

1. Are there impediments to the higher education sector being able to innovate in the development of courses and programs? What are these impediments and how could they be removed?

Recently members of the Association of Architecture Schools of Australasia (AASA) have moved to the Bologna model, with a three-year undergraduate degree followed by a two-year master of architecture by coursework degree. Over time this will assist the movement into the profession of mature age graduates from other professions.

The number of teaching weeks is short in Australian schools, compared to some other countries. In Australia, teaching is often 2 semesters @ 12 or 13 weeks = max 26 weeks per year. In Europe, many universities have 3 semesters @ 10, 11 and 10 weeks = 31 weeks per year. Therefore, over a 5 year course, Australian architecture students receive 25 weeks less teaching than many overseas students – ie: approximately one academic year less. Attempts to educate Australian students comparably with their international peers, and to satisfy the training requirements of the Australian professional bodies, in this reduced time, restricts the ability to innovate.

Current funding levels result in insufficient staffing and very excessive workloads for many, restricting their ability to innovate in course development. Funding restrictions on the purchase of digital-related equipment limit the development of innovative courses in this essential area of research and teaching.

There are currently 16 accredited architecture programs in Australia. At present the staff: student ratio in architecture programs ranges from 1: 8 to 1: 31.8. The national average is 1: 18.64 which is above the recommended staff: student ratio of 1: 17. This figure reflects the lack of resources currently faced by many architecture programs.

2. What are the appropriate mechanisms at the national and local level for ensuring higher education meets national and local needs for high level skills? What is the role of the state and territory government in this area?

In Australia architecture schools play a vital role in providing fundamental professional education to architecture students – it is the first step of the architect registration process, which requires the completion of an architecture degree obtained from an accredited architecture program, followed by two years of practical experience and successful completion of the Architectural Practice Examination (APE). Without completion of these three steps, graduates cannot register as an architect.

This process is triggered by legislative requirements by each state and territory government. The title of "Architect" is protected by Architects Acts. Each State and Territory has the responsibility to ensure that people using the title "architect" meet the registration requirement.

While each State and Territory jurisdiction may have various local requirements, the task of ensuring architectural students and graduates are trained to deal with local issues and conditions is re-enforced by participating in the architecture program assessment.

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This is where national and local standards are introduced in architecture programs. All architecture programs are assessed through the architecture accreditation and recognition process, known as a National Visiting Panel (NVP), at a 5 year cycle and are monitored annually through a State Visiting Panel (SVP). The process is jointly conducted by State/Territory registration authorities, the AACA and the Australian Institute of Architects.

During the program assessment process, local and interstate assessors take part in a 3 day assessment. Every aspect of the school's program, including program content, resources, facilities and staff/students comments are carefully examined and assessed. The NVP report, which is generated at the end of the NVP assessment exercise, provides a detailed list of recommendations targeting areas of concern and necessary improvements. The recommendations arising from the NVP process are then monitored through annual SVP visits.

In summary, it is important to acknowledge that State and Territory governments through their Architects Registration Boards, AACA and the Institute have made a significant contribution to architectural education by participating in the assessment process, thanks to the generous support of the profession, some of whom are high profile practitioners and academics willing to devote their own time in advancing architectural education.

Architecture is not a one dimensional profession – the industry is constantly being challenged by new practice and thinking, the procurement process, technologies and climate change as well as the impact of globalisation. In this context, architecture contributes significantly in shaping the future direction of our cultural identity locally, nationally and internationally. Without participation from the profession and academia benchmarking architectural education, students would be greatly disadvantaged and lacking in the latest practice methods and design techniques; this would make Australian architects less competitive in the global market.

3. How adequate are the mechanisms for aligning supply and demand of graduates? How do pricing and labour market signals impact in student choices?

The current registration process for architects involves 5 years of formal architecture education, 2 years of practical experience and the successful completion of the Architectural Practice Exam (APE). Some would argue that seven years is a long time to train an architect while others believe that it is a basic professional requirement given that the practice of architecture is becoming more complex and challenging in the current climate.

According to the Australian Institute of Architects' yearly publication *Architecture Schools of Australasia* which documents the total number of architecture graduates each year, a total of 6,497 students graduated from Australian architecture programs in 2007. However it is not clear how many graduates have actually sought professional registration.

There are a number of factors contributing to this development, namely:

- Appropriately 25% of architecture graduates are overseas students. Most of overseas graduates choose to practice in their homeland after graduation;
- The fee for Architect Practical Exam (APE) may be cost prohibitive for some fresh graduates. In addition to the APE fee graduates also carry a significant HECS debt and the graduate wage is generally lower than other degrees (e.g. engineering);
- It is not compulsory for graduates to seek professional registration after completion of formal education and 2 years of practical experience. Some graduates work as a building project managers while others choose to work in other design disciplines, such as interior design, industrial design or academy which does not require registration;
- The effect of the nomenclature change from Bachelor of Architecture to Master of Architecture (3 + 2 model) remains to be seen – though some have already predicted that the change may potentially have implications for the supply of graduates. Currently there are a number of Commonwealth Scholarships/HECS loans not available to architecture students who are undertaking the second tier of the under-graduate architecture program (i.e. Masters) because of the Government's funding requirements (i.e. currently scholarships are only applicable to students undertaking their first Bachelor degree).
- As a result, students who come from a low SES background may choose to complete their course at the end of the first tier degree due to financial stress. It is worth noting that completion of the first tier degree cannot be considered as completion of a professional architecture degree. The only way to be qualified for professional registration is the completion of the 3 + 2 year degree, which is the first step of the architect registration process.

At present the architecture community is facing serious skills shortages due to:

- Increased domestic demand particularly from state and federal governments who are currently investing in infrastructure projects to address serious under investment over the past 20 years ;
- The loss of talent from the profession in the massive down turn of the early 90s where 50% of employee architects lost full time employment;
- The success of our medium and large firms in obtaining international projects, for example, China, Vietnam, Dubai and UK; and

- The movement of Australian architects moving off-shore to work in other countries where pay is higher and work is more challenging;

It is estimated that the industry requires an additional 1,000 architects to meet the current market demand and it is likely that this figure will continue to rise at least till 2014². In meeting this ongoing demand recently the Department of Education, Employment and Workplace Relations (DEEWR) has responded to the challenge by including architects on the Migration Occupations in Demand List (MODL). However this has little impact on increasing the number of qualified overseas architects working in Australia because the registration process is very difficult – currently only very few countries have reciprocal recognition agreements with Australia through the AACA and the Institute does not know how many overseas architects have successfully sought registration.

To illustrate the difficulty of obtaining registration, perhaps it may be helpful if we could provide one simple example. According to one academic who is currently teaching at the Faculty of Built Environment at University of New South Wales, there is only one overseas architect in the history of the Faculty who has successfully had her Review of Academic Equivalence (RAE) application accepted by the AACA and her Chinese architectural registration recognised in Australia. Currently there is no reciprocal recognition agreement between Australia and China.

The Institute believes a better mechanism needs to be established between the Government and registration authorities to address the above issue. It is unlikely the current skills shortages can be improved until the Government takes action on the following:

- AUSTUDY, Youth Allowance, Commonwealth Scholarships and HECs Loans be made available to students who are undertaking an undergraduate professional architecture program (i.e. 3 + 2 model); and
- To work closely with registration authorities in developing an equitable mechanism that would assist qualified overseas architects to obtain their registration in Australia more easily while not compromising Australian standards/requirements.

4. Are there particular examples of good practice where you can demonstrate either rapid response to skill shortages or successful initiatives to improve generic skills?

In terms of successful initiatives to improve generic skills, architecture has been reasonably successful in equipping students to respond to the environmental crisis, even before it gained its current level of public recognition. This is an issue architectural education has been working on since at least the early 1970's.

² According to the Construction Forecasting Council report dated 13 Aug 2008, for residential the value will increase from \$81,408 million from 2008 – 2009 to \$120,239 million in 2014; for non residential the value will increase from \$31,231 million from 2008 – 2009 to \$37,678 million in 2014. For more information please see www.cfc.acif.com.au

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In addressing to skill shortages a good example that came into mind is the Queensland Architectural Practice Academy (APA). The APA was specifically set up by the Department of Public Works in 2004 in response to market needs. The project was first conceived as a pilot project with its aims to establish an intern based Graduate Architecture practice education in an Academy.

The APA, is a not for profit ,self funding, proto-typical architectural practice which has at its aim the professional development of it's graduate members to the levels required of the AACA for Architectural Competencies Examination and the Queensland Board of Architects requirements for professional practice through a process of internship.

It's Mission is

"An academy that fosters the professional development of young Queensland graduates of architecture, encourages excellence and innovation in design and design practice and therefore the quality of the built environment in Queensland."

The Queensland Architectural Practice Academy (APA) as a distinctive setting for the post-university education and for individual professional development of architectural graduates, towards registration and public service to the regional community. It is an initiative of the Royal Australian Institute of Architects and the Queensland State Government's Department of Public Works and a legacy of Australia's 2004 Year of the Built Environment and in collaboration with the universities. It embodies the values of Queensland's 'Smart State' Policy towards excellence in practice, working smarter and skilling professionals to serve the state wide regions.

The APA each year takes in six graduates from Queensland universities for a two-year period of internship, employment and training. At any one time, there are six junior and six senior interns and in pairs they cycle through practice-based roles as they build their competencies (within the framework prescribed by the AACA).

The graduates are supervised by the APA director and mentored by local architect practitioners. Initially supported by seed funding from the Queensland Government the APA is a not-for-profit but self-sustaining architectural practice with one third of projects and fees deriving from Government sponsored projects, one third from Public Corporations and one third from private clients. To date, APA interns have all successfully completed registration at the conclusion of their tenure. More information is available on web site www.apa.qld.gov.au

Since 2006 the Australian Institute of Architects has been actively exploring ways to engage the Profession and the Academy through a discussion forum titled *Archivision*. One of the goals identified at *Archivision* is to explore alternative architecture education models that not only equip students with the necessary skills in practice but also in addresses the skills shortages in this country. A pilot project could well be developed in the future.

Finally it is also worthwhile to mention that Australia is not the only country experiencing skill shortages, countries like UK, UAE and China are also facing the same challenge.

5. If you support a national approach to improving Indigenous and low SES participation and success how do you see it being structured, resourced, monitored and evaluated?

The access of Aboriginal and Torres Strait Islander students to architecture programs in Australia continues to be difficult, noting that indigenous students comprise only 1.25% of the commencing student population. A national approach to ensure equity in opportunity seems warranted. The Institute and AASA recommends targeted programs facilitating support for indigenous architecture students in existing indigenous assistance units embedded within Australian universities.

It is worth noting the Institute held a National Indigenous Housing Conference in Alice Spring in 2007 and is actively seeking to collaborate with government, industry and Indigenous organization to advance these challenging issues.

7. What evidence is available from institutions about the impact on individuals or groups of either failure to gain income support or the inadequacy of income support.

While access by students from low socio-economic status backgrounds continues to be an issue, with a 10% discrepancy between the 15% of places compared with a population reference of 25%. Reduction of student fees in the higher education sector would assist the overcoming of this discrepancy, and a program of financial support for accommodation for rural disadvantaged in major cities where architecture schools are mostly located. The cost of accommodation for low socio-economic status students from indigenous or rural backgrounds in architecture programs is arguably the most significant barrier to participation. Greater access to income support, is urgently required. It is therefore alarming that there was an increase in the rejection of applications for income support in 2006 compared with 2000, and that while 70% of students received some income support, it is insufficient to support students in time -costly educational studies, such as architecture programs.

Other concerns:

Cost of Accommodation

Similarly, the cost of accommodation in major cities where architecture program are located means that most architecture students work several days a week, a situation that has changed the character of architectural education in Australia over the last fifteen years. Many architecture programs are now effectively 'part-time', even while expecting a full-time commitment from students. This has led to greater stress on students and the staff who teach them. A reduction in HECS-Help and the expansion of the Youth Allowance provisions, including the elimination of means testing for eligibility, would greatly assist the support of students, and further offer opportunities to enhance the educational experience of architecture programs.

Given that the duration of architecture program is 5 years and in general graduate wage is lower than other disciplines and the lack of scholarships available all conspire to prevent students completing their architectural education qualifications.

Scholarships currently not available to architectural students:

HECS Loan and Commonwealth Scholarships – due to the change of nomenclature from Bachelor degree to a 3 + 2 model (a 3 year Bachelor followed by 2 year Master) in 2008, students who are undertaking their 4th and 5th year of their architectural education are no longer eligible for HECS Loan because their Master degree is considered a “second” degree despite it being an undergraduate professional program. This policy is in effect, providing architectural students only 3 years out of the 5 years of education support.

It is worth noting that in order to be qualified for architect registration, it is compulsory that students must complete a 5 years full time accredited architectural program as this is the first steps towards registration as an architect. As mentioned earlier, completion of the first tier of the program does not qualify for the basic architect education registration requirement.

8. How can the quality of the student experience within Australia’s higher education institutions be monitored nationally? Is there evidence that declining student:staff ratios have impacted on the quality of the student experience.

The reduction of funding and staff in Australian university architecture programs over the last ten years has led to the undermining of student educational experience of design studios, where architecture students work individually or in groups on projects in studio or mock-office settings. Architectural design taught in studio settings is still considered best pedagogical practice for this discipline, and is the hallmark of the architectural education of the leading schools of architecture in the UK, Europe and the USA. Larger class sizes, and fewer teaching staff with lessened hours in design studios have become increasingly characteristic of Australian architecture schools in the last ten years. The introduction of rent for studio and lecture space in some Australian universities further undermines the integrity of the discipline of Architectural design education. There is compelling evidence that the quality of student architectural work diminishes where studios are abandoned, and where students become ‘commuters’ to classes, rather than being actively involved in the breadth of a studio design experience which replicates the way architects work in commercial practices.

Other issue:

The affect of Voluntary Student Unionism

The introduction by the Howard Government of voluntary student unionism has further eroded the opportunities for women with children for the study of architecture, reducing access to child care. The other impact of the withdrawal of financial support for student clubs has had a significant impact on the activities of architecture clubs in Australia, diminishing the educational experience of architecture students.

9. How do institutions measure quality of their learning outcomes and how do they know they are nationally and internationally competitive

While the architecture accreditation and recognition process provides a mechanism to measure student outcome, due to increasing mobility of architects in the global market in recent years, Australian architecture programs also need to respond to these changing environments.

In doing so, the Institute and the AASA jointly contribute through membership of the Commonwealth Architects Association (CAA) towards the cost of validating Australian architecture programs. Currently there is a reciprocal arrangement made between the Institute/AASA and CAA which enables assessors from both organisations to participate in architecture accreditation and recognition programs.

This mechanism is not only beneficial to schools/programs in terms of maintaining the competitiveness of Australian architecture programs in a global context, it also provides our assessors with an opportunity to learn from others. In addition to this, in early 2008 the Institute hosted the third Invitational International Architecture Accreditation/Validation Roundtable in Canberra, involving 9 international architecture accreditation authorities including US, UK, Canada, China, Korea, CAA, Mexico and Australia, aiming to develop substantial equivalency of architecture education systems. The successful signing of the Canberra Accord paved a new way enabling participating countries to look at their education system and benchmark education standards. The ultimate goal of the Accord is not only to raise architectural education standards but to promote greater mobility of architectural students between participating countries.

Currently there is another system in place to promote the mobility of Australian architects: APEC Architects. Through this process a bilateral agreement is established between Australia and APEC countries, and is only available to registered architects with seven years of proven of practice experience.

10. To what extent should vocational education and training and higher education continue to have distinctive missions and how should these missions be defined? offer articulation

Section 3.4 outlined in the discussion paper concerns links with universities to the vocational training sector. Most architecture programs in Australia have strong linkages with vocational programs in the TAFE institutions, sometimes with shared training in CAD or other IT teaching, and articulated pathways for students, especially for Advanced Diplomas in Building Design or their equivalent. These have proved often to be effective access vehicles or 'feeders' to architecture programs, especially for low economic status students. However, some schools have missed experience of the success of TAFE students undertaking degrees. Some used to have a system of formally streamlining TAFE students to their degree, but these links have been suspended. There is less confidence amongst AASA members in private training institutions in Australia, notably those in offering courses in building design or interior design.

11. To what extent should vocational education and training and higher education continue to have distinctive missions and how should these missions be defined?"

Architectural courses are accredited by the professional licensing bodies, which are currently reviewing their priorities in the face of the continually enlarging necessary knowledge-base of the discipline, and the reduced staff – student contact time at most (or all) Australian universities. At issue is the degree to which a university architecture course should offer a distinctive, academic 'vocational education' rather than a 'vocational training' related to the 'competency standards' established by the licensing bodies. It is necessary that the accrediting bodies very clearly define the mission they wish the universities to perform, and then support the universities in that mission. It is relevant to note that the National Protocols astutely specify the focus of universities as "sustained scholarship".

12. By what mechanisms should research activities in Australian universities be supported?

Architecture programs are uniquely positioned to advance the links between innovation and teaching, the 'Teaching –Research nexus,' research and the building industry. Unhappily, the reduction of funding in architecture programs since the 1980's has led to the systematic erosion of both teaching and research disciplines, especially in building structures and construction, lighting and heating, materials science, acoustics, and mechanical systems. Many of these disciplines are critical to our understanding of a sustainable future for our cities. It is estimated that built environment industries directly contribute 23% of greenhouse gas emissions, and that innovation in education and architectural practice are urgently required to promote sustainable building practices and address the climate change challenge.

The absence of employment continuity, pressure on laboratory space, and the cost of maintaining the infrastructure needed to support these architectural sciences have all conspired to undermine architectural scientific research in Australia and to achieve the Green House Gas (GHG) Abatement potential of the building sector. In an age of global warming, these sciences are critically needed for the development of a sustainable architecture in Australia. While there have been worthy grant applicants each year to the Australian Research Council (ARC), in some years no grants have been made to architecturally related research, either in the strong history and theory and design research areas or to architectural materials science. The base for architectural science research has been eroded by several factors, including the withdrawal of funding within Universities, and the lack of opportunity for grants from either industry or government, the withdrawal of funding for teaching units in architectural acoustics and material sciences within architecture programs and the retirement of prominent architectural scientists without succession planning in universities. As the report notes: "Appropriate public funding to support good research performance in Australia's universities is an important issue for public policy." In order to address these factors, a beginning can be immediately made in making more available doctoral and post-doctoral research fellowships for architecturally related research in architectural history and theory, design research and architectural sciences. In addition, junior lecturing or research positions offering a career for architectural research within universities are urgently required to address generational change in both teaching and research. As the Report notes on page 63: "Nurturing and

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developing the careers of the later group is key to meeting the challenge of the ageing academic workforce and international competition for academic staff."

In the area of practice based research in design discipline, little work has been done in identifying the appropriate framework to support practice based research. The Australian Institute of Architects has been active in advocating the notion of "design as research" to government bodies such as DEEWR and the Council for the Humanities, Arts and Social Sciences (CHASS) and has developed a Research Indicators Paper to specifically address this "gap". The Institute is committed to continue dialogue with government departments in promoting this new way of thinking.

Recently the Institute has made a submission in response to ARC's Excellence in Research for Australia (ERA) Initiative. The submission was prepared by the Institute's Chair of National Education Committee Professor Richard Blythe. The way in which "design as research" in the discipline of architecture is described is summarized as follows:

Design work, when it is peer reviewed, systematic, contextualized and communicable builds knowledge, knowing and action communities and is therefore a legitimate form a research. Therefore when published in professional journals it should be understood as a research output. There are long-standing and robust systems for recognising architectural research quality. Publication of architectural research happens through professional journals, academic journals, books, book chapters, conference proceedings, exhibitions and exhibition catalogues, competitions and prizes and significant public commissions. Only a limited sample of high quality and successful research is captured in academic publications. While the measures identified in the Consultation Paper will be relevant to some aspects of architectural research (particularly for example in the areas of architectural history and theory, and architectural technologies), ranked journals, citations and research income are not robust measures of design research quality.

In addition the Australian Institute of Architects has developed a Research Policy to define architecture research a copy of the research policy is attached to this submission for your information.

13. Australia' higher education sector in the international area

Questions 22 through 24 outlined in the Discussion Paper concern the encouragement of internationalisation of Australian educational programs. Support for the internationalisation of programs assists the education of architecture students facing the demands of a global economy, and the changing 'economic, social and environmental order' recognised in the June 2008 Discussion Paper. The Review notes that Australian students appear to be "less mobile" than students from other countries.

However in architecture this may not be the case - Australian architecture graduates have become increasingly mobile in recent years. Both graduates and architects tend to move to countries where the construction industry is booming. Dubai, UK and China are just a few examples.

It is also worth noting that Australian architecture programs are on a par with countries such as US, UK and Canada. The recent establishment of the Canberra Accord has demonstrated that there is substantial equivalency of architectural education systems among 7 signatories – China, Korea, Mexico, Commonwealth Architects Association, US, UK, Canada and Australia. This opens a new chapter not only in promoting Australian architecture programs in a global context, but also in assisting the mobility of Australian and overseas architectural students in the age of globalisation.

14. Are there any unintended consequences of the current approach to internationalism of higher education in Australia

The language skills of many overseas students who have achieved good IELTS scores are often weak – causing concern for the credibility of the IELTS system. Students with weak English skills become isolated, to a degree, from those students fluent in the language, and require more attention from over-worked staff. While overseas student fees contribute significantly to the financial health of the universities, they require 'care' which most universities are not sufficiently staffed, or organised to provide. In addition, some international students lack 'critical' skills, and 'initiative' in their tasks (i.e. they want to be directed what to do). This is perhaps a result of the pre-tertiary educational experience in their home country.

The expected growth in international students of 4.24% to 2010, and then slower growth of three per cent to 2015, further assists the internationalisation of architecture programs in Australia. While architectural faculties have contributed significantly to the support of international students, where 14.9% of revenue to Australian universities comes from international student fees, increased internationalisation of architectural education requires further funding support. The enabling of students and staff to undertake offshore activities is especially important to architectural education, and joint ventures in design education are valuable when they occur. The acceptance by AASA members of the Bologna model in 2006 further supported the possibilities of international mobility, credit recognition, and joint educational opportunities. International recognition of accreditation processes in Australia was furthered this year by the Canberra Accord signed by the Australian Institute of Architects, which will benefit graduates of Australian Architectural programs after 2010 in many countries, including the UK, USA, China, Korea, Mexico and Canada. Exchange relationships are particularly effective, but are hampered by the cost of airfares to students. Funding subsidies for student travel – related international design workshops and exchanges of students, such as promoted in Scandinavian countries and the Netherlands, would greatly assist architectural education opportunities for Australian students.

15. How would you define knowledge transfer and community engagement in an Australian context?

Questions 25 through 27 concerns the 'third stream,' or knowledge transfer in communities. Architecture programs set their student design projects mostly within communities, often in response to community enterprises. Appropriate responses to the ethical context within which architecture is produced is an underlying theme in accredited architecture programs in Australia. Knowledge transfer and community engagement are, of course, appropriate activities for universities, since – aside from all other reasons - they

make explicit to the community the reasons for public funding support. The UK's 'third stream funding' system appears an appropriate model.

16. What incentives or unintended consequences are there in the current arrangements for higher education funding?

With only 26 teaching weeks per year, it is legitimate for full-time academics to be required to contribute to the expansion of knowledge through both 'traditional' research and research via creative endeavor – which supports the academic's personal growth in scholarship. However, the assumed (ie: un-proven, see para 4, page 62) financial dependency of courses on the research output of their staff causes problems for vocational courses such as architecture, in which creative endeavor (which is only contentiously measured as 'research') rather than 'traditional' research output, is what advances the discipline. It has been observed that research projects are skewed toward what is likely to be funded, rather than what is of benefit to the community, industry or the researcher.

17. Are the current institutional arrangements for determining relative funding between higher education institutions appropriate? If not, what are the changes should be considered?

The government contribution to the funding of architecture programs in Australia requires revisiting. The 'twin functions' of teaching and research are diminished by lack of funding of architecturally related research, and the undermining of teaching through the inadequate provision of teaching resources. Currently, architecture programs in Australia are heavily subsidized by part time or sessional teaching appointments of practicing professionals, masking the malaise in the teaching staffs of architectural schools in Australia.

Changes in the use of technology in the building industry and in architectural production will continue in architectural education, with continual pressure on cost of computer infrastructure (Cf. 'Costs,' Section 2.6, p. 15). These pressures are, in part, driven by student demand. The review notes that because of the shift of costs to students, they are "Increasingly demanding consumers, focused on the cost and outcomes of their courses and the quality of the student experience".

The Review document recognises that significant growth in student numbers accompanied by falling numbers of teaching staff has led to alarming student-staff ratios in universities, from 12.9 in 1990 to 20.3 in 2005. The lack of resources in the higher education sector has led to problems of deferred maintenance, estimated in the Review document to be as high as \$2 billion. This pressure on accommodation has distorted the teaching of the traditional architecture design studio, with many universities pressured to abandon this design from practice replicating commercial practice and considered by many architects to be at the heart of an architectural education.

Other Issue:

Generational Change

The task of recruiting academics in the next decade is acknowledged as a significant challenge given that more than 30% of staff in the academic workforce are aged over 50. In addition, approximately 50% of current architectural practitioners are over 50 and heading for retirement. Currently missing from the hierarchy of teaching and research appointments are teaching assistants and junior academics encouraged to forge a life in an academic discipline within architecture schools.

18. Is there more that could be done to improve university governance? How should this be done?

University 'governors' (and national government ministers of education) tend to be familiar with the needs and ways of the 'pure' academic disciplines but not with the 'applied' academic disciplines, such as architecture. Consequently, funding models are biased towards 'pure' academic disciplines and away from 'applied' disciplines— which is detrimental to architectural education. Government higher-education strategies and funding should be structured so that both 'pure' and 'applied' disciplines are acknowledged sympathetically, especially with regard to appropriate funding and appointments. A 'one size fits all' funding/appointments policy is inappropriate for achieving excellence in all areas.