

Australian Universities Gender Staffing Trends over the Decade 2008 to 2017

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Summary: Australian Universities have recruited more academic and non-academic female staff than male staff in the past decade. In the ten years from 2008 to 2017 some 66 percent of all new staff were female. The academic gender gap has now narrowed to less than five percent in favour of males because the recruitment ratio has been 1.4 new females for every new male employed. More females are now being appointed at the senior lecturer and above levels than at any previous time.

The non-academic staff gap has further widened in favour of females because 2.8 females have been recruited for every new male employee since 2008. There is a large disparity in the tasks undertaken with females performing 66 per cent of the non-academic functions and 45 percent of the academic functions. Females are also more likely to hold fractional-time appointments. A historic landmark has been achieved with more female university staff being tenured than males. In 2007 there were only minor differences in the age profile distribution for males and females.

These positive gender trends are not reflected in the student-to-staff ratio. In the past decade for every academic staff member recruited some 31 new students were enrolled. This compares with the 2008 base position where universities had employed one academic staff member for every 23 students enrolled. There are now more female academic staff to act as mentors and role models for the growth in female student enrolments; however, the increased student-to-staff ratio does make the task of maintaining a quality educational experience more challenging.

1. Introduction

It is timely to review the gender-related academic and non-academic staff recruitment practices of Australian Universities in view of community expectations and the rapid growth in student enrolments since 2008. There has been an exceptional increase of more than 370,000 students – a 37 percent increase – in the decade 2008 to 2017. The growth in female student enrolments at 38 percent over the decade has exceeded that of male students at 35 percent. The 2017 student enrolment numbers were near 1.4 million with 56 percent of all enrollees being female. In a previous article the domestic and overseas student gender profiles were examined (1). The question was posed as to whether Australia should be concerned that for every 100 domestic female students there are only 72 male students enrolled. A key staffing question is: what have been the staffing responses of universities to the unprecedented student growth and the demographic changes?

2. Sector-Wide Staffing Trends

2.1 All Staff

The source of the 2008 and 2017 staffing data is the Department of Education and Training website (2). Overall total staff numbers – academic and non-academic - increased from 97,948 in 2008 to 122,710 in 2017 (Table 1). This increase of 25.3% compares unfavourably with the

student increase of 36.8% over the same ten-year period. Consequently, there has been an overall deterioration in the student to all staff ratio from 10.4:1 to 11.3:1. A breakdown in the male-female gender profile is also shown in table 1.

Table 1 Academic and Non-Academic Staff Number Gender Profiles 2008 and 2017

Staff	2008	2017	Increase	% Increase
Male	44,367	52,825	8,458	19.1%
Female	53,581	69,885	16,304	30.4%
Total	97,948	122,710	24,762	25.3%
% Female	54.7%	57.0%	65.8%	

Collectively, the universities have more female than male staff with the gap widening over the decade. The proportion of female staff increased from 54.7% in 2008 to 57.0% in 2017. This was because almost two-thirds (66%) of the new staff recruited were female.

The profile of the work contract conditions, full-time or fractional full-time is important. The gender distribution is shown in table 2. Work contract gender data further partitioned between academic and non-academic staff are not available.

Table 2. Full and Fractional Time All Staff Gender Employment Contracts 2008 and 2017

Staff	Full Time 2008	Fractional Time 2008	Percent Fractional Time 2008	Full Time 2017	Fractional Time 2017	Percent Fractional Time 2017	
Male	37,490	6,877	15.5%	43,115	9,710	18.4%	
Female	37,785	15,796	29.4%	47,756	22,129	31.7%	
Total	75,275	22,673	23.1%	90,871	31,839	25.9%	
% Female	50.3%	70.0%		52.6%	69.5%		

It is of interest that more of the full-time staff are female, with the proportion increasing over the decade from 50.3% to 52.6%. The fractional full-time staff is dominated by females at near 70% with only minor changes to address the imbalance since 2008. Overall, the proportion of fractional full-time staff employed has increased from 23.1% to 25.9%. It is evident therefore that while the growth in staff numbers has not kept pace with the growth in student numbers the policy trend has been to increase the proportion of male and female staff employed on a fractional full-time basis. Of particular interest is the distribution of staff in terms of their function as academics or non-academics. This profile balance varies considerably from the overall gender mix.

2.2 Academic and Non-Academic Staff

The Department of Education and Training provides a breakdown of academic and non-academic staff by gender, but not whether they are employed full or fractional full time. The data are presented in table 3. Overall, the proportion of academic staff has increased by a small amount from 44.3% in 2008 to 45.2% in 2017.

Table 3 Academic and Non-Academic Gender Staffing Profiles 2008 and 2017

Staff	Academic 2008	Non-Academic 2008	Percent Academic 2008	Academic 2017	Non-Academic 2017	Percent Academic 2017	Percent Increase Academic 2008-17	Percent Increase Non-Academic 2008-17
Male	25,060	19,307	56.5%	30,103	22,654	57.1%	20.1%	17.3%
Female	18,335	35,246	34.2%	25,158	44,601	36.1%	37.2%	26.5%
Total	43,395	54,553	44.3%	55,455	67,255	45.2%	27.8%	23.3%
% Female	42.3%	64.6%		45.4%	66.3%			

The proportion of academic staff that are female has increased from 42.3% to 45.5% over ten years. Female academic staff numbers in absolute terms have increased by more than male numbers since 2008 – by 6,823 for females compared with 5,043 for males. Hence 1.4 new female academics have been recruited for every new male academic. Consequently, the gap in gender balance in favour of males among academics is progressively narrowing from near 6,700 in 2008 to 5000 in 2017.

The non-academic profile is rather different with the gender gap in favour of females continuing to widen. In 2008 64.6% of non-academic staff were female with this proportion increasing to 66.3% in 2017. Some additional 9,355 female non-academic staff were employed compared with only 3,347 males in the ten-year period – a ratio of 2.8 new female non-academic staff members for each new male member. Hence, females represented 74% of the non-academic staff growth. Almost 6.5 of 10 female employed are in non-academic positions compared with 4 in 10 males.

The academic classification of appointments, above senior lecturer to below lecturer, provides an insight into the trends of staff to more senior levels. The core data are provided in table 4.

Table 4. Academic Gender Staffing Profiles by Classification 2008 and 2017

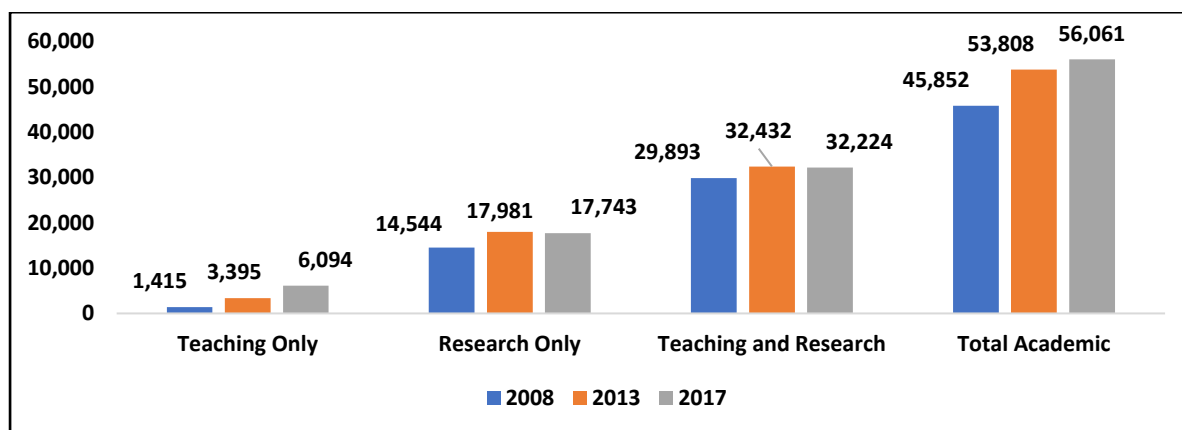
Staff	Above Senior Lecturer	Senior Lecturer (Level C)	Lecturer (Level B)	Below Lecturer (Level A)	Total Academic
Male 2008	7,951	6,158	7,162	3,789	25,060
Female 2008	2,574	3,956	7,194	4,611	18,335
Total 2008	10,525	10,114	14,356	8,400	43,395
Male 2017	10,752	6,930	7,820	4,601	30,103
Female 2017	5,144	5,796	8,969	5,250	25,158
Total 2017	15,896	12,726	16,967	9,866	55,455
% Female 2008	24.5%	39.1%	50.1%	54.9%	42.3%
% Female 2017	32.4%	45.5%	52.9%	53.2%	45.4%

It is significant that the percentage of female academic staff has increased in all the academic classification of lecturer and above. Most notable is the strong increase in appointments at senior lecturer and above. Female appointments at these levels increased by 4,410, while male appointments increased by 3,573. This trend is most encouraging as universities seek to bridge the gender gap in academic appointments with the proportion of female staff at senior lecturer

level and above increasing from 35.6% in 2008 to 43.5% in 2017. There are still more females employed below lecturer level than males, but that gap has narrowed considerably.

The academic staff numbers by function - teaching-only (TO), research-only (RO) and teaching-and-research (T&R) are shown in figure 1 for the years 2008, 2013 and 2017. The Department of Education and Training has not provided a male-female breakdown since 2013 so total staff numbers are shown.

Figure 1. All Academic Staff by Function 2008, 2013 & 2017



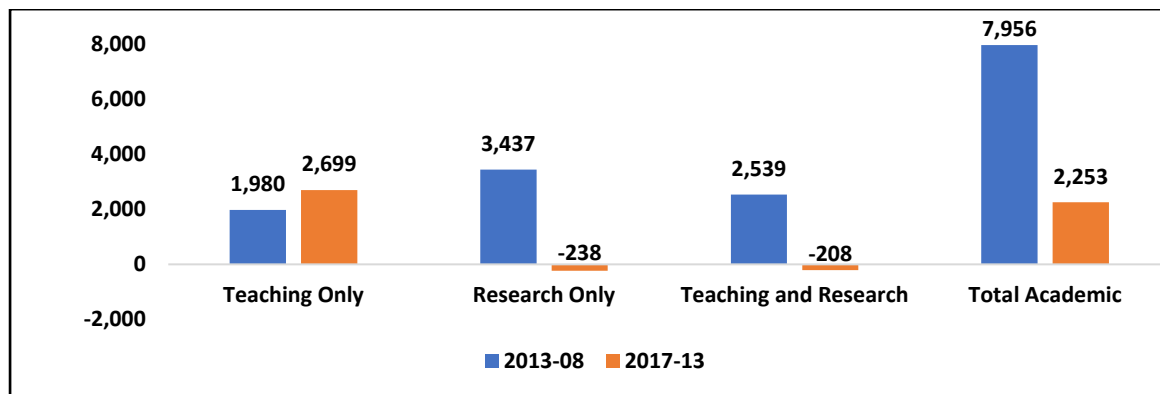
The percentage increase in staff by function from 2008 to 2017 is shown in table 5 along with the distribution between the three functions for the years 2008, 2013 and 2017.

Table 5. Academic Staff Employment by function 2008, 2013 and 2017

Academic Staff Numbers	% Teaching Only	% Research Only	% Teaching & Research	% Total Academic
% Increase 2008 to 2017	330%	22%	8%	22%
% Distribution 2008	3%	32%	65%	100%
% Distribution 2013	6%	33%	60%	100%
% Distribution 2017	11%	32%	57%	100%

The staffing trends by function are most revealing. TO staff have increased more than three-fold (330%) over the decade, while RO staff increased by 22% and T&R staff by only 8%. Consequently, the overall increase was 22% (Table 5, row 2). Undoubtedly, the three Australian Research Council Excellence in Research for Australia (ERA) exercises in 2010, 2012 and 2015 have had a major influence on the strategic rationalisation of research priorities and academic staffing at universities. Interestingly, TO numbers increased in each time-period, while the RO and T&R staff numbers did increase between 2008 and 2013, then declined since 2013. The changes in the two time-periods are shown graphically in figure 2.

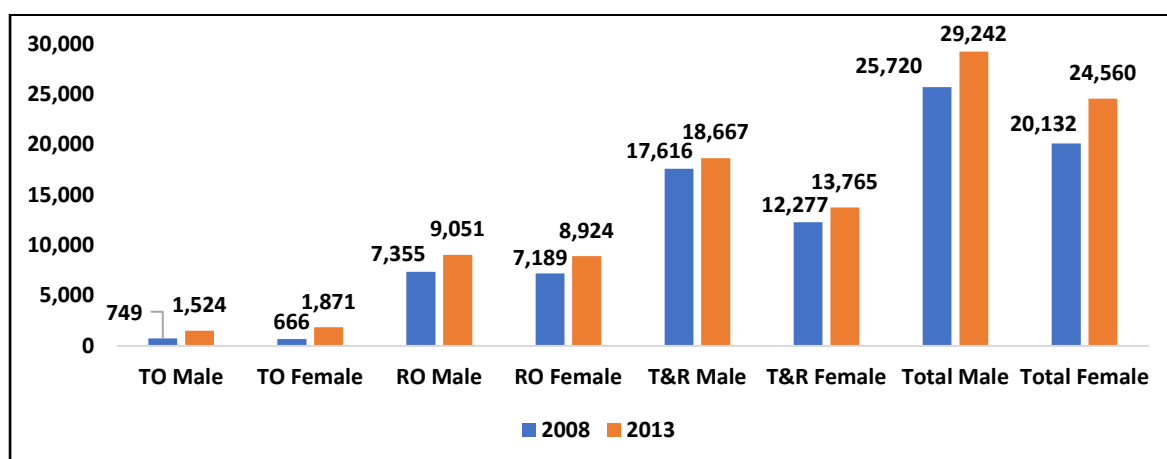
Figure 2. Changes in Academic Staff by Function 2008 to 2013 & 2013 to 2017



The academic staff distribution has consequently changed markedly over the decade (Table 5). TO staff as a proportion increased from 3% to 11%, T&R staff decreased from 65% to 57%, while RO staff was constant at 32%. The total increase of academic staff numbers by 22% over the decade compares very unfavourably with the 37% increase in student numbers. For every new academic staff member recruited between 2008 and 2017 some 31 new students were enrolled. This compares with the 2008 base position where universities employed one academic staff member for every 23 students enrolled. These adverse outcomes do raise concerns about the quality of teaching and learning programs in Australian Universities and in the capacity of an institution to undertake leading-edge internationally competitive research.

The academic gender trends for the period 2008 to 2013 are presented in figure 3. While data for 2017 is not available, based on other data, it is reasonable to assume these trends have continued.

Figure 3. Academic Staff Employment by Gender and Function, Teaching-Only, Research-Only and Teaching and Research, 2008 to 2013.



The changes relevant to figure 3 are shown in table 6. By function more females than males have been recruited in each of the three categories (Table 6, row 2), so overall the increase in female numbers of 22% well exceeds the increase in male numbers at 14%. This trend has continued to 2017 as highlighted earlier. For 2013 there was a higher proportion on females (55%) than males in TO positions. RO staff numbers are reasonably balanced (49.6% females), while there are more male T&R staff (57.6%) than females. The trend is for the T&R gap to

narrow, but for both male and female staff the proportion employed as T&R staff has declined over time.

Table 6. Trends in Academic Staff Employment by Gender and Function 2008 to 2013.

	TO Male	RO Male	T&R Male	Total Male	TO Female	RO Female	T&R Female	Total Female
Inc 2008 to 2013	775	1,696	1,051	3,522	1,205	1,735	1,488	4,428
% Inc 2008 to 2013	103%	23%	6%	14%	181%	24%	12%	22%
% by Function 2008	2.9%	28.6%	68.5%	100.0%	3.3%	35.7%	61.0%	100.0%
% by function 2013	5.2%	31.0%	63.8%	100.0%	7.6%	36.3%	56.0%	100.0%
Proportion Females 2008					47.1%	49.4%	41.1%	43.9%
Proportion Female 2013					55.1%	49.6%	42.4%	45.6%

2.3 All Staff Tenured and Limited Term Appointments

The gender information for tenured and limited term staff appointments is only available inclusive of all staff - academic and non-academic. The data for 2008 and 2017 are presented in table 7. In the decade there has been considerably more females than males achieving tenured positions (table 7, row 6) such that by 2017 a higher proportion of females than males were tenured in Australian universities (table 7, row 4). This outcome results partly because more female staff are in on-going non-academic roles. Nevertheless, this historic position has only been achieved in recent times.

Table 7. Tenured and Limited Term Gender Employment Profiles for 2008 and 2017.

	Tenurial Term		Limited term		Total		% Tenured	
	Males	Females	Males	Females	Males	Females	Males	Females
Total 2008	27,338	32,425	16,986	21,091	44,324	53,516	61.7%	60.6%
Total 2017	31856	43063	20294	26078	51713	68362	61.6%	63.0%
Increase	4,518	10,638	3,308	4,987	7,389	14,846		
% Increase	16.5%	32.8%	19.5%	23.6%	16.7%	27.7%		

2.4 Age Profile

The age profiles of academics and non-academics in 2017 are shown in table 8. The distribution has been grouped into three ranges, below 40 years of age, 40 to 54 and above 54. There is not a wide variation in the distribution by gender. Most academics are in the age range 40 to 54, while for non-academic staff the below 40 and the 40 to 54 age groups are evenly balanced. A higher proportion of employed academic males are over 54 compared with females (26.8% compared with 23.8% females), but the gap has narrowed significantly since 2008 when 28.9% of males and only 19.5% of females were over 54. Only minor age distribution changes are reported for non-academic staff in 2017 relative to 2008.

Table 8. Age Distribution of Australian Universities Staff by Gender 2017.

Percent Distribution 2017	Academic Male	Academic Female	Non-Academic Male	Non-Academic Female
Below 40	31.1%	33.2%	40.0%	41.1%
40-54	42.1%	43.1%	42.0%	41.7%
above 54	26.8%	23.8%	18.0%	17.1%

Policy Considerations

The underrepresentation of females among the academic staff of Australian universities, especially at senior levels, has been a much-discussed policy issue for decades. There is now clear evidence that universities have collectively been proactive in recruiting more female academic staff over the past decade. The fact that near 1.4 female academics have been recruited for very new male employee since 2008 is a significant development. While there are still more male academics employed, the gender gap has narrowed to less than five percent. There are proportionally more females employed at lecturer level and above than at any previous time, with the proportion below lecturer level declining. Teaching-only positions for both genders is the only category of staff to have growth in both the period 2008 to 2013 and 2013 to 2017. Undoubtedly this outcome has been strongly influenced by the ARC research excellence exercises and the importance of international rankings.

Females have traditionally dominated the non-academic positions in universities. The present situation is no different. In fact, since 2008 the female proportion of non-academic staff has further increased to 66 percent, because females represent 74 percent of the staff growth over the decade. Proactive policies to recruit more males into non-academic positions are required.

The increase in academic staff numbers has not kept pace with the increase in student numbers. Academic staff numbers have increased by 28 percent over the decade while student numbers have increased by some 37 percent. The deteriorating student-to-staff ratio position is highlighted by the fact that for every 31 new students only one academic staff member has been recruited. Hence, the overall student-to-staff ratio has increased from 22:1 to 25:1 coupled with an increase in teaching-only staff and a decline in teaching-and-research staff. Considering the changing profile of university student enrolments, with an increased proportion of female and of international students (1), there is a very strong case to reduce the student-to-staff ratio to maintain the quality of the educational experience. There is an educational quality experience tipping point that some universities may have already reached.

References

1. F. P. Larkins, Male students Remain Underrepresented in Australian Universities. Should Australia be concerned? 2 October 2018, <https://melbourne-cshe.unimelb.edu.au/lh-martin-institute/insights/gender-enrolment-trends-flarkins>
2. Department of Education and Training, Staff Data, 2018, <https://www.education.gov.au/staff-data>