian Government Publishing Service, Canberra.

Department of Education, Employment and Workplace Relations (DEEWR), *Higher Education Statistics Collections*, http://www.deewr.gov.au/highered/statpubs.htm

Department of Education, Employment and Workplace Relations (DEEWR) 2008a, Research Infrastructure Block Grants Scheme as viewed on 24 November 2008, http://www.deewr.gov.au/research_RIGBscheme

Department of Education, Employment and Workplace Relations (DEEWR) 2008b, Institutional Grants Scheme as viewed on 24 November 2008, http://www.deewr.gov.au/research_InstitutionalGrantsScheme

Department of Education, Employment and Workplace Relations (DEEWR) 2008c, Research Training Scheme as viewed on 24 November 2008, http://www.deewr.gov.au/research_ResearchTrainingScheme

Department of Education Employment and Workplace Relations (DEEWR) 2008d, *Recognition of Higher Education Qualifications across the Brisbane Communiqué Region - Scoping study and report*, http://www.brisbanecommunique.deewr.gov.au/NR/rdonlyres/780F8386-30C8-4878-8EF2-2903120174A2/21157/BrisbaneCommuniqu%c3%a9RecognitionReportFinal.pdf

Department of Education, Employment and Training (DEET) & National Board of Employment, Education and Training (NBEET) 1990, *A Fair Chance for All: national and institutional planning for equity in higher education, a discussion paper*, Australian Government Publishing Service, Canberra.

Department of Education, Science and Training (DEST) 2001, *Characteristics and Performance Indicators of Australian Higher Education Institutions*, 2000, 01-B Occasional Paper Series, Higher Education Division, December, http://www.deewr.gov.au/research_paper_characteristics&performanceindicators

Department of Education, Science and Training (DEST) 2005, *Review of Indexation Arrangements in the Higher Education Sector*, Canberra, http://www.deewr.gov.au/highered_ReviewofIndexation

Department of Foreign Affairs and Trade (DFAT) 2008, Data calculated using Australian Bureau of Statistics (ABS) trade data on DFAT STATS database and ABS catalogue 5368.0.

Department of Innovation, Industry, Science and Research (DIISR) 2008, *Submission to House of Representatives Committee on Industry, Science and Innovation Inquiry into Research Training and Research Workforce Issues in Australian Universities*, Canberra, http://www.aph.gov.au/house/committee/isi/research/subs/sub50.pdf

Department of Resources, Energy and Tourism 2008, *Australian Government's Tourism White Paper: A Medium to Long Term Strategy for Tourism*, Canberra.

Federal Government of Germany 2008, *Germany to become a Federal Republic of Education, 30 October*, viewed on 1 December 2008, http://www.egovmonitor.com/node/21776

Foley, P 2007, *The Socio-economic status of vocational education and training students in Australia*, National Centre for Vocational Education Research, Canberra, May, http://www.ncver.edu.au/research/proj2/sp407.pdf

Forbes, D 2008, *Policy Frameworks and Settings Regional and Global Perspectives for University Sector Policy*, Academy of the Social Sciences in Australia University Policy Futures Roundtable, Academy of Science Shine Dome, August, http://www.deanforbes.com.au/Site/ASSA.html

Foster, S, Delaney, B, Bateman, A & Dyson, C 2007, *Higher-level vocational education and training qualifications: Their importance in today's training market*, National Centre for Vocational Education Research, December, http://www.ncver.edu.au/publications/1800.html

Gerritsen, J 2008, GLOBAL: Revealed: best producers of top universities, University World News, October, http://www.universityworldnews.com/article.php?story=20081017100210335

Gillard, J 2008, Media Release - Ministerial Council for Vocational and Technical Education Communiqué, Darwin, Thursday 20 November, http://mediacentre.dewr.gov.au/mediacentre/Gillard/Releases/MinisterialCouncilforVocationalandTechnicalEducationCommunique.htm

Graduate Careers Australia 1999, *The Grad Files: Number 1, December 1999*, Melbourne, http://www.gradlink.edu.au

Graduate Careers Australia 2007a, *Graduate Destinations 2007: The Report of the Graduate Destination Survey*, Melbourne, http://www.graduatecareers.com.au/content/view/full/24

Graduate Careers Australia 2007b, *Snapshot: Graduate Outlook 2008*, http://www.graduatecareers.com.au/content/view/full/52

Group of Eight 2007, *Backgrounder 3: Researcher supply and demand*, November, http://www.go8.edu.au/storage/go8statements/2007/Backgrounder_No_3_Research_Training.pdf

Group of Eight 2008, *Submission to House of Representatives Standing Committee on Industry, Science and Innovation Inquiry into Research Training and Research Workforce Issues in Australian universities*, June,
http://www.aph.gov.au/house/committee/isi/research/subs/sub55.pdf

Guhr, D 2007, *Online Communities and International Alumni Networks: Chances, Challenges and Competitive Advantage*, paper presented to the Australian International Education Annual Conference 2007,
http://www.aiec.idp.com/PDF/Guhr%20Thur%201030%20B1%20(S).pdf

Harman, G & Meek, VL 2000, *Repositioning Quality Assurance and Accreditation in Australian Higher Education*, DETYA Evaluations and Investigations Programme, May,
http://www.dest.gov.au/archive/highered/eippubs/eip00_2/fullcopy00_2.pdf

Harris, R, Rainey, L & Sumner, R 2006, *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education*, National Centre for Vocational Education Research, December,
http://www.ncver.edu.au/publications/1722.html

Harris, R, Sumner, R & Rainey, L 2005, *Student traffic: Two-way movement between vocational education and training and higher education*, National Centre for Vocational Education Research, April,
http://www.ncver.edu.au/publications/1549.html

Harvey, L 2006, 'Understanding quality' *in European Universities Association, Bologna Handbook: making Bologna work*, Raabe Academic publishers, August.

Henkel, M 2004, 'Teaching and Research: the Idea of a Nexus', *Higher Education management and Policy*, vol. 16, no. 2, pp. 19-30, OECD.

Higher Education Authority Ireland 2008, *National Plan for Equity of Access to Higher Education 2008-13*, published by the National Office of Equity of Access to Higher Education,
http://drupal.hea.ie/files/files/file/New_pdf/National_Access_Plan_2008-2013_(English).pdf

Hoeckel, K, Field, S, Justesen, T & Kim, M 2008, *Learning for Jobs – OECD Reviews of Vocational Education and Training – Australia*, November,
http://www.oecd.org/dataoecd/27/11/41631383.pdf

Hudson, HR, Allen, GA, Barker EJ, Karmel, PH & Scott BW 1986, *Review of efficiency and effectiveness in higher education*, Commonwealth Tertiary Education Commission, Canberra.

Hugo, G 2008, *The Demographic Outlook for Australian Universities' Academic Staff*, draft occasional paper for the Council for the Humanities, Arts and Social Sciences, June.

James, R 2007, *Social equity in a mass, globalised higher education environment: the unresolved issue of widening access to university*, Faculty of Education Dean's Lecture Series 2007, University of Melbourne,
http://www.cshe.unimelb.edu.au/downloads/Richard%20James,%20Dean's%20Lecture%20Series%20Sept2007.pdf

James, R, Anderson, M, Bexley, E, Devlin, M, Garnett, R, Marginson, S & Maxwell, L 2008, *Participation and equity: A review of the participation in higher education of people from low socioeconomic backgrounds and Indigenous people*, Universities Australia, Canberra, March.

James, R, Baldwin, G, Coates, H, Krause, KL & McInnis, C 2004, *Analysis of Equity Groups in Higher Education 1991-2002*, for the Department of Education Science and Training, Centre for the Study of Higher Education , The University of Melbourne.

James, R, Bexley, E, Devlin, M & Marginson, S 2007, *Australian University Student Finances 2006: Final report of a national survey of students in public universities*, Universities Australia, Canberra, August.

James, R, McInnis, C & Devlin, M 2002, *Submission to the Higher Education Review 2002 - Options for a national process to articulate and monitor academic standards across Australian universities*, Centre for the Study of Higher Education, The University of Melbourne, http://www.cshe.unimelb.edu.au/assessinglearning/docs/Crossroads_submission.pdf

Jones, RG 2002, *Education Participation and Outcomes by geographic Location*, LSAY Research Report 26, Australian Council of Education Research.

Kenyon, P & Koshy, P 2003, *The Economic Benefits to Australia from International Education*, Australian Education International, Canberra.

King, R 2007, *The Regulatory State in an Age of Governance: Soft Words and Big Sticks*, Palgrave MacMillan.

Kokkelenberg, E, Dillon, M & Christy, S 2006, *Effects of class size on student grades at a public university*, DigitalCommons@ILR, Cornell University Higher Education Research Institute.

Kubler, J & DeLuca, C 2006, *Trends in academic recruitment and retention: A Commonwealth perspective*, The Association of Commonwealth Universities, London, July.

Lee Dow, K 1992, 'Academic Standards panels in Australia' in Alma Craft (ed), *Quality Assurance in Higher Education: Proceedings of an International Conference*, The Falmer Press.

Lee Dow, K 2008, *An Evaluation of the Australian Learning and Teaching Council 2005-2008*, report for the Department of Education, Employment and Workplace Relations, 13 August.

Long, M & Hayden, M 2001, *Paying their way*, Australian Vice-Chancellors' Committee (AVCC), Canberra.

Marks, G 2007, 'Longitudinal Surveys of Australian Youth (LSAY) Research Report 51', *Completing University: Characteristics and Outcomes of Completing and Non-completing Students*, Australian Council for Education Research.

Martin, M & Stella, A 2007, *External quality assurance in higher education: making choices*, UNESCO, Paris, http://unesdoc.unesco.org/images/0015/001520/152045e.pdf

Marginson S, 2008, *The Global Position of Australian Higher Education to 2020 - Full Paper*, paper prepared for the Review of Australian Higher Education, Department of Education, Employment and Workplace Relations, August.

MCEETYA/MCVTE 2008, *Communique - Joint Ministerial Council on Education, Employment, Training and Youth Affairs and Ministerial Council for Vocational and Technical Education Meeting 17 April 2008*, http://mediacentre.dewr.gov.au/NR/rdonlyres/85499B3A-E77F-4A55-9735-F8CD853EB072/0/Comminque.pdf

McKeachie, W, Iran-Nejad, A, & Berliner, D 1990, 'The Multisource Nature of Learning: An Introduction', *Review of Educational Research*, vol. 60, no. 4.

McKenzie, P 2008, *Key international developments affecting Australian education and training*, paper presented to the Monash University-Australian Council for Education Research Centre for Economics of Education and Training Annual Conference, Melbourne, 31 October.

Mortimer, D 2008, *Winning in the World Markets: Meeting the competitive challenge of the new global economy*, Review of Export Policies and Programs, Commonwealth of Australia, 1 September.

Ministry of Education, Finland 2004, *Education and Research 2003-2008*, Development plan Department for Education and Science Policy, Finland 2004:8, Helsinki University Press, http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2004/liitteet/opm_190_opm08.pdf?lang=en

NATSEM 2008, *What price the clever country? The costs of tertiary education in Australia*, AMP.NATSEM Income and Wealth Report 21, University of Canberra, November.

Olsen A, Burgess Z, & Sharma, R 2006, 'Comparative Performance of International Students in Australia', *International Higher Education*, 42, Winter.

Organisation for Economic Co-operation and Development (OECD) 1998, *Education at a Glance 1998: OECD Indicators*, OECD, Paris.

Organisation for Economic Co-operation and Development (OECD) 2007, *Education at a Glance 2007: OECD Indicators*, OECD, Paris.

Organisation for Economic Co-operation and Development (OECD) 2008a, *Tertiary Education for the Knowledge Society – VOLUME 1: Special features: Governance, Funding, Quality and VOLUME 2: Special features: Equity, Innovation, Labour Market, Internationalisation*, OECD, Paris.

Organisation for Economic Co-operation and Development (OECD) 2008b, *Education at a Glance 2008: OECD Indicators*, OECD, Paris.

PhillipsKPA & LifeLong Learning Associates 2005, *Evaluation of the Education Services for Overseas Students Act 2000*, Australian Education International, http://www.deewr.gov.au/international_ESOSevaluationreport

PhillipsKPA 2006a, *Australian Vice-Chancellors' Committee – University Reporting Requirements: Final Report (Revised)*, May, http://www.universitiesaustralia.edu.au/documents/publications/policy/submissions/ReportingRequirements14Feb06.pdf

PhillipsKPA 2006b, *Giving Credit where Credit is Due: A National Study to Improve Outcomes in Credit Transfer and Articulation from Vocational and Technical Education to Higher Education*, Final Report, June, http://www.mceetya.edu.au/verve/_resources/National_Study_final_report_June_2006_FINAL.pdf

PhillipsKPA 2008, *Inquiry into the desirability of a national higher education accreditation body - Final Report to the Joint Committee on Higher Education*, June, http://www.mceetya.edu.au/verve/_resources/JCHE_National_HE_Accreditation_Agency_June_08_Final_Report.pdf

Productivity Commission 2007, *Public Support for Science and Innovation*, Productivity Commission Research Report Overview, 9 March.

Ramsden, P 1998, *Learning to Lead in Higher Education*, Routledge, London.

Reserve Bank of Australia 2008, 'Australia's Exports of Education Services', *Reserve Bank Bulletin*, June, http://www.rba.gov.au/PublicationsAndResearch/Bulletin/bu_jun08/Pdf/bu_0608_2.pdf

Richardson, S & Tan, Y 2007, *Forecasting future demands: What we can and cannot know*, National Centre for Vocational Education Research, July, http://www.ncver.edu.au/publications/1744.html

Richardson, S & Teese, R 2008, *A well-skilled future*, National Centre for Vocational Education Research, June, http://www.ncver.edu.au/publications/2001.html

Rudd, K & Gillard, J 2008, *Quality Education: The case for an Education Revolution in our Schools* (Forward), 27 August, http://www.deewr.gov.au/deewr/About/QualityEducation-ThecaseforanEducationRevolutioninourSchools.htm

Rumbley, L, Pacheco, I & Altbach, P 2008, *International Comparison of Academic Salaries: an exploratory study*, Boston College, pp. 32-33.

Scott, G 2008, *Review of Australian Higher Education Request for Research and Analysis: University Student Engagement and satisfaction with learning and teaching*, University of Western Sydney, 1 September.

Scott, G & Alexander, S 2000, 'Online learning: Rhetoric or reality', *On Line Opinion*, 15 February, viewed on 1 December 2008, http://www.onlineopinion.com.au/view.asp?article=1004

Shah, C & Burke, G 2006, *Qualifications and the future labour market in Australia*, Report prepared for the National Training Reform Taskforce, Monash University, Australian Council of Education Research, Centre for the Economics of Education and Training, Melbourne, http://www.eduweb.vic.gov.au/edulibrary/public/voced/research-CEET-quals-labour-market.pdf

Skills Australia 2008, *Discussion Paper - Future Governance of the National Vocational Education and Training System*, http://www.skillsaustralia.gov.au/NR/rdonlyres/C5AB3F78-D1DA-46C2-A267-78714DDCF8A2/24094/DiscussionPaper_Final25092008.pdf

Smart, D & Ang, G 1996, 'The Internationalisation of Australian Higher Education', *International Higher Education*, November.

Smart, D, Volet, S & Ang, G 2000, *Fostering Social Cohesion in Universities: Bridging the Cultural Divide*, Asia Research Centre, Murdoch University, Australian Education International, Department of Education, Training and Youth Affairs, February.

Stanwick, J 2006, *Outcomes from higher-level vocational education and training qualifications*, National Centre for Vocational Education Research, September, http://www.ncver.edu.au/publications/1702.html

Stella, A 2006, *Quality Assurance and Standards of Australian Higher Education Based on the Institutional Audit Reports of AUQA*, June, http://www.auqa.edu.au/files/otherpublications/auqa_objective_4_report.pdf

Stella, A & Woodhouse, D 2007, *Benchmarking in Australian Higher Education: A Thematic Analysis of AUQA Audit Reports*, Melbourne, http://www.auqa.edu.au/files/publications/benchmarking_final_text_website.pdf

Swedish National Agency for Higher Education 2006, *OECD Thematic Review of Tertiary Education: Country Background Report for Sweden*, OECD, Paris, 29 June, http://www.oecd.org/dataoecd/20/29/37524407.pdf

The Allen Consulting Group 2008, *Recognising the full cost of university research*, Issues Paper, Report to the Department of Innovation, Industry, Science and Research, September.

The Australian National University 2008, Media Release *'Australians support HECS for R&D: Survey'*, October, http://news.anu.edu.au/?p=744

Turpin, T, Marceau J, Woolley, R & Hill, S 2007, *Where will all the researchers go? Training, networks and mobility of scientist in the Asia Pacific region*, 29 May, Asia Pacific Migration Research Network (APMRN) 8th International Conference Workshop, Fuzhou.

Underwood, C, Hillman, K & Rothman, S 2007, *Cohort Report - The 1995 LSAY Year 9 Cohort: 24 year olds in 2005*, Australian Council for Education Research, Camberwell, March, http://www.acer.edu.au/documents/LSAY_CohortReportY95in2005.pdf

Universities Australia 2008a, *2006 Student to Teacher Ratio for Academic Staff with Teaching Function*, Canberra, October, http://www.universitiesaustralia.edu.au/documents/publications/stats/SSR2006-stats.pdf

Universities Australia 2008b, *Submission to the Review of Export Policies and Programs*, http://www.dfat.gov.au/trade/export_review/submissions_received/UniversitiesAustralia.pdf

Universities Australia 2008c, *A National Internship Scheme: Enhancing the skills and work-readiness of Australian university graduates*, Position Paper No. 3/08, May, http://www.universitiesaustralia.edu.au/documents/publications/discussion/National-Internship-scheme-May08.pdf?bcsi_scan_F40A1F977BE3BE18=0&bcsi_scan_filename=National-Internship-scheme-May08.pdf

United Kingdom Department of Education and Skills 2003, *The Future of Higher Education: creating opportunity, releasing potential and achieving excellence*, White paper, January.

U.S. Department of Education 2006, *A Test of Leadership - Charting the Future of U.S. Higher Education*, Washington D.C., December, http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/final-report.pdf

Western, J 1998, *Differential access to higher education: The measurement of socioeconomic status, rurality and isolation*, Department of Employment, Education, Training and Youth Affairs, Canberra.

Winefield, AH, Gillespie, NA, Stough, C, Dua, J, Hapuarachchi, J & Boyd, C 2002, 'Occupational stress in Australian university staff: A national survey' *International journal of stress management*, vol. 10, no. 1 (Feb. 2003), pp. 51-63.

Winefield, AH, Boyd, C, Saebel, J & Pignata, S 2008, 'Update on national university stress study', *Australian Universities Review*, vol. 50, no. 1, pp. 20-29.

World Bank 1999, *World Development Report: Knowledge for Development 1998-99*, Oxford University Press, New York.

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