IFUW COLLOQUIA PROJECT

AFGW REPORT:

BREAKING DOWN: THE BARRIERS TO FEMALE LEADERSHIP IN HIGHER EDUCATION

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INTRODUCTION

At the Australian Federation of Graduate Women (AFGW) Council meeting on 22 October 2011, the AFGW Federal Council decided that AFGW would not to be able to actively participate in the IFUW International Colloquia Project with a specific event, as based on the successful BFWG experience. This was unfortunate; however, a number of factors drove that decision:

- Lack of funds, resources and times to run a Colloquium in the designated time frame (January - September 2012)
- Lack of eligibility for IFUW funding assistance
- The competitive and overwhelming priority of organising a successful National Triennium Conference in November 2012
- With our geographic tyranny of distance, members would not be prepared to support two events involving airfares and possibly accommodation eg Melbourne and Brisbane in the same year.
- The concern, that AFGW probably could not attract 20 high profile senior executive women from Australian Universities as BFWG did, nor be in a position to fund their travel expenses

To a large extent Australia is ahead of most IFUW NFAs on this issue through our advocacy and that of another NGO. In 2006, Universities Australia Executive Women (UAEW) had put in place a similar process. The Action Plans and Statistics from this event are available online:
http://www.universitiesaustralia.edu.au/page/policyadvocacy/equity/women-in-universities/

At the equivalent event held in Australia at the 2006 Annual Meeting of the AVCC Colloquium of Senior Women in Higher Education (now Universities Australia Executive Women (UAEW)), the need for a strategic interventions approach to increasing the representation of women in senior positions in the tertiary sector was clearly identified. This is illustrated in the Scoping Paper (February 2007) which is available on the above web-site. Three target areas were identified:

1. Women in Leadership
2. Women in Research (SET)
3. Workplace

Here is a link to the current Universities Australia Strategy for Women 2011 to 2014 which AFGW submits was at the time, the most up to date documentation on the subject in Australia. http://www.universitiesaustralia.edu.au/resources/427/486

Also, Universities Australia and the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) (previously Department of Education, Employment and Workplace Relations or DEEWR) produces regular detailed statistics disaggregated by gender that assist with our monitoring of the relevant trends. Two examples are attached - latest available by classification and gender see table 2.9 in first attachment. Historical data to 2005 see table 2.9 in second attachment.

In lieu of conducting a specific colloquium AFGW agreed to provide IFUW with a secondary source report utilising current statistical trends and relevant academic research.

Two relevant research studies from the Griffith University Centre for Work, Organization and Wellbeing (WOW), which are linked, have been identified and are extensively cited in this report. In particular, the comprehensive report detailing the findings of the Work and Careers in Australian Universities Survey and references throughout this report to the Survey results are identified as "the 2011 WOW Survey".[1] This project's research partners include UAEW, who conducted the 2006 Colloquia event described above.

In this survey, 80, 868 individuals were contacted and an overall response rate of 27% of completed surveys was returned – 35% were academic staff, 32% professional staff and 12% sessional staff – 57% of the total respondents were female.

The respondents in the survey paint a picture of an older workforce with high ethnic diversity and a predominantly temporary or casual employment pattern with a high proportion of caring responsibilities,"

- 42% of academics, 23% of sessionals and 35% of professionals/general staff are over 50.
- 42% of Academics, 40% of sessional staff and 32% of professional/general staff are born outside Australia
- 44% academics and 28% of professional/general staff are on fixed term contracts, all sessional staff are on casual contracts
- 49% academics, 43% professional staff and 28% sessional staff have caring responsibilities either for adults or dependent children.

The second report is by the same authors, Strachan, Broadbent, Whitehouse, Peetz and Bailey (2011) who looked at a gender analysis of the tertiary sector.

Throughout this report, our focus will be mainly on women in academic positions.

GENDER MONITORING

Following the UN Beijing Conference on Women in 1995, the importance of mainstreaming or integrating gender equality has been highlighted in the EU and other countries. In Australia, the Federal Government is committed to strengthening the provision of gender analysis, advice and mainstreaming across Government. The Minister for the Status of Women works with other Government Ministers to ensure that both women's issues and gender equality are taken into consideration in policy and program development and implementation. This cuts across all industry sectors.

The Office for Women (OfW) supports the Minister in this role, and is the central

[1] Available at the project web-site: http://www.griffith.edu.au/businessgovernment/ centre-work-organisation-wellbeing/research/regulation-institutions/projects/work-careers-australianuniversities

source of advice for Government agencies on the impact of Government policies and programs for Australian women. OfW has two departments within it – one a domestic one who do all this and an international department who take care of CSW and other international treaties or connections. We also have a Global Ambassador for Women & Girls, Penny Williams.

OfW is working across Government to support Ministers and their portfolios to achieve Gender Balance on Australian Government Boards.

Elizabeth Broderick, the Sex Discrimination Commissioner within the Australian Human Rights Commission[2] and the Workplace Gender Equality Agency (WGEA)[3], (formerly Equal Opportunity for Women in the Workplace) both carry out important gender analysis across a range of policy issues.

The OfW has strengthened its role in advising Government agencies on the gender dimensions of policy and program development and implementation. For example, the Office for Women now provides advice on the gender dimensions of policy submissions to Cabinet Ministers, to ensure gender equality is considered in the early stages of policy development. It is to be noted that more work, aimed at establishing gender analysis as a key element of policy making will continue over the next months.

This represents a key step in ensuring gender mainstreaming is implemented across Government and this of course, impacts on higher education as well. This leads to the consideration of gender monitoring systems overall within the University sector.

IS THERE EQUITY IN UNIVERSITIES?

Strachan, Broadbent, Whitehouse, Peetz and Bailey (2011) in their paper *Looking for Women in Australian Universities*[4] have found there is a clear feminization of the professional (or general staff) cohort at universities overall, however there are clear vertical segmentations women dominate the lower and middle range roles but are very clearly under-represented at the higher levels.

Of the 40 universities identified, only 15 of them had women's representation at higher levels being at 50% or more. In academic positions, this also holds true with fewer women at the senior ranks – Associate Professor (level D) or Professor (level E). Their findings suggest increasing representation of women, but more significant representation at Deputy Vice–Chancellor or Vice Chancellor levels (the starting point was lowest here) which suggests greater movement in administrative elite positions, rather than highest level research positions.

Strachan et al.'s study cited the following scissor graph about university graduates and academic career progression which indicates a trend towards similar patterns of

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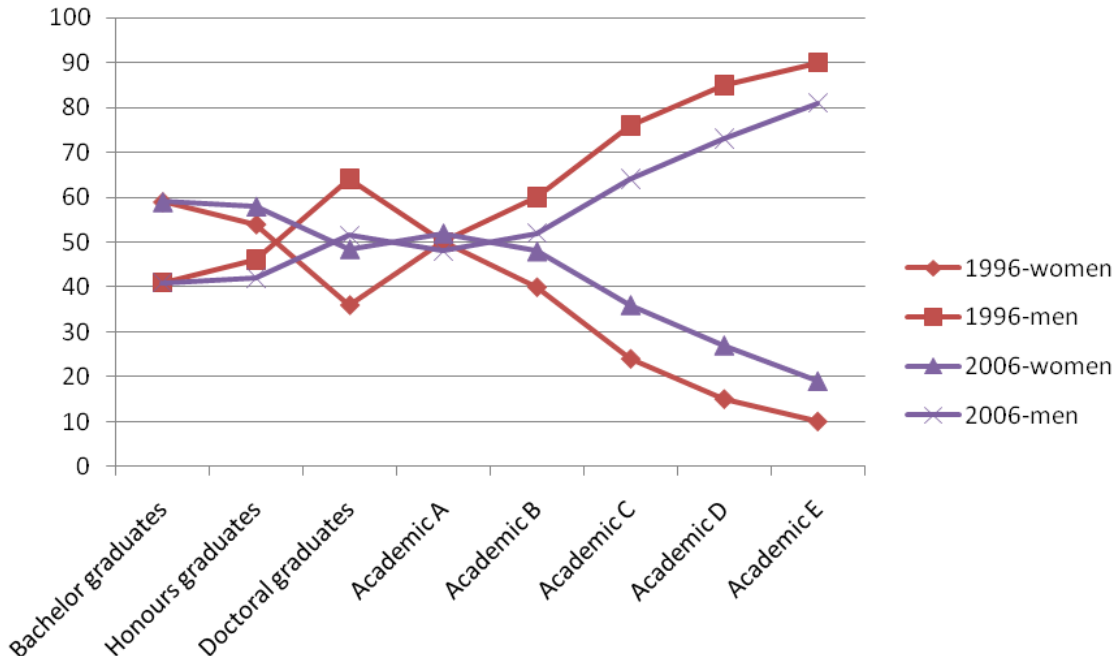
[2] http://humanrights.gov.au/sex_discrimination/index.html

[3] http://www.wgea.gov.au/About_WGEA.asp

[4] Glenda Strahan, Kaye Broadbent, Gillian Whitehouse, David Peetz and Janis Bailey (2011) Looking for Women in Australian Universities. In K Karuse, M Buckridge, C Grimmer and S Purbrick-Illek (eds) *Research and Development in Higher Education: Reshaping Higher Education*, 34, (pp308-319). Gold Coast, Australia 4-7 July 2011

gender differences but a narrowing of the gap. There remain distinct gender patterns in career progression. It would seem that for both cohorts, there are pronounced glass ceilings in place or possibly a leaky pipeline.

Figure 1: University Graduates and academic career progression by sex: Australia, 1996 and 2006



However, it is pleasing to note that the previous male domination at the PhD graduate level has disappeared and the corresponding gap at the Academic B level has considerably reduced. This may also be reflecting the academic career structure trends where there is a requirement for possession of a doctorate at the ALB level. Against the ideal model, of even gender representation across all levels, universities clearly fail.

Strachan et al (2011) ask instead of what could or should be reasonably expected, given the gendered histories of Australian Universities. They believe a reasonable benchmark is that of the Australian Public Service (APS). This is based on their assertion that Universities overall share many of the characteristics of organizations within the APS: above average unionization, coverage under equal opportunity legislation, formalization of procedures and policies, coupled with operations more like those of the APS than private sector organizations. Again too, the APS had a long history of possessing obstacles to the advancement of women, eg, up to 1967 women had to resign when they married. Like the University sector, the APS has sought to implement policies to reduce barriers to women and improve their participation.

Table 2 compares the composition of employment by level of academic staff in universities and staff in the APS in 2009. For each institution, employees are placed within four bands.

Table 2: Gender composition of employment by level, Australian universities and Australian Public Service, 2009
Source: DEEWR Table 2.9 2009; Australian Public Service Commission

	Number of employees		Proportion of all employees		
Level	Male	Female	Male	Female	Employees
Universities (a)					
Level A	3852	4782	14.8%	24.3%	18.9%
Level B	7431	7697	28.6%	39.2%	33.2%
Level C	6338	4249	24.4%	21.6%	23.2%
Level D & Above	8362	2921	32.2%	14.9%	24.7%
Total	25983	19649	100.0%	100.0%	100.0%
Australian Public Service (b)					
Levels APS1–3(c)	9657	17655	15.0%	20.4%	18.1%
Levels APS4–5	18077	33629	28.1%	38.8%	34.3%
Level APS 6	13949	16878	21.7%	19.5%	20.4%
EL & SES	22566	18460	35.1%	21.3%	27.2%
Total	64249	86622	100.0%	100.0%	100.0%

(a) academic staff
(b) continuing employees
(c) includes trainees and graduates

From the table, we can see similar gender representation at the lower levels (Levels A, B and C for Academic Staff and Levels APS1-3, APS4-5 and APS 6. It is noted that the entry level for Academics does have a higher level than the APS equivalent. There is a clear difference at the highest levels – Level D and above for Academic Staff and Executive Level (EL) and Senior Executive Service (SES). Women are a majority of the SES in some departments – for example, the Department of Employment, Education and Workplace Relations, which is responsible for university policy, has a female representation of 58 per cent

The trends in both show that in both groups, there is still male dominance at the highest levels. Overall, when benchmarked against the APS, gender equity in Australian universities amongst academic staff is relatively poor. This suggests that whilst women are under-represented in university managerial elites, the disparity at these levels is even more obvious when they are benchmarked against the APS for similar levels.

Strachan et al (2011) also looked at the numbers and growth in female employment at universities amongst levels D+ (ie D, E and above). They reviewed the census data from 2004-2009 from the Department of Education Employment and Workplace Relations (DEEWR). Over this period female participation in the period was only 41% of the total. Strachan et al (2011) believe that this figure is not quite a true representation as it is not taking into account movement in and out of the professoriate, so it is difficult to see who is being replaced. They feel that there is further work to be done about movement into, out and within the professoriate as well. It would be interesting to find out whether the positions are administrative, research or teaching and learning so as to add further to the picture.

Table 3: Numbers and Growth in female employment at levels D and E within Australian Universities over the period 2004-2009[5]

Year	#s employed at D+ level				Growth in D+ level			
	Female	Male	Total	Female Share	Female	Male	Total	Female Share
2004	1656	6550	8206	20%				
2005	1881	6878	8759	21%	225	328	553	41%
2006	2115	7119	9234	23%	234	241	475	49%
2007	2398	7711	10109	24%	283	592	875	32%
2008	2579	7959	10538	24%	181	248	429	42%
2009	2921	8362	11283	26%	342	403	745	46%
Movement from 2005-2008					698	1081	1779	39%
Movement form 2004 - 2009					1265	1812	3077	41%

It is interesting to note that the WOW 2011 Survey found that women at levels D and E were overwhelmingly employed on full-time basis with few appointments at a part-time level. Any part-time work undertaken has usually been at the commencement or early in their careers. This pattern also seems to hold true for men too.

In Australia, all non-public sector employers with 100 or more employees (relevant employers) are required to report annually under the Workplace Gender Equality Act 2012 on a set of standardized gender equality indicators. This comes under the ambit of the Workplace Gender Equality Agency which provides citations that recognizes organizations who have policies and practices that support women and are female friendly. In the past, achieving this status resulted in a waiver to undertake mandatory reporting. However, recent changes to the Act have removed that waiver on annual reporting obligations. It is interesting to note that non-compliant organizations are listed on their web-site.6

According to the WOW Survey 2011, the University Sector has the highest proportion of organizations with these citations for their high performance in gender equity, which recognizes the extensive gender equity policies in place. However, the survey points out that there are still pronounced gender inequalities.

BARRIERS AND CHALLENGES TO FEMALE LEADERSHIP AND PARTICIPATION IN HIGHER EDUCATION AND ACADEMIA TODAY.

According to Kate White (2001) being a female in senior academia in Australia is an hard road to travel, and it can be harder to even each that point of being a senior academic.

This is a diverse issue and responses to this may vary according to the source or the

[5] (Source DEEWR Table 2.9, 2009, APS) as replicated from Strachan et al (2011).

[6] http://www.wgea.gov.au/Reporting_And_Compliance/What_Happens_if_my_Report_does_not_Comply/List_of_Non_Compliant_Organisations.asp

focus of this question.

To commence, one must ask, how is leadership perceived by women and how are women leaders perceived generally? According to Ramsay (2000) women managers were identified very differently from their male counterparts. Women were regarded as being empathetic, sharing of power and information, relationship focused and supportive. Their male counterparts were regarded as being competitive, self-reliant and self-confident, risk taking, and direct.

Ramsay (2000) continues by saying that many CEOs who responded, revealed that many of the female characteristics – such as being ready to share power and information were also characteristics of the requirement of managers in the future.

Ramsay (2000) cites a study by Eveline and Haydon (2000)[7] by the Commonwealth Higher Education Support Scheme (CHESS) program which found that women were regarded as being more conciliatory than their male counterparts and as also less task orientated (Eveline and Haydon 2000). It is interesting to note that women's leadership is regarded as being inclusive and accountable.

The IFUW Colloquia Project Guidelines 2011, highlight a 1993 UNESCO/Commonwealth Secretariat study[8] which cited the barriers to women's participation in decision-making as being inclusive of: limited access to education, especially higher education, discriminatory appointment and promotion practices, the stresses of dual family and professional roles, family attitudes, career interruptions, cultural stereotyping, alienation from the male culture and continued resistance to women in management positions, propagation of the glass ceiling syndrome which privileges covert criteria for advancement and absence of adequate policies and legislation to ensure the participation of women.

Given that twenty years have passed, how relevant or true are these barriers to women's ability to be leaders and thus to participate in decision-making? The following sections will discuss aspects of these barriers.

Joanne Pyke in her article on *"Why do female academics give up on becoming professors"* states that despite gender equity within student representations having been more than truly met, women are still poorly represented amongst senior academics and she cites that only a quarter of appointments in Australia above the level of associate professor are to women. She sees that this is caused by a number of factors:

- external recruitment processes that are not female friendly
- systemic gender inequality practices that then cancel out the effects of practices designed to improve gender equity
- work-life balance choices being in favour of caring responsibilities (by choice or through lack of support) and breaks in career for caring responsibilities.

Pyke's study at one Australian University focused on women's aspirations for

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[7] Eveline, J and Haydon, L, "Women Activating Leadership" on *Millennium Changes: what will change for women and men in the 21st century?*, WA Women's Policy Office, 2000.

[8] Cited in *Higher Education and Women: Issues and Perspectives*, A Report prepared for the World Conference on Education: Higher Education in the Twenty-First Century (UNESCO, 1998, P12)

promotion involved interviewing women at Level C from varying disciplines, age ranged and cultural backgrounds. She found that career aspirations above Level C were extremely poor and even at the next level, D, women were extremely cautious about their prospects.

According to Pyke, the majority of her interviewees considered there were a range of circumstances that led them to believe that promotion would be highly unlikely, untenable or undesirable. This was interesting as it was regarded that there had already been a significant time and effort invested in these women getting to level C, with a considered opinion that it would take 10 to 15 years or more, depending on career breaks.

Her interviews found that aspiration to promotion was also dependent on the following in the workplace:

- Early commencement of disciplinary career path in a field with opportunities for career advancement, with the completion of a PhD, the possession of a tenured position and being in a position to develop a research track record and teaching experiences, well before the feasibility of retirement.
- Access to a mentor/peer networks and the development of professional networks
- The culture of the departmental or research unit being supportive and collegiate

These factors were considered important for women to be able to successfully navigate careers with the assistance of supportive and influential networks and cultures enabling them to steer through the ever-changing and ever-demanding higher education landscape

And again the influence of family and caring factors were critical as it was generally regarded that participation in senior academic roles could not be done if there were illnesses within the immediate family. The WOW 2011 survey found that 12-13% of female academic and professional/general staff had missed out on career advancement opportunities because of caring responsibilities

In the Australian University landscape, universities are rewarded and funding is often granted on the basis of research performance. As a result performance overall was valued. This means that indirect discrimination would occur as women taking career breaks or taking on caring responsibilities has had direct impacts on productivity and results.

A particular avenue worth exploring is the Australian Indigenous experience. With their remote geographic locations, their low educational participation at all level, their high involvement in caring and the many other life related challenges they face, to be indigenous and female becomes a two edged sword in moving successfully through the career ladder. Cindy Shannon, Pro Vice-Chancellor (Indigenous Education) University of Queensland spoke most eloquently about this at the recent Australian Federation of Graduate Women Conference in Brisbane (November 2012).

LEAKY PIPELINE

The IFUW Colloquia Project poses a question around whether there are 'leaky

pipeline effects" or the point at which women drop out of Higher Education at the doctoral or post-doctoral levels. White (2001) certainly argues that there is a clear leaking pipeline with respect to the numbers of women in senior careers (as at 2001). The statistics outlined previously certainly support that there still remains a leaky pipeline as at 2012 when their representation falls dramatically at the Academic Level D and E (see Figure 1).

Additionally, it is evident that there are a large number of women with post-graduate qualifications who are no longer in the workforce. Recent Australian Bureau of Statistic statistics from May 2012[9] (see Attachment accompanying the report) reveal a far higher number of women (almost double) with bachelor and/or post-graduate degrees who are not in the workforce in comparison to their male counterparts. Given that individuals in academia must have post-graduate degrees in order to progress beyond the level of Lecturer (Level b) then this correlates also to the lower number of women at the higher levels.

These statistics also show that women with post-graduate degrees and/or bachelor degrees are almost three times more likely to work part-time as opposed to their male counterparts. This part-time work can mean it can be harder to progress the career on a part-time basis.

Labour force participation rates within the wider Australian community, also show a larger percentage of women who are leaving the workforce or working part-time because of caring responsibilities.

The Grattan Institute, believes that caring responsibilities does significantly affect women's employment patterns but that it does fully explain the lack of representation of women in the workforce on full-time work patterns in the later stages of their life.[10]

All this becomes more interesting when we see that the completion of awards is higher amongst women than men and has been the case for more than the last decade. As Australian women have become more qualified, it has sadly not translated fast enough into participation at the higher levels of academia, as can be seen in the Appendices.

DISCRIMINATORY OR UNFAVOURABLE PRACTICES WITHIN HIGHER EDUCATION

Whilst we believe that there are no overtly direct nor indirect discriminatory practices within higher education within Australia, as this would be unlawful given Australian federal and state legislation, it may be that there are processes and policies within the University sector that are not always favourable to women. This being especially so, when caring and family responsibilities of women impact on work demands.

Perhaps the most problematic area may be the way academic promotions are handled by the various universities. These can vary considerably across the sector.

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[9] Australian Bureau of Statistics , *Survey of Education and Work, May 2012*, Cat. No. 6227.0: Customised Report

[10] Andrew Thornton, Women Surge, but not to the top jobs, the Age, page 13, November 6, 2012

In some there is a requirement for gender representation on the decision-making panel, representation across the disciplines on the panels, transparent decision-making and feedback processes and workshops that encourage successful promotions, with special workshops for women. For example this is the case at Curtin University of Technology in Western Australia. In other universities decision-making may not be transparent and feedback not encouraged. Decision-making about productivity relative to opportunity has widened the gates at those universities who have reflected that in their promotions processes rather than looking at the expectation on a full FTE basis.

Previous studies have shown that women tend to apply for promotion later and are more successful than men. They often do not apply unless they are sure they will meet all the criteria.

According to the 2011 WOW Survey, it is the sessional staff cohort that are often marginalized within the university sector due to the casualised nature of their roles. Many prepared at home (62-65% female, 59% male) despite the fact that 76% (male and female) could access a workspace, computer and phone where they were teaching. Whilst preparation was not so much an issue, having workspaces available for student consultation was more problematic - 57% (55% females; 60% males) reported having suitable space for student consultation.

The IFUW Colloquia Project Guidelines 2011 brings forth Dr Melonie Fullick's (York University, Canada) [11], suggestion that

> '*there is a male culture to academic life from the start that is entrenched. Teaching is feminized work … because the best teaching tends to involve the kind of emotional labour that is allocated to women by default'*.

In the Australian experience, the culture of the higher education sector is one that favours research over teaching. This is manifested in the funding regimes and in the University sector's drive to increase their Research Performance and outputs which in turn would lead to increased funding There are various research bodies that give monies for research, but until the establishment of The Australian and Teaching Learning Council (ALTC), there was no equivalent body to provide funding for research into improving the quality of teaching or reward innovation and excellence in university teaching.

The ALTC had good monies for developing teaching but this was shut down in 2011 ostensibly to help fund flood reconstruction in Queensland. Following widespread agitation, a new less well-endowed body was created to replicate some of the ALTC's work: no funding was withdrawn from the research bodies reinforcing the perception that teaching was of less importance.

Junior academics thus pick up the majority of the teaching load and these academics are more likely to be women at present (see Figure One above showing the participation of women at the levels A and B).

Many universities have now moved to creating teaching only positions. For women, this means it will be difficult to break into research if they are confined to teaching roles as it is difficult to create and establish a research track record. This could

[11] (Guardian Newspaper, Higher Education Network, 24 May 2011)

become indirect discrimination for women with caring responsibilities as women may be more likely to take up teaching rather than time intensive research when they need a work life balance favouring family. It then becomes harder for them to then try and resume a research career path after a significant period of time has elapsed. This is a challenge for the university sector and a discussion with the University of Western Australia Vice Chancellor, Professor Paul Johnson[12] revealed that this is a known issue and one that is being seriously considered.

From an Australian perspective it would seem that it is not so much a take up because teaching is regarded as feminized, as opposed to the value of research over teaching and of a collusion between work-life balance and family caring choices and the ease of undertaking teaching as opposed to research.

This fits more in line with the IFUW Colloquia Project Guideline's question for exploration as proposed by Nicola Dandridge,

> *'Many women prefer to remain academics continuing in their chosen vocation of 'teaching'*

The Project Guidelines ask if this is a 'real' choice or a 'conditioned' choice. We would argue that there will always be a certain cohort of women who see this as a vocation and a 'real choice' but that there are also factors that influence this to be a pragmatic work-life balance choice, because of women's roles as primary caregivers. We would see this being particularly applicable at the Gen X cohort at present, the sandwich generation who will have the care of elderly parents and the care of dependent children to contend with during their lifetimes. However, this would be interesting to research more thoroughly as there is also an argument that they are not the first generation to be in this space.

This may no longer be a viable choice in view of the Future of Universities and their changing business models – see below. Digital technologies have transformed media, retail, entertainment and many other industries — higher education is next. Campuses will remain although smaller in size, and digital technologies will transform the way education is delivered and accessed, and the way 'value' is created by higher education providers, public and private alike. However, there is also a view that career breaks for women means that female academics are often finding research difficult on a part-time basis and teaching an easier choice to undertake whilst caring responsibilities remain high. With the emphasis on obtaining Research Productivity Indicator (RPI) points, this means a conditioned choice is likely the reason.

EQUIPPING WOMEN WITH THE NECESSARY SKILLS TO CONTRIBUTE TO THE OVERALL RENEWAL OF THE HIGHER EDUCATION SECTOR AND CHANGE ATTITUDES THAT EXIST WITHIN IT IN AUSTRALIA.

Clearly the university sector has committed to improving the outcomes for women employed within the Higher Education Sector as is evident in the Universities Australia *Strategy for Women: 2011 – 2014.*[13]

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[12] Conversation with Professor Paul Johnson, Vice Chancellor University of Western Australia in February 2013 with Lynda Roberts-Hall, Felicity Farrelly and Wendy McCallum.

[13] Available at: http://www.universitiesaustralia.edu.au/women

Universities Australia, the peak body representing Australia's 39 universities is committed to fully utilizing the skills and capabilities of all members of its workforce and in particular to continue to address the challenges facing women who enter and contribute to higher education. There is a clear focus by its members in building on past achievements in gender equity by creating employment equity and a culture of inclusivity.

According to the web-site[14], the Strategy sets the following goals and targets:

- *Encourage universities to continue to take responsibility for ensuring equitable work practices and to incorporate equity strategies and targets in their strategic planning, with unambiguous leadership by the Vice-Chancellors.*

- *Increase the recognition of the contributions of women to the productivity and advancement of Australia's universities (FASTS[15] recommends a stronger business case linking diversity and innovation).*

- *Improve representation of women in Higher Education at all levels to more strongly reflect representation in society, including Indigenous women.*

- *Increase the proportion of women in senior leadership positions particularly at the Vice-Chancellor level, and including Deans, Directors and Senior Managers and in a wider range of portfolios and discipline groupings.*

- *Identify women in middle management and mentor them as the future senior leaders in Higher Education (Nature, June 2010, p1107).*

- *Test the effectiveness of interventions at critical points in women's careers.*

- *Showcase senior executive women via media profiling at strategic points throughout the course of the plan.*

The UNESCO report *Higher Education and Women: Issues and Perspectives* (1998, p15) suggests that adequate training opportunities must be given to women to acquire skills which, otherwise, would exclude their candidature from consideration when leadership posts arise.

The report cites the example of a strategy UNESCO adopted with the Association of Commonwealth Universities and the Commonwealth Secretariat to provide management training for women and research on the issues which can promote (or

[14] http://www.universitiesaustralia.edu.au/women

[15] FASTS is the Federation of Australian Science and Technological Societies – which has now changed its name to Science and Technology Australia. See the web-site for more information about them: http://www.fasts.org/index.php?option=com_content&task=view&id=1

hinder) their advancement within the executive ranks. As is cited above, this type of training and access to it has been identified as a key goal in the strategy. Certainly, this has led to Women in Leadership Programs or Women Executive Development Programs in many universities.

The *Strategy for Women* carries across to an Action Plan for Women Employed in Australian Universities in which the priority goals, as outlined on the web-site are:

- *to continue to encourage all universities to integrate equity strategies and performance indicators into their institutional plans and to support the priorities in this Plan*
- *to improve significantly the representation of women in senior roles by encouraging equity initiatives in critical areas*
- *to monitor the patterns of entry of women into academia and respond to barriers to sustained entry*
- *to improve the monitoring of gender equity in workforce data and access to information and*
- *to identify, and engage universities with, critical matters through research on gender equity issues and dissemination of good practice*.

In individual states within Australia, there are similar commitments at the state level. In Western Australia for instance, the Department of Education has developed the *Women in Leadership Action Plan 2011-2014* (Action Plan) which specifically addresses the under representation of women employees at senior levels and targets the development of the Department's female employee's leadership capabilities.

It is important to recognize that whilst there is that commitment at the overarching level, it is up to individual universities and in particular their Vice Chancellors to drive this. The success of their various programs can differ and it is important to reflect that there is no commitment to report on this and no impact on funding if any of these goals are met. A stronger commitment would involve reporting and at a government level this could be driven through variable funding that is driven by achievement in meeting these goals.

The Australian National University (ANU) has the Gender Institute which serves to support and deepen research, education and outreach on gender and sexuality across the University as well to support the employment and retention of women and gender diverse people at all levels, in all disciplines, across the University. This is done in close collaboration and partnership with the ANU Diversity and Inclusion Unit on the implementation of programs to support the attraction and retention of women staff[16].

In another example, there is the Maureen Bickley Centre (MBC) which was established within the Curtin University of Technology's Graduate School of Business (CGSB) in March 2008 as a centre which seeks to promote and enable the increased representation of women in leadership roles[17] although this is industry wide in its scope.

[16] See the Gender Institute web-site at: http://genderinstitute.anu.edu.au/about.php

[17] https://business.curtin.edu.au/schools/cgsb/research/centres/maureen_bickley/2258.cfm

DO WOMEN HAVE EQUAL ACCESS TO TRAINING OFFERED?

The 2011 WOW Survey found that sessional staff did not appear to have access to training, the survey indicating that 1/3 of sessional staff had received no induction (36% females, 29% men) and professional development access was equally low (36% females, 36% males). Attendance at staff meetings, committee meetings and meetings about the course they were teaching were most likely to be unpaid (similar for both males and females). Less than half (41%) obtained financial support to carry out their research.

There were no details available for Academic, Professional or General Staff. However, it is often recognized that there are no inequalities in access as many universities put significant resources into teaching and development and research. However, it is generally recognized that sessional staff miss out on many opportunities, mainly due to their transient and casual employment patterns. It is also important to acknowledge that there are often Women in Leadership Programs at many universities. The National Tertiary Education Union (NTEU) also has a branch that supports women leaders.

The Australian Technology Network (ATN) of Australian Universities, for instance, has a Women's Executive Development (WEXDEV) Programme[18] which is a dynamic and strategic career development program designed for senior female academic and professional/ general staff at these universities. The program is a response to the continued under-representation of women at senior levels in higher education within Australia.

The ATN WEXDEV model of senior executive development for women creates synergies between individual and organizational benefits. Its innovative design is based on networking to establish a critical mass of senior women and on the positive developmental benefits gained by experiencing different and changing environments. It emphasizes cross-institutional and cross-sector collaborations. It also takes into account significant managerial and personal responsibilities of many of the women and has built in diversity and flexibility to assist women's participation.

The IFUW Colloquia Project Guidelines (2011) asks if there is a peer review system in place and if so, is it working or does it need to be modernized? It would appear that in Australia, this is university specific in what exists and how it operates. It is often espoused within Teaching and Learning departments, but the uptake and frequency of use is not readily available to comment on. Anecdotal evidence seems to indicate that it is highly recommended but not compulsory and uptake is minimal.

However, the idea exists that the quality of teaching would improve if peer review was brought into place. This would be of benefit to women as it would assist them with developing strongly supportive mentoring and professional developmental networks and as highlighted earlier, the presence of strong and useful networks is one essential component needed to improve women's career trajectories in the University sector.

[18] See the ATN WExDev web-site for more information: http://www.atn.edu.au/wexdev/about/

ATTRACTION AND RETENTION WITHIN THE TERTIARY SECTOR

University recruitment policies often have in-built equities designed to ensure effective appointments. This may include mandatory training, gender representation on panels, a clear focus on recruiting against selection criteria and formal appeal processes that applicants can access if they believe that the recruitment process was in breach of policy, discriminatory or inherently flawed. It is important to note too that there are often clear recruitment policies in place that are freely accessible.

As with many other countries, Australia has its own career structure for those working within the university sector and Appendix A provides information about this structure.

Generally speaking, recruitment at most universities is guided by a particular policy that provides for consideration of the position requirement, budget, and fit within research and teaching requirements. Approvals vary from University to University but will require at least the Head of School/Organizational Unit level and other relevant senior managers. The selection criteria for each position are often outlined in relevant university policy or the relevant industrial agreement that covers the employment of the individual (see Appendix One).

Advertising is dependent on the relevant university policy and consideration is often undertaken as to growing talent from within or bringing talent into the university. However, it may be that certain policies require specific recruitment measures. Each position had a Selection Committee, whose task is to carry through the whole screening, shortlisting, interviewing and final appointment processes. Universities may vary as to what kind of support is given to the committee from the Academic Division or the Human Resources Department.

In the case of the University of New South Wales, the university has specific guidelines for each position regarding general requirements (scholarship and leadership), research (publications and funding), teaching (courseware development and supervision), administration, outside links (cooperation with industry, business, authorities and professional organizations), equity and diversity (implementation) and knowledge of Occupational Health and Safety (OHS) issues.

In most cases, applications are online and have to follow the rules set down by individual universities. In general, one has to prepare an application letter and a resume and submit them to the Selection Committee. The application letter must convincingly address all selection criteria. The resume should, at a minimum, include: personal details, education and training, employment history (names or organizations, periods of employment, job titles, major duties and responsibilities and main achievements), skills and/or experience gained, copies of academic transcripts and qualifications, details of 2 referees (3 referees for senior positions) - it is preferable that one's most recent, direct supervisor is nominated as one referee. In the Human Resources profession, it is felt that the most unbiased referee is the previous manager.

The Selection Committee will then shortlist the applicants who are both eligible and who best match the selection criteria. At this point, the applicant is invited for an interview, which consists of the same core questions for all. In addition to the interview, the Selection Committee may use other forms of assessment eg. copies of

written reports, books or journal articles, an assessment task, such as a presentation to the relevant academic school.

As is standard there are reference checks and then successful applicants are notified and issued with job offers via the Human Resources area. Salaries are usually negotiated within the EBA bands and a contract is offered. It is the employer's responsibility to ensure that the successful appointee is eligible to work in Australia. If the manager/supervisor has any concerns about the eligibility, then they may request a copy of valid work visa or residency information before commencement. However, many universities do offer sponsorship to overseas applicants.

According to the WOW survey, half of the sessional staff had obtained between 1 and 24 weeks of work in 2011. Approximately two-fifths (42%) had a current contract of 12 weeks or less. One-fifth of respondents worked at more than one institution. Half had gained work directly through a contact at a university (slightly higher for women -54%), and only 8% had responded to an advertisement. The majority of these workers have been employed for less than 5 years with their current employer, including over one third (38%) employed for less than 1 year. For those who had obtained a PhD (n= 459) 40% had been in sessional contract work for between 3 and 10 years.

According to the Australian Learning and Teaching Council, 2008,[19] an estimated 40% to 50% of all teaching in Australian higher education is undertaken by sessional staff. Sessional staff faces income insecurity, workloads beyond their paid hours, and many feel isolated from the university community.

Other research[20] cautions that casualization has a negative impact on younger academic staff at the start of their careers, specifically, serving to discourage young researchers from entering or remaining in the academic profession.

As women are more likely to be sessional academics, the employment patterns may be far more unstable than desired.

For most staff employed within the university sector, career progression is either through promotion processes or via recruitment. It is interesting to note that according to the 2011 WOW Survey, over the 2006 to 2011 period, two-fifths of academic staff had applied for promotion or for a higher level through a competitive selection process. Of these staff, over three-quarters had been successful on at least one occasion.

Of academic staff, the WOW Survey found that 56% (both females and males) reached their current substantive level through a competitive appointment; 22% females and 25% men through internal promotion; and 22% females and 19% males through appointment from outside *without a competitive selection process.*

It is also worth noting[21] that Baby Boomers (Australians born between 1946-1961) currently constitute 60% of university teaching staff, with relatively high numbers of

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[19] Australian Learning and Teaching Council, 2008, *The RED Report - Recognition, Enhancement, Development – The contribution of sessional teachers to higher education*

[20] Kubler, J. & DeLuca, C., 2006, *Trends in Academic Recruitment and Retention: A Commonwealth Respective, Association of Commonwealth Universities*

staff in the over 50 cohort in specific discipline areas of education, humanities, mathematical sciences and nursing. The growth rate in the numbers undertaking doctorates is not matching the numbers that will be leaving.

The challenge of an ageing workforce could provide potential opportunities for women who are not in that cohort to achieve a more rapid career movement as it is likely greater flexibility and consideration will be given to ensure talent is nurtured and retained.

Moving beyond the practicalities of recruitment and retention, it is worth exploring the impact of networks, personal invitations and patronage in terms of employment/recruitment procedures.

And in answering this, it is dependent on subjective judgment. The WOW 2011 Survey has found that around 60% of academics reported that within the previous five years that they had received some to a lot of help from their supervisors and other academics at their university to advance their career. Yet less than one half to about one-third reported that the level of support from supervisors, guidance in performance reviews, opportunities for leadership development and access to internal research funding have been helpful in career advancement.

In thinking about this, it is interesting that Joanna Pyke's article (see above) found that belonging to an influential network was beneficial to career progression and one must assume that it is in situations like these, that it becomes particularly useful.

The WOW Survey 2011 also found that although two-thirds of academics involved in a formal mentoring program had found it was beneficial in some way, only one quarter of the academic sample had been involved in a formal mentoring scheme in the last 5 years. Together these findings warrant further investigation into the professional development requirements needed for this cohort of university staff.

Almost three-quarters (69%) of academic staff are satisfied with their jobs overall and only 8% report a greater than 80% chance they will leave their job voluntarily.

FAMILY-FRIENDLY POLICIES AND PRACTICES

Many Universities have flexible working options available and the opportunities to be able to work with timetables to meet the demands of students and staff. Some have day care facilities available to staff and policies providing for paid time off for breast-feeding, for instance. Some Universities have specific policies around when meetings should be scheduled and there is often a firm encouragement that academics can work from home. So in some ways the university sector provides an ideal option for women wanting family friendly employment. However, it often seems at a cost.

FUTURE DIRECTIONS OF UNIVERSITITES IN AUSTRALIA

According to Ramsay (2000), the globalization of the economy and higher education as one part of it, plus increasing global competiveness and rapid changes of technology will be transformational agents within which Universities must adapt to

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[21] Hugo, G, 2008, *The Demographic outlook for Australian universities' academic staff, CHASS Occasional Papers*, http://www.chass.org.au/papers/pdf/PAP20081101GH.pdf

and operate within. This presents unique challenges and opportunities for all, but especially women in academia and others who have been marginalized, as it offers opportunities for action and advancement that may have been hidden in the past.

This is supported in a recent Report by Ernst & Young (2012)[22] suggesting that "the current Australian university model — a broad-based teaching and research institution, with a large base of assets and back office — will prove unviable in all but a few cases."

Their view is that the higher education sector is undergoing a fundamental transformation in terms of its role in society, mode of operation, and economic structure and value. They have conducted an industry–wide survey of the higher education industry globally and locally, and the opportunities, challenges and implications for Australian universities.

Their study was a mix of primary and secondary research, inclusive of interviews with more than 40 leaders from public and private universities, policy makers and sector representative groups. The interviewees included representatives from more than 20 universities, including 15 Vice-Chancellors. The topic attracted immense interest around Australia.

Ernst and Young's primary hypothesis is that the dominant university model in Australia — a broad-based teaching and research institution, supported by a large asset base and a large, predominantly in-house administrative and student support office — will prove unviable in all but a few cases over the next 10-15 years. At a minimum, universities will need to streamline their operations and asset base significantly, at the same time as incorporating new teaching and learning delivery mechanisms, a diffusion of channels to market, and stakeholder expectations for increased impact.

At its extreme, private universities and possibly some incumbent public universities will create new products and markets that merge parts of the education sector with other sectors, such as media, technology, innovation, and venture capital. Exciting times are ahead — and challenges too.

Ernst and Young have summarized the drivers of change of this brave new world into five key trends:

1. Democratization of knowledge and access — the impact of on-line access to knowledge challenges the roles of universities as originators and keepers of knowledge.
2. Contestability of markets and funding — increasing competition for students, within Australia and globally amongst an environment of tightening budgetary constraints, makes the competition for funds increasingly important and difficult to achieve.
3. Digital technologies — as with many other industries, higher education will be transformed in its delivery and accessibility with the uptake of ever changing technologies, whilst campuses remain in place.. Immediate perceptions of 'value' within the wider and global communities are created by higher education providers, public and private alike.

[22] Available: http://www.ey.com/Publication/vwLUAssets/University_of_the_future/$FILE/University_of_the_future_2012.pdf

4. Global mobility — growing mobility and accessibility for students, academics, and university brands. This impacts on competition. Opportunities are created to pave the way to develop and implement deeper and more effective global partnerships as well as paving the way for broader access to student and academic talent.
5. Integration with industry — Universities will need to build significantly deeper relationships with industry if they are to differentiate themselves with respect to teaching and learning programs, obtain funding and in the application of research. This can only serve to strengthen the position of universities as drivers of innovation and growth.

Ernst and Young see university business models becoming more diverse, and anticipate three broad lines of evolution.

> *1. 'Streamlined Status Quo' — Some established universities will continue to operate as broad-based teaching and research institutions, but will progressively transform the way they deliver their services and administer their organisations — with major implications for the way they engage with students, government, industry stakeholders, TAFEs, secondary schools, and the community.*
> *2. 'Niche Dominators' — Some established universities and new entrants will fundamentally reshape and refine the range of services and markets they operate in, targeting particular 'customer' segments with tailored education, research and related services — with a concurrent shift in the business model, organization and operations.*
> *3. 'Transformers' — Private providers and new entrants will carve out new positions in the 'traditional' sector and also create new market spaces that merge parts of the higher education sector with other sectors, such as media, technology, innovation, venture capital and the like. This will create new markets, new segments and new sources of economic value. Incumbent universities that partner with the right new entrants will create new lines of business that deliver much needed incremental revenue to invest in the core business — internationally competitive teaching and research.*

Recently, Universities Australia (UA) released a paper outlining their vision for a smarter Australia, one in which the university system is reformed in line with community need and expectation and to deliver on the fact that Australia is the third most attractive place to study for international students, generating nearly $13 billion per annum in exports (ie. education) and supports 127,000 jobs; 88,000 being outside the education sector[23]

UA finds that amongst the OECD countries, Australia is the fourth most efficient in producing graduates and the fifth most efficient in research. UA advises that within the Australian economy we see high productivity growth with the sector outpacing other sectors. Yet despite this achievement, the Australian government investment in the sector lags behind other OECD countries. They cite total investment in research and development as being below the OECD average, and
public investment in universities is approximately two-thirds of the OECD average. Australia is ranked 24th out of 26 OECD countries for its expenditure on tertiary

[23] Universities Australia (2013) A Smarter Australia. Available: http://universitiesaustralia.s3.amazonaws.com/wp-content/uploads/2013/02/Universities-Australia-A-Smarter-Australia.pdf

education over the past 15 years.

Universities Australia has set out in its paper the principles and actions that can underpin a smarter Australia, offering an agenda for future reform, relying on the commitment and partnership of universities, governments and other stakeholders.

It offers a reform agenda for the future. Interestingly, amongst other foci –is the priority to increase Australians' participation in higher education, increase international research collaboration, and relatedly to increase participation of those with higher degrees (PhD) in the workforce. As the Australian Bureau of Statistics indicates, a larger proportion of women with PhDs are not in the workforce, compared to their male counterparts.

To further improve efficiency, universities will need to:
■ introduce external peer moderation of standards
■ integrate technologies to support teaching and enhance the student experience
■ increase and match philanthropic donations
■ further explore and adopt measures to enhance their operational efficiency.

Universities Australia recommends that the Australian Government:
■ appoint the Productivity Commission to review the regulatory burden placed on the university sector, with special attention to removing duplication between jurisdictions, and excluding universities from regulatory regimes where a strong public interest rationale and benefit cannot be identified
■ leave uncapped the number of undergraduate places it funds at Australian universities
■ maintain its current indexation of higher education funding and consider lifting base funding per student by 2.5 per cent each year over a five-year period
■ identify a continuing source of funds for university infrastructure
■ negotiate intakes into graduate programs in institutional compacts

UA also believes collaborative action is required by universities, businesses, communities and the government to:

- ensure that the international competitiveness of Australia's university system for teaching, learning, scholarship and research is maintained or enhanced
- pursue vigorously the opportunity for Australians to attend university across the nation
- encourage international students to choose Australian institutions, and Australian students to gain international experience
- invest strategically in research as a national commitment to knowledge and innovation
- ensure university education is funded to support a quality education for every student
- improve productivity by identifying opportunities to increase efficiency and reduce red tape.

In the UA Paper – there is no overt focus on training and development of staff not about increasing gender equity, but there still remains a strong focus on research and given that this is an area of employment that is difficult for women, it bears

further scrutiny to ensure research does not have unfavorable work practices associated with it, for women seeking to get ahead whilst balancing caring responsibilities.

THE WAY FORWARD AND HOW AFGW PROPOSE TO BUILD ON THE ISSUES RAISED IN THIS COLLOQUIA REPORT

The Australian experience paints a picture of a slowly closing gap of women's participation in leadership in the University Sector. It paints a picture of complex inter-relationships between the value of research, accessibility of teaching position, career and family choices, access to development, commencing career paths earlier rather than later, access to mentoring and professional networks, access to professional development, clear and transparent policies and practices within the university that contribute to women's career choices and progression within the university sector.

There is certainly commitment and opportunities available to women, and peak bodies supporting their growth and participation in Academia. We also see a growing call to women, with poster GenX girl, Sheryl Sandberg (ex Google now Facebook Chief Executive) leading the way[24]. Her view is that women should not opt out by making career choices predicated on the basis that they may one day have children, that they should speak up about their rights and request flexibilities within the workforce, that they should expect partners to 'lean in' and be supportive and contribute within the household. Her view is that women keep silent when they should speak. And perhaps this is a message towards women in academia?

However, we are conscious that better gender monitoring be undertaken in order to confirm conclusions and help formulate policies and practices within the university sector that can continue to boost women's participation. We understand that there are shortly to be changes announced to how and what universities will be required to report on by the Workplace Gender Equality Agency, including differing information in relation to pay equity.

Adele Ferguson's (2013) article[25] on the cost of failing to close the gender gap within Australia refers to the Chief economist at Goldman Sachs Tim Toohey, who raises a fiscal argument for increasing female participation in the workforce overall, in Australia. He states that Australia is missing out on $195 billion or 13 per cent of gross domestic product by its failure to close the gender gap. Figures compiled exclusively for Fairfax Media by Goldman Sachs reveal that in dollar terms this equates to an estimated $33 billion in GDP forgone between now and 2016. He says that "Lifting female participation is one way to do this and given the politics around immigration it is the most politically expedient path. It also utilises a highly educated resource that Australia has already invested in,"

Ferguson (2013) refers to Toohey who points out that despite said despite various

[24] http://www.theage.com.au/it-pro/business-it/facebook-execs-new-book-urges-women-to-lean-in-20130308-2fpnw.html#ixzz2MuT3mDWB

[25] " Adele Ferguson, "Gender gap costs country $195b, says economist" March 9, 2013 available at: http://www.theage.com.au/national/gender-gap-costs-country-195b-says-economist-20130308-2fr2n.html#ixzz2N0A8tseX

government initiatives over the past few years, which includes paid parental leave and raising child care rebates, the female participation rate has gone backwards overall in the age groups that have been targeted. Female participation has fallen overall in the 15 - 19, 20 - 24 and 45 - 54 age brackets[26]. However, the university sector does not quite follow that trend.

What would be interesting is to determine the fiscal impact of increased representation of women in the tertiary sector. Perhaps dollar based measures may be a driver for initiatives to reduce the gender gap at the leader levels?

Given limited resources and devolvement to the state level, AFGW will continue to monitor the trends and sourcing studies such as the WOW research, work collaboratively with UAEW and follow the progress of Universities Australia Strategy for Women 2011 to 2014. We are also conscious that there are several issues yet to explore as well as areas of impact, for example, Women from Culturally and Linguistically Diverse Backgrounds and Indigenous Women. We are also conscious that we have yet to explore the issues facing the professional/general staff at the university sector nor women in the Vocational Education Training Sector.

Monitoring of "The Way Forward" will be complicated and changes to the current University Business Models which are becoming more diverse will impact on AFGW's ability to develop strategies for promoting greater access for women to Higher Education decision-making positions.

[26] Australian Bureau of Statistics, Persons not in the Labour Force (6220.0) September 2012. Available: http://www.abs.gov.au/ausstats/abs@.nsf/mf/6220.0

APPENDIX A GUIDE TO ACADEMIC POSITIONS WITHIN AUSTRALIA

Much of the material in this section is referenced from: The "*Official" Source: Australia, Academic Careers Structure*[27]

Unlike the United States of America, the Australian public services or government organisations also employ a large number of academics or researchers. Different organisations have their own established title systems, however, it is the level rather than the title that determines the equivalent academic rank. There are also clear expectations of what is considered appropriate skills, experiences and qualifications that are appropriate at each level. These are often enshrined in the relevant Enterprise Bargaining Agreement, that covers each academic's employment conditions at each university as well as what is expected to have been met when academics are considered for promotion.

Universities – Academic positions

Entry positions: there are several entry positions available at Australian universities, which are roughly equivalent to standard lecturer or research assistant statuses.

Career requirements/progress: All matters of recruitment and advancement are for universities to negotiate with their staff and the Australian Federal Government plays no direct role in these negotiations. For a detailed example of such recruitment/ advancement process see the related section.

Temporary/permanent positions: Australian universities encourage employment respecting a work-life balance by offering flexible work arrangements including: part-time employment, job share, temporary/contract employment, maternity and adoption leave, planned career breaks, family leave and study leave.

Salaries: Universities offer individualized, rather competitive salaries, which are topped up with a number of additional benefits.

Gender: gender equality in 2008 found that women in Australia were well represented in total academic staff (54.7%), teaching only staff (48.2%) and research only staff (49.4%); but less so among mixed research and teaching staff (41.1%).

Academic promotion is merit-based and the applicant has to demonstrate to a committee of peers that there will be an increase of the quality and impact of his or her activities. Applications cannot usually be made before 1-2 years passed (dependent upon the university policy) since the previous application, advancement or recruitment.

[27] Available at: http://www.eui.eu/ProgrammesAndFellowships/AcademicCareersObservatory/AcademicCareersbyCountry/Australia.aspx

Appendices Two: Course Completions (by Citizenship and Gender and also by Employment at University Sector)

Table 4: Award Course Completions for All Students by Citizenship and Gender, 1999 to 2011

Gender	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	% change from 2010
Domestic Students														
Males	57,310	57,477	62,538	64,116	65,593	67,728	66,695	67,086	67,261	68,783	71,047	73,330	75,855	3.4%
Females	78,850	78,639	83,415	87,436	91,410	93,894	96,120	97,254	98,669	100,245	104,023	106,708	113,640	6.5%
TOTAL	**136,160**	**136,116**	**145,953**	**151,552**	**157,003**	**161,622**	**162,815**	**164,340**	**165,930**	**169,028**	**175,070**	**180,038**	**189,495**	5.3%
Overseas Students														
Males	14,290	17,420	20,998	25,195	29,965	32,173	35,876	38,785	41,823	45,326	48,086	52,183	51,707	-0.9%
Females	13,973	17,358	20,138	23,997	28,147	31,646	33,497	36,335	39,773	44,448	49,074	54,408	56,189	3.3%
TOTAL	**28,263**	**34,778**	**41,136**	**49,192**	**58,112**	**63,819**	**69,373**	**75,120**	**81,596**	**89,774**	**97,160**	**106,591**	**107,896**	1.2%
All Students														
Males	71,600	74,897	83,536	89,311	95,558	99,901	102,571	105,871	109,084	114,109	119,133	125,513	127,562	1.6%
Females	92,823	95,997	103,553	111,433	119,557	125,540	129,617	133,589	138,442	144,693	153,097	161,116	169,829	5.4%
TOTAL	**164,423**	**170,894**	**187,089**	**200,744**	**215,115**	**225,441**	**232,188**	**239,460**	**247,526**	**258,802**	**272,230**	**286,629**	**297,391**	3.8%

Source: Award Course Completions 2011, available on DIISRTE website:

Table 4.1 FTE(a) for Full-time and Fractional Full-time Academic Staff by State, Higher Education Provider, Highest Qualification and Gender, 2011

	Doctorate by research or coursework			Master by research or coursework			Other Postgraduate			Bachelor		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Person
New South Wales												
Avondale College	np	< 10	37	10	15	25	< 10	< 10	< 10	< 10	< 10	< 1
Charles Sturt University	275	171	445	86	116	202	27	31	58	31	30	6
Macquarie University	407	239	646	65	58	123	< 10	< 10	< 10	36	36	7
Southern Cross University	121	89	210	23	34	57	< 10	< 10	11	13	21	3
The University of New England	189	115	304	24	34	58	< 10	< 10	< 10	18	24	4
The University of New South Wales	1,245	660	1,905	180	138	318	10	10	20	101	76	17
The University of Newcastle	439	255	694	58	64	122	11	21	32	47	60	10
The University of Sydney	1,150	724	1,874	133	170	303	14	25	39	115	129	24
University of Technology, Sydney	411	252	663	91	111	202	< 10	< 10	11	27	27	5
University of Western Sydney	305	235	540	62	103	165	10	29	39	54	65	11
University of Wollongong	452	246	698	48	69	117	< 10	< 10	14	42	46	8
Victoria												
Deakin University	428	360	788	88	107	195	11	34	44	65	67	13
La Trobe University	386	310	696	104	133	237	17	39	56	75	124	19
Melbourne College of Divinity	32	13	45	np	< 10	13	< 10	0	< 10	< 10	< 10	< 1
Monash University	1,250	890	2,140	157	171	328	39	41	79	75	93	16
RMIT University	434	234	668	113	94	207	29	24	53	67	55	12
Swinburne University of Technology	282	117	398	75	51	126	42	28	70	< 10	< 10	< 1
The University of Melbourne	1,235	793	2,028	121	173	295	30	51	81	126	216	34
University of Ballarat	81	52	133	27	23	50	< 10	< 10	< 10	11	15	2
Victoria University	176	97	273	71	59	130	13	18	30	34	31	6
Queensland												
Bond University	113	71	183	28	44	72	< 10	< 10	< 10	np	< 10	2
Central Queensland University	125	65	191	39	49	88	< 10	np	18	17	22	3
Griffith University	565	394	958	69	89	158	< 10	np	17	51	63	11
James Cook University	270	157	427	43	51	94	< 10	np	16	38	64	10
Queensland University of Technology	544	388	932	89	122	211	16	19	35	60	59	11

The University of Queensland	1,453	867	2,320	76	102	177	12	15	27	61	72	13
University of Southern Queensland	184	77	261	51	66	117	< 10	< 10	13	18	20	3
University of the Sunshine Coast	79	56	135	13	31	44	< 10	< 10	< 10	13	20	3

(a) Numbers in FTE may not add to total due to rounding errors

Table 4.1 FTE(a) for Full-time and Fractional Full-time Academic Staff by State, Higher Education Provider, Highest Qualification and Gender, 2011 (continued)

	Doctorate by research or coursework			Master by research or coursework			Other Postgraduate			Bachelor		
State/Provider	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons**	**Males**	**Females**	**Persons**	**Males**	**Females**	**Person**
Western Australia												
Curtin University of Technology	496	285	781	128	141	269	32	31	64	64	90	15
Edith Cowan University	172	145	316	47	43	90	11	14	25	27	41	6
Murdoch University	185	120	305	28	33	61	< 10	< 10	< 10	34	46	8
The University of Notre Dame Australia	45	39	85	35	32	66	10	14	24	12	16	2
The University of Western Australia	729	361	1,090	55	59	114	21	23	44	74	70	14
South Australia												
The Flinders University of South Australia	279	237	516	53	73	126	13	19	31	29	56	8
The University of Adelaide	645	329	974	71	50	122	43	48	91	83	73	15
University of South Australia	432	341	773	85	85	170	17	12	28	50	68	11
Tasmania												
University of Tasmania	409	250	659	73	72	145	15	15	30	77	77	15
Northern Territory												
Batchelor Institute of Indigenous Tertiary Education	0	< 10	< 10	< 10	< 10	11	< 10	np	14	< 10	np	1
Charles Darwin University	np	np	78	17	26	43	< 10	np	17	14	11	2
Australian Capital Territory												
The Australian National University	870	376	1,246	62	55	117	11	14	25	56	53	10
University of Canberra	114	109	224	20	18	37	< 10	< 10	< 10	< 10	< 10	1
Multi-State												
Australian Catholic University	144	174	317	41	106	147	< 10	np	15	12	24	3
Total	**17,231**	**10,730**	**27,960**	**2,672**	**3,077**	**5,750**	**517**	**695**	**1,212**	**1,754**	**2,098**	**3,85**

% of total FTE in 2011	41.9%	26.1%	68.1%	6.5%	7.5%	14.0%	1.3%	1.7%	2.9%	4.3%	5.1%	9.4%

(a) Numbers in FTE may not add to total due to rounding errors

Appendix Three: From Survey of Education and Work (Australian Bureau of Statistics)

62270DO001_201205 Education and Work, Australia, May 2012

Released at 11:30 am (Canberra time) Thurs 29 Nov 2012

Table 12 Persons aged 15–64 years with a non-school qualification, Level and main field of highest non-school qualification–By age and sex

	15–19	20–24	25–34	35–44	45–54	55–64	Total	Total
	'000	'000	'000	'000	'000	'000	'000	%
				ESTIMATES				
MALES								
Level of highest non-school qualification								
Postgraduate Degree	0.0	5.6	112.8	105.5	106.4	68.2	398.6	9.0
Graduate Diploma/Graduate Certificate	0.0	1.6	25.0	36.0	35.1	27.8	125.5	2.8
Bachelor Degree	0.0	106.3	403.7	307.2	215.4	178.8	1,211.5	27.5
Advanced Diploma/Diploma	3.9	55.3	143.4	169.1	146.7	103.7	622.2	14.1
Certificate III/IV	25.2	171.4	405.5	395.3	364.4	294.9	1,656.7	37.6
Certificate I/II	21.3	30.8	29.1	45.2	49.5	45.2	221.1	5.0
Certificate n.f.d.	4.1	13.8	24.6	14.4	14.3	8.1	79.3	1.8
Main field of highest non-school qualification								
Natural and physical sciences	0.0	14.8	39.9	37.9	44.2	34.4	171.1	3.9
Information technology	3.5	22.6	104.7	66.6	36.6	16.8	250.8	5.7

Engineering and related technologies	12.1	104.0	279.1	323.9	304.5	269.0	1,292.6	29.3
Architecture and building	9.4	45.4	141.2	112.2	104.1	77.9	490.3	11.1
Agriculture, environmental and related studies	2.1	12.5	38.5	53.5	35.0	24.5	166.2	3.8
Health	1.6	15.5	43.7	48.1	49.2	26.2	184.2	4.2
Education	0.0	5.3	26.8	28.9	32.9	44.4	138.4	3.1
Management and commerce	7.6	68.3	250.6	223.6	197.8	136.8	884.8	20.1
Society and culture	5.5	43.3	98.5	86.9	78.5	62.3	374.9	8.5
Creative arts	4.3	24.4	60.4	42.8	20.7	15.2	167.8	3.8
Food, hospitality and personal services	7.6	25.7	63.6	43.7	32.0	23.1	195.8	4.4
Total	*55.9*	*388.0*	*1,165.1*	*1,094.4*	*954.2*	*749.4*	*4,407.1*	*100.0*
FEMALES								
Level of highest non-school qualification								
Postgraduate Degree	0.0	7.8	116.9	101.5	75.2	54.8	356.2	8.3
Graduate Diploma/Graduate Certificate	0.0	6.6	41.6	67.5	56.9	40.2	212.9	4.9
Bachelor Degree	0.9	139.9	499.9	391.0	254.6	176.9	1,463.3	33.9
Advanced Diploma/Diploma	2.9	74.6	196.4	230.8	215.7	137.5	857.8	19.9
Certificate III/IV	36.2	108.0	243.8	217.5	205.9	128.8	940.2	21.8
Certificate I/II	34.0	25.2	45.2	59.2	74.9	51.3	289.8	6.7
Certificate n.f.d.	3.6	16.2	33.5	20.7	16.5	11.5	102.0	2.4
Main field of highest non-school qualification								
Natural and physical sciences	0.0	11.2	45.0	37.6	31.2	18.8	143.7	3.3

Information technology	0.0	5.1	28.8	27.1	12.0	7.3	80.3	1.9
Engineering and related technologies	1.8	6.9	28.3	31.0	27.5	21.8	117.3	2.7
Architecture and building	0.9	6.5	20.0	12.5	6.8	4.8	51.5	1.2
Agriculture, environmental and related studies	4.5	7.4	25.0	20.7	13.3	5.4	76.4	1.8
Health	2.4	50.0	156.5	171.2	157.5	123.7	661.3	15.3
Education	0.6	20.7	92.5	110.0	118.7	107.8	450.4	10.4
Management and commerce	26.5	113.1	359.6	331.4	268.1	144.6	1,243.3	28.8
Society and culture	14.6	76.8	225.9	208.0	181.3	121.3	827.9	19.2
Creative arts	3.7	33.8	84.4	62.1	36.8	24.6	245.5	5.7
Food, hospitality and personal services	21.9	45.8	104.6	74.3	46.3	29.1	322.0	7.5
Total	*79.0*	*385.7*	*1,190.4*	*1,108.3*	*922.0*	*624.8*	*4,310.1*	*100.0*
PERSONS								
Level of highest non-school qualification								
Postgraduate Degree	0.0	13.4	229.7	207.1	181.6	123.0	754.8	8.7
Graduate Diploma/Graduate Certificate	0.0	8.2	66.6	103.5	92.0	68.0	338.4	3.9
Bachelor Degree	0.9	246.2	903.7	698.2	470.0	355.8	2,674.8	30.7
Advanced Diploma/Diploma	6.8	130.0	339.8	399.9	362.4	241.2	1,480.1	17.0
Certificate III/IV	61.4	279.4	649.3	612.8	570.3	423.7	2,597.0	29.8
Certificate I/II	55.3	56.0	74.3	104.3	124.4	96.6	510.9	5.9
Certificate n.f.d.	7.8	30.0	58.0	35.1	30.8	19.6	181.3	2.1
Main field of highest non-school qualification								

Natural and physical sciences	0.0	26.0	84.9	75.5	75.3	53.2	314.9	3.6
Information technology	3.5	27.7	133.5	93.7	48.6	24.0	331.0	3.8
Engineering and related technologies	13.9	110.9	307.4	354.8	332.0	290.8	1,409.8	16.2
Architecture and building	10.4	51.8	161.2	124.8	110.9	82.7	541.8	6.2
Agriculture, environmental and related studies	6.6	19.9	63.5	74.2	48.4	30.0	242.5	2.8
Health	4.0	65.5	200.2	219.3	206.8	149.9	845.5	9.7
Education	0.6	26.1	119.4	138.9	151.6	152.3	588.7	6.8
Management and commerce	34.1	181.4	610.2	555.0	465.9	281.5	2,128.1	24.4
Society and culture	20.1	120.1	324.4	294.9	259.8	183.6	1,202.8	13.8
Creative arts	8.0	58.2	144.8	104.9	57.5	39.8	413.3	4.7
Food, hospitality and personal services	29.5	71.5	168.3	118.0	78.2	52.2	517.7	5.9
Total	**134.9**	**773.7**	**2,355.5**	**2,202.7**	**1,876.2**	**1,374.2**	**8,717.2**	**100.0**
			RSE OF ESTIMATES (%)					
MALES								
Level of highest non-school qualification								
Postgraduate Degree	0.0	48.0	6.3	7.6	6.5	8.1	3.6	3.5
Graduate Diploma/Graduate Certificate	0.0	43.0	15.9	10.6	7.2	12.8	5.5	5.5
Bachelor Degree	0.0	5.3	3.1	3.4	3.7	4.4	1.8	1.8
Advanced Diploma/Diploma	38.2	9.9	5.4	5.0	5.1	5.9	2.5	2.3
Certificate III/IV	14.7	4.6	3.8	2.3	3.1	3.1	1.5	1.4

Certificate I/II	18.7	11.4	12.6	9.2	10.5	9.7	4.9	4.8
Certificate n.f.d.	28.7	17.4	14.9	17.2	16.5	25.4	9.2	9.2
Main field of highest non-school qualification								
Natural and physical sciences	0.0	21.8	11.9	9.8	10.8	7.6	5.8	5.8
Information technology	29.6	14.4	7.0	7.7	10.5	17.2	4.4	4.2
Engineering and related technologies	25.1	6.1	4.3	3.3	4.1	3.9	1.7	1.4
Architecture and building	23.9	13.1	8.2	5.0	7.0	5.9	2.9	2.8
Agriculture, environmental and related studies	41.6	21.6	8.6	8.1	10.5	11.1	5.1	4.9
Health	59.6	17.2	7.2	10.3	8.8	13.2	4.8	4.8
Education	0.0	28.4	14.0	10.9	10.8	8.7	5.4	5.4
Management and commerce	29.5	10.4	3.5	4.0	4.6	4.8	1.9	2.1
Society and culture	20.9	10.8	6.9	6.8	7.4	7.0	4.2	4.1
Creative arts	33.9	12.6	7.8	8.2	15.2	16.2	4.9	5.0
Food, hospitality and personal services	25.4	14.4	9.3	8.4	12.4	11.0	4.0	3.9
Total	*10.0*	*2.4*	*1.4*	*1.1*	*1.1*	*1.4*	*0.7*	*0.0*
FEMALES								
Level of highest non-school qualification								
Postgraduate Degree	0.0	25.4	5.6	5.5	6.1	10.7	3.5	3.4
Graduate Diploma/Graduate Certificate	0.0	29.9	9.9	8.7	9.7	11.4	5.7	5.6
Bachelor Degree	74.3	4.8	2.6	3.2	3.7	4.2	1.6	1.3
Advanced Diploma/Diploma	46.3	6.1	4.5	4.1	4.5	5.7	2.3	2.3

Certificate III/IV	13.3	5.4	4.4	3.1	4.0	4.2	2.1	2.0
Certificate I/II	12.4	13.3	9.4	9.2	8.5	7.8	4.7	4.6
Certificate n.f.d.	41.3	18.5	13.1	12.8	19.4	16.8	7.2	7.0
Main field of highest non-school qualification								
Natural and physical sciences	0.0	26.1	8.7	10.8	12.1	17.2	5.7	5.7
Information technology	0.0	27.9	14.5	10.9	20.6	23.7	8.8	8.5
Engineering and related technologies	50.9	31.1	15.0	11.0	11.5	12.0	5.3	5.4
Architecture and building	76.3	21.2	14.7	19.4	29.8	35.0	9.9	10.0
Agriculture, environmental and related studies	28.4	25.5	13.8	14.5	17.2	27.8	8.2	8.0
Health	39.8	9.6	5.9	3.8	5.5	6.3	2.9	2.9
Education	101.6	13.8	6.4	4.6	5.7	5.8	3.0	2.8
Management and commerce	12.2	6.6	3.5	2.6	4.8	5.4	2.2	2.0
Society and culture	19.0	6.5	5.1	3.9	5.0	6.0	2.8	2.6
Creative arts	47.5	11.5	7.0	7.7	13.3	11.9	3.5	3.5
Food, hospitality and personal services	16.9	11.0	5.5	5.1	12.5	10.6	3.6	3.7
Total	*7.9*	*2.5*	*1.1*	*1.0*	*1.6*	*1.9*	*0.7*	*0.0*
PERSONS								
Level of highest non-school qualification								
Postgraduate Degree	0.0	25.2	4.6	5.1	5.3	6.2	2.9	2.8
Graduate Diploma/Graduate Certificate	0.0	24.7	9.0	7.9	7.5	9.0	4.7	4.6
Bachelor Degree	74.3	3.4	2.0	2.8	2.7	3.4	1.4	1.2

Advanced Diploma/Diploma	27.9	5.7	3.7	3.3	3.8	4.1	1.7	1.7
Certificate III/IV	11.5	3.2	3.1	1.9	2.5	3.0	1.2	1.2
Certificate I/II	11.1	10.2	7.2	7.0	6.2	6.4	3.8	3.8
Certificate n.f.d.	23.5	13.0	8.7	10.4	12.8	16.5	4.9	5.0
Main field of highest non-school qualification								
Natural and physical sciences	0.0	16.5	8.4	6.7	9.3	8.4	4.5	4.4
Information technology	29.6	11.5	7.4	5.9	8.9	13.0	4.1	3.8
Engineering and related technologies	25.2	6.2	4.0	3.0	4.3	3.7	1.5	1.4
Architecture and building	25.8	11.0	7.7	4.9	6.2	6.1	2.5	2.5
Agriculture, environmental and related studies	23.0	20.6	7.2	6.8	9.7	9.4	4.6	4.6
Health	31.1	8.1	5.2	4.1	5.5	6.2	3.0	3.1
Education	101.6	12.9	6.4	4.5	5.4	4.9	2.7	2.6
Management and commerce	11.5	4.8	2.0	2.1	3.3	3.3	1.3	1.2
Society and culture	16.3	5.7	3.7	3.5	4.0	5.1	2.1	2.1
Creative arts	37.2	8.7	5.3	6.2	9.3	8.5	3.1	3.1
Food, hospitality and personal services	14.9	8.8	5.2	5.1	10.0	7.7	2.9	3.0
Total	**7.4**	**1.8**	**1.0**	**0.9**	**0.9**	**1.1**	**0.5**	**0.0**