

**Higher Degrees and Honours Bachelor Degrees in Mathematics
and Statistics Completed in Australia in 2012**

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Higher Degrees and Honours Bachelor Degrees in mathematics and statistics completed in Australia in 2012

Peter Johnston*

This report presents data relating to students who completed Honours or Higher Degrees in mathematics during 2012. The data are part of an ongoing project for the Australian Mathematical Society and should be read in conjunction with previous reports [1]–[13] covering the period 1993–2011.

This year represents the second occasion that data has been reported for two year coursework masters degrees with classifications (similar to existing Honours degrees). The University of Melbourne is the only university to offer such degrees in place of the traditional Honours degree, although some other universities are expected to follow this model. 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).

Appendix 1 presents data for students completing Honours degrees in 2012, 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. Appendix 2 presents the coursework masters degrees awarded by the University of Melbourne in 2012. Appendices 1 and 2 combined show that in 2012 there were 176 Honours completions in Australia, with 113 (64%) receiving First Class Honours (compared with 116 out of 157 (74%) in 2011 and 112 out of 145 (77%) in 2010). This represents a significant decrease in the fraction of First Class degrees awarded.

Figure 1 presents the total number of students completing Honours degrees in Mathematics over the period 1959–2012. It shows that in 2012 there was a further increase in the number of Honours completions. 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 has increased over the previous year with 130 completions (123 in 2011), while the number of female students also increased to 46 (compared to 34 in 2011).

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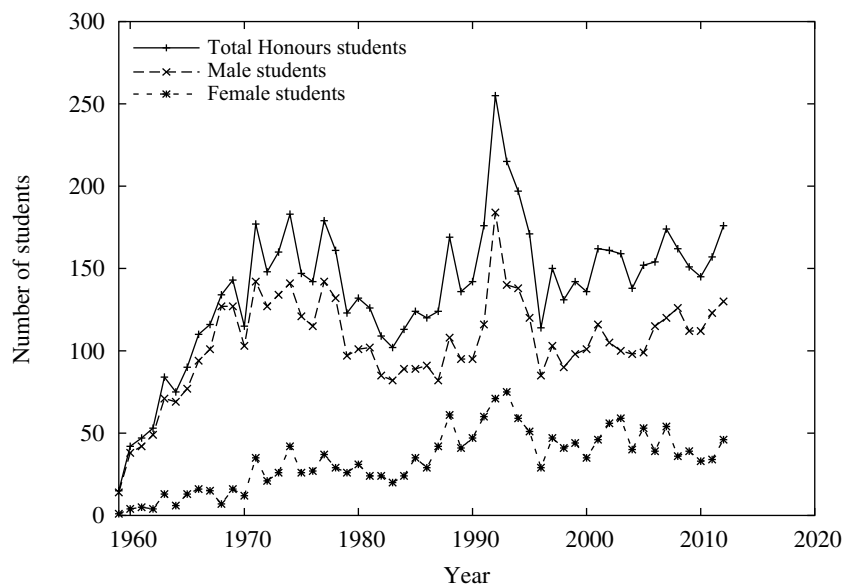


Figure 1. Number of Honours degrees completed in mathematics and statistics, 1959–2012.

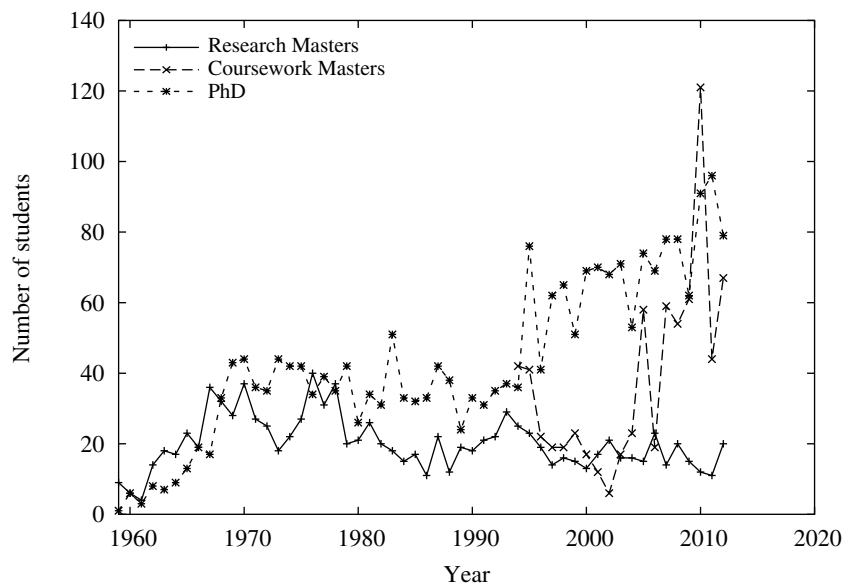


Figure 2. Number of research higher degrees completed in mathematics and statistics, 1959–2012.

Appendix 3 presents the data for Higher Degree completions in 2012. 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 1959–2012. The figure shows that:

- (i) There was a considerable drop in the number of PhD completions compared with the previous two years. In 2012, there were 79 PhD completions (down from 96 in 2011), of which 48 were by male students and 31 by female students. This represents a large drop in the number of male students (down from 65 in 2011) while the number of female students remained steady (31 in 2011).
- (ii) The number of Research Masters completions (20) has increased markedly, up from 11 in 2011.
- (iii) There were more coursework masters completions (67) in 2012, than in 2011 (44), but that is considerably fewer than in the previous year (121 in 2010).

For those who are interested in the finer details, the raw data are available directly from me. Simply send me an e-mail. I have an Excel spreadsheet containing the complete data for 2012 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 34 out of a possible 38 responses to requests for data, which is a very good response rate. Finally, if, having read this report, you would like to contribute missing data for 2012, I would be happy to add it to the data.

References

- [1] Petocz, P. (1996). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia 1993. *Gaz. Aust. Math. Soc.* **23**, 123–133.
- [2] Johnston, P. and Petocz, P. (2002). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 1994 and 1995. *Gaz. Aust. Math. Soc.* **29**, 62–72.
- [3] Johnson, P. (2003). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia between 1996 and 2001. *Gaz. Aust. Math. Soc.* **30**, 42–44.
- [4] Johnston, P. (2003). Higher degrees and honours bachelor degrees 2002. *Gaz. Aust. Math. Soc.* **30**, 315–320.
- [5] Johnston, P. (2004). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2003. *Gaz. Aust. Math. Soc.* **31**, 314–319.
- [6] Johnston, P. (2005). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2004. *Gaz. Aust. Math. Soc.* **32**, 320–325.
- [7] Johnston, P. (2006). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2005. *Gaz. Aust. Math. Soc.* **33**, 249–254.
- [8] Johnston, P. (2007). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2006. *Gaz. Aust. Math. Soc.* **34**, 266–271.
- [9] Johnston, P. (2008). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2007. *Gaz. Aust. Math. Soc.* **35**, 320–324.
- [10] Johnston, P. (2009). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2008. *Gaz. Aust. Math. Soc.* **36**, 334–338.
- [11] Johnston, P. (2010). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2009. *Gaz. Aust. Math. Soc.* **37**, 312–316.
- [12] Johnston, P. (2011). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2010. *Gaz. Aust. Math. Soc.* **38**, 264–268.
- [13] Johnston, P. (2012). Higher degrees and honours bachelor degrees in mathematics and statistics completed in Australia in 2011. *Gaz. Aust. Math. Soc.* **39**, 221–227.

Appendix 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	
UNC	M													1								1
	F																					0
UNE	M																					0
	F																					0
UNS	M					5				1								1	1			6
	F					1														1		4
UQL	M					6	4			6	1											17
	F					1																1
USA	M									3	1											4
	F									1	1											2
USN	M					3	1			6	3	1		5	1							20
	F					2				2				2	1							7
USQ	M	1																				0
	F																					0
UTM	M					2				4												6
	F									1												1
UTS	M																	1				1
	F	1																1				2
UWA	M					3				1												4
	F													1	1							2
UWG	M					2				1								4	1			8
	F					1				1								3	1			6
UWS	M													1								1
	F																					0
VUT																						0
																						0
Totals		6	2	1	0	34	7	0	0	39	11	9	0	18	10	2	0	7	5	0	0	151

Appendix 2. Number of two year coursework masters degrees (with classifications) completed in mathematics and statistics, 2012

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	3	1	2		4	2			1	1	2	2	1				19
	F					1		2				1	1		1			6
Totals		3	0	1	2	5	2	2	0	1	1	3	3	1	0	1	0	25

Appendix 3. Number of research higher degrees completed
in mathematics and statistics, 2012

Uni.	Sex	Coursework Masters	Research Masters		Research Masters Total	PhD			PhD Total
			Pure	Applied Statistics		Pure	Applied Statistics	Total	
ACU	M				0				0
	F				0				0
ADF	M			1	1		1		1
	F			1	1				0
ANU					0				0
					0				0
BOU	M				0		1		1
	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					0				0
					0				0
DKU	M				0				0
	F				0				0
ECU	M			1	1				0
	F			1	1		1		1
FDU	M				0				0
	F				0				0
GFU	M				0				0
	F				0				0
JCU	M				0				0
	F				0				0
LTU	M	2		1	1	1			1
	F	2			0	2	1	2	5
MDU	M				0				0
	F				0				0
MNU	M		1	1	2		1		1
	F			2	2	1	1		2
MQU	M				0	2	1		3
	F				0		2		2
QUT	M			1	1	3	2		5
	F				0	1	2		3
RMT	M				0				0
	F				0	1	1		2
SCU	M				0				0
	F				0				0
SUT	M				0				0
	F				0				0
UAD	M		1		1	3	1	1	5
	F				0				0
UBR	M				0				0
	F				0		1		1
UCB					0				0
					0				0
UMB	M		1	2	3	3	6	3	12
	F				0		2		2

Appendix 3. (continued)

Uni.	Sex	Coursework Masters	Research Masters Pure Applied Statistics		Research Masters Total	PhD Pure Applied Statistics			PhD Total	
UNC	M				0				0	
	F				0				0	
UNE	M	8			0				0	
	F	2			0				0	
UNS	M	9			0	2			2	
	F	6			0		1		1	
UQL	M	6			0		2		2	
	F	8			0				0	
USA	M				0		2		2	
	F				0				0	
USN	M		1	1	2	3	4	1	8	
	F				0			1	1	
USQ	M				0			1	1	
	F				0				0	
UTM	M				0				0	
	F		1	1	2		2		2	
UTS	M	1			1	1	1		2	
	F	1			1				0	
UWA	M	5			0	1	1		2	
	F	3			0	1	2		3	
UWG	M	11			0	2	1		3	
	F	3			0		1	2	3	
UWS	M				0				0	
	F				0				0	
VUT					0				0	
					0				0	
Totals		67	5	6	7	20	22	40	17	79