



Australian Information Technology Higher Education Student and Staff Statistics from National Data Sets 2009 – 2014

1. Introduction

This is the second edition of this report, extending some of the figures into reports for 2014.

Most of the data sets in this compilation are aggregations of the data provided biannually by education providers to the Department of Industry Higher Education Statistics Unit. The latest data available is for the 2014 academic year. Some of the data is on the government website: <https://education.gov.au/selected-higher-education-statistics-2013-student-data>. Additional data has been purchased from the Unit up to 2013. Some of the table presented here therefore go to 2013 and cannot be extended to 2014.

Graduate destination data has been downloaded from the Graduate Careers Australia website: <http://www.graduatecareers.com.au/wp-content/uploads/2013/12/GCAGradStats2013.pdf>. and 2014 and 2015 updates. These data are from the annual graduate sample surveys. The latest available applies to 2014 graduates who entered the workforce in 2015

There are some limitations in the Higher Education data due to the collection methods, classifications and dissemination rules, including:

- Cells with 1 – 4 members are recorded as '<5' so that individuals cannot be identified. Summing such cells is clearly imprecise.
- Providers that have adopted the 'Melbourne model' are under-reporting undergraduate numbers. Similarly, types of coursework masters degrees are not differentiated: some will be '*formative*', others will be for professional advancement. .
- The data is all for ABS ASCED Field of Education code 02 (Information Technology), with subcodes 0201 Computer Science, 0202 Information Systems and 0299 Other Information Technology. Other important areas, such as 'software engineering' are not classified anywhere, and may be included in FoE 03 (Engineering) by some providers.
- Some providers do not report the number of their academic staff in IT staff (see Table 11).

Despite these limitations, the source data from which these compilations have been made are authoritative and are used by national agencies, such as the Office of the Australian Chief Scientist.

The aggregated students data compiled here includes all providers in the sector, including TAFE institutions, private providers, onshore and offshore.

These compilations are probably the best available picture of IT higher education numbers and recent trends. The commentary picks out key points and trends.

2. Graduations (Figures 1-2, detailed data in Table 1)

- Over the last five years, domestic graduations in the broad award categories have been fairly constant, although recent growth is apparent.
- International graduations, particularly from postgraduate coursework degrees have declined from a peak in 2010, but may now be reaching their low point, with increasing enrolments since 2012.

- Bachelor (Honours) graduations are small in number, and low in comparison with both IT bachelors graduations as a whole, and Natural and Physical Sciences. Specifically, domestic graduations in 2013 were reported as:
 - IT had 143 Bachelors (Honours) graduates and 2,996 Bachelors graduates;
 - Natural and Physical Sciences had 2,964 Bach (Hons) and 14,184 Bachelors graduates.
 Note that IT Bachelor (honours) enrolments are reported to have more than doubled in 2014 [Table 3].

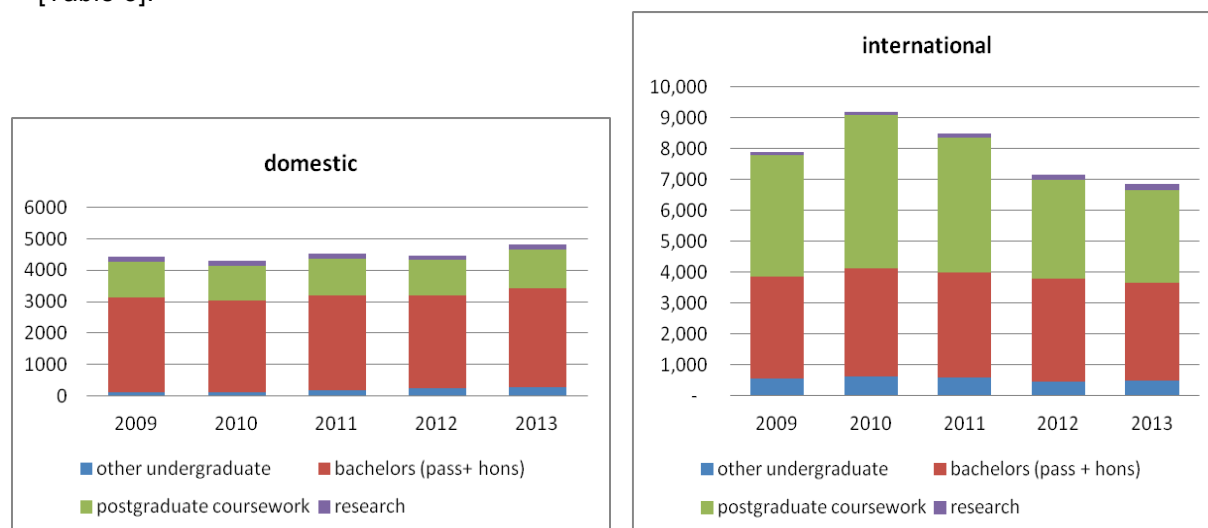


Figure 1 Domestic and international student graduations, 2009-13

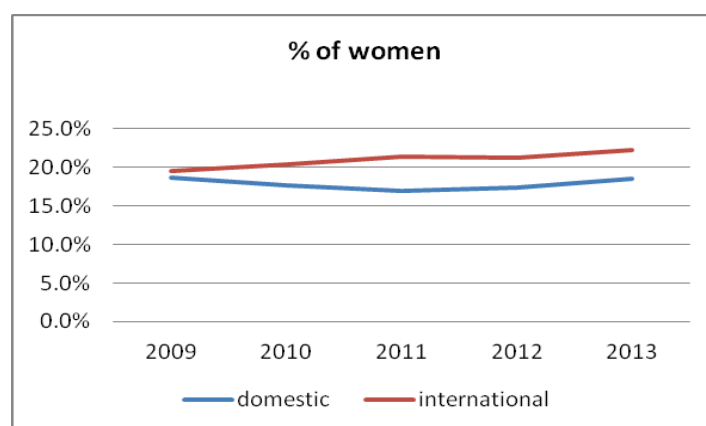


Figure 2 Proportion of women in graduating cohorts, 2009-13

3. Bachelors degree graduations by area of IT (Figure 3, data in Table 2)

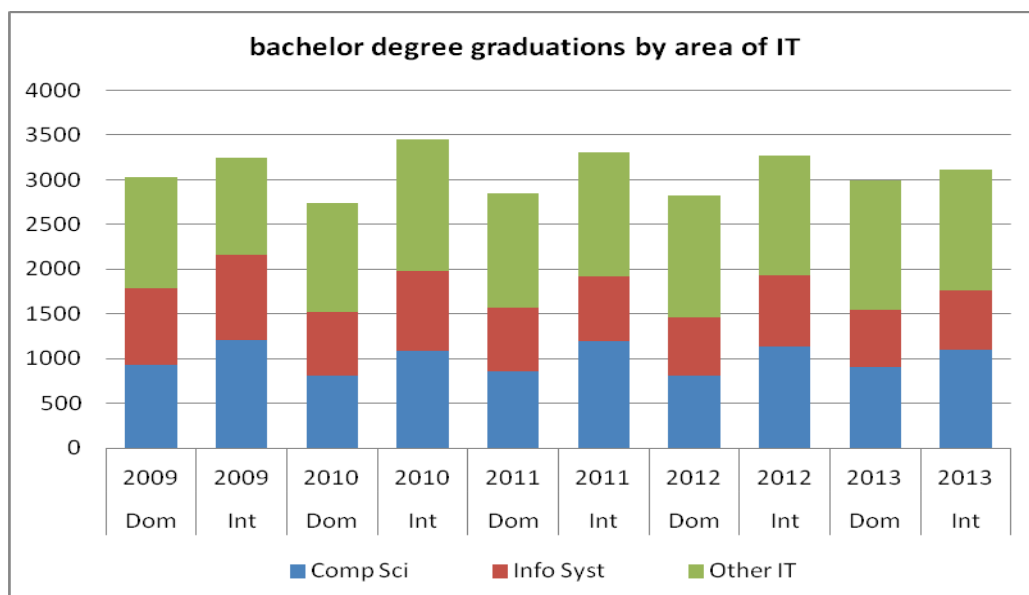


Figure 3 Bachelor degree graduations: area of IT

- The proportions of graduations in each of the three areas has been reasonably stable over the period of these data. Breakdown by gender has not been examined.

4. Total enrolments (summary in Figure 4, data in Table 3)

- Domestic enrolments have grown steadily since 2009, while international enrolments decreased to 2012 and have increased since. The latter changes reflect postgraduate coursework enrolments.
- Domestic and international enrolments in PhDs have increased steadily.

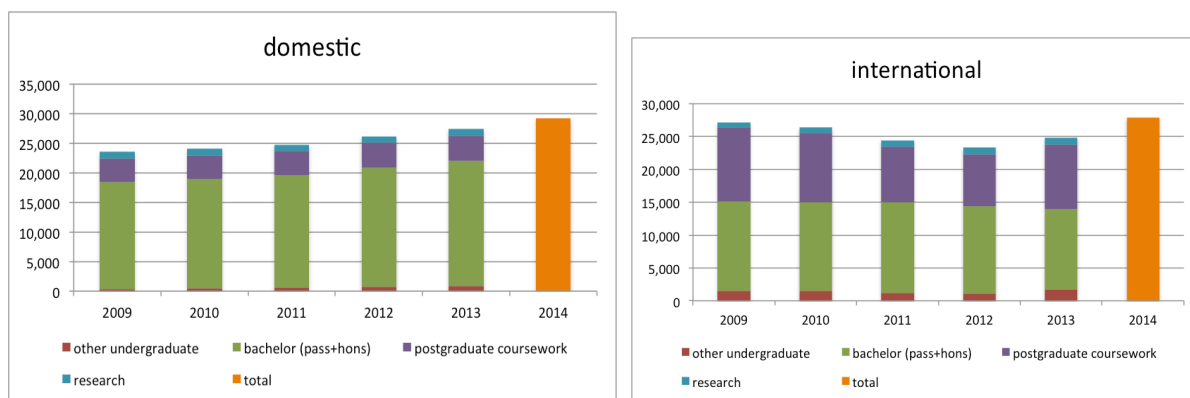


Figure 4 Domestic and international student enrolments, 2009-14

5. Commencements (Figures 5 - 7, detailed data in Tables 4 – 6)

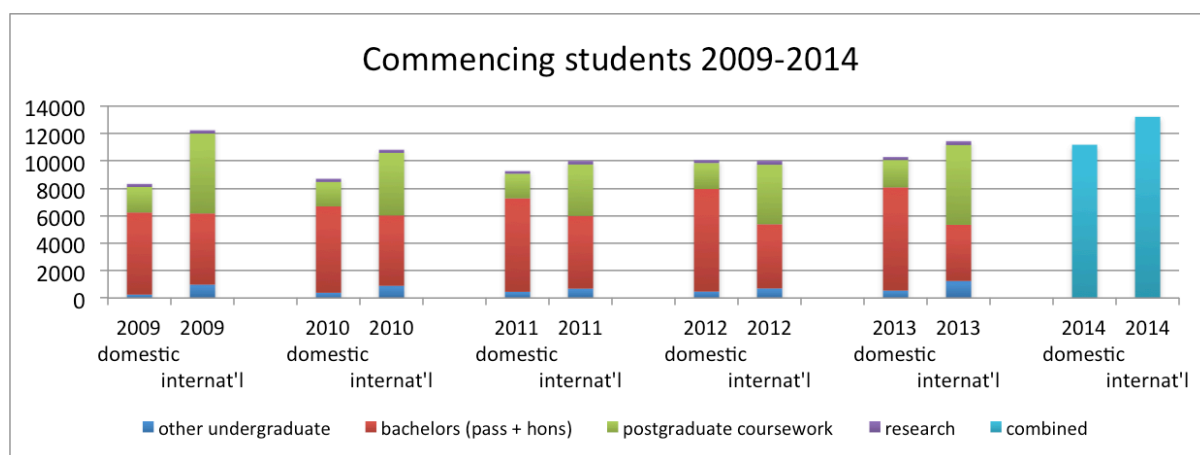


Figure 5a Domestic and international student commencing enrolments, 2009-14

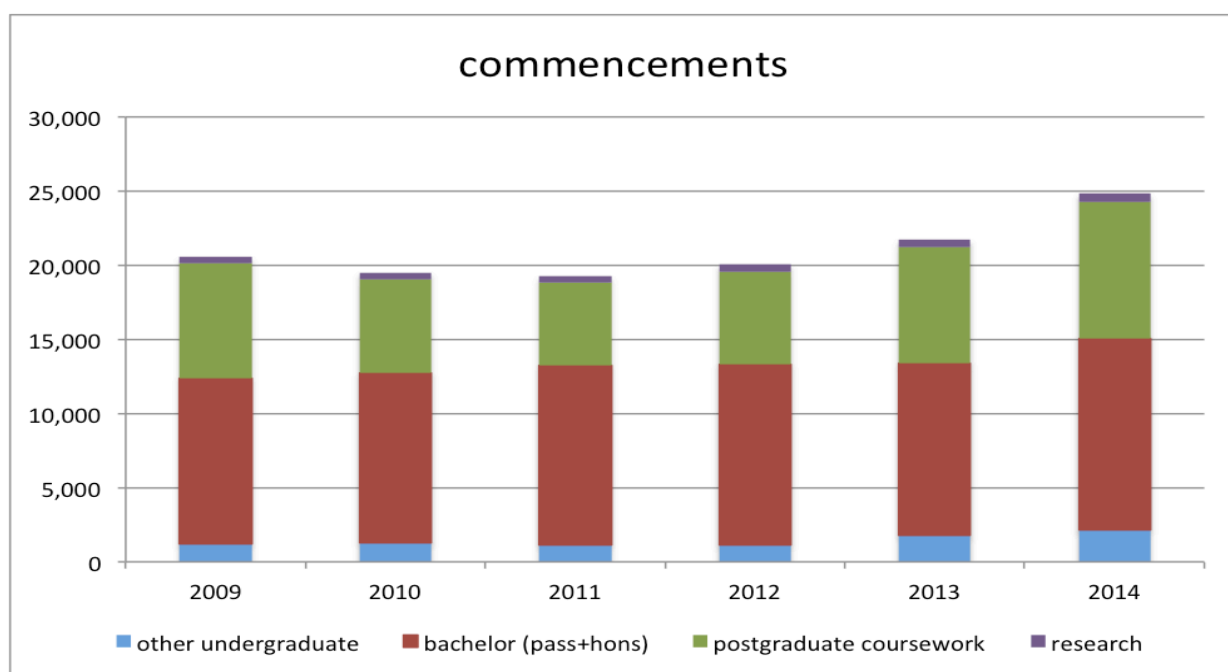


Figure 5b Total domestic+international student commencing enrolments, 2009-14

- Doctoral commencements and enrolments have increased significantly over the reported period.
- Domestic bachelors commencements have increased by about 20% over the period to 2013, while international bachelors commencement have fallen by about 20%. The combined total increased 4% to 2013, and 15% to 2014.
- International coursework masters commencements fell about 30% between 2009 and 2011, but increased in 2013 to more than the 2009 figure. The total postgraduate coursework commencements (domestic combined with international) rose by nearly 20% to 2014.
- Women make up relatively high proportions (28% in 2013) of higher research degree enrolments.

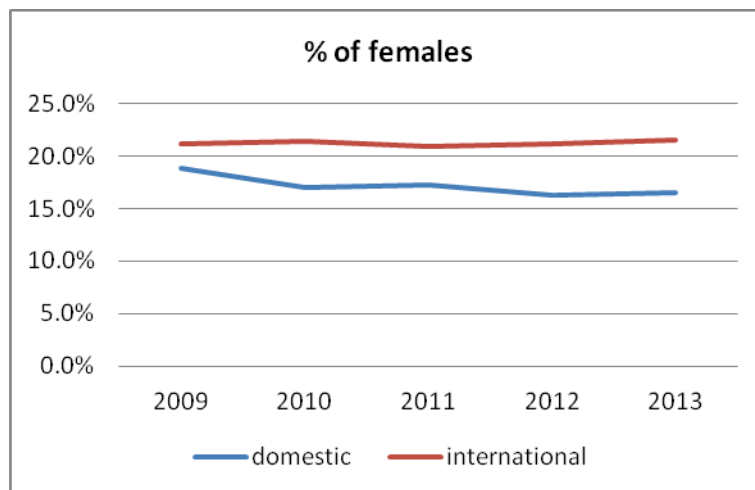


Figure 6 Proportions of women in the commencing cohorts of all award programs in information technology, 2009-13

- The proportion of Australian women commencing bachelors degrees in IT fell from 16.2% to 13.8% in 2013.
- Associate degrees and advanced diplomas continued to grow rapidly in 2013 and 2014, with increasing commencements in both domestic and international students.
- Domestic commencing enrolments in IT as a proportion of all commencing domestic enrolments fell from 7.1% (in 2001) to 2.6% (in 2010). The proportion has remained steady in the range 2.7%–2.8% since 2008. (Table 5, Figure 6).

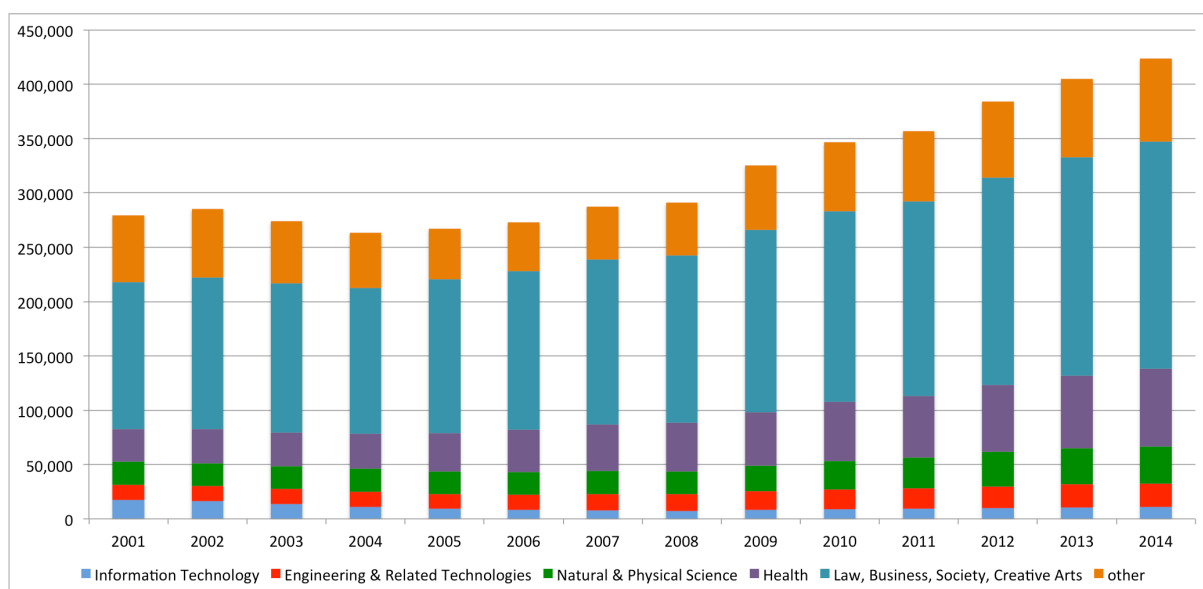


Figure 6 Domestic commencing enrolments in selected fields, 2001 – 2014

- The **basis of admission into bachelors degrees** (Table 6) shows that school-leaver entry has become slightly less common for domestic students. For both domestic and international students more than 20% of all commencing students have a completed or partially completed higher education award, indicating articulation pathways.

6. Bachelor degree annual success and retention rates

The available data on retention and success rates year by year is difficult to reconcile with the recent report on cohort studies of success for students over the whole university sector (*Completion Rates of Domestic Bachelor Students - A Cohort Analysis, 2005-2013* <<https://docs.education.gov.au/system/files/doc/other/cohortanalysis2005-2013.pdf>>). The differences are as large as a measured 66% success in 6 years for the cohort study, against a 3-year modelled value of 50% from the year-by-year data for IT.

The retention rate data are indicative of high attrition overall in IT, but using the retention rate data for modelling graduation rates evidently underestimates the actual rates, for several reasons. The retention rates are based on aggregated overall enrolments. There is insufficient information to correlate this with the cohort study. The actual annual retention rates vary quite widely by institution, study pattern and students' basis of admission. They do not allow for students moving from one institution to another, for example, which has been included in the cohort study, nor account for the observed pattern of students reducing their intensity from full-time to part-time while completing their degree possibly over 6-8 years. The cohort study is also restricted to universities, and does not allow for students completing study at a TAFE, for example. The Australian Council of Engineering Deans reported on cohort retention data for engineering students in <http://www.olt.gov.au/project-curriculum-specification-support-uts-2008>. That study showed the limitations of drawing too much from the aggregated data, and also that the basis of admission plays a large part in predicting the likelihood of graduation. The current debate on entry standards to universities generally, and the choice of indicators other than ATAR, makes this an area of significance for ACDICT members.

7. Staff data (Figures 7-8, detailed data in Table 8)

Reported total academic staff (FTE) in non-casual positions has been quite stable in total number and category over the reported period. These data underestimate total staffing, as 12 (of the 37) universities (covering all types) did not report their academic staff in IT despite having many students (see Table 11).

In 2013 there were therefore at least 985 FTE in teaching-only and teaching & research positions. A more realistic estimate is 1,200.

The proportion of women is declining slightly, with a lower proportion of women in research-only positions than in teaching & research positions.

The number of women in higher academic level positions has increased slightly, however.

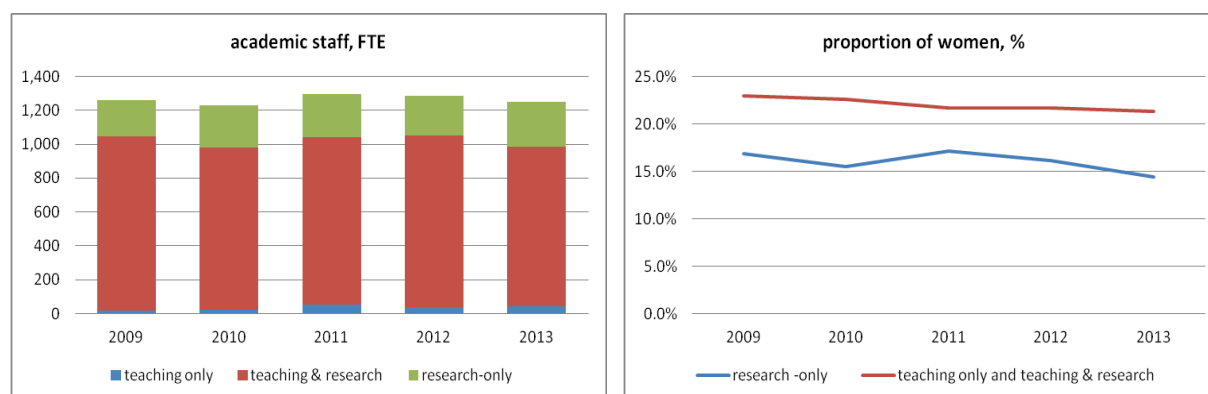


Figure 7 Academic staffing (FTE) in information technology, 2009-13

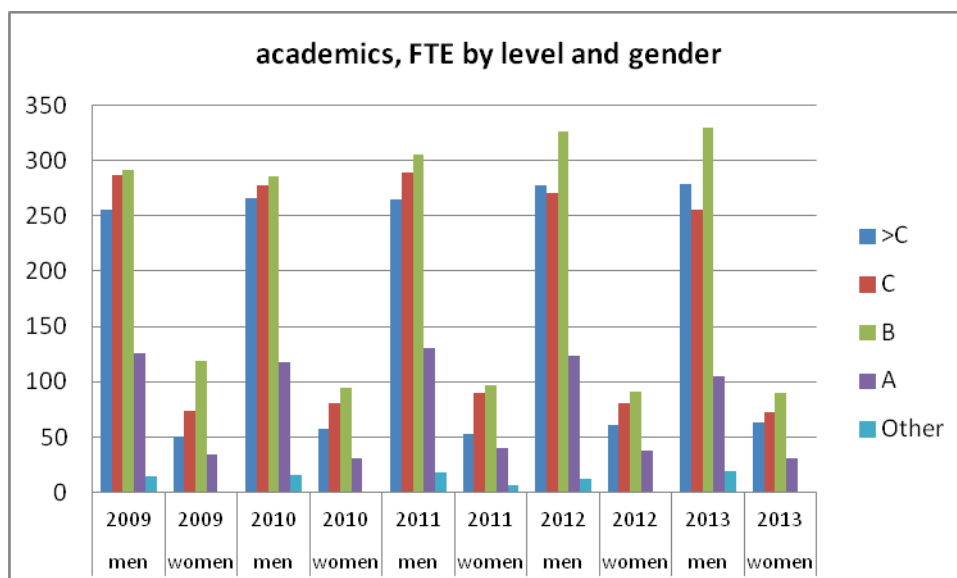


Figure 8 Academic staff (FTE) in IT by academic level and gender, 2009-13

8. Actual Student Load (details by 4-digit ASCED code are in Table 9)

Higher Education load for Information Technology, 2011-13

	doctorate	masters	other p/g	bachelors	other u/g	enabling	non-award	total
domestic 2011	772	1,367	421	15,350	674	484	53	19,120
domestic 2012	747	1,440	389	16,088	695	412	42	19,811
domestic 2013	774	1,539	400	16,945	823	457	42	20,978
% change	0.3%	12.6%	-5.0%	10.4%	22.1%	-5.6%	-20.8%	9.7%
total 2011	1,599	7,012	878	26,611	2,026	585	229	38,941
total 2012	1,626	6,611	754	26,641	1,900	504	199	38,238
total 2013	1,725	8,013	657	26,545	2,321	567	209	40,038
% change	7.9%	14.3%	-25.2%	-0.2%	14.6%	-3.1%	-8.7%	2.8%

Over the reporting period, total load has not changed markedly, with the most notable growth in load being in 'other undergraduate' (14.6), masters (14.3%) and doctorate (7.9%) categories. Other postgraduate, enabling and non-award loads have decreased, but these categories make relatively small contributions to total load.

In 2013, the universities, reported 37,796 EFTS of load (Table 11). Allowing for the under-reporting of staff numbers, but assuming that load is correctly reported, the *raw student-staff ratio* for the universities is estimated to be approximately $(37,796/1,200) = 31.5$.

Comparable student-staff ratios can be calculated for most of the member faculties from the data in Table 11. Their interpretation is likely to be institution dependent.

The high estimated system-wide SSR figure quoted above may be reduced in effect by the contributions of casual staff and research staff to teaching, but may also be increased by allocating teaching & research positions to full-time research or management roles, and by the absence of staff on sabbatical leave.

If there were no IT teaching into other disciplines, the load would be generated by the 49,568 students enrolled in IT. On that basis, on average, each IT student represents approximately 0.76 EFT. Whilst this figure could be accounted for by part-time students and out of field teaching to IT students, this figure needs to be further adjusted to account for IT teaching into non-IT programs.

9. Graduate destination data (Table 10)

The latest available data from Graduate Careers Australia is for bachelors degree graduates completing in 2014. These are sample survey data, and indicate that these IT graduates who were available for full time work in 2015:

- were employed full-time at a slightly lower rate than graduates over all fields;
- take up postgraduate study at lower rates than all graduates;

IT graduates' median starting salaries are only just above the median for all graduates. There appears to be no sustained systematic differential between the salaries paid to men and women graduates.

10. Distribution of Enrolments, etc. across the ACDICT membership (Table 11)

Table 11 provides summary data on the commencing and total enrolments and graduation and staffing from the available data sets. On the basis of load and total enrolments, RMIT University was the system's largest provider in 2013.

11. Concluding comment

The format of this summary and compilation follows that used by the Australian Council of Engineering Deans. As for that compilation, we note that Tables 2 and 11 are incompatible with other data provided on IT by the universities.

The data sets contain a wealth of information from each provider that may be of interest to ACDICT members, although it would be very time consuming to extract a set for each member. We would suggest that members interrogate their own university statistics units to gain insight into any data that appear anomalous.

Robin W King
17 November 2014

Chris Johnson
19 February 2016

TABLE 1 INFORMATION TECHNOLOGY GRADUATIONS 2009 – 2013

	2009	2010	2011	2012	2013
DOCTORATES	202	231	248	262	315
domestic total	137	145	142	118	142
% domestic female	24.8%	26.2%	23.2%	26.3%	23.2%
international total	65	86	106	144	173
% international female	23.1%	24.4%	29.2%	30.6%	24.9%
% international	32.2%	37.2%	42.7%	55.0%	54.9%
RESEARCH MASTER'S	40	33	42	31	45
domestic total	20	15	25	15	22
% domestic female	40.0%	33.3%	16.0%	46.7%	9.1%
international total	20	18	17	16	23
% international female	20.0%	22.2%	11.8%	12.5%	26.1%
% international	50.0%	54.5%	40.5%	51.6%	51.1%
COURSEWORK MASTER'S	4,190	5,090	4,633	3,511	3,373
domestic total	739	674	714	729	738
% domestic female	22.2%	22.7%	22.7%	24.0%	25.3%
international total	3,451	4,416	3,919	2,782	2,635
% international female	21.3%	21.9%	23.7%	23.2%	25.0%
% international	82.4%	86.8%	84.6%	79.2%	78.1%
OTHER POSTGRADUATE	888	966	901	845	858
domestic total	402	423	449	399	488
% domestic female	30.1%	27.2%	28.1%	29.1%	30.1%
international total	486	543	452	446	370
% international female	18.9%	20.1%	23.0%	24.0%	27.0%
% international	54.7%	56.2%	50.2%	52.8%	43.1%
BACHELOR HONOURS	178	228	261	182	198
domestic total	127	171	184	135	143
% domestic female	7.1%	12.9%	13.6%	14.1%	14.0%
international total	51	57	77	47	55
% international female	19.6%	15.8%	27.3%	12.8%	14.5%
% international	28.7%	25.0%	29.5%	25.8%	27.8%
BACHELOR	6,145	6,195	6,146	6,096	6,104
domestic total	2,902	2,743	2,843	2,821	2,996
% domestic female	16.3%	15.1%	14.1%	14.1%	15.3%
international total	3,243	3,452	3,303	3,275	3,108
% international female	18.9%	19.4%	19.6%	20.0%	20.2%
% international	52.8%	55.7%	53.7%	53.7%	50.9%
ASSOC DEGREE, ADV DIP & DIP	612	694	755	655	731
domestic total	108	122	184	235	277
% domestic female	18.5%	9.8%	10.3%	11.5%	15.2%
international total	504	572	571	420	454
% international female	13.3%	15.2%	13.0%	14.0%	15.2%
% international	82.4%	82.4%	75.6%	64.1%	62.1%
OTHER	61	31	25	24	39
domestic total	-	-	-	-	-
% domestic female	-	-	-	-	-
international total	61	31	25	24	39
% international female	13.1%	9.7%	24.0%	16.7%	23.1%
% international	-	-	-	-	-
TOTAL	12,316	13,468	13,011	11,606	11,663
domestic total	4,435	4,293	4,541	4,452	4,806
% domestic female	18.7%	17.7%	17.0%	17.3%	18.5%
international total	7,881	9,175	8,470	7,154	6,857
% international female	19.6%	20.4%	21.4%	21.3%	22.2%
% international	64.0%	68.1%	65.1%	61.6%	58.8%

TABLE 2 BACHELORS GRADUATIONS BY 4-DIGIT FOE CODE, 2009-13

	2009		2010		2011		2012		2013	
	dom	int'l	dom	int'l	dom	int'l	dom	int'l	dom	int'l
0201 Computer Science	932	1,210	810	1,090	856	1,200	806	1,142	909	1,106
0203 Information Systems	856	947	713	889	711	719	660	792	635	662
0299 Other IT	1,241	1,086	1,220	1,473	1,276	1,384	1,355	1341	1452	1,340
total	3,029	3,243	2,743	3,452	2,843	3,303	2,821	3275	2,996	3,108
0201 Computer Science	31%	37%	30%	32%	30%	36%	29%	35%	30%	36%
0203 Information Systems	28%	29%	26%	26%	25%	22%	23%	24%	21%	21%
0299 Other IT	41%	33%	44%	43%	45%	42%	48%	41%	48%	43%

Note: actual graduation numbers may be slightly higher, due to the reporting restrictions in the data

TABLE 3 TOTAL ENROLMENTS in broad field Information Technology (STUDENTS), 2009-14

	2009	2010	2011	2012	2013	2014
DOCTORATES	1,627	1,795	1,886	1,961	1,968	2,111
domestic total	978	1,017	980	966	958	
% domestic female	25.3%	24.9%	26.0%	26.2%	26.2%	
international total	649	778	906	995	1,010	
% international female	31.0%	28.4%	27.0%	27.7%	27.8%	
% international	39.9%	43.3%	48.0%	50.7%	51.3%	
RESEARCH MASTER'S	192	220	210	192	215	213
domestic total	140	153	147	130	138	
% domestic female	25.7%	29.4%	32.7%	39.2%	41.3%	
international total	52	67	63	62	77	
% international female	21.2%	22.4%	27.0%	25.8%	28.6%	
% international	27.1%	30.5%	30.0%	32.3%	35.8%	
COURSEWORK MASTER'S	13,248	12,533	10,565	10,478	12,617	15,712
domestic total	2,817	2,778	2,840	3,057	3,168	
% domestic female	22.9%	23.2%	24.9%	26.0%	25.4%	
international total	10,431	9,755	7,725	7,421	9,449	
% international female	22.0%	22.2%	23.0%	23.6%	23.2%	
% international	78.7%	77.8%	73.1%	70.8%	74.9%	
OTHER POSTGRADUATE	2,024	2,007	1,874	1,594	1,474	1,242
domestic total	1,128	1,197	1,181	1,110	1,123	
% domestic female	32.3%	31.6%	33.6%	30.5%	29.3%	
international total	896	810	693	484	351	
% international female	20.2%	20.9%	23.7%	20.9%	22.2%	
% international	44.3%	40.4%	37.0%	30.4%	23.8%	
BACHELOR HONOURS	268	316	330	289	299	722
domestic total	197	238	253	226	229	
% domestic female	15.2%	14.7%	15.0%	12.4%	14.4%	
international total	71	78	77	63	70	
% international female	18.3%	20.5%	24.7%	14.3%	18.6%	
% international	26.5%	24.7%	23.3%	21.8%	23.4%	
BACHELOR	31,454	31,635	32,499	33,202	33,203	34,154
domestic total	17,928	18,184	18,748	19,974	20,994	
% domestic female	16.3%	15.2%	14.3%	13.8%	13.7%	
international total	13,526	13,451	13,751	13,228	12,209	
% international female	20.5%	20.5%	20.1%	20.0%	20.6%	
% international	43.0%	42.5%	42.3%	39.8%	36.8%	
ASSOC DEGREE, ADV DIP & DIP	1,753	1,902	1,799	1,717	2,365	2,942
domestic total	357	494	618	664	766	
% domestic female	15.1%	10.9%	11.5%	9.2%	9.4%	
international total	1,396	1,408	1,181	1,053	1,599	
% international female	12.2%	12.5%	12.3%	13.2%	14.2%	
% international	79.6%	74.0%	65.6%	61.3%	67.6%	
OTHER	106	93	67	91	119	107
domestic total	12	13	24	46	41	
% domestic female	8.3%	15.4%	20.8%	15.2%	14.6%	
international total	94	80	43	45	78	
% international female	23.4%	20.0%	16.3%	13.3%	24.4%	
% international	88.7%	86.0%	64.2%	49.5%	65.5%	
TOTAL	50,672	50,501	49,230	49,524	52,260	57,203
domestic total	23,557	24,074	24,791	26,173	27,417	29,269
% domestic female	18.3%	17.3%	16.9%	16.4%	16.1%	
international total	27,115	26,427	24,439	23,351	24,843	27,934
% international female	20.9%	20.9%	21.0%	21.2%	21.5%	
% international	53.5%	52.3%	49.6%	47.2%	47.5%	48.8%

TABLE 4 INFORMATION TECHNOLOGY COMMENCEMENTS (STUDENTS), 2009-13

	2009	2010	2011	2012	2013	2014
DOCTORATES [1]	376	378	388	434	419	456
domestic total	153	180	160	168	171	
% domestic female	23.5%	26.7%	24.4%	24.4%	25.7%	
international total	223	198	228	266	248	
% international female	26.9%	25.8%	22.8%	32.0%	27.8%	
% international	59.3%	52.4%	58.8%	61.3%	59.2%	
RESEARCH MASTER'S	93	88	69	59	89	80
domestic total	70	56	36	39	49	
% domestic female	32.9%	39.3%	38.9%	48.7%	34.7%	
international total	23	32	33	20	40	
% international female	26.1%	25.0%	27.3%	30.0%	27.5%	
% international	24.7%	36.4%	47.8%	33.9%	44.9%	
COURSEWORK MASTER'S	6,304	5,038	4,373	5,251	6,871	8,062
domestic total	1165	1096	1137	1255	1308	
% domestic female	23.4%	24.5%	27.0%	27.4%	25.8%	
international total	5,139	3,942	3,236	3,996	5,563	
% international female	23.5%	23.4%	24.3%	24.1%	22.9%	
% international	81.5%	78.2%	74.0%	76.1%	81.0%	
OTHER POSTGRADUATE	1,391	1,310	1,170	988	946	1,144
domestic total	702	688	655	640	688	
% domestic female	32.6%	30.1%	30.7%	28.0%	28.1%	
international total	689	622	515	348	258	
% international female	21.0%	21.1%	23.7%	19.0%	21.7%	
% international	49.5%	47.5%	44.0%	35.2%	27.3%	
BACHELOR HONOURS	82	101	107	107	110	278
domestic total	65	73	88	79	81	
% domestic female	15.4%	15.1%	14.8%	10.1%	17.3%	
international total	17	28	19	28	29	
% international female	35.3%	28.6%	42.1%	25.0%	20.7%	
% international	20.7%	27.7%	17.8%	26.2%	26.4%	
BACHELOR	11,103	11,339	12,024	12,066	11,522	12,642
domestic total	5926	6229	6735	7411	7453	
% domestic female	16.2%	14.2%	14.3%	13.5%	13.8%	
international total	5,177	5,110	5,289	4,655	4,069	
% international female	20.1%	21.1%	19.4%	19.3%	21.1%	
% international	46.6%	45.1%	44.0%	38.6%	35.3%	
ASSOC DEGREE, ADV DIP & DIP	1,133	1,192	1,085	1,090	1,688	2,094
domestic total	236	369	430	427	512	
% domestic female	15.3%	10.6%	12.1%	8.0%	10.4%	
international total	897	823	655	663	1,176	
% international female	12.3%	12.6%	13.0%	13.9%	14.3%	
% international	79.2%	69.0%	60.4%	60.8%	69.7%	
OTHER	89	80	51	77	94	81
domestic total	11	13	22	41	30	
% domestic female	9.1%	15.4%	18.2%	14.6%	20.0%	
international total	78	67	29	36	64	
% international female	23.1%	17.9%	20.7%	11.1%	28.1%	
% international	87.6%	83.8%	56.9%	46.8%	68.1%	
TOTAL	20,571	19,526	19,267	20,072	21,739	24,411
domestic total	8,328	8,704	9,263	10,060	10,292	11,187
% domestic female	18.8%	17.0%	17.2%	16.3%	16.5%	
international total	12,243	10,822	10,004	10,012	11,447	13,224
% international female	21.2%	21.4%	20.9%	21.2%	21.5%	
% international	59.5%	55.4%	51.9%	49.9%	52.7%	54.2%

[1] All 2014 data are from public statistics. All 2009-2013 data including domestic and gender breakdown is from purchased datasets. The total number of doctorates in the two sets does not agree, for unknown reasons: the figures in the public set are lower than these total, by a varying amount, less than 8 in each year 2009-2013. The totals for other degrees are the same in the two datasets.

TABLE 5 DOMESTIC COMMENCEMENTS INTO INFORMATION TECHNOLOGY AND OTHER AREAS, 2009-14

year	Information Technology	% of total	Engineering & Related Technologies	Natural & Physical Science	Health	Law, Business, Society, Creative Arts (composite FoE's)	total commencing award programs, all fields
2001	17,436	7.1%	14,031	20,999	29,969	135,454	244,491
2002	16,085	6.4%	14,171	20,610	31,834	139,678	252,932
2003	13,553	5.5%	14,033	20,717	31,256	137,184	246,726
2004	11,122	4.6%	13,742	21,355	32,057	134,158	241,208
2005	9,277	3.7%	13,579	20,715	35,492	141,544	248,356
2006	8,198	3.2%	13,931	20,943	39,283	145,742	256,382
2007	7,839	2.9%	15,000	21,076	43,099	151,508	271,743
2008	7,470	2.7%	15,440	20,811	44,812	153,908	276,200
2009	8,328	2.7%	16,994	23,633	49,217	167,817	308,821
2010	8,704	2.6%	18,172	26,619	54,097	175,649	329,248
2011	9,263	2.7%	18,813	28,169	56,628	179,222	338,188
2012	10,060	2.8%	19,710	31,847	61,864	190,917	364,197
2013	10,292	2.7%	21,433	33,163	66,827	201,234	384,251
2014	11,187	2.8%	21,456	34,064	71,419	209,246	401,358

TABLE 6 BASIS OF ADMISSION INTO BACHELORS DEGREES IN INFORMATION TECHNOLOGY, 2009-13

DOMESTIC							
	Not stated	Higher education course *	Secondary education (Australian or overseas equivalent)	VET award course other than a secondary education course *	Mature age special entry provisions	Other including Professional qualification	Total
2009	92	1,096	3,185	872	252	494	5,991
2010	21	1,268	3,182	986	266	579	6,302
2011	0	1,406	3,476	1,093	269	579	6,823
2012	0	1,405	3,739	1,238	334	774	7,490
2013	0	1,624	3,492	1,208	438	772	7,534
2009	1.5%	18.3%	53.2%	14.6%	4.2%	8.2%	5,991
2010	0.3%	20.1%	50.5%	15.6%	4.2%	9.2%	6,302
2011	-	20.6%	50.9%	16.0%	3.9%	8.5%	6,823
2012	-	18.8%	49.9%	16.5%	4.5%	10.3%	7,490
2013	-	21.6%	46.3%	16.0%	5.8%	10.2%	7,534

INTERNATIONAL							
	Not stated	Higher education course *	Secondary education (Australian or overseas equivalent)	VET award course other than a secondary education course *	Mature age special entry provisions	Other including Professional qualification	Total
2009	76	1,647	1,166	737	67	1,501	5,194
2010	< 5	1,732	1,047	729	65	1,,563	5,138
2011	0	1,538	1,261	623	24	1,862	5,308
2012	0	1,208	936	669	43	1,827	4,683
2013	0	873	1,012	785	23	1,405	4,098
2009	1.5%	31.7%	22.4%	14.2%	1.3%	28.9%	5,194
2010	-	33.7%	20.4%	14.2%	1.3%	30.4%	5,138
2011	-	29.0%	23.8%	11.7%	0.5%	35.1%	5,308
2012	-	25.8%	20.0%	14.3%	0.9%	39.0%	4,683
2013	-	21.3%	24.7%	19.2%	0.6%	34.3%	4,098

* Australian or overseas equivalent; complete or incomplete

TABLE 8 STAFF (FTE) IN INFORMATION TECHNOLOGY, 2009-13 (not including casual staffing)

staff groups	2009	2010	2011	2012	2013
academics, male					
teaching-only	12	14	35	30	34
research –only	177	213	208	198	225
teaching & research	786	736	764	783	729
sub-total, male	974	963	1,007	1,011	988
academics, female					
teaching-only	7	8	17	9	12
research –only	36	39	43	38	38
teaching & research	240	221	226	227	210
sub-total, female	283	268	286	274	260
total academics	1,257	1,231	1,293	1,285	1,249
% research-only	16.9%	20.5%	19.4%	18.4%	21.1%
% female	22.5%	21.8%	22.1%	21.3%	20.8%
total teaching	213	252	251	236	263
	1,045	979	1,042	1,049	985

proportions of women

	2009	2010	2011	2012	2013
research -only	16.9%	15.5%	17.1%	16.1%	14.4%
teaching only and teaching & research	23.0%	22.6%	21.7%	21.6%	21.3%

by academic level		>C	C	B	A	Other	Total
men	2009	255	287	291	126	15	974
women	2009	51	74	119	34	< 5	283
men	2010	266	277	286	118	16	963
women	2010	57	81	95	31	< 5	268
men	2011	265	289	305	130	18	1007
women	2011	53	90	97	40	7	286
men	2012	278	271	326	124	12	1011
women	2012	61	81	91	38	< 5	274
men	2013	279	255	330	105	19	988
women	2013	63	72	90	31	< 5	260

TABLE 9 STUDENT LOAD IN INFORMATION TECHNOLOGY, 2009-13

Domestic 2013	Doc	Master	other P/G	Bach	other u/g	enab	non award	total
Computer Science	434	451	116	7,748	375	85	21	9,229
Information Systems	140	677	188	5,735	294	87	14	7,135
Other Information Technology	200	411	96	3,462	154	285	7	4,614
Domestic 2013 Total	774	1,539	400	16,945	823	457	42	20,978
Domestic 2012								
Computer Science	408	411	121	7,147	303	89	22	8,500
Information Systems	138	649	179	5,895	239	50	14	7,163
Other Information Technology	201	380	89	3,046	153	273	6	4,148
Domestic 20123 Total	747	1,440	389	16,088	695	412	42	19,811
Domestic 2011 Total								
Computer Science	426	400	125	6,756	277	107	22	8,113
Information Systems	149	611	194	5,755	255	45	23	7,032
Other Information Technology	197	356	102	2,839	142	332	8	3,975
Domestic 2011 Total	772	1,367	421	15,350	674	484	53	19,120
Domestic 2010								
Computer Science	434	451	116	7,748	375	85	21	9,229
Information Systems	140	677	188	5,735	294	87	14	7,135
Other Information Technology	200	411	96	3,462	154	285	7	4,614
Domestic 2010 Total	774	1,539	400	16,945	823	457	42	20,978
Domestic 2009								
Computer Science	390	429	117	6,313	142	77	21	7,488
Information Systems	151	602	203	5,831	223	61	33	7,105
Other Information Technology	221	373	104	2,694	69	174	14	3,648
Domestic 2013 Total	762	1,404	424	14,838	434	312	68	18,241

All 2013	Doc	Mas	other P/G	Bach	other u/g	enab	non award	total
Computer Science	1,005	2,596	189	11,633	878	106	93	16,500
Information Systems	308	3,408	300	9,506	932	92	91	14,638
Other Information Technology	412	2,009	168	5,406	511	369	25	8,900
All student load 2013 Total	1,725	8,013	657	26,545	2,321	567	209	40,038
All 2012								
Computer Science	906	2,010	228	11,391	654	109	88	15,387
Information Systems	303	3,013	345	10,249	867	57	92	14,926
Other Information Technology	417	1,588	181	5,001	379	338	19	7,925
All student load 2012 Total	1,626	6,611	754	26,641	1,900	504	199	38,238
All 2011								
Computer Science	883	2,132	298	11,240	665	123	95	15,436
Information Systems	307	3,200	378	10,435	953	55	114	15,443
Other Information Technology	409	1,680	202	4,936	408	407	20	8,062
All student load 2011 Total	1,599	7,012	878	26,611	2,026	585	229	38,941
All 2010								
Computer Science	800	2,733	312	10,845	503	116	103	15,412
Information Systems	280	3,722	432	10,371	1,154	78	143	16,179
Other Information Technology	424	2,128	186	4,935	419	279	31	8,401
All student load 2010 Total	1,504	8,583	930	26,151	2,076	473	277	39,992
All 2009								
Computer Science	688	2,833	294	10,584	430	94	101	15,024
Information Systems	266	4,132	467	10,567	1,316	75	159	16,981
Other Information Technology	405	2,340	232	4,644	356	190	34	8,202
All student load 2009 Total	1,359	9,305	993	25,795	2,102	359	294	40,207

TABLE 10 GRADUATE DESTINATIONS 2009-13

Source: GCA GRADFILES AND GRAD STATS

Graduates in Computer Science, sample survey on previous year graduates

Year of survey	% in full-time study	sample	% available ... and in FT work	... seeking FT work, not employed, %	... seeking FT, employed casual, %	had job in final year, and still in it, %	median starting salary
2009		1438	80.0	10.40	9.70	24.3	\$ 49,600 females> males
2010		1333	73.3	13.70	13.10	27.2	\$ 50,000 males = females
2011		1385	77.8	11.30	10.90	22.7	\$ 51,000 males > females
2012	11.4%	1317	74.7	13.90	11.40	22.1	\$ 52,500 females > males
2013	10.8%	1349	70.3	15.70	14.00	25.5	\$ 53,000 no gender data
2014		1474	67.2	18.1	14.7	24.1	\$ 55,000 males > females
2015		1390	67.0	17.8	15.3	21.4	\$ 54,000 females > males
ALL FIELDS 2013	19.4%	30,917	71.3	10.6	18.1	16.3	\$ 52,500
2014		44,490	68.1	11.6	31.9	16.8	\$ 52,500
2015		42,134	68.8	11.3	19.9	16.5	\$ 54,000

MEDIAN STARTING SALARIES BY AREA OF EMPLOYMENT

	Aust Gov.	State Gov	Prof Prac	Industry	Education	Total
2013 Computer Science starting salary	\$ 60,000	\$ 58,000	\$ 55,000	\$ 50,000	\$ 52,000	\$ 53,000
number of responses	18	32	22	247	11	325
2013 All fields	\$ 58,000	\$ 55,000	\$ 53,000	\$ 53,000	\$ 57,000	\$ 52,500
2015 Computer Science starting salary	\$ 59,000	\$ -	\$ 58,000	\$ 52,000	\$ 53,000	\$ 54,000
number of responses	14	0	3	300	13	359
2015 All fields	\$ 59,600	\$ 57,500	\$ 53,000	\$ 50,000	\$ 60,000	\$ 54,000
<i>in first full time employment, less than 25</i>						

selected fields	2012	2013	2014	2015
Dentistry	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
Optometry	\$ 79,000	\$ 70,000	\$ 70,000	\$ 80,000
Engineering	\$ 63,000	\$ 64,000	\$ 62,000	\$ 60,000
Earth Sciences	\$ 73,000	\$ 60,000	\$ 60,000	\$ 60,000
Medicine	\$ 60,000	\$ 60,000	\$ 60,000	\$ 65,000
Mathematics	\$ 55,000	\$ 57,000	\$ 60,000	\$ 60,000
Physical Science	\$ 55,000	\$ 55,000	\$ 55,000	\$ 50,000
Computer Science	\$ 53,000	\$ 53,500	\$ 55,000	\$ 54,000
Accounting	\$ 49,000	\$ 50,000	\$ 50,000	\$ 50,000
Economics & Business	\$ 48,000	\$ 49,000	\$ 50,000	\$ 50,000

TABLE 11 2013 student and staff data for ACDICT Universities – broad Information Technology

University	commencing students			completions			total enrolled students			Load EFTSL	Staff (FTE - non-casual)			
	dom	inter n'l	total	dom	inter n'l	total *	dom	inter n'l	total *		T- only	R- only	T & R	Total
Charles Sturt University	452	555	1007	240	208	448	1241	997	2238	1169	< 5	< 5	27	32
Macquarie University	432	92	524	116	59	175	1127	256	1383	824	0	11	24	36
Southern Cross University	90	23	113	22	41	63	201	84	285	164	nd	nd	nd	nd
The University of Sydney	192	223	415	119	161	280	546	363	909	955	0	18	34	52
University of New England	110	22	132	15	24	39	252	67	319	170	0	0	9	9
University of New South Wales	412	193	605	180	164	344	1064	476	1540	1418	0	30	60	91
University of Newcastle	238	140	378	100	128	228	656	396	1052	689	nd	nd	nd	nd
University of Technology, Sydney	590	350	940	444	311	755	1794	881	2675	1737	< 5	< 5	24	27
University of Western Sydney	495	93	588	201	57	258	1261	186	1447	993	0	0	0	0
University of Wollongong	164	772	936	162	522	684	661	1921	2582	1818	0	10	46	56
Deakin University	482	312	794	207	159	366	1309	598	1907	1524	< 5	< 5	59	62
Federation University Australia	111	971	1082	np	np	195	263	1753	2016	1358	< 5	9	50	63
La Trobe University	147	396	543	58	115	173	405	698	1103	865	0	0	27	27
Monash University	514	675	1189	310	499	809	1493	1652	3145	2141	6	24	72	101
RMIT University	743	631	1374	379	670	1049	1988	1977	3965	3535	0	13	77	90
Swinburne University of Technology	540	458	998	207	354	561	1443	1117	2560	2062	21	< 5	70	95
The University of Melbourne	118	258	376	77	96	173	277	416	693	779	< 5	19	38	60
Victoria University	124	631	755	65	267	332	305	984	1289	740	nd	nd	nd	nd
Bond University	< 5	0	<5	17	12	29	46	25	71	128	nd	nd	nd	nd
Central Queensland University	206	586	792	66	375	441	500	1059	1559	1030	0	0	0	0
Griffith University	366	180	546	119	87	206	857	382	1239	1291	0	5	34	39
James Cook University	142	344	486	53	240	293	308	947	1255	747	0	0	16	16
Queensland University of Technology	842	371	1213	400	265	665	2308	771	3079	2630	< 5	32	84	118
University of Queensland	282	174	456	105	137	242	792	388	1180	558	nd	nd	nd	nd
University of Southern Queensland	152	228	380	np	np	172	405	543	948	871	0	0	14	14
University of Sunshine Coast	52	25	77	12	np	np	122	33	155	197	nd	nd	nd	nd
Curtin University of Technology	136	120	256	107	124	231	447	286	733	1033	< 5	7	25	35
Edith Cowan University	337	157	494	128	135	263	828	442	1270	833	0	< 5	25	28
Murdoch University	189	380	569	np	np	274	559	849	1408	838	< 5	< 5	22	26
University of Western Australia	7	nd	nd	55	32	87	161	60	221	396	nd	nd	nd	nd
Flinders University of SAa	106	29	135	29	22	51	293	83	376	285	< 5	11	35	47
The University of Adelaide	87	121	208	40	77	117	210	300	510	561	0	19	22	41
University of South Australia	374	77	451	150	82	232	935	207	1142	970	0	0	0	0
University of Tasmania	157	280	437	73	178	251	390	1095	1485	965	0	< 5	21	24
Charles Darwin University	57	30	87	14	17	31	128	95	223	251	0	0	0	0
The Australian National University	96	78	174	73	85	158	290	169	459	549	0	25	17	41
University of Canberra	275	216	491	133	140	273	703	444	1147	722	0	0	0	0
TOTAL (OF ABOVE)	9,817	10,184	20,001	4,476	6,472	10,948	26,568	23,000	49,568	37,796	46	264	939	1,249
TOTAL (All Providers)	10,292	11,501	21,793	4,806	6,857	11,663	27,417	24,843	52,260	40,037	nd	nd	nd	nd

Notes

1. Student data from the Higher Education Statistics Collection for Information Technology (FoE2)
2. Staff data from Higher Education Statistics, purchased by ACED, underestimates totals due to no data (nd) from some providers
3. The University of Melbourne and UWA are under-reporting commencing students