



Round Table on the Academic Workforce in Higher Education

The Boat House by the Lake,
Menindee Drive, Barton
Canberra

23 November 2009

The operating context for Australian universities in the short, medium and long term

The Business/Higher Education Round Table approached Skills Australia, Universities Australia and Professions Australia to collaborate on a roundtable on an Academic Workforce Roundtable to discuss strategies to resolve the projected shortage of academic staff within the higher education sector. This is particularly critical in the context of government policy which will increase student participation rates over the next two decades. The program included speakers in the morning to set the context which was followed by a discussion of the issues. Approximately 35 people were invited, representing higher education, government and business. The roundtable was chaired by David Hind, President, B-HERT.

Workforce Futures Discussion Paper – Philip Bullock, Chair, Skills Australia

Consultation on the Workforce Futures papers released by Skills Australia is coming to an end. A DRAFT National Workforce Development Strategy should be completed in the first quarter 2010. Skills and education are part of a holistic strategy across the nation that also includes infrastructure, innovation, climate change, smart state initiatives, among others. Skills shortages are typically focused on a specific occupation or sector and are not widespread. Data indicates that the 80:20 rule applies, with approx. 80 per cent of the system working satisfactorily. This means that we should focus our attention on how to reduce those areas in which shortages can and will exist.

It is also important to distinguish a labour shortage from a skills shortage. Just because an employer cannot find workers does not imply a skills shortage. It could simply be that people do not wish to undertake that job, for whatever reason.

Workforce development is often viewed differently depending on your perspective. For example as an individual, it could imply “career planning”; for an enterprise, it may mean how do I develop an HR plan to meet the needs and objectives of my organization; for an industry, it may include industry capacity, supply/demand issues, are there critical skills, what are the changes likely to impact the industry etc; and finally at a governmental level, workforce development is more often about policy, funding, system capacity, the holistic nature of actions including things such as migration etc. Each view is different and contributes to the whole. Skills utilization (i.e. how do we make more effective use of the skills) complements the “skills planning” aspects of workforce development.

Based on three scenarios for the global and Australian economies, the supply and demand for qualifications as projected by Access Economics highlights potential for shortfall in the next 5 years. Actions such as increased 457 visas and skilled migration may limit the impact. Skills shortage will occur in specific sectors and occupations and will require localized or targeted actions.

We should not be alarmist. We should recognize the need to focus on the 20 per cent. Skills Australia has developed a framework to assess where interventions can be applied (refer to criteria in paper) with a strong likelihood of success. It is likely that our DRAFT strategy will reinforce the need for solutions to be holistic, regionally focused and targeted at specific occupations or industries as required. In addition, the ability to enhance access and equity, lift participation, provide more generic employability skills, and improve shortfalls in numeracy and literacy have received supportive feedback as part of our consultations.

Consistent with this approach it would appear that in terms of the academic workforce, the question is whether the focus should be on the workforce or on parts if it. Interventions can take many forms, for example some interventions may be required at the industry/enterprise level.

The HE institutions can take a leading industry role in helping define the challenge and help identify some of the root causes for potential areas of concern and provide specific guidance on what is required to help mitigate what appears to be a shortage in some key areas, especially due to the aging of the teaching staff. The initial work of Skills Australia may be helpful from a methodology perspective and lead to further collaboration.

Academic Workforce, Trends, Analysis and Strategies – Professor Graeme Hugo, Director for the National Centre for Social Applications of Geographic Information Systems and Professor of Geography, University of Adelaide

As a demographer, Professor Graeme Hugo identified the workforce challenges as huge because we are going to need to create new workers with new skills and replace the 42% of the current baby boomers. In addition the university workforce faces additional urgent challenges dealing with the crucially important lead time which will need to be doubled because we need “to train people to train people”; and the academic workforce is older than any of the professional and skill groups that it provides training for (maybe with the exception of farmers).

As the workforce numbers in high income countries will peak in 2010, numbers in low income countries will continue to grow which means that migration will become even more important in the future. Australia is one of the top 10 growing countries in Asia at 1.7% per annum with a projected population of 35 million in 2050. This population growth is a function of 1) mortality – life expectancy is increasing, particularly the number of years added to older Australians 2) fertility – 1.95 which is the highest in 30 years and just below the replacement level, and 3) migration – in which Australia ranks high in intake. Migrants coming into Australia are more credentialed than the Australian population or the longer standing migrants of a decade ago. One-half of the higher degree/post bachelor degree Australians are overseas born as are 49 per cent of the university teachers/academics. The age structure of the population is also of concern with the bulk of the baby boomers (born 1946+) creating pressures on particular goods and services. Different age groups grow at different rates and the big group of baby

boomers is aging quickly. Baby boomers make up 25 per cent of the population, 41 per cent of the workforce and 56 per cent of the academic workforce. Without migration our workforce will stop growing in the next 5-10 years.

The number of students in the system is a function of i)age structure, ii)participation rates and iii) overseas students. Latest projections suggest continuing increases in student age population in university over the next 10-15 years. The growth will be more rapid because of the government's policy on participation rates. Scenario building on student numbers is needed. It is necessary to drill down to determine supply and demand in: particular professions and disciplines; gender participation; vocations now requiring university degrees; increased participation in mature aged students; overseas students (1/5 is full fee paying student). The outlook for foreign students is not open-ended, however.

Academic staff grow in fits and starts. There was an increase when the baby boomers went to university which was met by migration. Numbers grew in the 1970's – 80's but suffered in the 1990's despite the growth in student numbers. The age structure of the academic workforce in the 1970's was young but because of subsequent low levels of recruitment, 25 per cent of the workforce now is over 55 years (the comparable figure for professionals is only 15 per cent). The current situation is that there is a very aged academic workforce in universities that will be hard pressed to meet the needs. This is least marked in the physical sciences but the number data available are poor. The key issue is a crisis comparable to the 1960's will present in the next 10 years because the baby boomers will move out of the workforce. In earlier crises, the problem was resolved through migration. This time, however, Australia is not the only country affected so the global international competition will produce talent wars. Europe has already started to capture talent and Australia will have to catch up.

It is important to recognise that this is a totally different migration situation than previously experienced with heavy reliance on s 457 visas. Migration, however, is a 2-way thing so for example between 1993-2006, there were 20,000 incoming academics and 13,000 outgoing ones. Analysis of who is coming in and who is going out is needed. Are we getting what we want in terms of skill areas? Quality? Universities are one of the major users of s457 visas from Asia (India/China) and eastern Europe. To be able to drill down to discipline area would be useful. The net loss of Australian academics is to US, UK, Hong Kong and Singapore.

The migration program cannot be relied upon as being the solution the way it was last time. The immigration program needs to be reviewed to be able to provide the right mix of academic staff and teachers (eg may need older and more senior academics to train more PhD's). Increasing the participation of older age groups is an important consideration though employment culture and health issues may militate against this.

In a survey of Chinese academics, 50 per cent indicated they will go back to China and many are still heavily engaged in Chinese work. Fifty per cent of the large Australian academic diaspora indicated they intended to come back to Australia, 25 per cent are undecided but would consider it if a policy opportunity presented. A lot of people are prepared to come back at a particular window in time eg when they start a family. Research dollars, which are greater overseas, and not salary is the major incentive. There is a lost Generation X with very limited representation in the academic workforce partly due to lack of available jobs, increased competition in the non-academic world,

greater internationalisation of the labour market for academics. Although there is variation among universities, policy elements for consideration should revolve around Recruitment (identifying the talent), Retention (across the age groups; women in their 30's) and Return (of ex pats). Other issues include what are the roles of industry, enterprise and government? Is the issue surrounding women in university an enterprise responsibility? What are the characteristics of the local pipeline?

Engaging People in the Academic Profession: An International Analysis and National Challenge – Dr Hamish Coates, Principal Research Fellow, Australian Council for Educational Research

Australian academic staff sustains much of Australia's future and so it is important to understand the talent pool. There is a growing demand for academic work and staff numbers have flattened while student numbers have ballooned. Staff/student ratios have widened from 13:1 in the early 1990's to 22:1 in the late 2000's. There is a lack of replenishment with younger staff and universities have responded by using casual staff to do up to 50 per cent of the teaching.

The Changing Academic Profession Study asked whether the academic profession is attractive. It is the largest survey of academics yet with a data collection from 2007 onwards involving representative samples in 25 countries. Some of the findings include:

- Salary – Australia compares well with international academic salaries;
- Job satisfaction – U shaped curve with the start and end of the careers more satisfying; Australia does not compare well;
- Job change intention – Australians have higher intentions to change jobs; action to work outside the sector is higher for junior academics, who are already underrepresented;
- Opportunities for research – all academics want to do research and Australians have high aspirations to do research but many don't do it; there is a mismatch between what they want to do and what they actually do; Australia doesn't compare too well internationally (to do research also means more hours/week of work);
- Satisfaction with management – Australians are not as satisfied as in other countries;
- Quality of research – academic perceptions of infrastructure is ok but in terms of more specific resources, support staff are not as happy; supportive environment is at par internationally;
- Institutional support – very low and this is a worrying trend (it would be interesting to benchmark academics with other professionals because that is where academics are going);
- Contract conditions – Australia has a much higher proportion of contract staff (note; we don't know the attrition rates for academic staff);
- Workload – Australia has one of the highest workloads consisting of teaching & research and administrative & service activities.

Issues that will require attention:

- Expand staff numbers with system growth;
- Urgent need for succession planning;
- Streamline accountability requirements (implications for TEQSA);
- More sophisticated management of learning;

- Attract, engage and sustain the new generation;
- Increase understanding of the casual workforce;
- Stimulate mission and professional diversity;
- Build institutional leadership capacity;
- Reconceptualise academic work – diffuse and new concept of the knowledge worker;
- Planning for the academic workforce.

Supply, Demand and Characteristics of the Higher Degree by Research – Dr Joanne Bright, Department of Innovation, Industry, Science and Research

In 2008 several major Australian Government reviews touched on issues impacting on the supply of and demand for higher degree by research (HDR) qualified individuals and the research workforce as a whole. The three major ones were the Cutler and Bradley reviews and House of Representatives Inquiry into Research Training and Research Workforce Issues in Australian Universities.

Against this backdrop, the Department commissioned ACER in early 2009 to undertake a study on supply of and demand for HDR qualifications in Australia to examine further the current and projected situations with respect to flow through of skills – both to the academic workforce and more broadly. While data limitations required a focus primarily on the doctorate qualification, some key findings of that study include:

The higher education sector is the largest employer of doctorate graduates and also is the sector that trains them, making the academic workforce critical to the future of the research workforce. Like the academic workforce, the doctorate workforce is older than the professional workforce as a whole, includes more male than female individuals, and slightly more (52 per cent) Australian born versus foreign born individuals. The majority of doctorate holders are located in NSW, Victoria and Queensland and the most common fields of education in which doctorates were completed are in the natural and physical sciences and society and culture. Employment prospects for HDR graduates are good with a 2.2 per cent unemployment rate (compared to 4.1 per cent for the 30-64 year old population as a whole). The most common occupation type of doctorate holders is as University and Vocational Education Teachers (around 26 per cent) followed by Natural and Physical Science Professionals (around 18 per cent).

The key sources of supply to Australia's doctorate workforce are domestic and international student completions through our research training system and migration, with supply through the research training system being the most significant contribution. Around fifty per cent of the international students completing a doctorate are estimated to stay in Australia following their studies (compared to just under 90 per cent of domestic doctorate completions).

Based on four scenarios of future supply of doctorates versus projected demand (in 2020), the ACER report suggests that demand will be met if there is a modest increase in age-based completion rates of doctorate degrees (Age-based completion rates increase by 2% for each age group). But this is not the full story. More work will need to be done to understand the potential impact on completions of a stalled growth in domestic doctorate commencements since 2003 and a range of qualitative issues influencing uptake of and retention in higher degree by research study and research

careers, such as: concerns regarding a perceived lack of clear career paths for graduates; attractiveness of the academic profession; and the adequacy of the research training system in preparing students for varied career outcomes. Further analysis is also needed to expand these findings as they relate to areas of national priority eg climate change and targets established by the Australian Government for attainment of bachelor degree level qualifications by 2025.

The Australian Government is committed to developing a research workforce strategy to cover the period to 2020. There are a number of challenges that will need to be addressed in this context: currently there is a lack of information in key areas of the research career path and we require an improved understanding of what attracts researchers to a research career path, the career pathways they experience and the quality of research training and support mechanisms, including metrics to monitor this. In terms of demand issues, there is a need for better understanding of the demand for research and the match between skills garnered and subsequent employment. For example, are people actively engaged in research once they are employed?

A Reference Group to support the Strategy's development has been established and from that a number of sub-groups looking at employer demand, the research training and experience and research career paths have also been formed. With the support of these groups the department has already commenced a work plan of both in house and commissioned analysis.

Plenary discussion: Major Discussion Points re the Academic Workforce

1. Supply focus

- While there was consensus that intervention is necessary to mitigate the projected shortage of academic staff, there were differing views as to the urgency of the problem and the type of intervention (national versus sector versus institution).
- Because of the long lead time to train academics and the impact on industry who are dependent on trained graduates, the global competition for certain skills sets, and government's increased participation policy, multiple strategies will be required to address the workforce challenges.
- Teaching and learning requirements do not necessarily serve the same purposes as research needs despite both being in short supply and necessary.

2. Attraction factors:

- The attractiveness of an academic career has declined in recent years in favour of the professions with workplace conditions cited as responsible to some extent.
- Australia is not as competitive as it could be in attracting top quality Australians back from international postings or international graduates as permanent residents.
- A number of institutional strategies were identified including developing a more sophisticated approach to the management of learning, reconceptualising academic work as well as national policy strategies to streamline accountability requirements (a role for TEQSA to review).

3. Prioritisation (targeting disciplines)

- The workforce challenges are huge because in addition to replacing the high proportion of baby boomers, we also need to create new workers with new skills.
 - There is surprisingly limited data available – is this an indication of the academic profession's low priority?
 - More work is required to be able to drill down and determine supply and demand issues for example in particular professions and disciplines, gender participation, vocations requiring university degrees etc to determine priorities, etc.
 - Should the academic workforce be considered one of the 'priority' industries for the nation in the National Workforce Development Strategy?
4. Migration solutions
- The migration program needs to be reviewed to provide the right mix of academic staff and teachers and reliance on s 457 visas can be misleading in terms of a solution because they do not represent net figures (ie incoming – outgoing graduates).
 - It is now a globally competitive market for academics and Australia as a very small country may find it difficult to attract top quality migrants.
 - The academic workforce is highly mobile and output from China and India may dramatically impact on the dynamics for academics in Australia.
5. Work culture
- Australia has one of highest academic workloads by international comparisons and not surprisingly staff are not as satisfied as in other countries.
 - Staff student ratios have widened considerably without adequate staff replenishment.
 - More work is required in the stalled growth in domestic doctorate commencements and retention of higher degree by research study and research careers to understand concerns regarding a perceived lack of clear career paths for graduates and the attractiveness of the academic profession.
 - Is academia as a career receiving the same kind of focus on diversity and life balance and career attractiveness as is becoming more evident in other parts of the community?
6. Policy dialogue
- Sustained policy on revamping of academic profession to address recruitment, replacement and retention is essential and urgent.
 - Is there enough recognition of several non discipline focussed aspects of academia eg international academic market place, managing change, impact of academic output on societal issues and goals both locally and nationally, the long term benefits of international students, among others?