

**Higher Degrees and Honours Bachelor Degrees in Mathematics  
and Statistics Completed in Australia in 2011**

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Published

2012

Journal Title

Aust. Math. Soc. Gazette

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## Higher Degrees and Honours Bachelor Degrees in mathematics and statistics completed in Australia in 2011

Peter Johnston\*

This report presents data relating to students who completed Honours or Higher Degrees in mathematics during 2011. The data are part of an ongoing project for the Australian Mathematical Society and should be read in conjunction with previous reports [1]–[12] covering the period 1993–2010.

This year is the first time that data has been reported for two-year coursework masters degrees with classifications (similar to existing Honours degrees). At the moment, The University of Melbourne is the only university to offer such degrees, in addition to their traditional Honours degree. In the discussions that follow, these data have been merged together and will be referred to simply as ‘Honours’, although the completions for the two degrees are presented in separate tables. As time goes on, and more universities offer coursework masters degrees of this type, the two data sets will be differentiated and displayed as separated entities (backdated to 2010).

Table 1 presents data for students completing Honours degrees in 2011, at all universities in Australia. Within each institution, the data are broken down into male and female students and into the three traditional areas of mathematics: pure, applied and statistics. There is also the general category ‘Mathematics’ for institutions that do not differentiate between the conventional areas. Finally, there is an ‘Other’ category for newer areas of mathematics such as financial mathematics. Each category is further broken down into grades of Honours awarded. Table 2 presents the coursework masters degrees awarded by The University of Melbourne in 2011. Tables 1 and 2 combined show that in 2011 there were 157 Honours completions in Australia, with 116 (74%) receiving First Class Honours (compared with 112 out of 145 (77%) in 2010 and 115 out of 151 (76%) in 2009). Even with this increased number of completions, the quality of the students has remained reasonably constant.

Figure 1 presents the total number of students completing Honours degrees in mathematics over the period 1959–2011. It shows that in 2011 there was an increase in the number of Honours completions compared with the previous two years. The figure also shows the numbers of male and female students who completed Honours over the same time period. For last year the number of male students increased to 123, while the number of female students remained reasonably steady at 34 (compared to 33 in 2010).

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**Table 1.** (continued).

Uni.	Sex	Maths				Pure				Applied				Statistics				Other				Honours Total
		I	IIA	IIB	III	I	IIA	IIB	III	I	IIA	IIB	III	I	IIA	IIB	III	I	IIA	IIB	III	
UNE	M																					0
	F																					0
UNS	M									1	1			2	1			1				6
	F									1												1
UQL	M					7				7	1			2	1							18
	F					3				2				1								6
USA	M	2									1											3
	F	1								2												3
USN	M					9				5				2	1							17
	F					1																1
USQ	M																					0
	F																					0
UTM	M					1	1			2				1								5
	F																					0
UTS	M										1				1							2
	F									1				2	1							4
UWA	M					2	1															3
	F																					0
UWG	M					2					1						1	1				5
	F						1															1
UWS																						0
																						0
VUT																						0
																						0
Totals		17	5	1	0	33	7	1	1	34	10	1	0	24	8	1	0	3	1	0	0	147

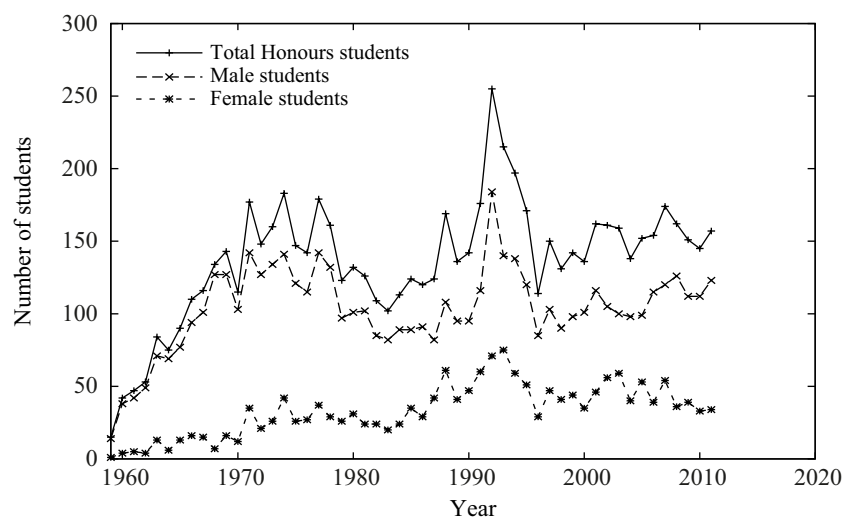
**Table 2.** Number of two year coursework masters degrees (with classifications) completed in mathematics and statistics, 2011.

Uni.	Sex	Pure				Applied				Statistics				Other				Total				
		I	IIA	IIB	III	I	IIA	IIB	III	I	IIA	IIB	III	I	IIA	IIB	III					
UMB	M	1				1	1			3	1										7	
	F					1				1	1											3
Totals		1	0	0	0	2	1	0	0	4	0	2	0	0	0	0	0	0	0	0	0	10

Table 3 presents the data for Higher Degree completions in 2011. The data are broken down into Coursework Masters, Research Masters and PhD degrees, with the latter two divided into the three typical areas of mathematics. These data are also represented in Figure 2, as part of the overall Higher Degree data for the period 1959–2011. The figure shows that:

1. There was a further increase in the number of PhD completions. In 2011, there were 96 PhD completions (up from 91 in 2010), of which 65 were by male students and 31 by female students. This represents another large increase in the number of male students (up from 54 in 2010) while the number of female students decreased slightly (down from 37 in 2010).
2. The number of Research Masters completions (11) has dropped slightly again, down from 12 in 2010.

3. There were fewer coursework masters completions (44) in 2011, about one-third of the number of completions in this category in 2010 (121), which was a large increase over the number of completions from the previous year (61).



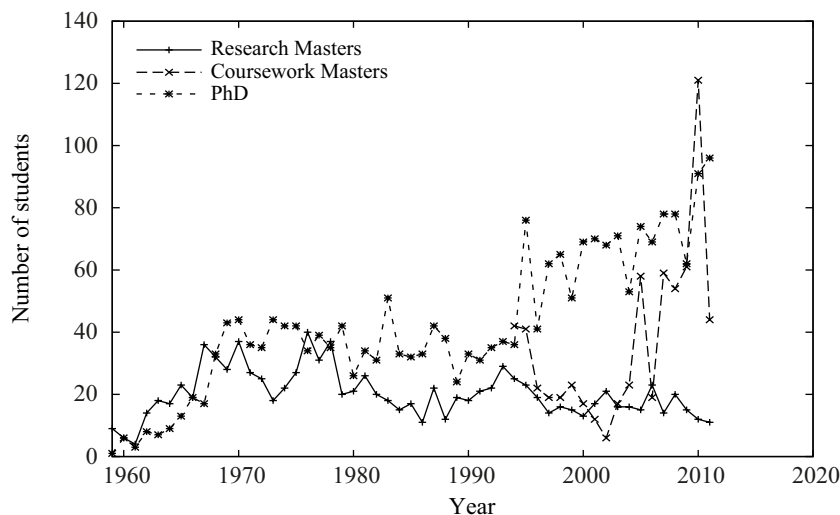
**Figure 1.** Number of Honours degrees completed in mathematics and statistics, 1959–2011.

**Table 3.** Number of research higher degrees completed in mathematics and statistics, 2011.

Uni.	Sex	Coursework Masters	Research Masters		PhD		PhD Total
			Pure Applied Statistics	Total	Pure Applied Statistics	Total	
ACU	M			0			0
	F			0			0
ADF	M			0		2	2
	F			0		1	1
ANU	M	3		0		3	5
	F		1	1		1	1
BOU	M			0			0
	F			0			0
CDU	M			0			0
	F			0			0
CQU	M			0			0
	F			0			0
CSU	M			0			0
	F			0			0
CUT	M			0			0
	F			0			0
DKU	M			0			0
	F			0			0
ECU	M		2	2			0
	F			0		1	1
FDU	M			0		1	1
	F			0			0

**Table 3.** (continued).

Uni.	Sex	Coursework Masters	Research Masters Pure Applied Statistics	Research Masters Total	PhD Pure Applied Statistics	PhD Total
GFU	M			0	1	1
	F			0	1	1
JCU				0		0
				0		0
LTU	M	1		0		0
	F	2		0		0
MDU	M			0		0
	F			0		0
MNU	M			0	1 2	3
	F			0	1 2 1	4
MQU	M			0	2 1	3
	F			0	1 3	4
QUT	M			0	2 4	6
	F			0		0
RMT				0		0
				0		0
SCU	M			0		0
	F			0		0
SUT	M	5		0		0
	F	4		0	1	1
UAD	M			0	3 1	4
	F			0		0
UBR				0		0
				0		0
UCB				0		0
				0		0
UMB	M		1	1	6	6
	F		1	1	5	6
UNC	M	1		0	2	2
	F		1	1		0
UNE	M	1		0		0
	F			0		0
UNS	M		2	2	1 3 1	5
	F			0		0
UQL	M	4		0	2 4 0	6
	F	4		0	0 0.5 0.5	1
USA	M			0	1 1	2
	F			0	1 2	3
USN	M			0		0
	F		1	1		0
USQ	M		1 1	2	3 2 1	6
	F			0		1
UTM	M			0		0
	F			0		0
UTS	M			0		1
	F			0	1	1
UWA	M	5		0	3 1 1	5
	F			0	1	1
UWG	M	10		0	1 2 6	9
	F	4		0	1 2	3
UWS				0		0
				0		0
VUT				0		0
				0		0
Totals		44	3 5 3	11	26 41.5 28.5	96



**Figure 2.** Number of research higher degrees completed in mathematics and statistics, 1959–2011.

For those who are interested in the finer details, the raw data are available from links on the webpage [www.cit.gu.edu.au/math](http://www.cit.gu.edu.au/math). There is an Excel spreadsheet containing the complete data for 2011 as well as spreadsheets containing cumulative data from 1959 for Honours, Research Masters and PhD degrees.

I would like to thank the many people who took the time and effort to collect this data and forward it to me. This year I received 29 out of a possible 38 responses to requests for data, which is a slightly disappointing response rate. Finally, if having read this report, you would like to contribute missing data for 2011, I would be happy to add it to the data on the website.

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