

01 Mathematical Sciences	104
02 Physical Sciences	111
03 Chemical Sciences	118
04 Earth Sciences	126
05 Environmental Sciences	133
06 Biological Sciences	138
07 Agricultural and Veterinary Sciences	146
08 Information and Computing Sciences	154
09 Engineering	162
10 Technology	175
11 Medical and Health Sciences	183

# Results by Fields of Research Code

12 Built Environment and Design	196
3 Education	202
4 Economics	207
5 Commerce, Management, Tourism and Services	212
6 Studies in Human Society	220
7 Psychology and Cognitive Sciences	227
8 Law and Legal Studies	231
9 Studies in Creative Arts and Writing	235
20 Language, Communication and Culture	242
21 History and Archaeology	249
22 Philosophy and Religious Studies	254

Section 3 provides a summary of ERA 2015 results and activity by aggegated four-digit FoR code.

The four-digit codes that sit within each two-digit FoR are listed at the beginning of each discipline in this section.

Comparative information is presented for each discipline at the four-digit level and includes:

- > Fields of Research overview with the aggregated four-digit data for each ERA indicator
- the distribution table and chart showing the number of UoEs per rating scale score (including the two- and four-digit ratings for that FoR)
- > research outputs submitted by type (chart and table)
- > research income by year-all categories (\$) (chart and table)
- > staffing profile by academic level (chart and table)
- > patent profile (where applicable) (table only)
- > research commercialisation income by year (\$) (chart and table)

Following these summary charts, an overview table for each individual four-digit FoR code is presented as well as doughnut charts showing the distribution of output types and the number of UoEs by rating for that four-digit code.

#### Notes:

- Where an indicator does not apply to a particular discipline '-' is shown. A '0' represents that the indicator applies to the discipline, but no data was submitted.
- > Percentages <1 not shown on doughnut charts for research outputs by type.
- > Totals in the doughnut charts may not sum to 100% due to rounding.

# 01 MATHEMATICAL SCIENCES

Mathematical Sciences is comprised of the following four-digit codes:

**0101 Pure Mathematics** 

**0102 Applied Mathematics** 

0103 Numerical and Computational Mathematics

0104 Statistics

**0105 Mathematical Physics** 

0199 Other Mathematical Sciences

18 out of 26 two-digit UoEs and 48 out of 59 four-digit UoEs assessed were rated above world standard

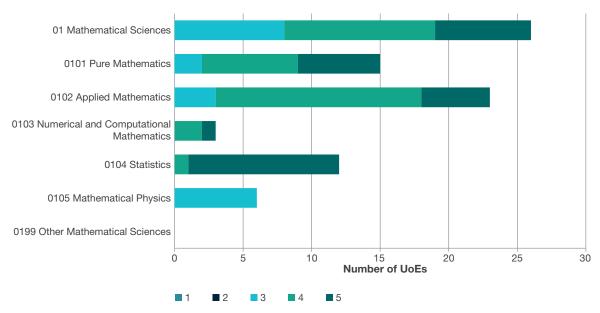
# **FoR Overview**

Mathematical Sciences (01) accounted for approximately two per cent of the research outputs submitted to ERA 2015. The most common research output type in Mathematical Sciences was journal articles. The staffing profile showed similar staffing levels and spread for Pure Mathematics (0101) and Applied Mathematics (0102) for academic levels B–E. These two four–digit codes showed the highest number of research outputs and research income. Research commercialisation income was particularly strong in Applied Mathematics (0102).

Indicator	No.
Research outputs	10,632.6
Research income	\$150,725,932
FTEs	922.6
Esteem count	147.2
Patents	0.2
Research commercialisation income	\$162,956

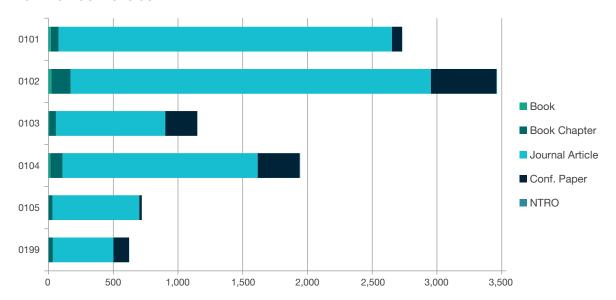
	Distribution			
Rating	Two-digit	Four-digit		
5	7	23		
4	11	25		
3	8	11		
2	0	0		
1	0	0		
Total	26	59		

#### NUMBER OF UOES PER RATING SCALE SCORE



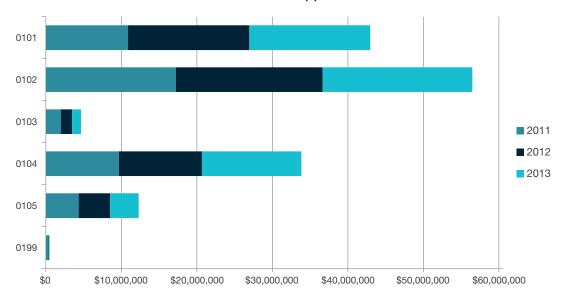
Note: 01 Mathematical Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0101 Pure Mathematics	17.7	61.6	2,573.3	78.5	1.0	2,732.0
0102 Applied Mathematics	23.9	146.6	2,782.0	506.3	5.0	3,463.8
0103 Numerical and Computational Mathematics	4.5	52.9	844.8	247.1	0.0	1,149.4
0104 Statistics	16.4	91.6	1,507.5	324.4	3.3	1,943.3
0105 Mathematical Physics	1.8	28.7	670.9	19.0	0.0	720.3
0199 Other Mathematical Sciences	2.0	32.3	467.7	119.8	2.0	623.8
Total	66.3	413.6	8,846.3	1,295.2	11.3	10,632.6

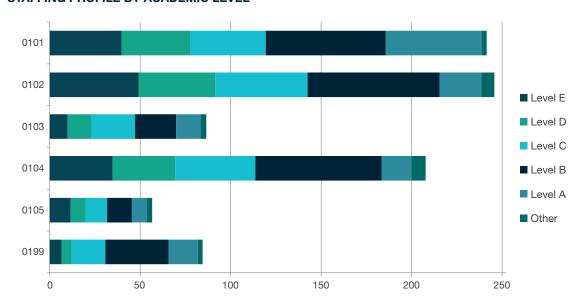
#### RESEARCH INCOME BY YEAR — ALL CATEGORIES (\$)



Continued

FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0101 Pure Mathematics	10,879,050	16,063,937	16,021,651	42,964,638
0102 Applied Mathematics	17,232,269	19,421,834	19,838,752	56,492,855
0103 Numerical and Computational Mathematics	1,996,702	1,470,959	1,175,071	4,642,731
0104 Statistics	9,649,913	11,019,106	13,165,920	33,834,938
0105 Mathematical Physics	4,342,354	4,168,538	3,786,661	12,297,553
0199 Other Mathematical Sciences	366,382	53,676	73,158	493,216
Total	44,466,669	52,198,050	54,061,213	150,725,932

#### STAFFING PROFILE BY ACADEMIC LEVEL

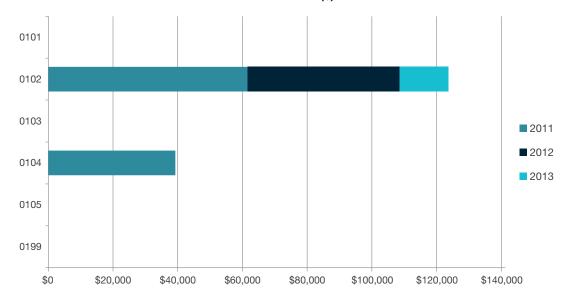


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0101 Pure Mathematics	39.7	38.2	41.5	66.4	52.9	2.8	241.5
0102 Applied Mathematics	49.3	42.2	51.0	72.9	23.0	7.2	245.7
0103 Numerical and Computational Mathematics	10.0	13.2	24.0	22.8	13.5	3.1	86.5
0104 Statistics	34.8	34.6	44.3	69.6	16.7	7.8	207.8
0105 Mathematical Physics	11.6	8.2	11.9	13.7	8.4	2.9	56.6
0199 Other Mathematical Sciences	6.5	5.5	18.8	35.0	16.1	2.7	84.5
Total	151.8	142.0	191.5	280.3	130.5	26.4	922.6

#### **PATENT PROFILE**

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0101 Pure Mathematics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0102 Applied Mathematics	0.0	0.0	0.0	0.0	0.2	0.0	0.2
0103 Numerical and Computational Mathematics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0104 Statistics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0105 Mathematical Physics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0199 Other Mathematical Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.2	0.0	0.2

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



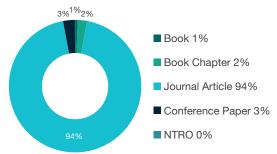
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0101 Pure Mathematics	0	0	0	0
0102 Applied Mathematics	61,674	47,025	14,980	123,679
0103 Numerical and Computational Mathematics	0	0	0	0
0104 Statistics	39,278	0	0	39,278
0105 Mathematical Physics	0	0	0	0
0199 Other Mathematical Sciences	0	0	0	0
Total	100,952	47,025	14,980	162,956

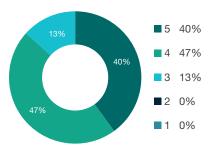
# 0101 Pure Mathematics

Indicator	No.
Research outputs	2,732.0
Research income	\$42,964,638
FTEs	241.5
Esteem count	67.2
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	6
4	7
3	2
2	0
1	0
Total	15

#### **RESEARCH OUTPUTS BY TYPE**



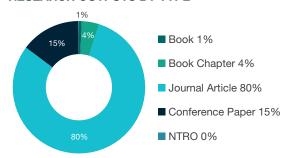


### 0102 Applied Mathematics

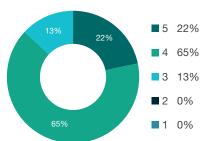
Indicator	No.
Research outputs	3,463.8
Research income	\$56,492,855
FTEs	245.7
Esteem count	38.0
Patents	0.2
Research commercialisation income	\$123,679

Rating	Distribution
5	5
4	15
3	3
2	0
1	0
Total	23

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

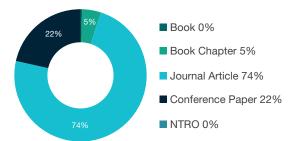


# 0103 Numerical and Computational Mathematics

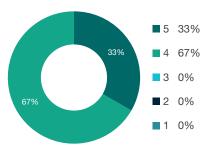
Indicator	No.
Research outputs	1,149.4
Research income	\$4,642,731
FTEs	86.5
Esteem count	5.8
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	2
3	0
2	0
1	0
Total	3

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

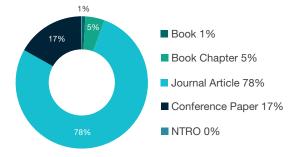


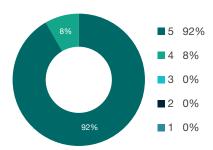
#### 0104 Statistics

Indicator	No.
Research outputs	1,943.3
Research income	\$33,834,938
FTEs	207.8
Esteem count	20.2
Patents	0.0
Research commercialisation income	\$39,278

Rating	Distribution				
5	11				
4	1				
3	0				
2	0				
1	0				
Total	12				

#### **RESEARCH OUTPUTS BY TYPE**





# 0105 Mathematical Physics

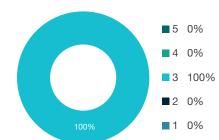
Indicator	No.
Research outputs	720.3
Research income	\$12,297,553
FTEs	56.6
Esteem count	15.1
Patents	0.0
Research commercialisation income	\$0

# RESEARCH OUTPUTS BY TYPE



# Rating Distribution 5 0 4 0 3 6 2 0 1 0 Total 6

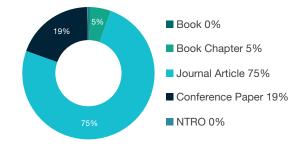
#### FOR RATING DISTRIBUTION



# 0199 Other Mathematical Sciences

Indicator	No.
Research outputs	623.8
Research income	\$493,216
FTEs	84.5
Esteem count	1.0
Patents	0.0
Research commercialisation income	\$0

#### **RESEARCH OUTPUTS BY TYPE**



Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0199.

# 02 PHYSICAL SCIENCES

Physical Sciences is comprised of the following four-digit codes:

**0201 Astronomical and Space Sciences** 

0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics

**0203 Classical Physics** 

**0204 Condensed Matter Physics** 

**0205 Optical Physics** 

**0206 Quantum Physics** 

**0299 Other Physical Sciences** 

15 out of 23 two-digit UoEs and 60 out of 65 four-digit UoEs assessed were rated above world standard

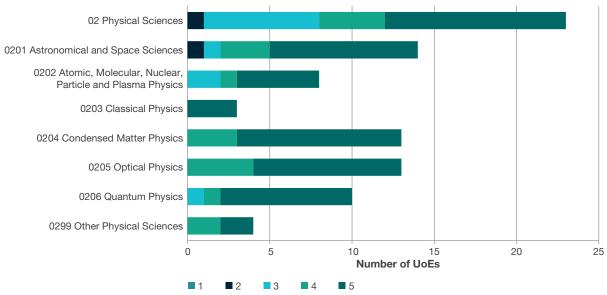
# **FoR Overview**

Physical Sciences (02) accounted for approximately four per cent of the research outputs submitted to ERA 2015. The majority of Physical Sciences outputs were journal articles (84 per cent), while 15 per cent of the research outputs were conference papers. Astronomical and Space Sciences (0201) had the highest number of research outputs, research income levels, number of staff, and research commercialisation income. Optical Physics (0205) was the next highest four–digit code for these indicators, and in addition, almost half of the patents submitted in Physical Sciences were assigned to Optical Physics (0205).

Indicator	No.
Research outputs	16,990.8
Research income	\$354,091,710
FTEs	1,148.8
Esteem count	243.9
Patents	44.6
Research commercialisation income	\$2,593,697

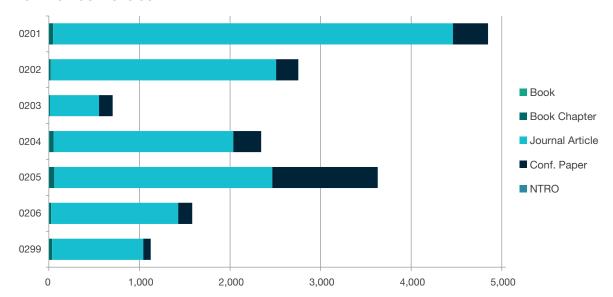
	Distribution				
Rating	Two-digit	Four-digit			
5	11	46			
4	4	14			
3	7	4			
2	1	1			
1	0	0			
Total	23	65			

#### NUMBER OF UOES PER RATING SCALE SCORE



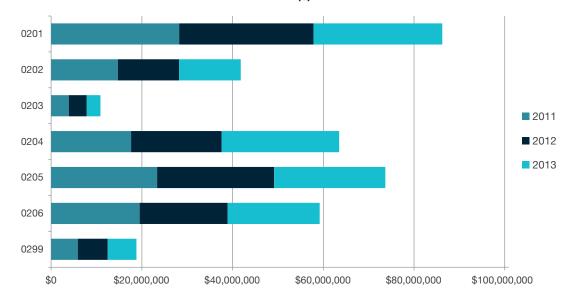
Note: 02 Physical Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



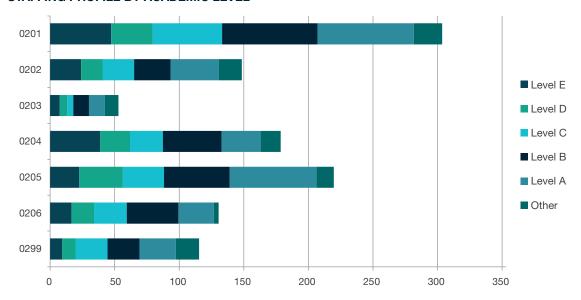
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0201 Astronomical and Space Sciences	2.3	44.9	4,413.6	387.3	1.0	4,849.1
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics	2.5	17.6	2,488.3	243.9	4.0	2,756.4
0203 Classical Physics	2.0	10.3	540.8	150.1	1.0	704.2
0204 Condensed Matter Physics	4.5	49.8	1,982.2	306.9	0.0	2,343.4
0205 Optical Physics	2.2	57.9	2,406.6	1,163.6	0.0	3,630.3
0206 Quantum Physics	3.4	21.0	1,403.7	154.0	0.0	1,582.0
0299 Other Physical Sciences	2.3	33.0	1,007.4	81.8	1.0	1,125.4
Total	19.2	234.4	14,242.6	2,487.6	7.0	16,990.8

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0201 Astronomical and Space Sciences	28,217,940	29,612,560	28,396,820	86,227,319
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics	14,697,295	13,503,247	13,592,588	41,793,129
0203 Classical Physics	3,883,590	3,977,099	3,020,368	10,881,057
0204 Condensed Matter Physics	17,630,495	19,974,680	25,895,499	63,500,674
0205 Optical Physics	23,357,147	25,803,275	24,505,585	73,666,007
0206 Quantum Physics	19,516,724	19,374,514	20,318,763	59,210,001
0299 Other Physical Sciences	5,866,610	6,619,185	6,327,727	18,813,523
Total	113,169,800	118,864,560	122,057,349	354,091,710

#### STAFFING PROFILE BY ACADEMIC LEVEL

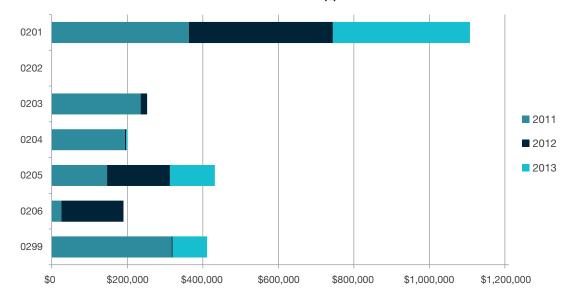


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0201 Astronomical and Space Sciences	47.3	32.0	53.8	73.9	74.5	22.0	303.6
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics	24.0	16.6	24.4	28.2	37.4	17.8	148.4
0203 Classical Physics	7.4	5.9	4.6	12.1	12.4	10.5	52.9
0204 Condensed Matter Physics	38.9	23.0	25.5	45.5	30.1	15.6	178.5
0205 Optical Physics	22.6	33.7	31.9	50.9	67.3	13.3	219.6
0206 Quantum Physics	16.4	17.5	25.3	40.0	27.5	3.6	130.4
0299 Other Physical Sciences	9.4	10.2	24.8	24.9	27.9	18.0	115.3
Total	166.0	138.8	190.4	275.6	277.2	100.8	1,148.8

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0201 Astronomical and Space Sciences	0.0	0.0	0.0	0.0	1.0	0.0	1.0
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics	1.3	1.5	0.5	1.3	0.8	0.0	5.5
0203 Classical Physics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0204 Condensed Matter Physics	1.2	1.7	2.5	1.0	0.5	0.0	6.8
0205 Optical Physics	8.0	6.0	1.0	1.6	4.3	0.0	20.9
0206 Quantum Physics	1.3	1.0	0.0	0.3	0.3	0.0	3.0
0299 Other Physical Sciences	0.7	3.7	0.0	0.0	3.0	0.0	7.4
Total	12.5	13.8	4.0	4.3	10.0	0.0	44.6

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



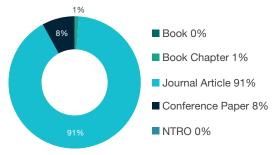
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0201 Astronomical and Space Sciences	362,927	381,467	363,002	1,107,396
0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics	0	0	0	0
0203 Classical Physics	235,414	17,057	0	252,472
0204 Condensed Matter Physics	193,594	3,289	3,524	200,406
0205 Optical Physics	146,606	166,316	119,059	431,981
0206 Quantum Physics	25,656	164,415	0	190,071
0299 Other Physical Sciences	317,338	2,661	91,372	411,371
Total	1,281,535	735,205	576,957	2,593,697

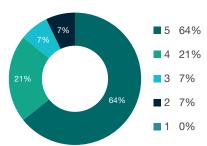
# 0201 Astronomical and Space Sciences

Indicator	No.
Research outputs	4,849.1
Research income	\$86,227,319
FTEs	303.6
Esteem count	59.4
Patents	1.0
Research commercialisation income	\$1,107,396

Rating	Distribution
5	9
4	3
3	1
2	1
1	0
Total	14

#### **RESEARCH OUTPUTS BY TYPE**



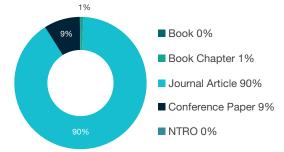


# 0202 Atomic, Molecular, Nuclear, Particle and Plasma Physics

Indicator	No.
Research outputs	2,756.4
Research income	\$41,793,129
FTEs	148.4
Esteem count	32.2
Patents	5.5
Research commercialisation income	\$0

Rating	Distribution
5	5
4	1
3	2
2	0
1	0
Total	8

#### **RESEARCH OUTPUTS BY TYPE**



# FOR RATING DISTRIBUTION 25%

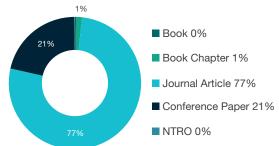


# 0203 Classical Physics

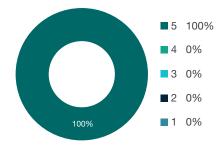
· · · · · · · · · · · · · · · · · · ·	
Indicator	No.
Research outputs	704.2
Research income	\$10,881,057
FTEs	52.9
Esteem count	7.5
Patents	0.0
Research commercialisation income	\$252,472

Rating	Distribution
5	3
4	0
3	0
2	0
1	0
Total	3

#### **RESEARCH OUTPUTS BY TYPE**

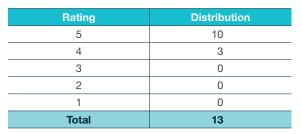


#### FOR RATING DISTRIBUTION

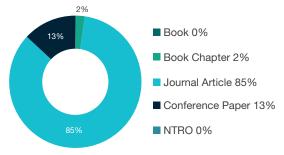


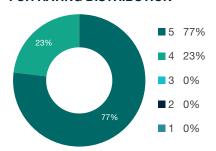
# 0204 Condensed Matter Physics

Indicator	No.
Research outputs	2,343.4
Research income	\$63,500,674
FTEs	178.5
Esteem count	47.0
Patents	6.8
Research commercialisation income	\$200,406



#### **RESEARCH OUTPUTS BY TYPE**



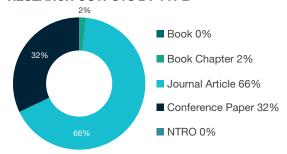


# 0205 Optical Physics

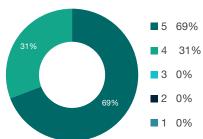
Indicator	No.
Research outputs	3,630.3
Research income	\$73,666,007
FTEs	219.6
Esteem count	54.1
Patents	20.9
Research commercialisation income	\$431,981

Rating	Distribution
5	9
4	4
3	0
2	0
1	0
Total	13

#### **RESEARCH OUTPUTS BY TYPE**



# FOR RATING DISTRIBUTION

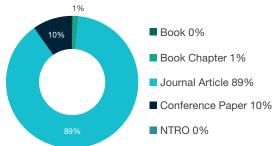


# 0206 Quantum Physics

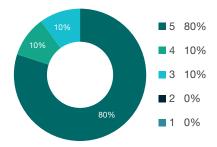
Indicator	No.			
Research outputs	1,582.0			
Research income	\$59,210,001			
FTEs	130.4			
Esteem count	39.3			
Patents	3.0			
Research commercialisation income	\$190,071			

Rating	Distribution
5	8
4	1
3	1
2	0
1	0
Total	10

#### **RESEARCH OUTPUTS BY TYPE**

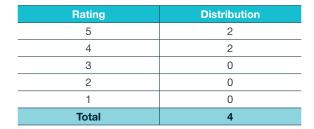


#### FOR RATING DISTRIBUTION

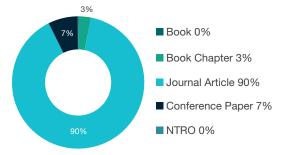


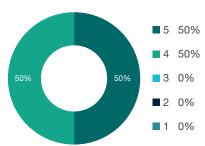
### 0299 Other Physical Sciences

Indicator	No.
Research outputs	1,125.4
Research income	\$18,813,523
FTEs	115.3
Esteem count	4.3
Patents	7.4
Research commercialisation income	\$411,371



#### **RESEARCH OUTPUTS BY TYPE**





# 03 CHEMICAL SCIENCES

Chemical Sciences is comprised of the following four-digit codes:

**0301 Analytical Chemistry** 

**0302 Inorganic Chemistry** 

0303 Macromolecular and Materials Chemistry

0304 Medicinal and Biomolecular Chemistry

**0305 Organic Chemistry** 

0306 Physical Chemistry (Incl. Structural)

**0307 Theoretical and Computational Chemistry** 

**0399 Other Chemical Sciences** 

19 out of 26 two-digit UoEs and 79 out of 94 four-digit UoEs assessed were rated above world standard

# FoR Overview

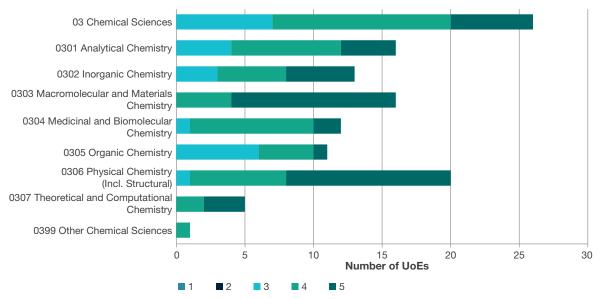
Chemical Sciences (03) accounted for approximately four per cent of research outputs submitted to ERA 2015.

Journal articles were the predominant research output type. Almost 10 per cent of the patents submitted to ERA 2015 were assigned to the Chemical Sciences. Medicinal and Biomolecular Chemistry (0304) and Physical Chemistry (Incl. Structural) (0306) showed the highest staffing levels and research income. Theoretical and Computational Chemistry (0307) contributed the most research commercialisation income.

Indicator	No.
Research outputs	15,288.8
Research income	\$335,252,137
FTEs	1,333.9
Esteem count	209.5
Patents	92.9
Research commercialisation income	\$4,158,444

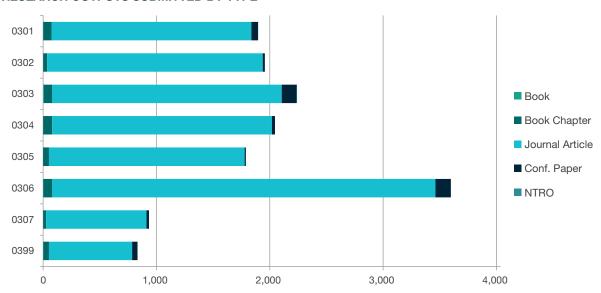
	Distribution			
Rating	Two-digit	Four-digit		
5	6	39		
4	13	40		
3	7	15		
2	0	0		
1	0	0		
Total	26	94		

#### NUMBER OF UOES PER RATING SCALE SCORE



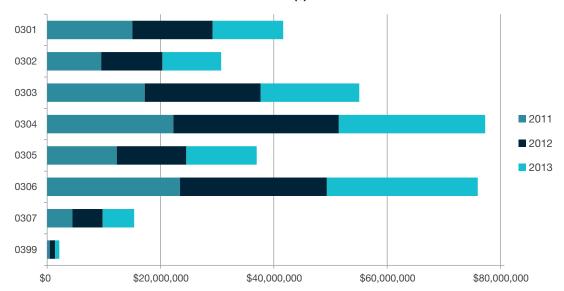
Note: 03 Chemical Sciences shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



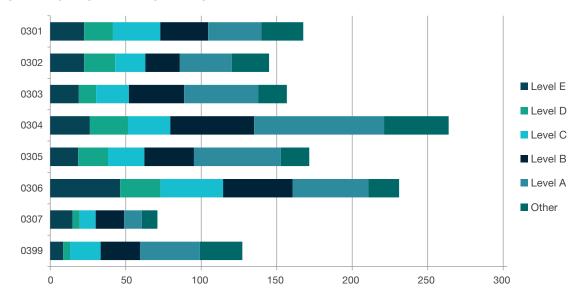
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0301 Analytical Chemistry	2.0	71.6	1,763.4	60.4	0.0	1,897.3
0302 Inorganic Chemistry	1.0	34.4	1,901.8	19.0	0.0	1,956.2
0303 Macromolecular and Materials Chemistry	5.6	72.2	2,027.0	131.3	0.5	2,236.5
0304 Medicinal and Biomolecular Chemistry	1.0	77.5	1,940.2	27.1	0.0	2,045.9
0305 Organic Chemistry	0.0	51.0	1,726.4	11.5	0.0	1,788.9
0306 Physical Chemistry (Incl. Structural)	2.5	75.3	3,384.1	135.5	0.0	3,597.4
0307 Theoretical and Computational Chemistry	1.0	25.5	885.8	21.8	0.0	934.1
0399 Other Chemical Sciences	3.0	48.3	733.8	47.5	0.0	832.6
Total	16.1	455.7	14,362.5	454.1	0.5	15,288.8

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0301 Analytical Chemistry	15,031,114	14,185,840	12,436,886	41,653,841
0302 Inorganic Chemistry	9,545,438	10,794,724	10,370,406	30,710,568
0303 Macromolecular and Materials Chemistry	17,222,517	20,444,515	17,409,894	55,076,926
0304 Medicinal and Biomolecular Chemistry	22,281,634	29,196,075	25,832,156	77,309,865
0305 Organic Chemistry	12,283,906	12,279,874	12,423,681	36,987,461
0306 Physical Chemistry (Incl. Structural)	23,449,160	25,928,450	26,610,928	75,988,538
0307 Theoretical and Computational Chemistry	4,482,523	5,324,966	5,554,250	15,361,739
0399 Other Chemical Sciences	464,371	924,176	774,652	2,163,199
Total	104,760,664	119,078,619	111,412,854	335,252,137

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0301 Analytical Chemistry	22.4	19.1	31.4	31.7	35.2	27.8	167.6
0302 Inorganic Chemistry	22.4	20.6	20.0	22.8	34.3	24.7	144.9
0303 Macromolecular and Materials Chemistry	18.9	11.5	21.7	36.6	49.0	19.1	156.7
0304 Medicinal and Biomolecular Chemistry	26.3	25.2	28.0	55.6	86.0	42.8	263.9
0305 Organic Chemistry	18.4	19.8	24.1	32.9	57.4	18.9	171.6
0306 Physical Chemistry (Incl. Structural)	46.3	26.8	41.3	46.0	50.3	20.3	231.1
0307 Theoretical and Computational Chemistry	14.6	4.9	10.5	18.8	11.8	10.3	71.0
0399 Other Chemical Sciences	8.6	4.5	20.2	26.0	39.7	28.2	127.2
Total	177.9	132.5	197.2	270.3	363.8	192.1	1,333.9

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0301 Analytical Chemistry	3.0	4.7	0.0	0.4	1.0	0.0	9.1
0302 Inorganic Chemistry	0.0	1.0	0.0	0.0	0.0	0.0	1.0
0303 Macromolecular and Materials Chemistry	3.4	8.1	2.9	2.0	16.5	0.0	32.9
0304 Medicinal and Biomolecular Chemistry	3.3	6.0	2.5	2.0	5.5	0.0	19.3
0305 Organic Chemistry	1.7	2.7	1.5	0.0	1.0	0.0	6.9
0306 Physical Chemistry (Incl. Structural)	6.3	4.6	2.3	1.8	8.2	0.0	23.3
0307 Theoretical and Computational Chemistry	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0399 Other Chemical Sciences	0.0	0.5	0.0	0.0	0.0	0.0	0.5
Total	17.7	27.5	9.2	6.2	32.2	0.0	92.9

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



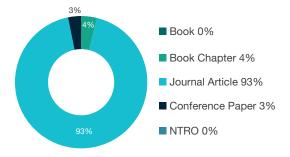
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0301 Analytical Chemistry	156,455	67,406	2,814	226,674
0302 Inorganic Chemistry	394,966	0	0	394,966
0303 Macromolecular and Materials Chemistry	0	0	0	0
0304 Medicinal and Biomolecular Chemistry	539,827	208,730	238,550	987,107
0305 Organic Chemistry	0	5,042	0	5,042
0306 Physical Chemistry (Incl. Structural)	889,011	157,804	114,392	1,161,207
0307 Theoretical and Computational Chemistry	511,865	65,920	805,662	1,383,448
0399 Other Chemical Sciences	0	0	0	0
Total	2,492,124	504,903	1,161,417	4,158,444

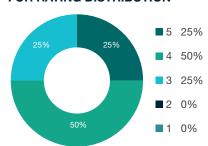
# 0301 Analytical Chemistry

Indicator	No.
Research outputs	1,897.3
Research income	\$41,653,841
FTEs	167.6
Esteem count	16.0
Patents	9.1
Research commercialisation income	\$226,674

Rating	Distribution
5	4
4	8
3	4
2	0
1	0
Total	16

#### **RESEARCH OUTPUTS BY TYPE**



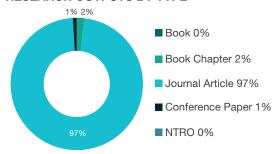


### 0302 Inorganic Chemistry

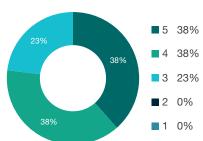
<u> </u>	
Indicator	No.
Research outputs	1,956.2
Research income	\$30,710,568
FTEs	144.9
Esteem count	28.9
Patents	1.0
Research commercialisation income	\$394.966

Rating	Distribution
5	5
4	5
3	3
2	0
1	0
Total	13

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

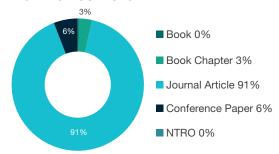


# 0303 Macromolecular and Materials Chemistry

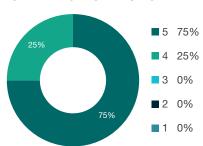
Indicator	No.
Research outputs	2,236.5
Research income	\$55,076,926
FTEs	156.7
Esteem count	44.9
Patents	32.9
Research commercialisation income	\$0

Rating	Distribution
5	12
4	4
3	0
2	0
1	0
Total	16

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

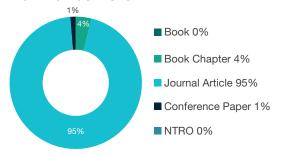


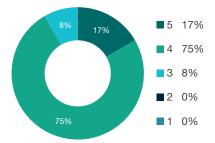
# 0304 Medicinal and Biomolecular Chemistry

No.
2,045.9
\$77,309,865
263.9
38.5
19.3
\$987,107

Rating	Distribution
5	2
4	9
3	1
2	0
1	0
Total	12

#### RESEARCH OUTPUTS BY TYPE



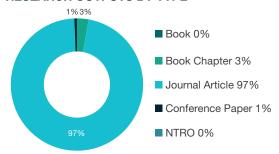


#### 0305 Organic Chemistry

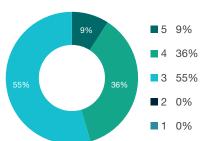
<u> </u>	
Indicator	No.
Research outputs	1,788.9
Research income	\$36,987,461
FTEs	171.6
Esteem count	18.8
Patents	6.9
Research commercialisation income	\$5,042

Rating	Distribution
5	1
4	4
3	6
2	0
1	0
Total	11

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

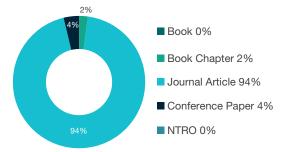


# 0306 Physical Chemistry (Incl. Structural)

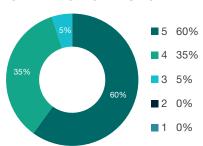
Indicator	No.
Research outputs	3,597.4
Research income	\$75,988,538
FTEs	231.1
Esteem count	47.6
Patents	23.3
Research commercialisation income	\$1,161,207

Rating	Distribution
5	12
4	7
3	1
2	0
1	0
Total	20

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

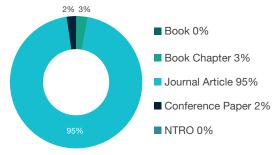


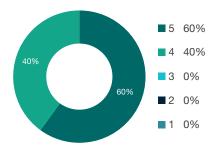
# 0307 Theoretical and Computational Chemistry

Indicator	No.
Research outputs	934.1
Research income	\$15,361,739
FTEs	71.0
Esteem count	13.0
Patents	0.0
Research commercialisation income	\$1,383,448

Rating	Distribution
5	3
4	2
3	0
2	0
1	0
Total	5

#### **RESEARCH OUTPUTS BY TYPE**



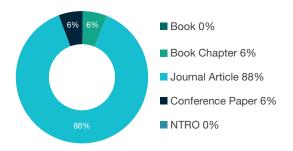


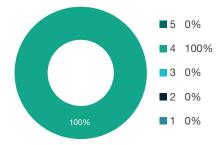
# 0399 Other Chemical Sciences

Indicator	No.
Research outputs	832.6
Research income	\$2,163,199
FTEs	127.2
Esteem count	1.9
Patents	0.5
Research commercialisation income	\$0

Rating	Distribution
5	0
4	1
3	0
2	0
1	0
Total	1

#### RESEARCH OUTPUTS BY TYPE





# 04 EARTH SCIENCES

Earth Sciences is comprised of the following four-digit codes:

**0401 Atmospheric Sciences** 

0402 Geochemistry

0403 Geology

**0404 Geophysics** 

0405 Oceanography

0406 Physical Geography and Environmental Geoscience

0499 Other Earth Sciences

15 out of 20 two-digit UoEs and 54 out of 62 four-digit UoEs assessed were rated above world standard

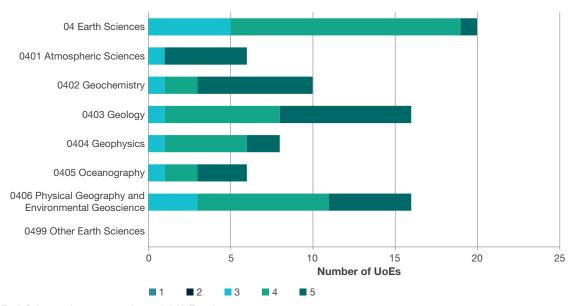
# FoR Overview

Earth Sciences (04) accounted for approximately three per cent of the research outputs submitted to ERA 2015. Journal articles were the most common research output type in Earth Sciences. Geology (0403) had the highest number of research outputs, staffing levels and highest research income levels. Geochemistry (0402) had the highest research commercialisation income.

Indicator	No.
Research outputs	11,090.4
Research income	\$360,562,621
FTEs	980.5
Esteem count	118.4
Patents	5.0
Research commercialisation income	\$3,921,917

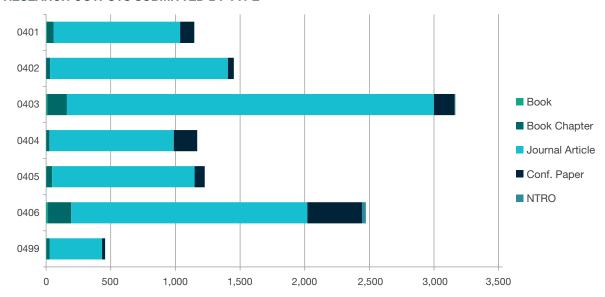
	Distribution				
Rating	Two-digit	Four-digit			
5	1	30			
4	14	24			
3	5	8			
2	0	0			
1	0	0			
Total	20	62			

#### NUMBER OF UOES PER RATING SCALE SCORE



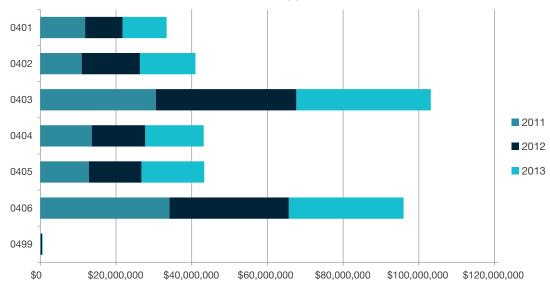
Note: 04 Earth Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



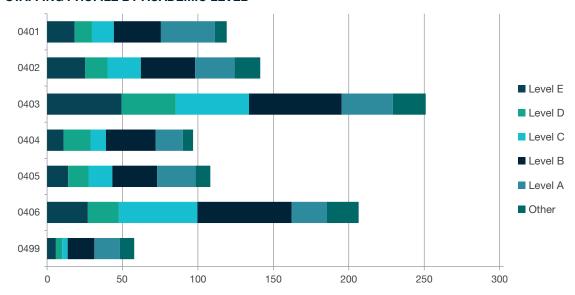
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0401 Atmospheric Sciences	5.0	52.2	979.2	107.6	3.2	1,147.1
0402 Geochemistry	1.0	29.8	1,375.7	45.1	1.5	1,453.1
0403 Geology	8.2	152.5	2,839.6	159.5	6.0	3,165.8
0404 Geophysics	2.0	22.9	962.3	181.3	0.0	1,168.5
0405 Oceanography	2.0	44.1	1,102.4	77.8	1.0	1,227.2
0406 Physical Geography and Environmental Geoscience	14.3	179.6	1,826.8	422.3	29.6	2,472.5
0499 Other Earth Sciences	3.5	22.9	406.4	22.8	0.5	456.1
Total	36.0	503.9	9,492.4	1,016.4	41.8	11,090.4

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0401 Atmospheric Sciences	11,821,744	9,909,795	11,628,174	33,359,713
0402 Geochemistry	10,909,829	15,409,186	14,663,235	40,982,251
0403 Geology	30,501,278	37,138,420	35,530,071	103,169,768
0404 Geophysics	13,586,418	14,144,304	15,440,349	43,171,071
0405 Oceanography	12,810,030	13,902,603	16,585,131	43,297,764
0406 Physical Geography and Environmental Geoscience	34,126,806	31,527,237	30,311,904	95,965,947
0499 Other Earth Sciences	123,144	305,643	187,320	616,107
Total	113,879,250	122,337,188	124,346,184	360,562,621

#### STAFFING PROFILE BY ACADEMIC LEVEL

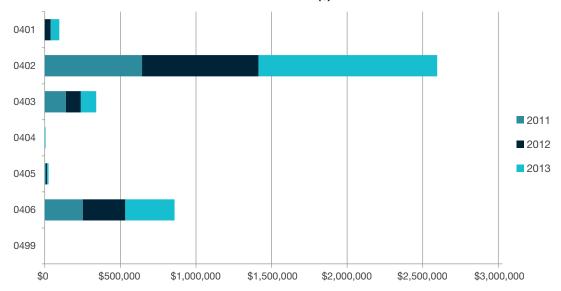


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0401 Atmospheric Sciences	18.3	11.4	14.5	31.2	35.8	7.8	119.1
0402 Geochemistry	25.1	15.0	22.1	36.0	26.2	17.0	141.3
0403 Geology	49.4	36.0	48.5	61.5	33.8	21.8	251.0
0404 Geophysics	10.8	17.9	10.3	32.9	18.1	6.8	96.8
0405 Oceanography	14.0	13.5	15.8	29.7	25.5	9.7	108.2
0406 Physical Geography and Environmental Geoscience	27.0	20.5	52.1	62.4	23.5	21.0	206.5
0499 Other Earth Sciences	5.9	4.2	3.6	17.7	16.9	9.5	57.7
Total	150.4	118.4	166.8	271.4	179.8	93.7	980.5

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0401 Atmospheric Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0402 Geochemistry	0.0	1.0	0.0	0.0	1.0	0.0	2.0
0403 Geology	0.0	1.0	0.0	0.0	2.0	0.0	3.0
0404 Geophysics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0405 Oceanography	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0406 Physical Geography and Environmental Geoscience	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0499 Other Earth Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	2.0	0.0	0.0	3.0	0.0	5.0

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



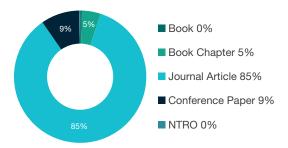
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0401 Atmospheric Sciences	0	38,969	57,200	96,169
0402 Geochemistry	643,287	770,055	1,182,884	2,596,226
0403 Geology	139,771	99,237	101,385	340,393
0404 Geophysics	924	0	4,520	5,444
0405 Oceanography	6,065	8,989	9,818	24,871
0406 Physical Geography and Environmental Geoscience	251,269	281,452	326,094	858,814
0499 Other Earth Sciences	0	0	0	0
Total	1,041,315	1,198,702	1,681,900	3,921,917

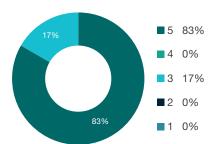
# 0401 Atmospheric Sciences

Indicator	No.
Research outputs	1,147.1
Research income	\$33,359,713
FTEs	119.1
Esteem count	13.3
Patents	0.0
Research commercialisation income	\$96,169

Rating	Distribution
5	5
4	0
3	1
2	0
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**



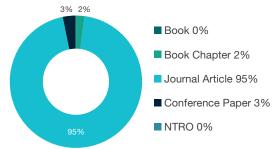


# 0402 Geochemistry

Indicator	No.
Research outputs	1,453.1
Research income	\$40,982,251
FTEs	141.3
Esteem count	23.4
Patents	2.0
Research commercialisation income	\$2,596,226

Rating	Distribution
5	7
4	2
3	1
2	0
1	0
Total	10

#### **RESEARCH OUTPUTS BY TYPE**





# 0403 Geology

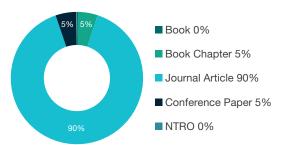
Indicator	No.
Research outputs	3,165.8
Research income	\$103,169,768
FTEs	251.0
Esteem count	40.0
Patents	3.0
Research commercialisation income	\$340,393

Rating	Distribution
5	8
4	7
3	1
2	0
1	0
Total	16

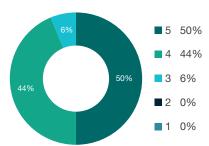
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#### **RESEARCH OUTPUTS BY TYPE**

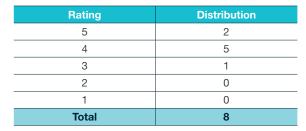


#### FOR RATING DISTRIBUTION



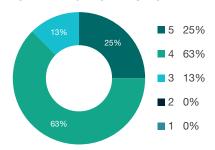
# 0404 Geophysics

Indicator	No.
Research outputs	1,168.5
Research income	\$43,171,071
FTEs	96.8
Esteem count	8.7
Patents	0.0
Research commercialisation income	\$5,444



#### RESEARCH OUTPUTS BY TYPE



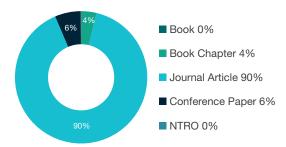


### 0405 Oceanography

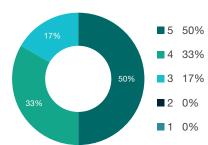
Indicator	No.			
Research outputs	1,227.2			
Research income	\$43,297,764			
FTEs	108.2			
Esteem count	17.6			
Patents	0.0			
Research commercialisation income	\$24,871			

Rating	Distribution
5	3
4	2
3	1
2	0
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

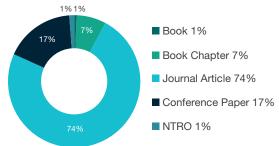


# 0406 Physical Geography and Environmental Geoscience

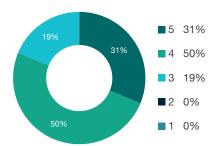
Indicator	No.
Research outputs	2,472.5
Research income	\$95,965,947
FTEs	206.5
Esteem count	15.3
Patents	0.0
Research commercialisation income	\$858,814

Rating	Distribution
5	5
4	8
3	3
2	0
1	0
Total	16

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION



#### 0499 Other Earth Sciences

Indicator	No.
Research outputs	456.1
Research income	\$616,107
FTEs	57.7
Esteem count	0.1
Patents	0.0
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0499.

# NVIRONMENTAL

Environmental Sciences is comprised of the following four-digit codes:

**0501 Ecological Applications** 

**0502 Environmental Science and Management** 

0503 Soil Sciences

**0599 Other Environmental Sciences** 

26 out of 34 two-digit UoEs and 49 out of 53 four-digit UoEs assessed were rated above world standard

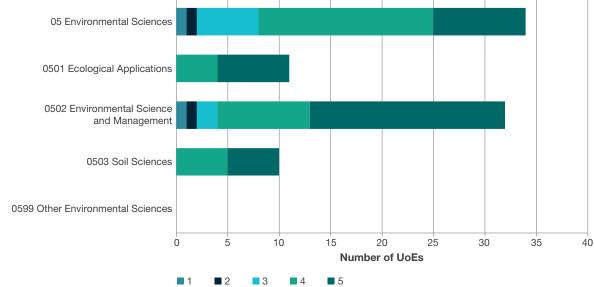
# FoR Overview

Environmental Sciences (05) accounted for approximately two per cent of the research outputs submitted to ERA 2015. Journal articles comprised 74 per cent of the total research outputs submitted to Environmental Sciences, followed by book chapters (11 per cent). Environmental Science and Management (0502) is the largest sub-discipline in terms of research outputs, staffing levels, research income and research commercialisation income. Approximately two per cent of the patents submitted to ERA 2015 were in Environmental Sciences (05).

Indicator	No.
Research outputs	9,288.4
Research income	\$418,507,503
FTEs	828.2
Esteem count	83.2
Patents	14.8
Research commercialisation income	\$974,593

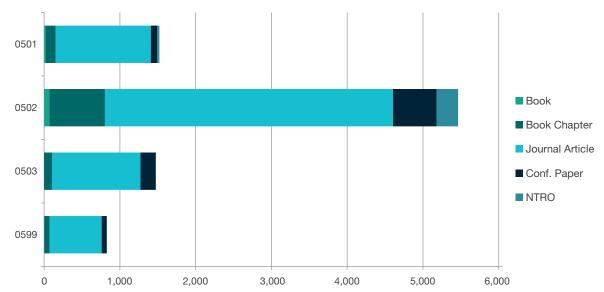
	Distribution				
Rating	Two-digit	Four-digit			
5	9	31			
4	17	18			
3	6	2			
2	1	1			
1	1	1			
Total	34	53			





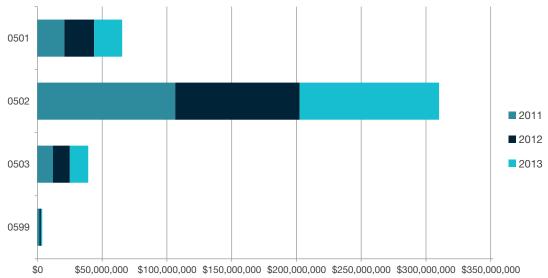
Note: 05 Environmental Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



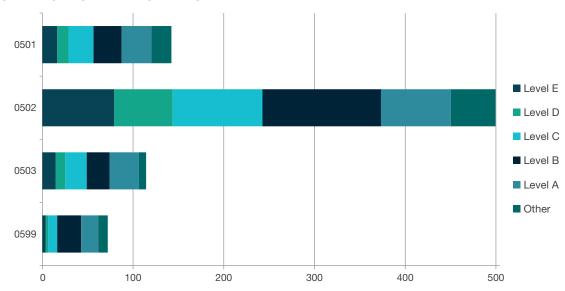
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0501 Ecological Applications	19.1	134.8	1,254.2	86.1	26.4	1,520.5
0502 Environmental Science and Management	69.1	733.7	3,802.8	571.9	285.4	5,462.9
0503 Soil Sciences	0.5	104.2	1,167.2	201.8	1.0	1,474.7
0599 Other Environmental Sciences	3.5	70.7	684.4	65.2	6.5	830.3
Total	92.1	1,043.4	6,908.6	925.0	319.3	9,288.4

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0501 Ecological Applications	20,823,143	23,036,619	21,570,877	65,430,639
0502 Environmental Science and Management	106,378,183	96,063,050	107,669,585	310,110,818
0503 Soil Sciences	12,020,506	13,035,704	14,203,218	39,259,428
0599 Other Environmental Sciences	1,426,389	1,322,866	957,363	3,706,618
Total	140,648,221	133,458,239	144,401,043	418,507,503

#### STAFFING PROFILE BY ACADEMIC LEVEL

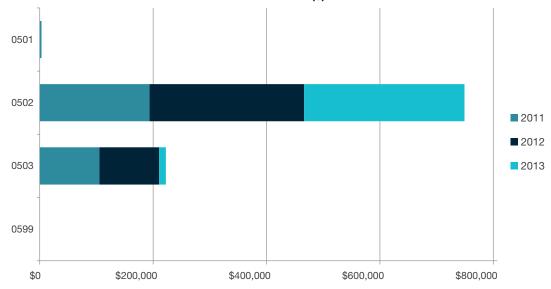


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0501 Ecological Applications	16.4	12.3	27.6	31.0	32.6	22.2	142.2
0502 Environmental Science and Management	79.2	64.4	99.0	130.7	76.9	49.4	499.5
0503 Soil Sciences	14.5	10.8	23.6	25.2	32.4	8.0	114.4
0599 Other Environmental Sciences	3.7	2.8	9.8	26.5	18.6	10.6	72.0
Total	113.9	90.2	160.0	213.4	160.5	90.2	828.2

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0501 Ecological Applications	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0502 Environmental Science and Management	1.0	2.3	0.0	0.6	5.8	0.0	9.7
0503 Soil Sciences	0.5	0.5	0.0	0.0	4.1	0.0	5.1
0599 Other Environmental Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.5	2.8	0.0	0.6	9.9	0.0	14.8

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



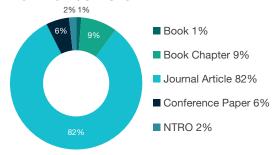
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0501 Ecological Applications	3,057	0	0	3,057
0502 Environmental Science and Management	193,634	272,783	282,749	749,166
0503 Soil Sciences	105,173	105,213	11,984	222,370
0599 Other Environmental Sciences	0	0	0	0
Total	301,864	377,996	294,733	974,593

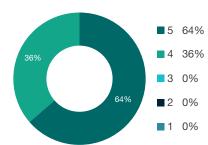
# **0501 Ecological Applications**

Indicator	No.
Research outputs	1,520.5
Research income	\$65,430,639
FTEs	142.2
Esteem count	17.3
Patents	0.0
Research commercialisation income	\$3,057

Rating	Distribution
5	7
4	4
3	0
2	0
1	0
Total	11

#### **RESEARCH OUTPUTS BY TYPE**



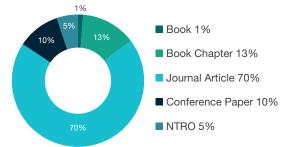


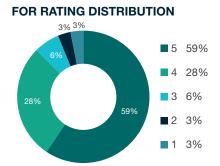
# 0502 Environmental Science and Management

Indicator	No.
Research outputs	5,462.9
Research income	\$310,110,818
FTEs	499.5
Esteem count	55.2
Patents	9.7
Research commercialisation income	\$749 166

Rating	Distribution
5	19
4	9
3	2
2	1
1	1
Total	32

#### **RESEARCH OUTPUTS BY TYPE**



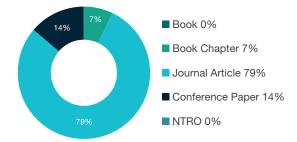


### 0503 Soil Sciences

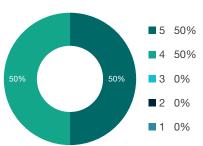
Indicator	No.
Research outputs	1,474.7
Research income	\$39,259,428
FTEs	114.4
Esteem count	10.3
Patents	5.1
Research commercialisation income	\$222,370

Rating	Distribution
5	5
4	5
3	0
2	0
1	0
Total	10

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION



#### 0599 Other Environmental Sciences

Indicator	No.
Research outputs	830.3
Research income	\$3,706,618
FTEs	72.0
Esteem count	0.5
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0599.

## 06 BIOLOGICAL SCIENCES

Biological Sciences is comprised of the following four-digit codes:

0601 Biochemistry and Cell Biology

0602 Ecology

**0603 Evolutionary Biology** 

**0604 Genetics** 

0605 Microbiology

**0606 Physiology** 

**0607 Plant Biology** 

0608 Zoology

**0699 Other Biological Sciences** 

19 out of 33 two-digit UoEs and 101 out of 137 four-digit UoEs assessed were rated above world standard

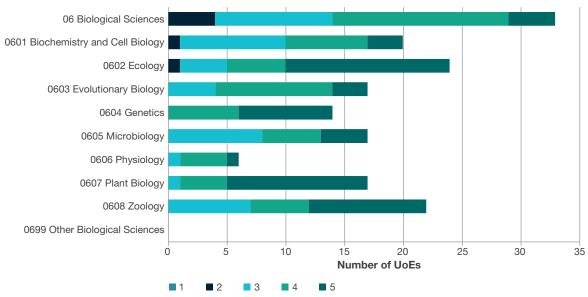
## FoR Overview

Biological Sciences (06) accounted for approximately seven per cent of the research outputs submitted to ERA 2015 and approximately 13 per cent of all patents. The majority of the Biological Sciences research outputs were journal articles (93 per cent). Biochemistry and Cell Biology (0601) was the largest sub–discipline in terms of research outputs, staffing, research income and patents. Plant Biology (0607) had the highest amount of research commercialisation income.

Indicator	No.
Research outputs	28,786.3
Research income	\$988,548,549
FTEs	3,294.0
Esteem count	520.5
Patents	125.2
Research commercialisation income	\$4,064,145

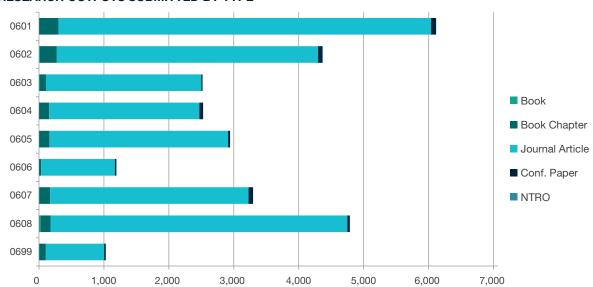
	Distribution			
Rating	Two-digit	Four-digit		
5	4	55		
4	15	46		
3	10	34		
2	4	2		
1	0	0		
Total	33	137		

#### NUMBER OF UOES PER RATING SCALE SCORE



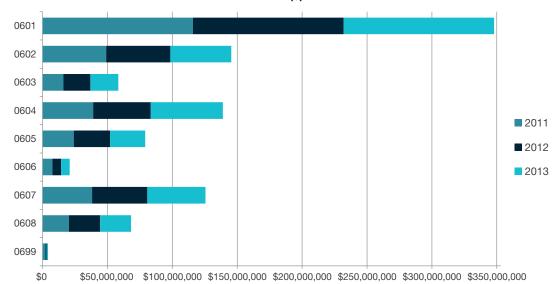
Note: 06 Biological Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



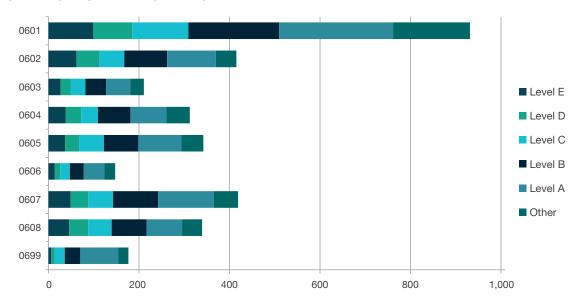
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0601 Biochemistry and Cell Biology	3.5	295.3	5,737.2	77.3	1.0	6,114.3
0602 Ecology	13.3	261.4	4,021.8	63.6	14.6	4,374.8
0603 Evolutionary Biology	9.1	97.7	2,392.8	17.7	1.0	2,518.3
0604 Genetics	1.5	154.3	2,314.1	56.4	1.5	2,527.8
0605 Microbiology	2.8	156.8	2,752.2	29.8	1.0	2,942.7
0606 Physiology	1.5	31.1	1,137.0	22.3	0.0	1,191.9
0607 Plant Biology	6.5	164.4	3,054.9	68.9	3.0	3,297.7
0608 Zoology	24.1	152.7	4,570.2	38.9	3.5	4,789.5
0699 Other Biological Sciences	5.2	100.0	898.6	24.6	1.0	1,029.4
Total	67.5	1,413.7	26,879.0	399.5	26.6	28,786.3

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0601 Biochemistry and Cell Biology	115,902,571	116,015,621	116,034,753	347,952,946
0602 Ecology	48,975,426	49,479,178	46,980,844	145,435,449
0603 Evolutionary Biology	16,165,503	20,669,157	21,553,329	58,387,989
0604 Genetics	38,943,081	44,378,249	55,573,326	138,894,656
0605 Microbiology	24,011,757	28,052,001	27,042,320	79,106,077
0606 Physiology	7,577,127	6,708,090	6,591,982	20,877,198
0607 Plant Biology	38,180,690	42,532,087	44,828,332	125,541,109
0608 Zoology	20,268,416	24,130,325	23,738,747	68,137,488
0699 Other Biological Sciences	2,162,937	1,096,229	956,470	4,215,636
Total	312,187,509	333,060,937	343,300,103	988,548,549

#### STAFFING PROFILE BY ACADEMIC LEVEL

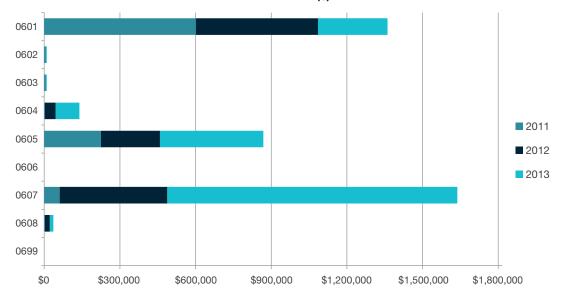


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0601 Biochemistry and Cell Biology	99.1	86.0	124.0	200.5	252.0	169.9	931.4
0602 Ecology	61.7	50.8	54.9	94.8	107.6	45.5	415.2
0603 Evolutionary Biology	26.8	21.7	33.1	45.7	53.9	29.6	210.7
0604 Genetics	38.2	34.1	37.2	71.4	79.4	51.9	312.2
0605 Microbiology	36.6	30.8	55.0	76.1	95.3	48.4	342.2
0606 Physiology	13.9	11.9	21.5	30.2	45.7	24.2	147.3
0607 Plant Biology	49.1	38.7	54.9	99.5	123.5	53.3	419.1
0608 Zoology	45.6	42.1	51.9	77.2	78.5	44.1	339.4
0699 Other Biological Sciences	6.3	7.5	22.0	34.4	83.6	22.7	176.5
Total	377.2	323.6	454.5	729.8	919.3	489.5	3,294.0

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0601 Biochemistry and Cell Biology	11.3	30.2	16.0	6.3	12.6	0.0	76.5
0602 Ecology	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0603 Evolutionary Biology	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0604 Genetics	8.0	2.5	3.0	1.0	4.2	0.0	18.6
0605 Microbiology	4.0	3.0	1.5	1.0	2.0	0.0	11.5
0606 Physiology	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0607 Plant Biology	4.5	3.5	1.8	0.3	6.5	0.0	16.7
0608 Zoology	0.0	2.0	0.0	0.0	0.0	0.0	2.0
0699 Other Biological Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	27.8	41.2	22.4	8.6	25.3	0.0	125.2

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



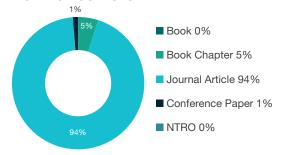
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0601 Biochemistry and Cell Biology	601,379	484,157	275,837	1,361,373
0602 Ecology	2,455	2,045	5,642	10,142
0603 Evolutionary Biology	2,455	2,045	5,642	10,142
0604 Genetics	2,455	42,387	94,562	139,404
0605 Microbiology	225,024	233,915	409,734	868,673
0606 Physiology	0	0	0	0
0607 Plant Biology	61,189	426,716	1,150,159	1,638,064
0608 Zoology	2,697	19,322	14,328	36,347
0699 Other Biological Sciences	0	0	0	0
Total	897,654	1,210,586	1,955,904	4,064,145

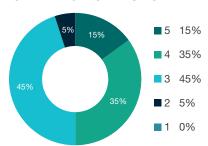
## 0601 Biochemistry and Cell Biology

Indicator	No.
Research outputs	6,114.3
Research income	\$347,952,946
FTEs	931.4
Esteem count	199.8
Patents	76.5
Research commercialisation income	\$1,361,373

Rating	Distribution
5	3
4	7
3	9
2	1
1	0
Total	20

#### **RESEARCH OUTPUTS BY TYPE**



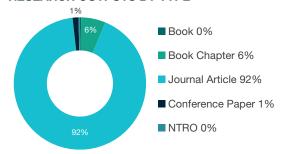


## 0602 Ecology

Indicator	No.
Research outputs	4,374.8
Research income	\$145,435,449
FTEs	415.2
Esteem count	51.2
Patents	0.0
Research commercialisation income	\$10,142

# Rating Distribution 5 14 4 5 3 4 2 1 1 0 Total 24

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

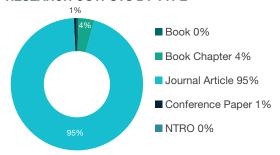


## 0603 Evolutionary Biology

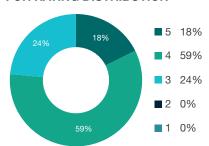
Indicator	No.
Research outputs	2,518.3
Research income	\$58,387,989
FTEs	210.7
Esteem count	52.1
Patents	0.0
Research commercialisation income	\$10,142

# Rating Distribution 5 3 4 10 3 4 2 0 1 0 Total 17

#### **RESEARCH OUTPUTS BY TYPE**

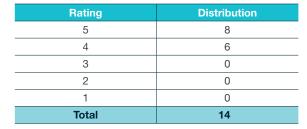


#### FOR RATING DISTRIBUTION

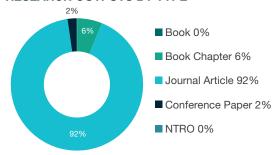


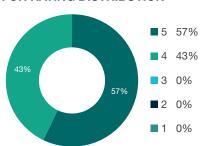
#### 0604 Genetics

Indicator	No.
Research outputs	2,527.8
Research income	\$138,894,656
FTEs	312.2
Esteem count	78.7
Patents	18.6
Research commercialisation income	\$139,404



#### **RESEARCH OUTPUTS BY TYPE**



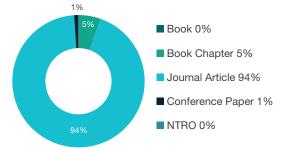


### 0605 Microbiology

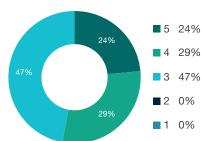
Indicator	No.			
Research outputs	2,942.7			
Research income	\$79,106,077			
FTEs	342.2			
Esteem count	39.4			
Patents	11.5			
Research commercialisation income	\$868,673			

Rating	Distribution
5	4
4	5
3	8
2	0
1	0
Total	17

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

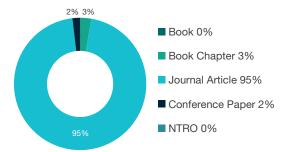


## 0606 Physiology

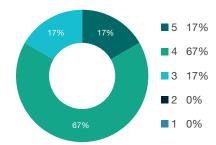
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Indicator	No.
Research outputs	1,191.9
Research income	\$20,877,198
FTEs	147.3
Esteem count	11.9
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	4
3	1
2	0
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**

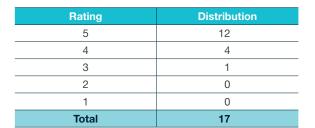


#### FOR RATING DISTRIBUTION

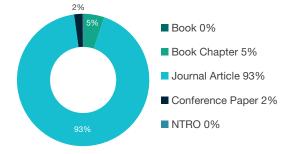


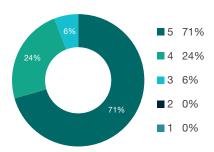
## 0607 Plant Biology

Indicator	No.		
Research outputs	3,297.7		
Research income	\$125,541,109		
FTEs	419.1		
Esteem count	52.8		
Patents	16.7		
Research commercialisation income	\$1,638,064		
•			



#### **RESEARCH OUTPUTS BY TYPE**



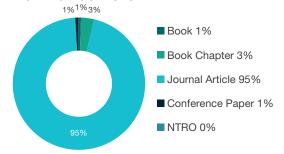


0608 Zoology

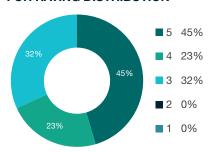
Indicator	No.			
Research outputs	4,789.5			
Research income	\$68,137,488			
FTEs	339.4			
Esteem count	33.2			
Patents	2.0			
Research commercialisation income	\$36,347			



#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

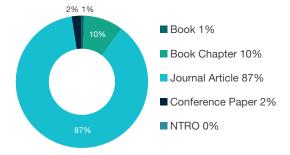


## 0699 Other Biological Sciences

Indicator	No.
Research outputs	1,029.4
Research income	\$4,215,636
FTEs	176.5
Esteem count	1.5
Patents	0.0
Research commercialisation income	\$0

# Rating Distribution 5 0 4 0 3 0 2 0 1 0 Total 0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0699.

## 07 AGRICULTURAL AND VETERINARY SCIENCES

Agricultural and Veterinary Sciences is comprised of the following four-digit codes:

0701 Agriculture, Land and Farm Management

**0702 Animal Production** 

**0703 Crop and Pasture Production** 

**0704 Fisheries Sciences** 

**0705 Forestry Sciences** 

**0706 Horticultural Production** 

**0707 Veterinary Sciences** 

0799 Other Agricultural and Veterinary Sciences

17 out of 24 two-digit UoEs and 40 out of 55 four-digit UoEs assessed were rated above world standard

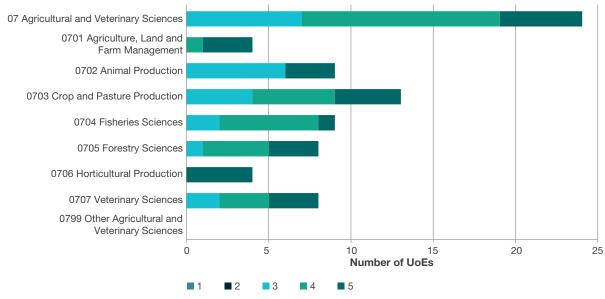
## FoR Overview

Agricultural and Veterinary Sciences (07) accounted for approximately three per cent of the research outputs submitted to ERA 2015. While most of the Agricultural and Veterinary Sciences research outputs were journal articles (82 per cent), there was a significant proportion of conference papers (12 per cent). Crop and Pasture Production (0703) was the largest sub–discipline in terms of research outputs and research income. Veterinary Sciences (0707) had the highest number of staff, while Animal Production (0702) had the highest research commercialisation income.

Indicator	No.
Research outputs	12,094.8
Research income	\$531,922,829
FTEs	1,287.5
Esteem count	33.2
Patents	22.3
Research commercialisation income	\$35,495,083

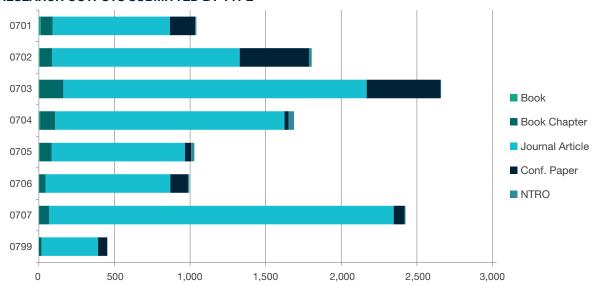
	Distribution			
Rating	Two-digit	Four-digit		
5	5	21		
4	12	19		
3	7	15		
2	0	0		
1	0	0		
Total	24	55		

#### NUMBER OF UOES PER RATING SCALE SCORE



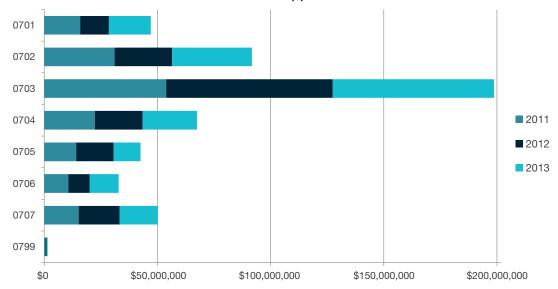
Note: 07 Agricultural and Veterinary Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



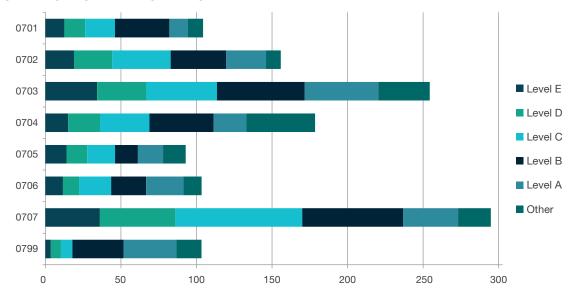
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0701 Agriculture, Land and Farm Management	11.7	78.5	776.2	168.1	7.6	1,042.2
0702 Animal Production	6.6	80.3	1,241.5	457.8	18.0	1,804.2
0703 Crop and Pasture Production	4.0	158.2	2,006.1	488.5	3.3	2,660.0
0704 Fisheries Sciences	8.6	98.8	1,517.7	27.1	35.5	1,687.6
0705 Forestry Sciences	5.2	79.9	881.2	40.8	21.2	1,028.4
0706 Horticultural Production	2.0	41.5	826.2	116.2	8.8	994.7
0707 Veterinary Sciences	2.3	65.1	2,279.8	71.4	6.3	2,424.9
0799 Other Agricultural and Veterinary Sciences	1.0	17.3	373.3	61.3	0.0	452.9
Total	41.3	619.5	9,902.1	1,431.3	100.7	12,094.8

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0701 Agriculture, Land and Farm Management	15,859,759	12,709,952	18,468,792	47,038,502
0702 Animal Production	31,033,305	25,430,549	35,260,944	91,724,799
0703 Crop and Pasture Production	53,860,611	73,608,584	71,220,981	198,690,176
0704 Fisheries Sciences	22,334,001	21,119,466	24,020,513	67,473,980
0705 Forestry Sciences	14,107,656	16,577,788	11,854,006	42,539,449
0706 Horticultural Production	10,693,349	9,405,171	12,721,622	32,820,142
0707 Veterinary Sciences	15,182,447	18,142,481	16,837,247	50,162,175
0799 Other Agricultural and Veterinary Sciences	549,051	524,855	399,699	1,473,605
Total	163,620,179	177,518,845	190,783,805	531,922,829

#### STAFFING PROFILE BY ACADEMIC LEVEL

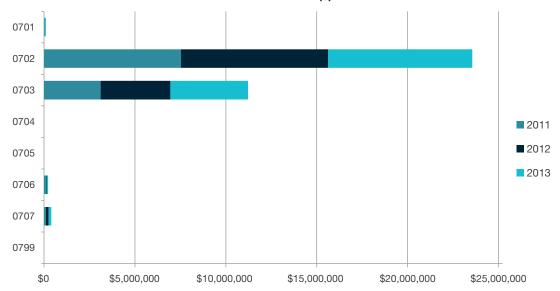


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0701 Agriculture, Land and Farm Management	12.6	13.8	19.7	36.0	12.4	10.0	104.4
0702 Animal Production	18.9	25.3	38.6	36.7	26.5	9.7	155.8
0703 Crop and Pasture Production	34.3	32.6	46.7	58.1	48.7	34.1	254.4
0704 Fisheries Sciences	15.0	21.2	32.7	42.4	21.7	45.4	178.5
0705 Forestry Sciences	14.0	13.6	18.5	15.1	16.6	15.0	92.9
0706 Horticultural Production	11.6	10.6	21.3	23.1	24.6	12.2	103.4
0707 Veterinary Sciences	36.0	50.0	83.9	66.7	36.5	21.7	294.8
0799 Other Agricultural and Veterinary Sciences	3.6	6.7	7.6	33.9	35.0	16.6	103.3
Total	146.0	173.9	269.0	312.0	221.9	164.7	1,287.5

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0701 Agriculture, Land and Farm Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0702 Animal Production	0.3	0.0	0.0	0.0	1.2	0.0	1.5
0703 Crop and Pasture Production	2.0	2.0	0.3	0.0	4.5	0.0	8.8
0704 Fisheries Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0705 Forestry Sciences	2.0	1.0	0.0	1.0	3.0	0.0	7.0
0706 Horticultural Production	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0707 Veterinary Sciences	1.0	1.0	1.0	0.0	2.0	0.0	5.0
0799 Other Agricultural and Veterinary Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	5.3	4.0	1.3	1.0	10.7	0.0	22.3

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



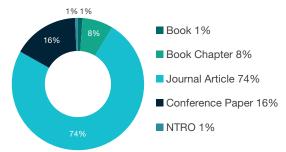
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0701 Agriculture, Land and Farm Management	23,249	11,559	61,648	96,456
0702 Animal Production	7,533,000	8,097,000	7,927,000	23,557,000
0703 Crop and Pasture Production	3,109,454	3,841,066	4,268,313	11,218,833
0704 Fisheries Sciences	0	0	0	0
0705 Forestry Sciences	0	0	0	0
0706 Horticultural Production	102,500	39,952	80,658	223,110
0707 Veterinary Sciences	102,365	149,603	147,717	399,685
0799 Other Agricultural and Veterinary Sciences	0	0	0	0
Total	10,870,568	12,139,180	12,485,335	35,495,083

## 0701 Agriculture, Land and Farm Management

or or right cantains, Laries arises and		
Indicator	No.	
Research outputs	1,042.2	
Research income	\$47,038,502	
FTEs	104.4	
Esteem count	3.5	
Patents	0.0	
Research commercialisation income	\$96,456	

Rating	Distribution
5	3
4	1
3	0
2	0
1	0
Total	4

#### **RESEARCH OUTPUTS BY TYPE**



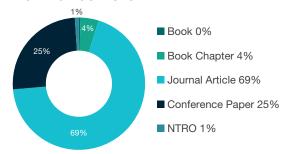


#### 0702 Animal Production

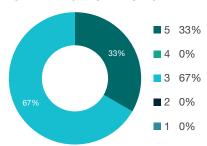
Indicator	No.
Research outputs	1,804.2
Research income	\$91,724,799
FTEs	155.8
Esteem count	0.6
Patents	1.5
Research commercialisation income	\$23,557,000

Rating	Distribution
5	3
4	0
3	6
2	0
1	0
Total	9

#### **RESEARCH OUTPUTS BY TYPE**

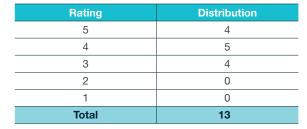


#### FOR RATING DISTRIBUTION

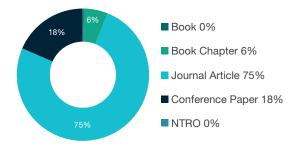


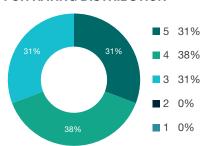
#### 0703 Crop and Pasture Production

Indicator	No.
Research outputs	2,660.0
Research income	\$198,690,176
FTEs	254.4
Esteem count	15.0
Patents	8.8
Research commercialisation income	\$11,218,833



#### **RESEARCH OUTPUTS BY TYPE**



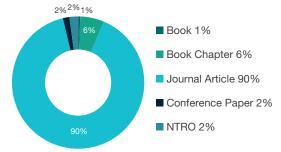


#### **0704 Fisheries Sciences**

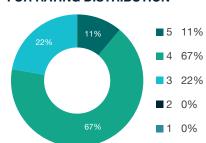
Indicator	No.
Research outputs	1,687.6
Research income	\$67,473,980
FTEs	178.5
Esteem count	2.3
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	6
3	2
2	0
1	0
Total	9

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

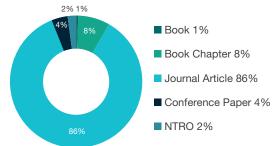


## **0705 Forestry Sciences**

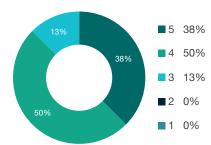
Indicator	No.
Research outputs	1,028.4
Research income	\$42,539,449
FTEs	92.9
Esteem count	4.9
Patents	7.0
Research commercialisation income	\$0

Rating	Distribution
5	3
4	4
3	1
2	0
1	0
Total	8

#### **RESEARCH OUTPUTS BY TYPE**

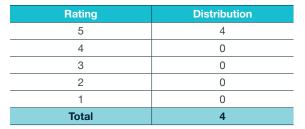


#### FOR RATING DISTRIBUTION

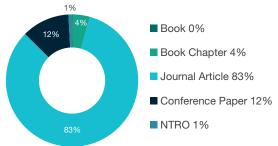


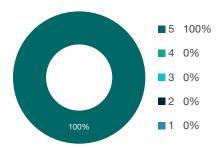
#### 0706 Horticultural Production

Indicator	No.
Research outputs	994.7
Research income	\$32,820,142
FTEs	103.4
Esteem count	1.0
Patents	0.0
Research commercialisation income	\$223,110



#### **RESEARCH OUTPUTS BY TYPE**



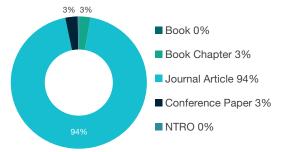


### **0707 Veterinary Sciences**

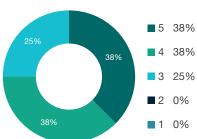
,						
Indicator	No.					
Research outputs	2,424.9					
Research income	\$50,162,175					
FTEs	294.8					
Esteem count	5.9					
Patents	5.0					
Research commercialisation income	\$399,685					

Rating	Distribution
5	3
4	3
3	2
2	0
1	0
Total	8

#### **RESEARCH OUTPUTS BY TYPE**



### FOR RATING DISTRIBUTION

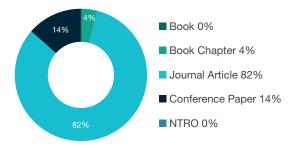


## 0799 Other Agricultural and Veterinary Sciences

Indicator	No.
Research outputs	452.9
Research income	\$1,473,605
FTEs	103.3
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0799.

## 08 INFORMATION AND COMPUTING SCIENCES

Information and Computing Sciences is comprised of the following four-digit codes:

**0801 Artificial Intelligence and Image Processing** 

**0802 Computation Theory and Mathematics** 

**0803 Computer Software** 

**0804 Data Format** 

**0805 Distributed Computing** 

**0806 Information Systems** 

**0807 Library and Information Studies** 

**0899 Other Information and Computing Sciences** 

9 out of 34 two-digit UoEs and 45 out of 93 four-digit UoEs assessed were rated above world standard

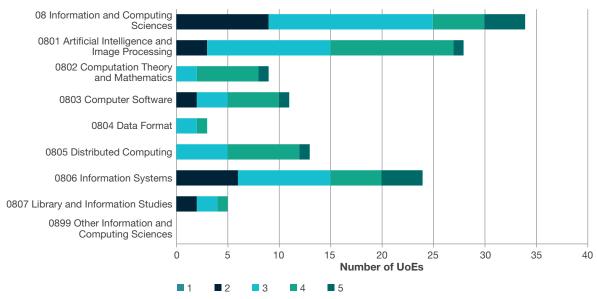
## FoR Overview

Information and Computing Sciences (08) accounted for approximately six per cent of the research outputs submitted to ERA 2015. Conference papers were the most common research output type (61 per cent). Artificial Intelligence and Image Processing (0801) contributed the highest amount of research outputs, research income, staff FTE and research commercialisation income.

Indicator	No.
Research outputs	24,856.6
Research income	\$248,350,121
FTEs	1,749.6
Esteem count	89.1
Patents	52.9
Research commercialisation income	\$6,716,113

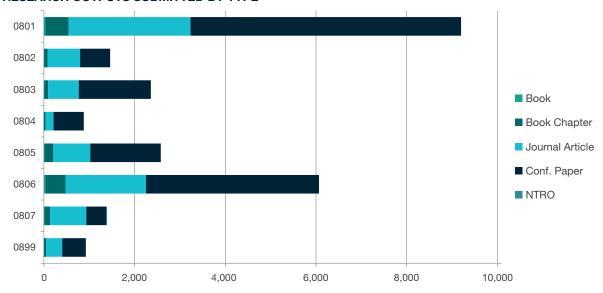
	Distribution				
Rating	Two-digit	Four-digit			
5	4	8			
4	5	37			
3	16	35			
2	9	13			
1	0	0			
Total	34	93			

#### NUMBER OF UOES PER RATING SCALE SCORE



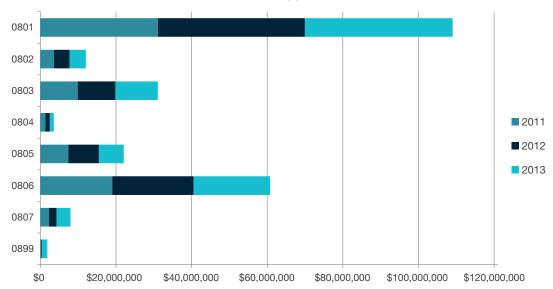
Note:08 Information and Computing Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



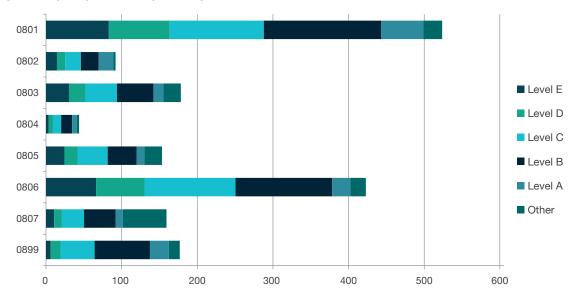
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0801 Artificial Intelligence and Image Processing	30.0	516.2	2,688.7	5,960.0	1.0	9,196.0
0802 Computation Theory and Mathematics	4.5	76.1	719.9	659.8	0.0	1,460.2
0803 Computer Software	6.4	90.0	672.7	1,589.8	1.0	2,359.9
0804 Data Format	1.0	33.8	178.1	666.6	0.0	879.4
0805 Distributed Computing	10.6	198.8	812.8	1,556.2	0.0	2,578.3
0806 Information Systems	32.3	445.6	1,775.3	3,811.1	0.0	6,064.2
0807 Library and Information Studies	10.0	126.1	800.2	441.5	15.6	1,393.4
0899 Other Information and Computing Sciences	2.8	50.6	351.4	520.5	0.0	925.3
Total	97.5	1,537.0	7,999.0	15,205.4	17.6	24,856.6

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0801 Artificial Intelligence and Image Processing	31,095,550	38,873,530	39,069,848	109,038,927
0802 Computation Theory and Mathematics	3,634,307	4,090,929	4,321,807	12,047,043
0803 Computer Software	9,868,429	9,973,277	11,221,611	31,063,317
0804 Data Format	1,346,233	1,156,121	1,056,168	3,558,521
0805 Distributed Computing	7,394,370	8,086,546	6,579,883	22,060,799
0806 Information Systems	19,009,474	21,533,362	20,225,102	60,767,939
0807 Library and Information Studies	2,276,724	2,031,957	3,661,454	7,970,135
0899 Other Information and Computing Sciences	222,322	204,277	1,416,841	1,843,439
Total	74,847,407	85,950,000	87,552,713	248,350,121

#### STAFFING PROFILE BY ACADEMIC LEVEL

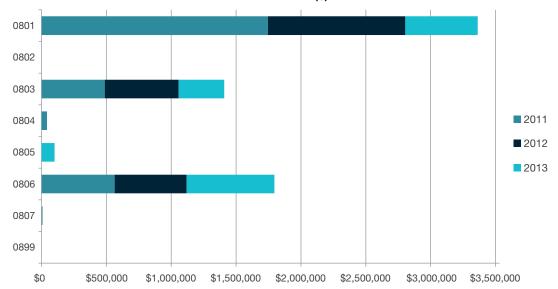


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0801 Artificial Intelligence and Image Processing	83.0	80.5	124.4	155.1	55.7	25.1	523.7
0802 Computation Theory and Mathematics	14.4	10.9	20.8	23.6	19.4	2.9	92.0
0803 Computer Software	30.3	21.8	41.6	48.3	13.4	22.7	178.1
0804 Data Format	3.5	5.7	10.8	14.5	6.2	3.0	43.7
0805 Distributed Computing	24.3	17.3	39.8	38.5	10.4	23.0	153.3
0806 Information Systems	66.1	64.5	119.9	127.7	24.4	20.2	422.8
0807 Library and Information Studies	10.9	10.1	29.3	41.6	9.6	57.7	159.2
0899 Other Information and Computing Sciences	6.1	13.1	44.9	73.3	24.9	14.6	176.9
Total	238.6	223.8	431.6	522.5	164.0	169.1	1,749.6

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0801 Artificial Intelligence and Image Processing	7.0	16.6	1.6	0.0	3.7	0.0	28.8
0802 Computation Theory and Mathematics	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0803 Computer Software	0.0	0.0	0.0	0.0	0.5	0.0	0.5
0804 Data Format	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0805 Distributed Computing	3.0	2.1	0.0	0.0	1.0	0.0	6.1
0806 Information Systems	0.2	17.2	0.0	0.0	0.0	0.0	17.4
0807 Library and Information Studies	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0899 Other Information and Computing Sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	10.2	35.9	1.6	0.0	5.2	0.0	52.9

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



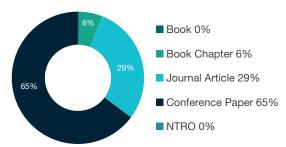
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0801 Artificial Intelligence and Image Processing	1,744,872	1,059,569	557,767	3,362,209
0802 Computation Theory and Mathematics	0	0	0	0
0803 Computer Software	487,428	570,339	350,963	1,408,730
0804 Data Format	42,493	0	0	42,493
0805 Distributed Computing	0	0	100,757	100,757
0806 Information Systems	563,548	555,500	676,389	1,795,437
0807 Library and Information Studies	3,974	2,514	0	6,488
0899 Other Information and Computing Sciences	0	0	0	0
Total	2,842,314	2,187,922	1,685,877	6,716,113

## 0801 Artificial Intelligence and Image Processing

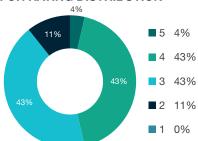
9	
Indicator	No.
Research outputs	9,196.0
Research income	\$109,038,927
FTEs	523.7
Esteem count	41.0
Patents	28.8
Research commercialisation income	\$3,362,209

Rating	Distribution
5	1
4	12
3	12
2	3
1	0
Total	28

#### **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

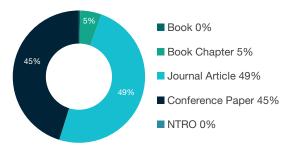


## **0802 Computation Theory and Mathematics**

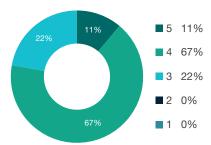
Indicator	No.
Research outputs	1,460.2
Research income	\$12,047,043
FTEs	92.0
Esteem count	11.5
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	6
3	2
2	0
1	0
Total	9

#### RESEARCH OUTPUTS BY TYPE



#### FOR RATING DISTRIBUTION

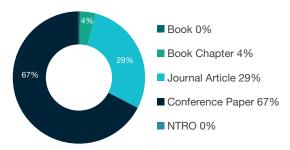


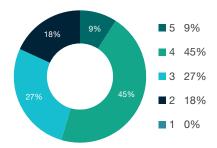
## **0803 Computer Software**

No.
2,359.9
\$31,063,317
178.1
4.6
0.5
\$1,408,730

Rating	Distribution
5	1
4	5
3	3
2	2
1	0
Total	11

#### **RESEARCH OUTPUTS BY TYPE**



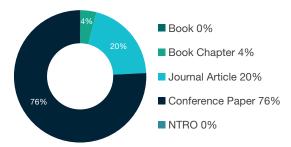


#### 0804 Data Format

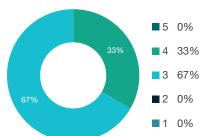
Indicator	No.
Research outputs	879.4
Research income	\$3,558,521
FTEs	43.7
Esteem count	1.0
Patents	0.0
Research commercialisation income	\$42,493

Rating	Distribution
5	0
4	1
3	2
2	0
1	0
Total	3

#### **RESEARCH OUTPUTS BY TYPE**



### FOR RATING DISTRIBUTION

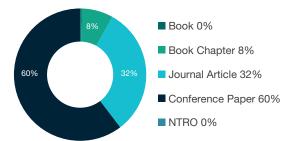


## **0805 Distributed Computing**

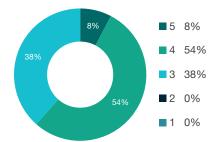
Indicator	No.
Research outputs	2,578.3
Research income	\$22,060,799
FTEs	153.3
Esteem count	3.8
Patents	6.1
Research commercialisation income	\$100,757

Rating	Distribution
5	1
4	7
3	5
2	0
1	0
Total	13

#### **RESEARCH OUTPUTS BY TYPE**

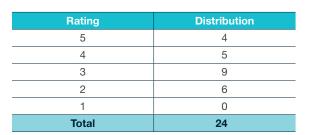


#### FOR RATING DISTRIBUTION

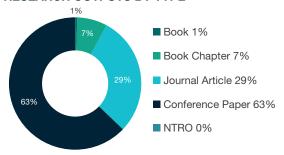


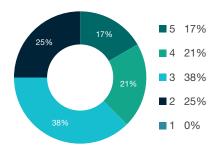
## **0806 Information Systems**

Indicator	No.
Research outputs	6,064.2
Research income	\$60,767,939
FTEs	422.8
Esteem count	26.0
Patents	17.4
Research commercialisation income	\$1,795,437



#### **RESEARCH OUTPUTS BY TYPE**



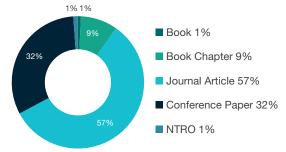


## 0807 Library and Information Studies

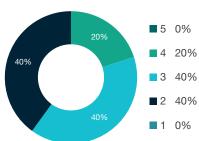
Indicator	No.
Research outputs	1,393.4
Research income	\$7,970,135
FTEs	159.2
Esteem count	1.2
Patents	0.0
Research commercialisation income	\$6,488

Rating	Distribution
5	0
4	1
3	2
2	2
1	0
Total	5

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

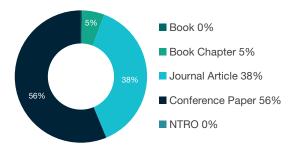


## 0899 Other Information and Computing Sciences

Indicator	No.
Research outputs	925.3
Research income	\$1,843,439
FTEs	176.9
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0899.

## 09 ENGINEERING

Engineering is comprised of the following four-digit codes:

**0901 Aerospace Engineering** 

**0902 Automotive Engineering** 

0903 Biomedical Engineering

0904 Chemical Engineering

0905 Civil Engineering

0906 Electrical and Electronic Engineering

**0907 Environmental Engineering** 

0908 Food Sciences

**0909 Geomatic Engineering** 

0910 Manufacturing Engineering

**0911 Maritime Engineering** 

**0912 Materials Engineering** 

**0913 Mechanical Engineering** 

0914 Resources Engineering and Extractive Metallurgy

0915 Interdisciplinary Engineering

**0999 Other Engineering** 

## FoR Overview

Engineering (09) accounted for approximately 13 per cent of the research outputs submitted to ERA 2015.

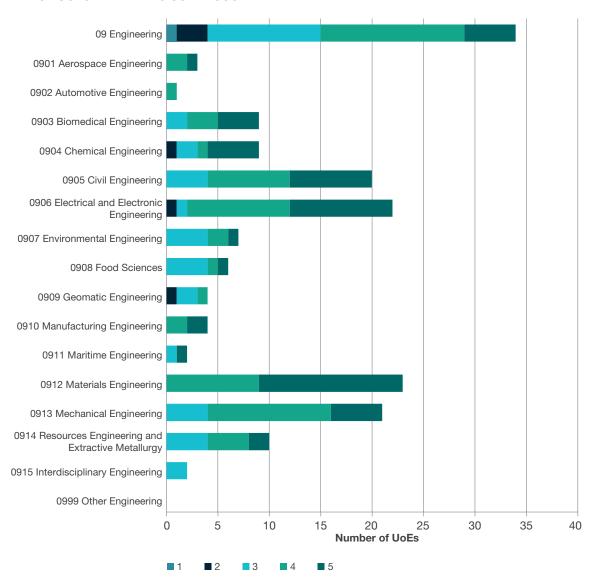
Approximately 31 per cent of the patents submitted to ERA 2015 were in Engineering. While journal articles were the predominant research output type (57 per cent), a large proportion of conference publications were also submitted to Engineering codes (39 per cent). Electrical and Electronic Engineering (0906) was the largest sub–discipline in terms of research outputs, staffing, research income, patents and research commercialisation income.

Indicator	No.
Research outputs	57,124.6
Research income	\$1,085,215,725
FTEs	3,711.3
Esteem count	312.9
Patents	293.3
Research commercialisation income	\$15,873,506

	Distribution				
Rating	Two-digit	Four-digit			
5	5	54			
4	14	56			
3	11	30			
2	3	3			
1	1	0			
Total	34	143			

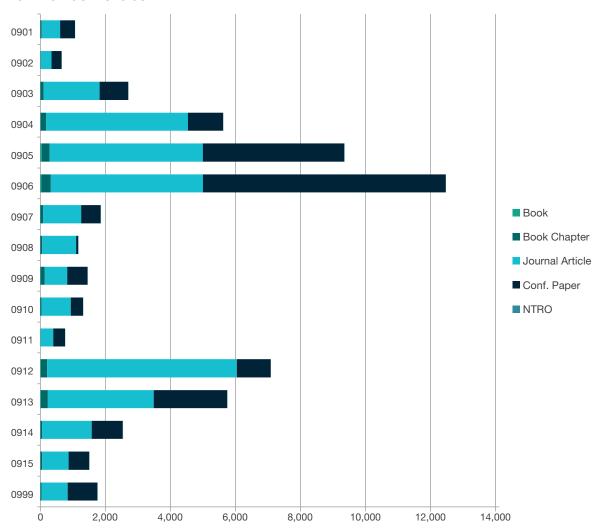
19 out of 34 two-digit UoEs and 110 out of 143 four-digit UoEs assessed were rated above world standard

#### NUMBER OF UOES PER RATING SCALE SCORE



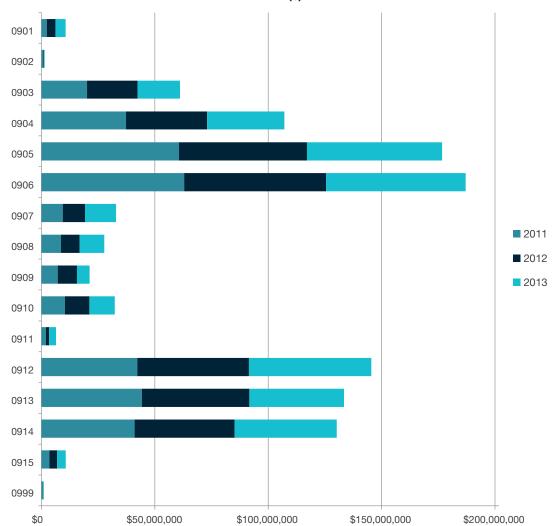
Note: 09 Engineering shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



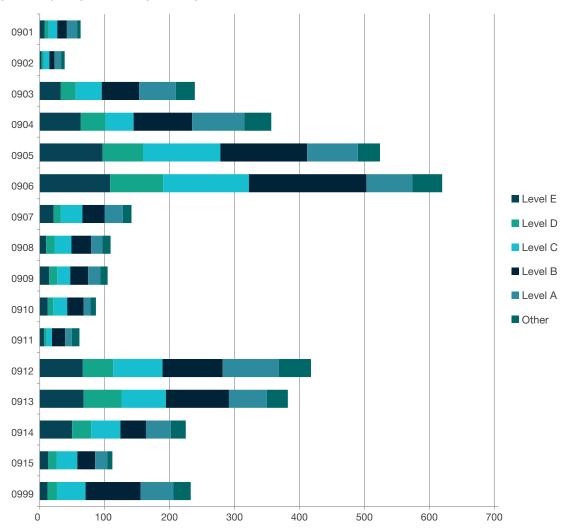
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
0901 Aerospace Engineering	2.7	34.0	572.3	456.3	1.0	1,066.1
0902 Automotive Engineering	0.0	12.4	329.9	310.4	2.4	655.1
0903 Biomedical Engineering	4.3	98.3	1,718.8	884.6	1.0	2,707.1
0904 Chemical Engineering	8.0	166.6	4,365.2	1,083.8	4.0	5,627.6
0905 Civil Engineering	42.6	242.5	4,711.5	4,353.2	14.1	9,363.9
0906 Electrical and Electronic Engineering	35.6	286.6	4,680.6	7,474.5	3.7	12,481.1
0907 Environmental Engineering	4.1	81.0	1,171.0	597.8	9.9	1,863.8
0908 Food Sciences	2.3	55.1	1,044.8	67.3	3.2	1,172.6
0909 Geomatic Engineering	5.0	132.7	687.5	627.0	2.0	1,454.2
0910 Manufacturing Engineering	0.2	33.8	900.2	380.5	1.0	1,315.8
0911 Maritime Engineering	2.3	7.8	385.7	366.5	0.0	762.3
0912 Materials Engineering	19.6	185.8	5,839.2	1,043.1	0.0	7,087.7
0913 Mechanical Engineering	20.4	209.8	3,258.9	2,262.9	0.9	5,752.9
0914 Resources Engineering and Extractive Metallurgy	6.6	44.4	1,528.3	953.0	12.1	2,544.4
0915 Interdisciplinary Engineering	4.3	56.0	807.6	637.3	1.0	1,506.3
0999 Other Engineering	5.3	29.5	804.4	917.7	6.8	1,763.8
Total	163.3	1,676.3	32,805.8	22,416.1	63.1	57,124.6

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



	2244 (4)	2242 (4)	2242 (4)	<b>T</b> (4)
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0901 Aerospace Engineering	2,328,930	3,821,844	4,513,345	10,664,120
0902 Automotive Engineering	568,523	431,492	374,871	1,374,886
0903 Biomedical Engineering	20,076,910	22,292,552	18,700,219	61,069,681
0904 Chemical Engineering	37,301,339	35,778,555	34,041,774	107,121,668
0905 Civil Engineering	60,630,245	56,432,844	59,621,407	176,684,496
0906 Electrical and Electronic Engineering	62,901,376	62,622,191	61,529,828	187,053,396
0907 Environmental Engineering	9,395,395	9,798,147	13,673,771	32,867,313
0908 Food Sciences	8,597,072	8,194,459	10,907,320	27,698,851
0909 Geomatic Engineering	7,161,295	8,502,892	5,549,118	21,213,305
0910 Manufacturing Engineering	10,369,106	10,744,396	11,210,556	32,324,058
0911 Maritime Engineering	1,934,589	1,434,795	3,013,620	6,383,005
0912 Materials Engineering	42,229,967	49,237,995	53,992,121	145,460,084
0913 Mechanical Engineering	44,290,556	47,411,916	41,704,440	133,406,912
0914 Resources Engineering and Extractive Metallurgy	41,042,708	44,063,125	45,103,929	130,209,762
0915 Interdisciplinary Engineering	3,473,593	3,427,627	3,779,701	10,680,921
0999 Other Engineering	585,661	198,608	218,999	1,003,268
Total	352,887,265	364,393,440	367,935,020	1,085,215,725

#### STAFFING PROFILE BY ACADEMIC LEVEL

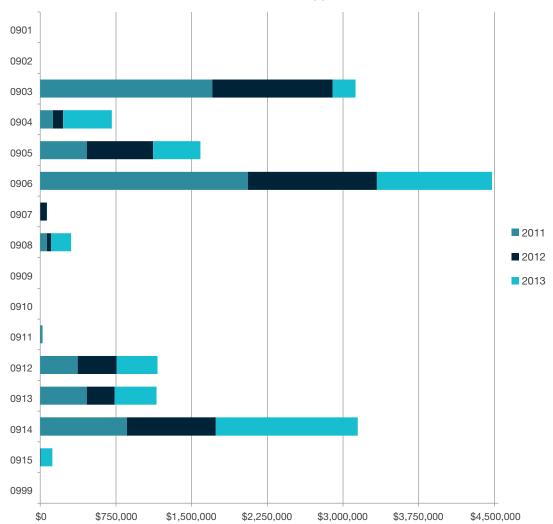


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
0901 Aerospace Engineering	7.7	6.1	13.1	14.8	15.8	5.3	62.9
0902 Automotive Engineering	2.6	3.3	9.0	7.8	10.2	5.6	38.3
0903 Biomedical Engineering	32.5	22.9	40.0	57.7	56.4	29.2	238.7
0904 Chemical Engineering	63.2	38.2	43.0	90.0	80.4	41.7	356.6
0905 Civil Engineering	96.9	62.0	119.3	133.5	78.1	34.1	523.9
0906 Electrical and Electronic Engineering	108.4	81.6	132.1	181.0	70.6	46.2	619.8
0907 Environmental Engineering	21.4	10.7	33.7	34.2	28.0	13.4	141.2
0908 Food Sciences	9.6	13.0	26.1	30.2	17.2	12.9	109.0
0909 Geomatic Engineering	14.6	12.4	20.0	27.6	18.9	11.1	104.6
0910 Manufacturing Engineering	12.2	8.3	21.6	25.4	10.3	8.7	86.5
0911 Maritime Engineering	6.5	3.6	8.7	20.1	10.4	11.8	61.1
0912 Materials Engineering	66.3	46.9	75.8	92.8	86.1	49.8	417.7
0913 Mechanical Engineering	67.5	58.2	68.5	97.2	58.2	32.4	382.0
0914 Resources Engineering and Extractive Metallurgy	49.9	29.3	45.0	39.3	38.2	23.1	224.8
0915 Interdisciplinary Engineering	13.2	12.6	32.1	27.4	18.5	8.0	111.8
0999 Other Engineering	11.8	14.6	44.1	84.9	50.5	26.5	232.4
Total	584.2	423.6	732.1	963.8	647.7	359.9	3,711.3

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
0901 Aerospace Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0902 Automotive Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0903 Biomedical Engineering	5.9	9.4	3.5	3.3	5.9	0.0	28.0
0904 Chemical Engineering	11.9	10.1	5.8	6.0	25.6	0.0	59.4
0905 Civil Engineering	2.2	2.2	0.2	1.0	6.0	0.0	11.6
0906 Electrical and Electronic Engineering	6.5	32.6	6.7	1.5	30.3	0.0	77.7
0907 Environmental Engineering	2.0	1.0	0.0	0.0	0.4	0.0	3.4
0908 Food Sciences	0.0	1.0	0.0	0.0	1.0	0.0	2.0
0909 Geomatic Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0910 Manufacturing Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0911 Maritime Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0912 Materials Engineering	4.8	10.2	7.8	6.5	18.9	0.0	48.3
0913 Mechanical Engineering	9.0	2.5	1.0	0.0	6.5	0.0	19.0
0914 Resources Engineering and Extractive Metallurgy	8.0	9.0	1.0	1.0	24.0	0.0	43.0
0915 Interdisciplinary Engineering	1.0	0.0	0.0	0.0	0.0	0.0	1.0
0999 Other Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	51.3	78.1	26.1	19.3	118.5	0	293.3

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



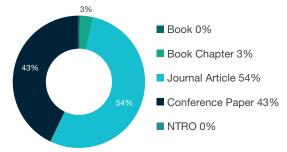
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
0901 Aerospace Engineering	0	0	0	0
0902 Automotive Engineering	0	0	0	0
0903 Biomedical Engineering	1,704,293	1,192,702	227,350	3,124,344
0904 Chemical Engineering	125,212	102,122	482,043	709,376
0905 Civil Engineering	460,714	657,506	468,661	1,586,881
0906 Electrical and Electronic Engineering	2,056,501	1,278,749	1,141,659	4,476,909
0907 Environmental Engineering	600	65,778	316	66,694
0908 Food Sciences	65,931	40,759	199,091	305,781
0909 Geomatic Engineering	0	0	0	0
0910 Manufacturing Engineering	0	0	0	0
0911 Maritime Engineering	22,730	0	0	22,730
0912 Materials Engineering	370,815	387,453	404,132	1,162,400
0913 Mechanical Engineering	461,024	274,311	416,880	1,152,215
0914 Resources Engineering and Extractive Metallurgy	859,002	880,657	1,406,542	3,146,202
0915 Interdisciplinary Engineering	0	4,994	114,980	119,974
0999 Other Engineering	0	0	0	0
Total	6,126,822	4,885,031	4,861,653	15,873,506

## 0901 Aerospace Engineering

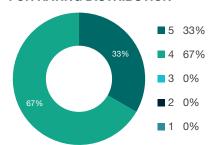
<u>-</u>	
Indicator	No.
Research outputs	1,066.1
Research income	\$10,664,120
FTEs	62.9
Esteem count	0.5
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	2
3	0
2	0
1	0
Total	3

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

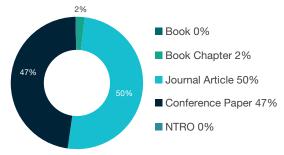


## 0902 Automotive Engineering

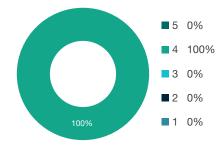
Indicator	No.
Research outputs	655.1
Research income	\$1,374,886
FTEs	38.3
Esteem count	2.5
Patents	0.0
Research commercialisation income	\$0

# Rating Distribution 5 0 4 1 3 0 2 0 1 0 Total 1

#### **RESEARCH OUTPUTS BY TYPE**

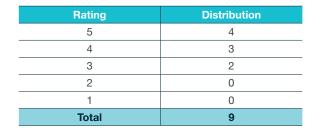


#### FOR RATING DISTRIBUTION

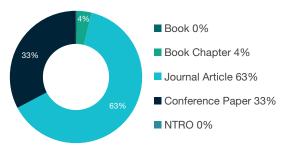


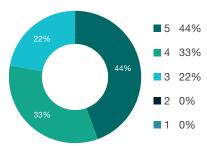
## 0903 Biomedical Engineering

Indicator	No.
Research outputs	2,707.1
Research income	\$61,069,681
FTEs	238.7
Esteem count	27.0
Patents	28.0
Research commercialisation income	\$3,124,344



#### **RESEARCH OUTPUTS BY TYPE**



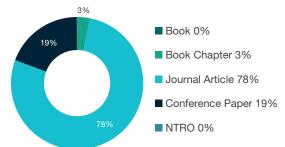


## 0904 Chemical Engineering

Indicator	No.
Research outputs	5,627.6
Research income	\$107,121,668
FTEs	356.6
Esteem count	50.8
Patents	59.4
Research commercialisation income	\$709,376

Rating	Distribution
5	5
4	1
3	2
2	1
1	0
Total	9

#### **RESEARCH OUTPUTS BY TYPE**



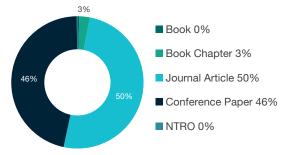


#### 0905 Civil Engineering

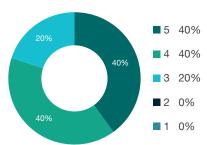
No.
9,363.9
176,684,496
523.9
40.1
11.6
\$1,586,881

Rating	Distribution
5	8
4	8
3	4
2	0
1	0
Total	20

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

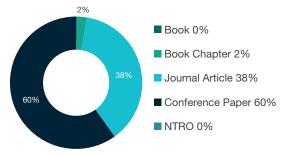


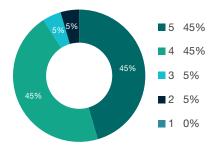
## 0906 Electrical and Electronic Engineering

Indicator	No.
Research outputs	12,481.1
Research income	\$187,053,396
FTEs	619.8
Esteem count	61.9
Patents	77.7
Research commercialisation income	\$4,476,909

Rating	Distribution
5	10
4	10
3	1
2	1
1	0
Total	22

#### **RESEARCH OUTPUTS BY TYPE**



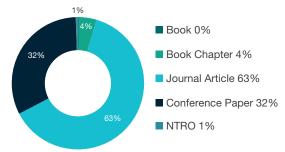


## 0907 Environmental Engineering

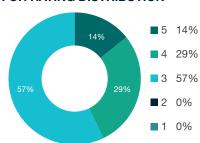
Indicator	No.
Research outputs	1,863.8
Research income	\$32,867,313
FTEs	141.2
Esteem count	5.9
Patents	3.4
Research commercialisation income	\$66,694

Rating	Distribution
5	1
4	2
3	4
2	0
1	0
Total	7

#### **RESEARCH OUTPUTS BY TYPE**



### FOR RATING DISTRIBUTION

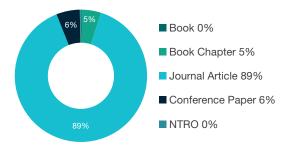


#### 0908 Food Sciences

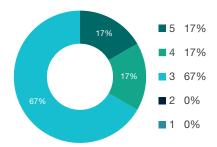
Indicator	No.
Research outputs	1,172.6
Research income	\$27,698,851
FTEs	109.0
Esteem count	0.5
Patents	2.0
Research commercialisation income	\$305,781

Rating	Distribution
5	1
4	1
3	4
2	0
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**

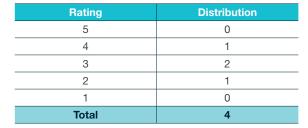


#### FOR RATING DISTRIBUTION

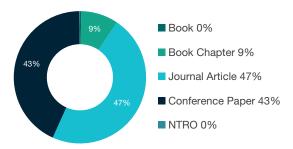


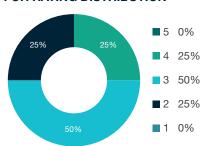
## 0909 Geomatic Engineering

Indicator	No.
Research outputs	1,454.2
Research income	\$21,213,305
FTEs	104.6
Esteem count	4.6
Patents	0.0
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



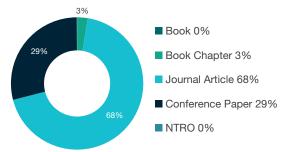


## 0910 Manufacturing Engineering

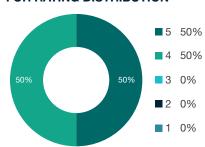
Indicator	No.
Research outputs	1,315.8
Research income	\$32,324,058
FTEs	86.5
Esteem count	4.3
Patents	0.0
Research commercialisation income	\$0

# Rating Distribution 5 2 4 2 3 0 2 0 1 0 Total 4

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

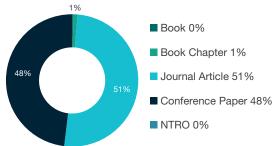


## 0911 Maritime Engineering

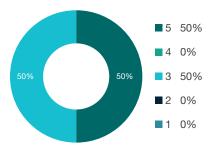
Indicator	No.
Research outputs	762.3
Research income	\$6,383,005
FTEs	61.1
Esteem count	0.2
Patents	0.0
Research commercialisation income	\$22,730

Rating	Distribution
5	1
4	0
3	1
2	0
1	0
Total	2

#### **RESEARCH OUTPUTS BY TYPE**

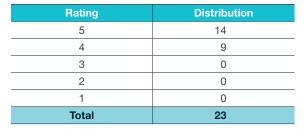


#### FOR RATING DISTRIBUTION

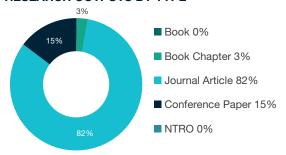


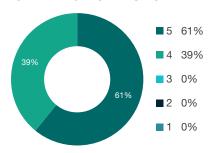
## 0912 Materials Engineering

Indicator	No.
Research outputs	7,087.7
Research income	\$145,460,084
FTEs	417.7
Esteem count	60.1
Patents	48.3
Research commercialisation income	\$1,162,400



#### **RESEARCH OUTPUTS BY TYPE**



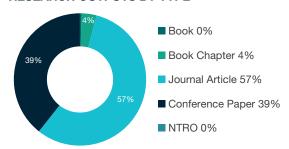


### 0913 Mechanical Engineering

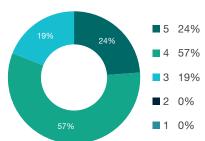
Indicator	No.
Research outputs	5,752.9
Research income	\$133,406,912
FTEs	382.0
Esteem count	30.4
Patents	19.0
Research commercialisation income	\$1,152,215

Rating	Distribution
5	5
4	12
3	4
2	0
1	0
Total	21

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

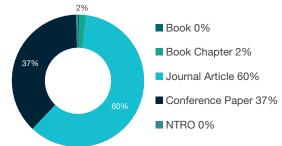


## 0914 Resources Engineering and Extractive Metallurgy

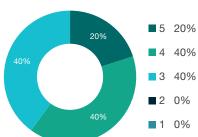
Indicator	No.
Research outputs	2,544.4
Research income	\$130,209,762
FTEs	224.8
Esteem count	21.7
Patents	43.0
Research commercialisation income	\$3,146,202

Rating	Distribution
5	2
4	4
3	4
2	0
1	0
Total	10

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

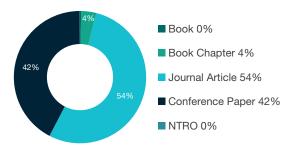


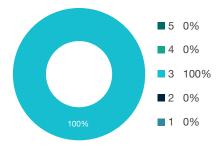
## 0915 Interdisciplinary Engineering

Indicator	No.
Research outputs	1,506.3
Research income	\$10,680,921
FTEs	111.8
Esteem count	2.3
Patents	1.0
Research commercialisation income	\$119,974

Rating	Distribution
5	0
4	0
3	2
2	0
1	0
Total	2

#### **RESEARCH OUTPUTS BY TYPE**



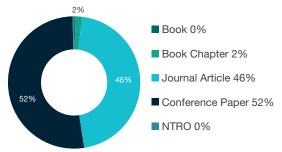


# 0999 Other Engineering

<b>_</b>	
Indicator	No.
Research outputs	1,763.8
Research income	\$1,003,268
FTEs	232.4
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Distribution
0
0
0
0
0
0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 0999.

# 10 TECHNOLOGY

Technology is comprised of the following four-digit codes:

1001 Agricultural Biotechnology

1002 Environmental Biotechnology

1003 Industrial Biotechnology

**1004 Medical Biotechnology** 

**1005 Communications Technologies** 

**1006 Computer Hardware** 

**1007 Nanotechnology** 

**1099 Other Technology** 

9 out of 11 two-digit UoEs and 19 out of 19 four-digit UoEs assessed were rated above world standard

# **FoR Overview**

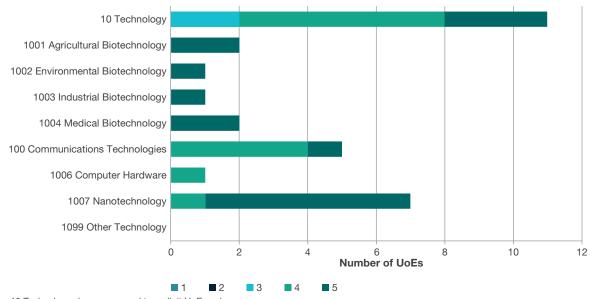
Technology (10) accounted for approximately one per cent of the research outputs submitted to ERA 2015.

Approximately five per cent of the patents submitted to ERA 2015 were from Technology. The most common research output types for Technology were journal articles (49 per cent), followed by conference papers (44 per cent). Communications Technologies (1005) and Other Technology (1099) were the two largest sub–disciplines in terms of research outputs, staff FTE and research income. Communications Technologies (1005) had the highest amount of research commercialisation income.

Indicator	No.
Research outputs	6,442.7
Research income	\$114,779,676
FTEs	670.5
Esteem count	42.0
Patents	48.3
Research commercialisation income	\$1,314,395

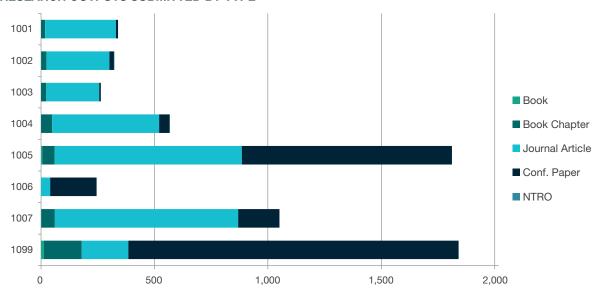
	Distribution				
Rating	Two-digit	Four-digit			
5	3	13			
4	6	6			
3	2	0			
2	0	0			
1	0	0			
Total	11	19			

#### NUMBER OF UOES PER RATING SCALE SCORE



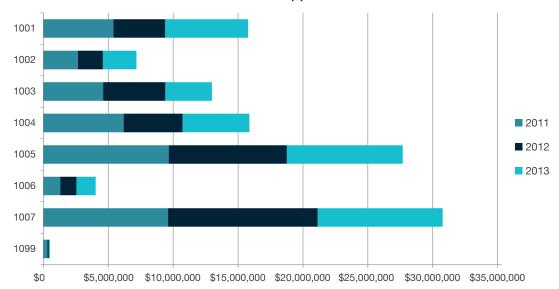
Note: 10 Technology shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



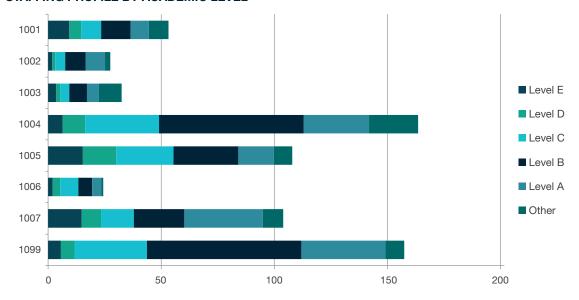
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1001 Agricultural Biotechnology	0.0	18.2	311.7	9.6	0.0	339.5
1002 Environmental Biotechnology	0.4	23.4	277.8	19.9	1.8	323.3
1003 Industrial Biotechnology	0.2	22.8	233.3	7.0	0.0	263.3
1004 Medical Biotechnology	0.0	48.6	471.9	46.6	0.0	567.1
1005 Communications Technologies	5.5	54.4	825.1	926.4	0.0	1,811.4
1006 Computer Hardware	0.0	0.2	40.0	204.8	0.0	244.9
1007 Nanotechnology	1.5	59.2	808.2	182.4	0.0	1,051.3
1099 Other Technology	12.5	166.9	205.4	1,455.5	1.5	1,841.8
Total	20.1	393.8	3,173.3	2,852.1	3.3	6,442.7

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1001 Agricultural Biotechnology	5,394,365	3,999,824	6,377,218	15,771,407
1002 Environmental Biotechnology	2,657,511	1,930,060	2,581,217	7,168,788
1003 Industrial Biotechnology	4,601,512	4,799,628	3,583,215	12,984,355
1004 Medical Biotechnology	6,186,484	4,537,207	5,148,593	15,872,284
1005 Communications Technologies	9,655,663	9,103,927	8,931,072	27,690,661
1006 Computer Hardware	1,292,834	1,252,608	1,482,084	4,027,525
1007 Nanotechnology	9,601,851	11,537,039	9,624,331	30,763,221
1099 Other Technology	312,078	107,864	81,493	501,435
Total	39,702,298	37,268,157	37,809,221	114,779,676

#### STAFFING PROFILE BY ACADEMIC LEVEL

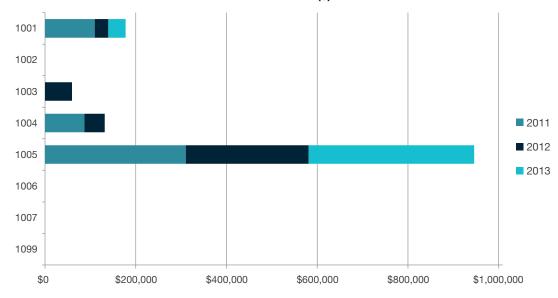


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1001 Agricultural Biotechnology	9.4	5.3	8.8	12.9	8.2	8.7	53.2
1002 Environmental Biotechnology	1.9	1.3	4.5	8.9	8.7	2.3	27.5
1003 Industrial Biotechnology	3.6	1.8	4.0	7.8	5.3	10.0	32.5
1004 Medical Biotechnology	6.4	10.0	32.7	63.9	29.0	21.7	163.6
1005 Communications Technologies	15.4	14.7	25.3	28.7	15.7	8.1	107.9
1006 Computer Hardware	2.0	3.3	8.0	6.1	4.2	0.8	24.4
1007 Nanotechnology	14.8	8.6	14.5	22.4	34.7	9.0	104.0
1099 Other Technology	5.6	6.0	32.1	68.3	37.2	8.3	157.5
Total	59.0	50.9	129.8	219.0	142.8	68.9	670.5

#### **PATENT PROFILE**

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total
1001 Agricultural Biotechnology	1.0	1.0	2.0	1.0	1.0	0.0	6.0
1002 Environmental Biotechnology	0.0	2.0	1.0	0.0	1.4	0.0	4.4
1003 Industrial Biotechnology	1.4	2.4	0.0	1.1	1.1	0.0	6.0
1004 Medical Biotechnology	3.0	1.0	3.0	3.0	14.0	0.0	24.0
1005 Communications Technologies	0.0	3.0	0.0	1.0	0.0	0.0	4.0
1006 Computer Hardware	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1007 Nanotechnology	0.0	3.5	0.0	0.3	0.2	0.0	4.0
1099 Other Technology	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	5.4	12.9	6.0	6.4	17.7	0.0	48.3

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1001 Agricultural Biotechnology	109,344	30,134	38,013	177,491
1002 Environmental Biotechnology	0	0	0	0
1003 Industrial Biotechnology	0	59,306	0	59,306
1004 Medical Biotechnology	86,537	45,061	0	131,598
1005 Communications Technologies	310,264	270,819	364,917	946,000
1006 Computer Hardware	0	0	0	0
1007 Nanotechnology	0	0	0	0
1099 Other Technology	0	0	0	0
Total	506,145	405,320	402,930	1,314,395

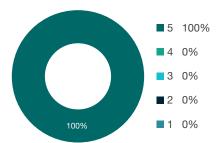
# 1001 Agricultural Biotechnology

Indicator	No.
Research outputs	339.5
Research income	\$15,771,407
FTEs	53.2
Esteem count	2.5
Patents	6.0
Research commercialisation income	\$177,491

Rating	Distribution
5	2
4	0
3	0
2	0
1	0
Total	2

#### **RESEARCH OUTPUTS BY TYPE**



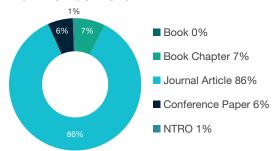


# 1002 Environmental Biotechnology

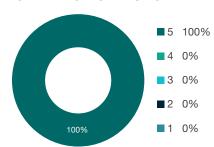
Indicator	No.
Research outputs	323.3
Research income	\$7,168,788
FTEs	27.5
Esteem count	1.2
Patents	4.4
Research commercialisation income	\$0

Rating	Distribution
5	1
4	0
3	0
2	0
1	0
Total	1

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

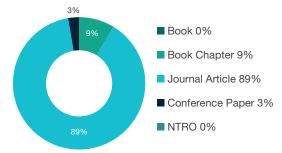


#### 1003 Industrial Biotechnology

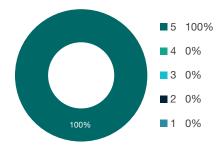
Indicator	No.
Research outputs	263.3
Research income	\$12,984,355
FTEs	32.5
Esteem count	1.4
Patents	6.0
Research commercialisation income	\$59,306

Rating	Distribution
5	1
4	0
3	0
2	0
1	0
Total	1

#### **RESEARCH OUTPUTS BY TYPE**

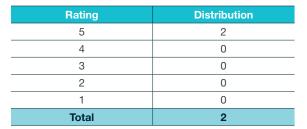


#### FOR RATING DISTRIBUTION

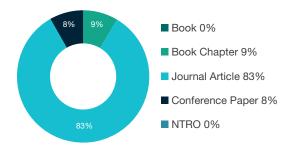


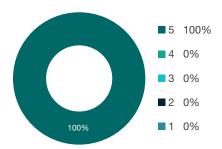
# 1004 Medical Biotechnology

Indicator	No.
Research outputs	567.1
Research income	\$15,872,284
FTEs	163.6
Esteem count	7.7
Patents	24.0
Research commercialisation income	\$131,598



#### **RESEARCH OUTPUTS BY TYPE**



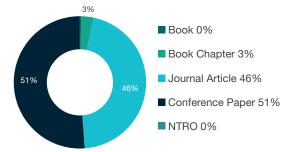


# **1005 Communications Technologies**

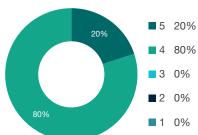
Indicator	No.
Research outputs	1,811.4
Research income	\$27,690,661
FTEs	107.9
Esteem count	9.9
Patents	4.0
Research commercialisation income	\$946,000

Rating	Distribution
5	1
4	4
3	0
2	0
1	0
Total	5

#### **RESEARCH OUTPUTS BY TYPE**



# FOR RATING DISTRIBUTION

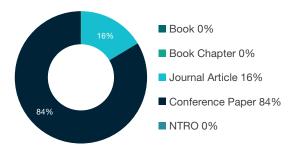


# 1006 Computer Hardware

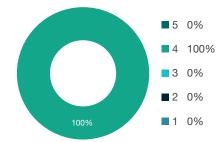
Indicator	No.
Research outputs	244.9
Research income	\$4,027,525
FTEs	24.4
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	1
3	0
2	0
1	0
Total	1

#### **RESEARCH OUTPUTS BY TYPE**

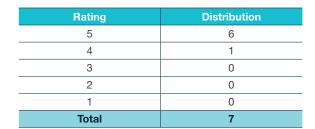


#### FOR RATING DISTRIBUTION

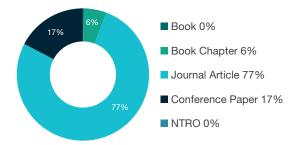


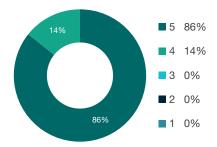
### 1007 Nanotechnology

3,	
Indicator	No.
Research outputs	1,051.3
Research income	\$30,763,221
FTEs	104.0
Esteem count	19.3
Patents	4.0
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



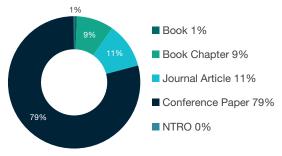


# 1099 Other Technology

Indicator	No.
Research outputs	1,841.8
Research income	\$501,435
FTEs	157.5
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 1099.

# 11 MEDICAL AND HEALTH SCIENCES

Medical and Health Sciences is comprised of the following four-digit codes:

- 1101 Medical Biochemistry and Metabolomics
- 1102 Cardiovascular Medicine and Haematology
- 1103 Clinical Sciences
- 1104 Complementary and Alternative Medicine
- 1105 Dentistry
- 1106 Human Movement and Sports Science
- 1107 Immunology
- 1108 Medical Microbiology
- 1109 Neurosciences
- 1110 Nursing
- **1111 Nutrition and Dietetics**
- 1112 Oncology and Carcinogenesis
- 1113 Ophthalmology and Optometry
- 1114 Paediatrics and Reproductive Medicine
- 1115 Pharmacology and Pharmaceutical Sciences
- 1116 Medical Physiology
- 1117 Public Health and Health Services
- 1199 Other Medical and Health Sciences

# FoR Overview

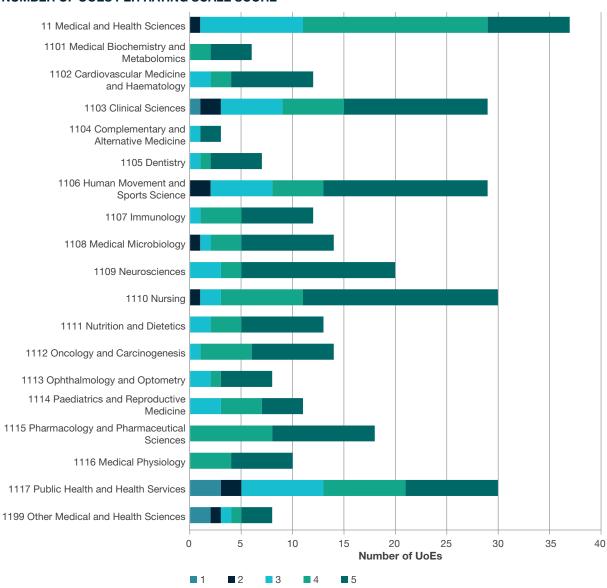
Medical and Health Sciences (11) accounted for approximately 21 per cent of the research outputs submitted to ERA 2015. Journal articles were the most common research output type in the Medical and Health Sciences (93 per cent). The two largest Medical and Health Sciences Disciplines for research outputs, research income and staff FTE were Clinical Sciences (1103) and Public Health and Health Services (1117). Research commercialisation income was particularly strong in Immunology (1107).

26 out of 37 two-digit UoEs and 219 out of 274 four-digit UoEs assessed were rated above world standard

Indicator	No.
Research outputs	90,650.5
Research income	\$3,670,303,937
FTEs	9,788.8
Esteem count	1,537.6
Patents	236.5
Research commercialisation income	\$75,292,607

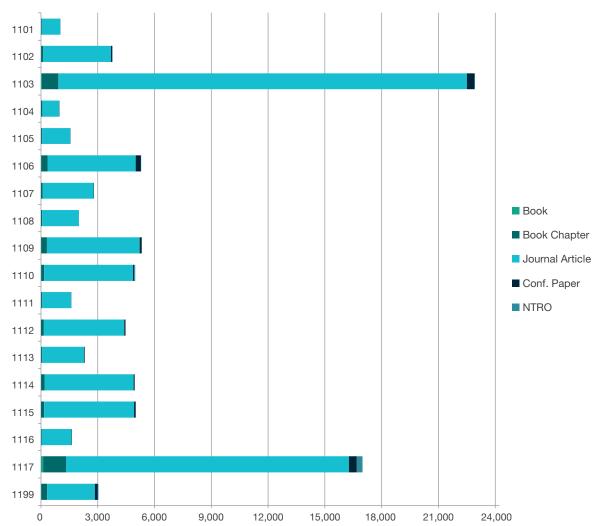
	Distribution				
Rating	Two-digit	Four-digit			
5	8	152			
4	18	67			
3	10	40			
2	1	9			
1	0	6			
Total	37	274			

#### NUMBER OF UOES PER RATING SCALE SCORE



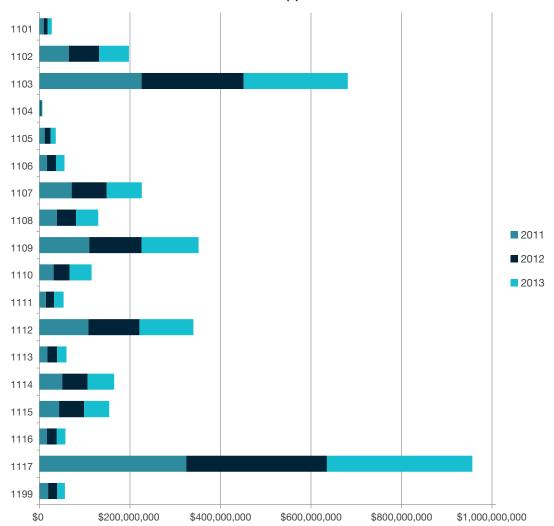
Note: 11 Medical and Health Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



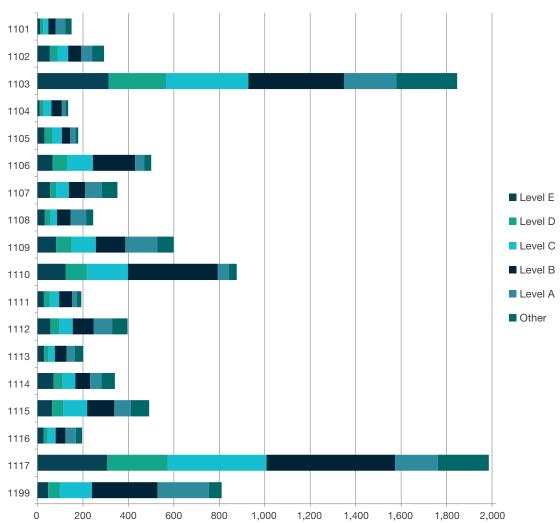
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1101 Medical Biochemistry and Metabolomics	0.0	43.1	979.4	4.0	0.5	1,027.0
1102 Cardiovascular Medicine and Haematology	3.3	104.4	3,594.3	68.9	0.5	3,771.5
1103 Clinical Sciences	35.4	879.4	21,593.1	397.6	21.0	22,926.4
1104 Complementary and Alternative Medicine	2.5	72.2	877.1	20.2	1.6	973.7
1105 Dentistry	6.0	56.8	1,481.5	12.5	0.5	1,557.2
1106 Human Movement and Sports Science	17.3	326.9	4,659.7	277.4	11.2	5,292.5
1107 Immunology	0.3	84.0	2,696.9	20.5	0.0	2,801.7
1108 Medical Microbiology	0.0	60.4	1,938.1	6.5	0.0	2,004.9
1109 Neurosciences	12.2	298.5	4,902.6	108.4	0.0	5,321.6
1110 Nursing	13.7	153.9	4,695.0	61.5	52.6	4,976.8
1111 Nutrition and Dietetics	4.3	61.3	1,519.8	13.4	5.4	1,604.3
1112 Oncology and Carcinogenesis	1.0	151.3	4,248.9	65.7	0.0	4,466.8
1113 Ophthalmology and Optometry	3.0	60.8	2,202.7	38.1	9.0	2,313.6
1114 Paediatrics and Reproductive Medicine	7.7	193.5	4,691.4	58.0	3.5	4,954.1
1115 Pharmacology and Pharmaceutical Sciences	1.5	165.0	4,750.5	83.1	1.4	5,001.5
1116 Medical Physiology	0.0	39.0	1,577.5	19.7	0.0	1,636.2
1117 Public Health and Health Services	113.7	1,204.8	14,951.2	415.4	301.2	16,986.2
1199 Other Medical and Health Sciences	16.5	308.8	2,525.4	148.6	35.2	3,034.5
Total	238.4	4,264.0	83,885.1	1,819.3	443.7	90,650.5

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1101 Medical Biochemistry and Metabolomics	9,364,438	8,849,924	9,036,076	27,250,438
1102 Cardiovascular Medicine and Haematology	65,176,520	66,839,558	65,679,230	197,695,308
1103 Clinical Sciences	225,722,511	225,406,203	230,285,333	681,414,047
1104 Complementary and Alternative Medicine	2,192,078	2,200,415	2,091,392	6,483,885
1105 Dentistry	11,618,479	12,746,276	11,753,260	36,118,015
1106 Human Movement and Sports Science	16,830,868	19,768,375	18,561,428	55,160,670
1107 Immunology	71,149,735	77,631,535	77,478,041	226,259,312
1108 Medical Microbiology	38,704,031	42,484,264	48,690,776	129,879,071
1109 Neurosciences	110,042,602	115,610,662	125,967,601	351,620,865
1110 Nursing	31,286,874	35,120,286	48,738,477	115,145,636
1111 Nutrition and Dietetics	14,244,371	18,073,186	21,160,384	53,477,941
1112 Oncology and Carcinogenesis	108,125,963	112,892,357	119,221,524	340,239,844
1113 Ophthalmology and Optometry	17,530,247	21,470,789	20,879,954	59,880,990
1114 Paediatrics and Reproductive Medicine	50,256,888	56,180,651	58,766,703	165,204,242
1115 Pharmacology and Pharmaceutical Sciences	43,356,050	55,352,649	55,471,145	154,179,844
1116 Medical Physiology	16,574,979	21,816,801	19,030,819	57,422,599
1117 Public Health and Health Services	324,236,468	311,017,060	321,420,337	956,673,866
1199 Other Medical and Health Sciences	19,036,940	20,269,203	16,891,220	56,197,363
Total	1,175,450,041	1,223,730,195	1,271,123,701	3,670,303,937

#### STAFFING PROFILE BY ACADEMIC LEVEL



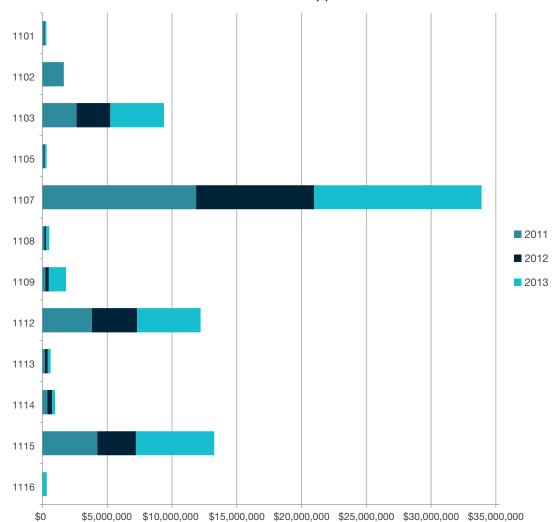
FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1101 Medical Biochemistry and Metabolomics	11.1	14.3	22.4	31.4	42.7	27.9	149.8
1102 Cardiovascular Medicine and Haematology	54.3	33.7	46.9	57.6	47.8	52.7	292.9
1103 Clinical Sciences	312.6	252.7	362.6	420.3	230.4	267.7	1,846.4
1104 Complementary and Alternative Medicine	9.7	17.9	33.8	45.7	16.5	11.2	134.9
1105 Dentistry	31.2	34.4	41.5	37.1	23.6	11.3	179.1
1106 Human Movement and Sports Science	65.5	64.1	114.2	185.5	41.2	29.9	500.4
1107 Immunology	55.2	26.2	56.5	71.4	74.2	68.3	351.8
1108 Medical Microbiology	32.4	24.3	29.0	60.4	67.9	30.7	244.7
1109 Neurosciences	81.8	69.0	105.7	130.1	141.5	70.5	598.6
1110 Nursing	124.2	92.7	180.6	396.0	49.4	33.6	876.4
1111 Nutrition and Dietetics	27.8	26.7	41.0	56.3	22.2	18.8	192.7
1112 Oncology and Carcinogenesis	56.8	39.4	58.8	92.6	80.6	68.1	396.3
1113 Ophthalmology and Optometry	29.3	18.6	28.4	51.2	37.7	36.1	201.2
1114 Paediatrics and Reproductive Medicine	71.1	39.7	55.3	65.8	48.7	59.9	340.6
1115 Pharmacology and Pharmaceutical Sciences	64.8	48.9	104.9	119.4	72.8	80.4	491.2
1116 Medical Physiology	27.8	15.6	36.5	42.5	46.5	26.9	195.7
1117 Public Health and Health Services	307.0	264.6	436.2	565.7	187.9	224.6	1,986.1
1199 Other Medical and Health Sciences	47.0	49.8	142.6	288.1	225.8	56.6	810.1
Total	1,409.6	1,132.7	1,896.9	2,716.9	1,457.3	1,175.4	9,788.8

#### PATENT PROFILE

FoR code	Australia	USA	Europe	Japan	Other International	Triadic	Total*
1101 Medical Biochemistry and Metabolomics	1.5	2.7	1.5	1.0	2.5	0.0	9.1
1102 Cardiovascular Medicine and Haematology	3.0	2.0	3.0	0.0	3.0	0.0	11.0
1103 Clinical Sciences	6.5	9.2	3.1	2.3	8.8	0.3	31.0
1104 Complementary and Alternative Medicine	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1105 Dentistry	3.0	5.0	3.0	2.3	20.3	0.0	33.7
1106 Human Movement and Sports Science	1.0	0.0	1.0	0.0	3.3	0.0	5.3
1107 Immunology	2.5	8.1	2.6	1.1	5.3	0.0	19.7
1108 Medical Microbiology	3.3	2.8	1.1	0.3	5.0	0.0	12.5
1109 Neurosciences	1.0	15.0	5.0	4.5	7.3	0.0	32.8
1110 Nursing	0.4	0.4	0.0	0.0	0.0	0.0	0.8
1111 Nutrition and Dietetics	0.0	0.0	0.0	0.0	0.5	0.0	0.5
1112 Oncology and Carcinogenesis	2.8	3.8	3.6	1.9	7.1	0.0	19.2
1113 Ophthalmology and Optometry	2.0	3.0	1.0	2.5	10.0	0.7	20.5
1114 Paediatrics and Reproductive Medicine	1.5	1.5	0.5	0.5	1.5	0.0	5.5
1115 Pharmacology and Pharmaceutical Sciences	4.2	7.8	4.5	3.7	9.1	0.0	29.3
1116 Medical Physiology	0.0	0.0	2.0	0.0	0.0	0.0	2.0
1117 Public Health and Health Services	0.5	0.5	0.0	0.5	1.5	0.0	3.0
1199 Other Medical and Health Sciences	0.0	0.0	0.5	0.0	0.0	0.0	0.5
Total	33.3	61.8	32.4	20.7	85.4	1.0	236.5

\*Note: triadic patents count as three patents in the total

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



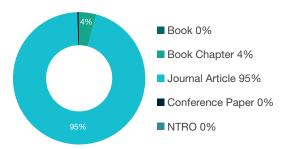
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1101 Medical Biochemistry and Metabolomics	101,951	64,908	135,778	302,637
1102 Cardiovascular Medicine and Haematology	1,635,098	4,914	14,124	1,654,137
1103 Clinical Sciences	2,636,932	2,600,682	4,142,729	9,380,344
1104 Complementary and Alternative Medicine	-	_	_	-
1105 Dentistry	87,077	80,684	148,145	315,906
1106 Human Movement and Sports Science	-	_	_	-
1107 Immunology	11,857,687	9,107,506	12,938,562	33,903,755
1108 Medical Microbiology	150,879	132,899	239,189	522,967
1109 Neurosciences	227,246	263,594	1,320,671	1,811,511
1110 Nursing	-	_	_	_
1111 Nutrition and Dietetics	-	-	_	-
1112 Oncology and Carcinogenesis	3,817,316	3,486,789	4,902,892	12,206,998
1113 Ophthalmology and Optometry	191,123	221,193	216,109	628,426
1114 Paediatrics and Reproductive Medicine	378,964	365,902	226,591	971,457
1115 Pharmacology and Pharmaceutical Sciences	4,247,759	2,966,588	6,044,017	13,258,364
1116 Medical Physiology	40,895	0	295,212	336,108
1117 Public Health and Health Services	-	_	-	_
1199 Other Medical and Health Sciences	-	_	-	_
Total	25,372,929	19,295,660	30,624,018	75,292,607

# 1101 Medical Biochemistry and Metabolomics

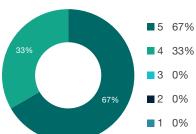
	<b>3</b>
Indicator	No.
Research outputs	1,027.0
Research income	\$27,250,438
FTEs	149.8
Esteem count	8.2
Patents	9.1
Research commercialisation income	\$302,637

Rating	Distribution
5	4
4	2
3	0
2	0
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**



# FOR RATING DISTRIBUTION

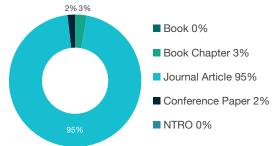


# 1102 Cardiovascular Medicine and Haematology

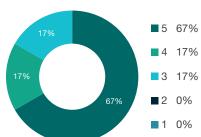
Indicator	No.
Research outputs	3,771.5
Research income	\$197,695,308
FTEs	292.9
Esteem count	86.9
Patents	11.0
Research commercialisation income	\$1,654,137

Rating	Distribution
5	8
4	2
3	2
2	0
1	0
Total	12

#### **RESEARCH OUTPUTS BY TYPE**



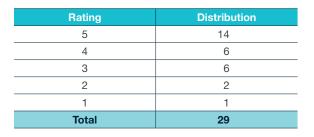
#### FOR RATING DISTRIBUTION



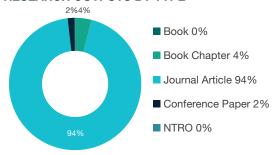
#### 1103 Clinical Sciences

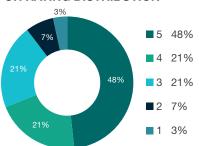
Indicator	No.
Research outputs	22,926.4
Research income	\$681,414,047
FTEs	1,846.4
Esteem count	203.3
Patents*	31.0
Research commercialisation income	\$9,380,344

<sup>\*</sup>Note: triadic patents count as three patents in the total



#### **RESEARCH OUTPUTS BY TYPE**



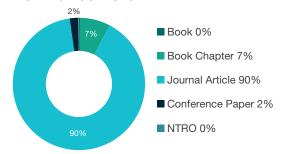


## 1104 Complementary and Alternative Medicine

Indicator	No.
Research outputs	973.7
Research income	\$6,483,885
FTEs	134.9
Esteem count	8.5
Patents	0.0
Research commercialisation income	_

Rating	Distribution
5	2
4	0
3	1
2	0
1	0
Total	3

#### **RESEARCH OUTPUTS BY TYPE**



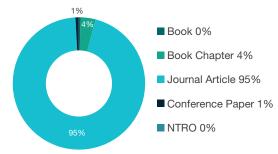


# 1105 Dentistry

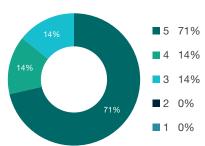
Indicator	No.
Research outputs	1,557.2
Research income	\$36,118,015
FTEs	179.1
Esteem count	8.0
Patents	33.7
Research commercialisation income	\$315,906

Rating	Distribution
5	5
4	1
3	1
2	0
1	0
Total	7

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

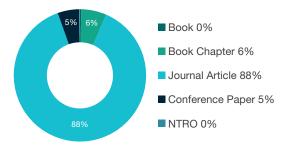


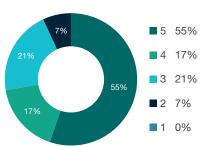
#### 1106 Human Movement and Sports Science

Indicator	No.
Research outputs	5,292.5
Research income	\$55,160,670
FTEs	500.4
Esteem count	32.7
Patents	5.3
Research commercialisation income	-

Rating	Distribution
5	16
4	5
3	6
2	2
1	0
Total	29

#### **RESEARCH OUTPUTS BY TYPE**



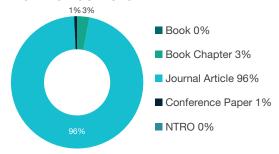


# 1107 Immunology

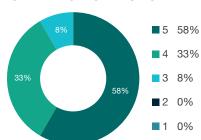
Indicator	No.
Research outputs	2,801.7
Research income	\$226,259,312
FTEs	351.8
Esteem count	106.2
Patents	19.7
Research commercialisation income	\$33,903,755

Rating	Distribution
5	7
4	4
3	1
2	0
1	0
Total	12

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

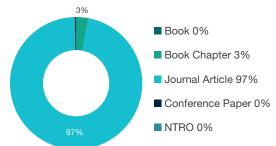


# 1108 Medical Microbiology

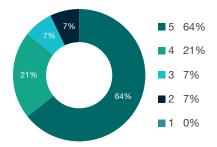
Indicator	No.
Research outputs	2,004.9
Research income	\$129,879,071
FTEs	244.7
Esteem count	62.6
Patents	12.5
Research commercialisation income	\$522,967

Rating	Distribution
5	9
4	3
3	1
2	1
1	0
Total	14

#### **RESEARCH OUTPUTS BY TYPE**

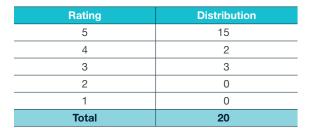


#### FOR RATING DISTRIBUTION

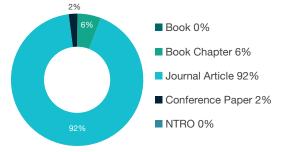


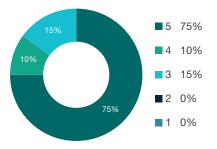
# 1109 Neurosciences

Indicator	No.
Research outputs	5,321.6
Research income	\$351,620,865
FTEs	598.6
Esteem count	163.8
Patents	32.8
Research commercialisation income	\$1,811,511



#### **RESEARCH OUTPUTS BY TYPE**



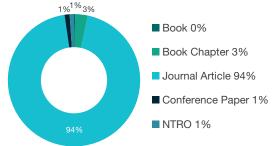


# 1110 Nursing

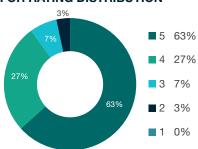
Indicator	No.
Research outputs	4,976.8
Research income	\$115,145,636
FTEs	876.4
Esteem count	32.9
Patents	0.8
Research commercialisation income	_

# Rating Distribution 5 19 4 8 3 2 2 1 1 0 Total 30

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

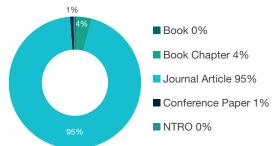


#### 1111 Nutrition and Dietetics

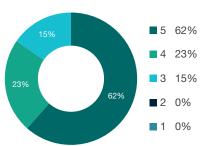
Indicator	No.
Research outputs	1,604.3
Research income	\$53,477,941
FTEs	192.7
Esteem count	30.4
Patents	0.5
Research commercialisation income	_

Rating	Distribution
5	8
4	3
3	2
2	0
1	0
Total	13

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

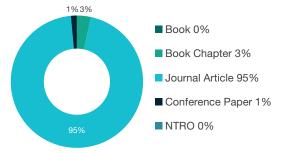


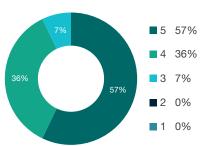
# 1112 Oncology and Carcinogenesis

Indicator	No.
Research outputs	4,466.8
Research income	\$340,239,844
FTEs	396.3
Esteem count	73.5
Patents	19.2
Research commercialisation income	\$12,206,998

Rating	Distribution
5	8
4	5
3	1
2	0
1	0
Total	14

#### **RESEARCH OUTPUTS BY TYPE**



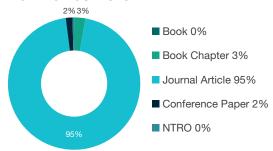


# 1113 Ophthalmology and Optometry

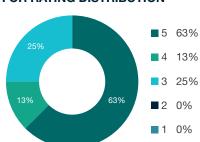
Indicator	No.
Research outputs	2,313.6
Research income	\$59,880,990
FTEs	201.2
Esteem count	14.3
Patents*	20.5
Research commercialisation income	\$628,426

Rating	Distribution
5	5
4	1
3	2
2	0
1	0
Total	8

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

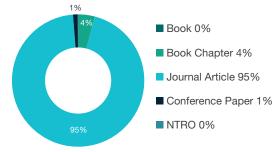


# 1114 Paediatrics and Reproductive Medicine

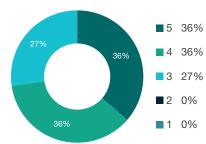
Indicator	No.
Research outputs	4,954.1
Research income	\$165,204,242
FTEs	340.6
Esteem count	79.0
Patents	5.5
Research commercialisation income	\$971,457

Rating	Distribution
5	4
4	4
3	3
2	0
1	0
Total	11

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

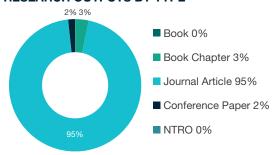


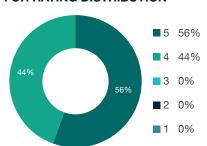
# 1115 Pharmacology and Pharmaceutical Sciences

Indicator	No.
Research outputs	5,001.5
Research income	\$154,179,844
FTEs	491.2
Esteem count	62.0
Patents	29.3
Research commercialisation income	\$13,258,364

Rating	Distribution
5	10
4	8
3	0
2	0
1	0
Total	18

#### **RESEARCH OUTPUTS BY TYPE**





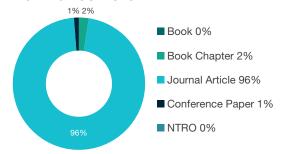
<sup>\*</sup>Note: triadic patents count as three patents in the total

## 1116 Medical Physiology

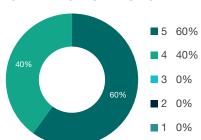
The income injuring	
Indicator	No.
Research outputs	1,636.2
Research income	\$57,422,599
FTEs	195.7
Esteem count	40.7
Patents	2.0
Research commercialisation income	\$336,108

Rating	Distribution
5	6
4	4
3	0
2	0
1	0
Total	10

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

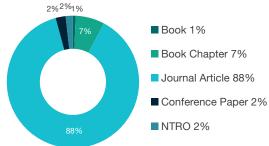


# 1117 Public Health and Health Services

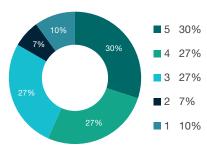
Indicator	No.
Research outputs	16,986.2
Research income	\$956,673,866
FTEs	1,986.1
Esteem count	502.9
Patents	3.0
Research commercialisation income	-

Rating	Distribution
5	9
4	8
3	8
2	2
1	3
Total	30

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

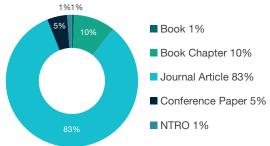


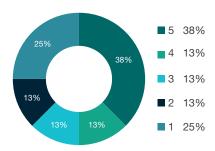
#### 1199 Other Medical and Health Sciences

Indicator	No.
Research outputs	3,034.5
Research income	\$56,197,363
FTEs	810.1
Esteem count	21.5
Patents	0.5
Research commercialisation income	_

Rating	Distribution
5	3
4	1
3	1
2	1
1	2
Total	8

#### **RESEARCH OUTPUTS BY TYPE**





# 12 BUILT ENVIRONMENT AND DESIGN

Built Environment and Design is comprised of the following four-digit codes:

**1201 Architecture** 

1202 Building

**1203 Design Practice and Management** 

**1204 Engineering Design** 

1205 Urban and Regional Planning

1299 Other Built Environment and Design

3 out of 22 two-digit UoEs and 10 out of 44 four-digit UoEs assessed were rated above world standard

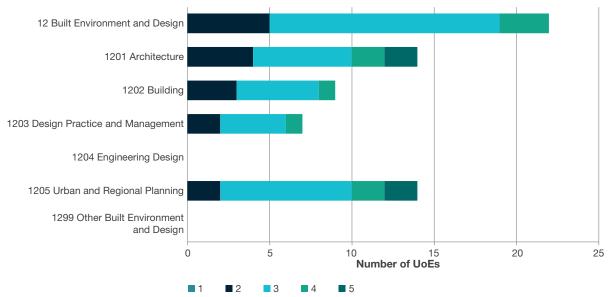
# FoR Overview

Built Environment and Design (12) accounted for approximately two per cent of the research outputs submitted to ERA 2015. Overall, conference papers were the most common research output type (37 per cent), followed by journal articles (33 per cent). Non-traditional research outputs comprised a high proportion of outputs in Architecture (1201) and Design Practice and Management (1203). Urban and Regional Planning (1205) and Architecture (1201) were the largest sub-disciplines by research output volume and research income. Design Practice and Management (1203) was the only four-digit code that submitted research commercialisation income.

Indicator	No.
Research outputs	9,934.2
Research income	\$89,679,775
FTEs	1,109.6
Esteem count	27.5
Patents	0
Research commercialisation income	\$92,692

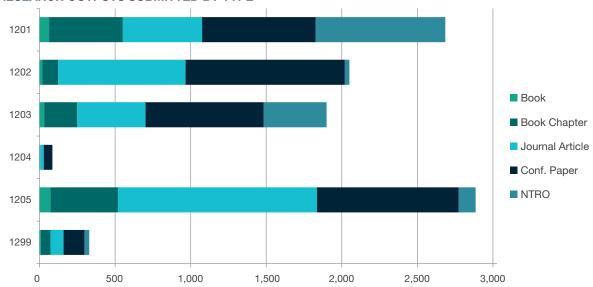
	Distribution		
Rating	Two-digit	Four-digit	
5	0	4	
4	3	6	
3	14	23	
2	5	11	
1	0	0	
Total	22	44	

#### NUMBER OF UOES PER RATING SCALE SCORE



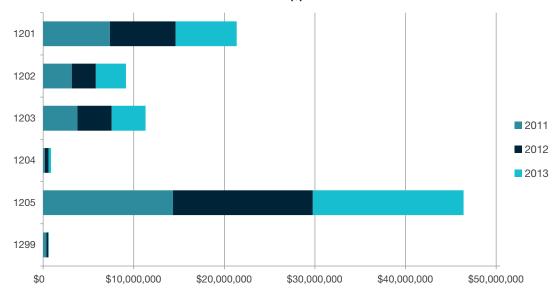
Note: 12 Built Environment and Design shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



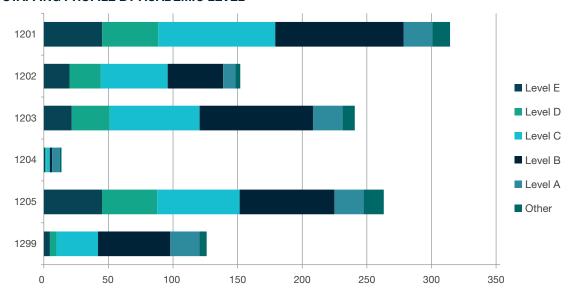
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1201 Architecture	63.2	488.1	524.2	750.5	859.2	2,685.2
1202 Building	19.4	103.9	843.0	1,054.2	29.7	2,050.2
1203 Design Practice and Management	30.8	219.2	452.0	782.0	415.4	1,899.3
1204 Engineering Design	2.3	2.0	23.5	57.6	0.0	85.4
1205 Urban and Regional Planning	73.3	446.0	1,316.4	938.0	111.6	2,885.2
1299 Other Built Environment and Design	9.2	63.9	86.3	137.6	31.8	328.8
Total	198.1	1,323.1	3,245.4	3,719.9	1,447.6	9,934.2

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1201 Architecture	7,357,570	7,254,285	6,744,326	21,356,181
1202 Building	3,157,075	2,657,104	3,319,684	9,133,862
1203 Design Practice and Management	3,792,233	3,770,372	3,735,723	11,298,329
1204 Engineering Design	184,353	405,088	280,346	869,787
1205 Urban and Regional Planning	14,337,399	15,431,129	16,641,372	46,409,900
1299 Other Built Environment and Design	364,126	201,157	46,432	611,716
Total	29,192,757	29,719,135	30,767,883	89,679,775

#### STAFFING PROFILE BY ACADEMIC LEVEL



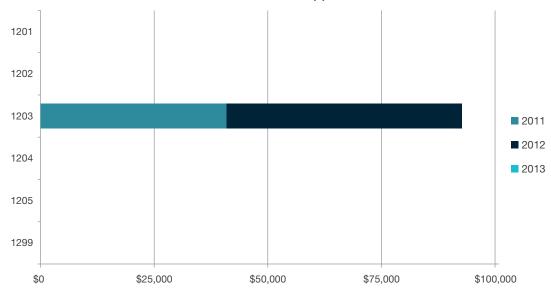
Continued

FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1201 Architecture	45.2	43.2	90.6	99.3	22.3	13.7	314.3
1202 Building	19.9	24.2	51.7	43.0	9.4	3.8	152.0
1203 Design Practice and Management	21.5	29.5	69.5	87.7	22.9	9.5	240.6
1204 Engineering Design	1.0	0.7	2.8	1.9	5.8	1.4	13.6
1205 Urban and Regional Planning	45.0	42.7	63.8	73.3	22.6	15.6	263.1
1299 Other Built Environment and Design	4.6	5.1	32.2	55.9	22.5	5.7	125.9
Total	137.3	145.4	310.7	361.1	105.5	49.6	1,109.6

#### PATENT PROFILE

Note: There were no patents submitted by UoEs in this FoR.

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



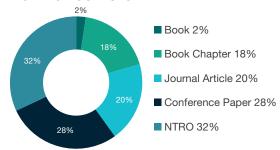
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1201 Architecture	0	0	0	0
1202 Building	0	0	0	0
1203 Design Practice and Management	40,895	51,797	0	92,692
1204 Engineering Design	0	0	0	0
1205 Urban and Regional Planning	0	0	0	0
1299 Other Built Environment and Design	0	0	0	0
Total	40,895	51,797	0	92,692

#### 1201 Architecture

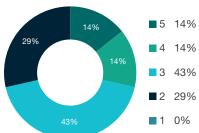
Indicator	No.
Research outputs	2,685.2
Research income	\$21,356,181
FTEs	314.3
Esteem count	11.9
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	2
4	2
3	6
2	4
1	0
Total	14

#### **RESEARCH OUTPUTS BY TYPE**





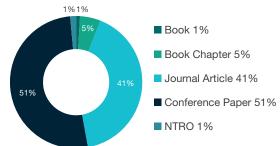


## 1202 Building

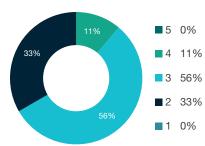
1202 201101119				
Indicator	No.			
Research outputs	2,050.2			
Research income	\$9,133,862			
FTEs	152.0			
Esteem count	1.1			
Patents	0.0			
Research commercialisation income	\$0			

Rating	Distribution
5	0
4	1
3	5
2	3
1	0
Total	9

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

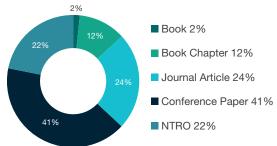


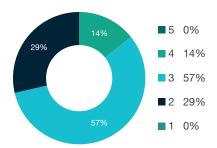
# 1203 Design Practice and Management

Indicator	No.
Research outputs	1,899.3
Research income	\$11,298,329
FTEs	240.6
Esteem count	3.5
Patents	0.0
Research commercialisation income	\$92,692

Rating	Distribution
5	0
4	1
3	4
2	2
1	0
Total	7

#### **RESEARCH OUTPUTS BY TYPE**



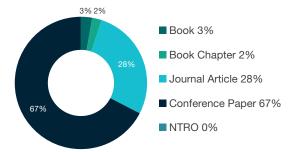


1204 Engineering Design

Indicator	No.
Research outputs	85.4
Research income	\$869,787
FTEs	13.6
Esteem count	0.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### RESEARCH OUTPUTS BY TYPE



#### FOR RATING DISTRIBUTION

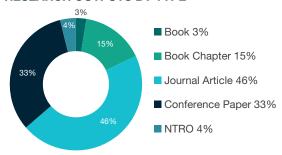
Note: There is no FoR rating distribution for 1204.

# 1205 Urban and Regional Planning

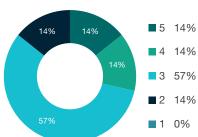
Indicator	No.
Research outputs	2,885.2
Research income	\$46,409,900
FTEs	263.1
Esteem count	11.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	2
4	2
3	8
2	2
1	0
Total	14

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

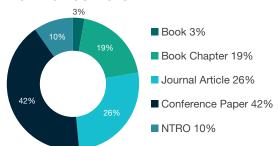


## 1299 Other Built Environment and Design

Indicator	No.		
Research outputs	328.8		
Research income	\$611,716		
FTEs	125.9		
Esteem count	0.0		
Patents	0.0		
Research commercialisation income	\$0		

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 1299.

# 13 EDUCATION

Education is comprised of the following four-digit codes:

**1301 Education Systems** 

1302 Curriculum and Pedagogy

1303 Specialist Studies in Education

1399 Other Education

8 out of 38 two-digit UoEs and 20 out of 93 four-digit UoEs assessed were rated above world standard

# **FoR Overview**

Education (13) accounted for approximately five per cent of the research outputs submitted to ERA 2015.

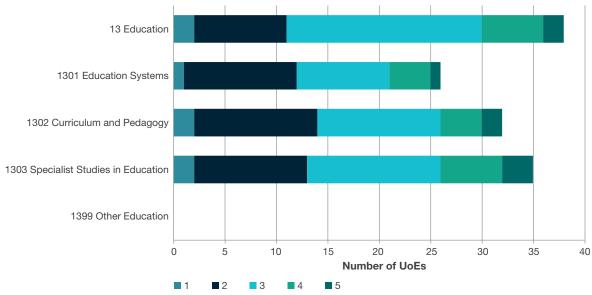
The most common research output type was journal articles (54 per cent), though the proportions of book chapters and conference paper were also high (22 per cent and 20 per cent respectively). Specialist Studies in Education (1303) was the largest Education sub–discipline in terms of volume of outputs, research income and staff FTE.

Education Systems (1301) had the highest amount of research commercialisation income.

Indicator	No.	
Research outputs	20,286.9	
Research income	\$215,728,415	
FTEs	2,938.7	
Esteem count	63.7	
Patents	-	
Research commercialisation income	\$1,362,916	

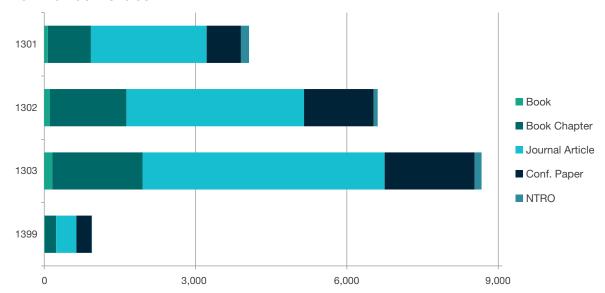
	Distribution			
Rating	Two-digit	Four-digit		
5	2	6		
4	6	14		
3	19	34		
2	9	34		
1	2	5		
Total	38	93		

#### NUMBER OF UOES PER RATING SCALE SCORE



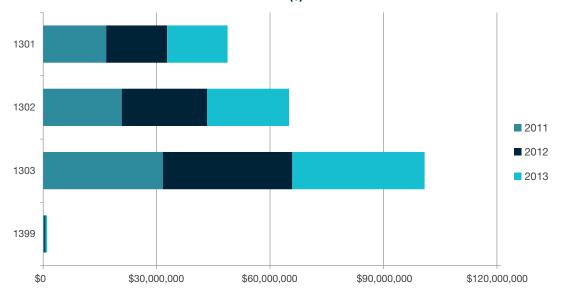
Note: 13 Education shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



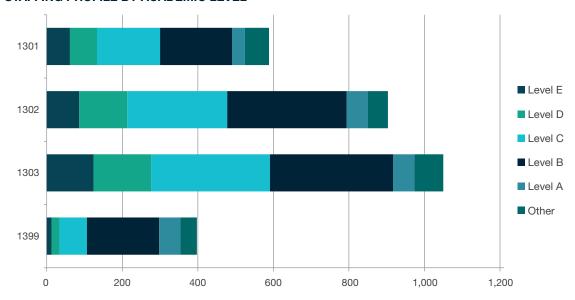
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1301 Education Systems	72.2	851.9	2,296.3	678.8	160.7	4,060.0
1302 Curriculum and Pedagogy	107.1	1,522.7	3,520.2	1,381.3	80.0	6,611.2
1303 Specialist Studies in Education	158.2	1,789.8	4,800.3	1,782.9	137.8	8,669.1
1399 Other Education	11.9	221.7	404.8	302.7	5.4	946.5
Total	349.4	4,386.2	11,021.6	4,145.7	384.0	20,286.9

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



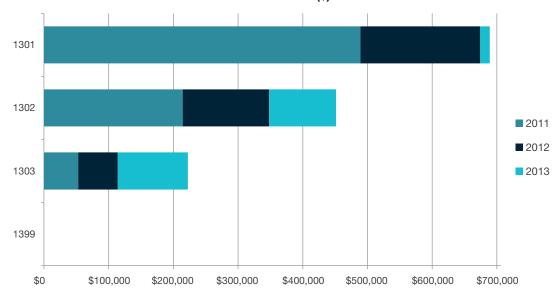
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1301 Education Systems	16,673,945	16,116,103	15,978,542	48,768,590
1302 Curriculum and Pedagogy	20,765,372	22,555,641	21,720,565	65,041,577
1303 Specialist Studies in Education	31,620,174	34,249,332	34,987,713	100,857,219
1399 Other Education	255,393	347,793	457,842	1,061,028
Total	69,314,884	73,268,868	73,144,662	215,728,415

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1301 Education Systems	61.4	71.5	167.1	190.5	34.3	63.6	588.3
1302 Curriculum and Pedagogy	86.1	127.2	264.6	316.4	55.3	53.7	903.3
1303 Specialist Studies in Education	124.1	151.9	314.9	325.6	56.6	76.5	1,049.7
1399 Other Education	12.5	21.1	72.6	191.7	55.6	43.9	397.4
Total	284.1	371.7	819.2	1,024.3	201.8	237.6	2,938.7

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1301 Education Systems	489,116	185,132	14,804	689,052
1302 Curriculum and Pedagogy	214,389	133,630	103,398	451,416
1303 Specialist Studies in Education	52,868	61,245	108,335	222,448
1399 Other Education	0	0	0	0
Total	756,373	380,007	226,536	1,362,916

## 1301 Education Systems

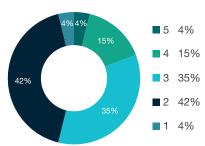
Indicator	No.
Research outputs	4,060.0
Research income	\$48,768,590
FTEs	588.3
Esteem count	17.9
Patents	_
Research commercialisation income	\$689.052

Rating	Distribution
5	1
4	4
3	9
2	11
1	1
Total	26

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

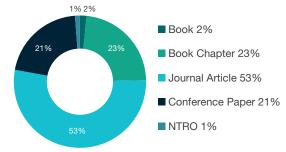


# 1302 Curriculum and Pedagogy

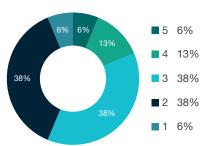
Indicator	No.
Research outputs	6,611.2
Research income	\$65,041,577
FTEs	903.3
Esteem count	16.5
Patents	-
Research commercialisation income	\$451,416

# Rating Distribution 5 2 4 4 3 12 2 12 1 2 Total 32

#### **RESEARCH OUTPUTS BY TYPE**

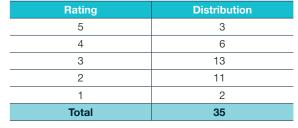


#### FOR RATING DISTRIBUTION

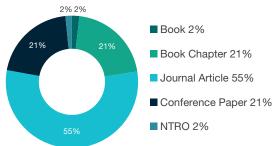


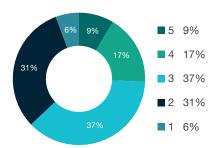
## 1303 Specialist Studies in Education

Indicator	No.
Research outputs	8,669.1
Research income	\$100,857,219
FTFs	1,049.7
Esteem count	29.3
Patents	29.0
Research commercialisation income	\$000 440
Research commercialisation income	\$222,448



#### **RESEARCH OUTPUTS BY TYPE**



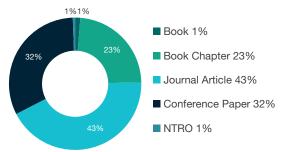


# 1399 Other Education

Indicator	No.
Research outputs	946.5
Research income	\$1,061,028
FTEs	397.4
Esteem count	0.0
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 1399.

# 14 ECONOMICS

Economics is comprised of the following four-digit codes:

**1401 Economic Theory** 

**1402 Applied Economics** 

1403 Econometrics

1499 Other Economics

7 out of 34 two-digit UoEs and 18 out of 46 four-digit UoEs assessed were rated above world standard

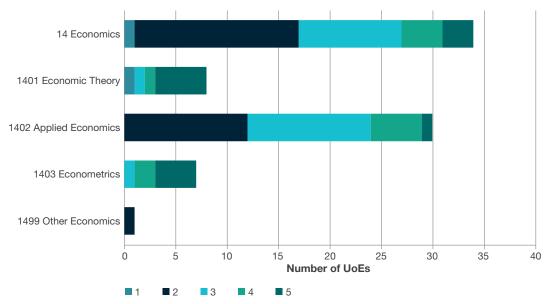
# **FoR Overview**

Economics (14) accounted for approximately two per cent of the research outputs submitted to ERA 2015. Journal articles were the primary research output type (76 per cent). Applied Economics (1402) was the largest Economics sub–discipline, in terms of research outputs, research income, staffing levels and research commercialisation income.

Indicator	No.
Research outputs	7,386.5
Research income	\$151,172,292
FTEs	947.3
Esteem count	91.9
Patents	-
Research commercialisation income	\$12,843

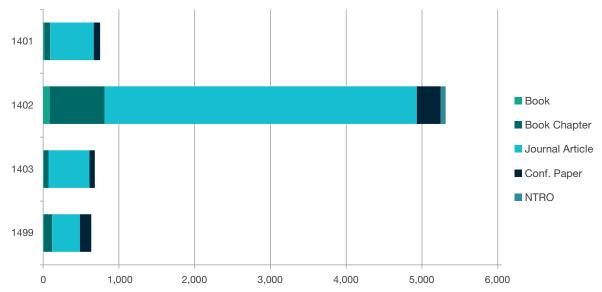
	Distribution			
Rating	Two-digit	Four-digit		
5	3	10		
4	4	8		
3	10	14		
2	16	13		
1	1	1		
Total	34	46		

#### NUMBER OF UOES PER RATING SCALE SCORE



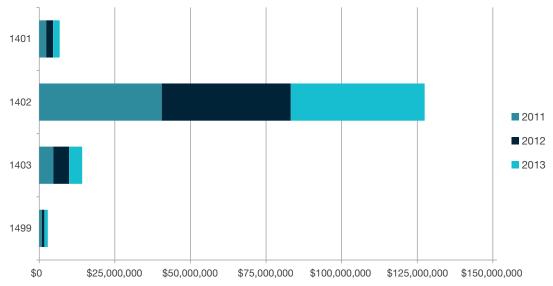
Note: 14 Economics shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



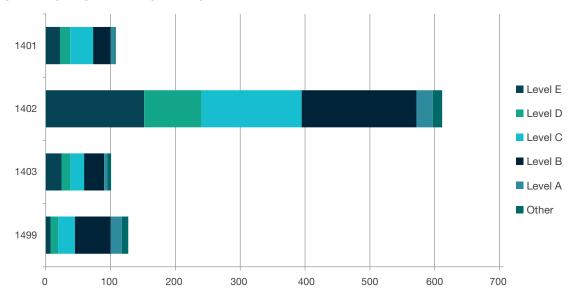
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1401 Economic Theory	15.0	77.3	576.7	82.6	1.0	752.5
1402 Applied Economics	85.6	726.0	4,120.9	315.8	64.5	5,312.8
1403 Econometrics	7.9	62.2	542.7	69.2	1.0	683.0
1499 Other Economics	12.4	106.7	365.9	148.2	4.9	638.2
Total	120.9	972.2	5,606.2	615.8	71.4	7,386.5

## **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



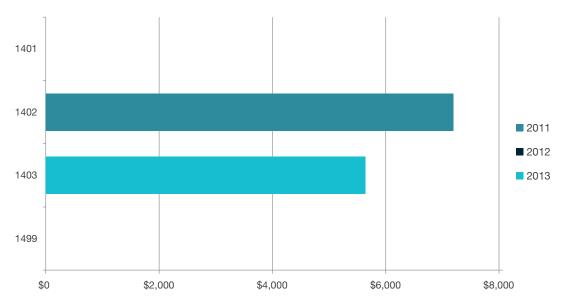
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1401 Economic Theory	2,283,601	2,293,477	2,161,014	6,738,091
1402 Applied Economics	40,502,304	42,664,126	44,260,373	127,426,803
1403 Econometrics	4,700,113	5,175,075	4,323,065	14,198,254
1499 Other Economics	859,913	830,124	1,119,107	2,809,144
Total	48,345,931	50,962,802	51,863,559	151,172,292

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1401 Economic Theory	21.9	15.7	35.5	26.9	6.0	1.8	107.8
1402 Applied Economics	151.8	88.3	154.6	177.2	25.1	14.5	611.5
1403 Econometrics	24.3	13.8	21.1	30.9	5.0	5.6	100.7
1499 Other Economics	7.3	11.6	26.1	55.1	17.0	10.2	127.3
Total	205.2	129.4	237.3	290.1	53.1	32.1	947.3

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



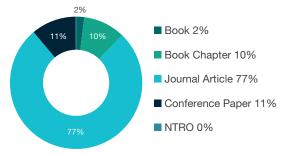
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1401 Economic Theory	0	0	0	0
1402 Applied Economics	7,201	0	0	7,201
1403 Econometrics	0	0	5,642	5,642
1499 Other Economics	0	0	0	0
Total	7,201	0	5,642	12,843

#### **1401 Economic Theory**

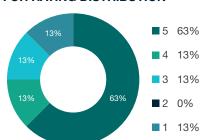
Indicator	No.
Research outputs	752.5
Research income	\$6,738,091
FTEs	107.8
Esteem count	9.3
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	5
4	1
3	1
2	0
1	1
Total	8

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

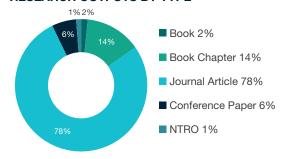


### 1402 Applied Economics

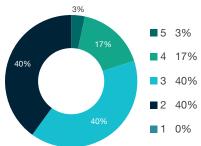
Indicator	No.
Research outputs	5,312.8
Research income	\$127,426,803
FTEs	611.5
Esteem count	70.3
Patents	-
Research commercialisation income	\$7,201

Rating	Distribution
5	1
4	5
3	12
2	12
1	0
Total	30

#### RESEARCH OUTPUTS BY TYPE

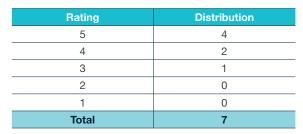


#### FOR RATING DISTRIBUTION

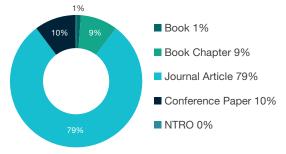


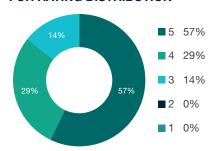
#### 1403 Econometrics

Indicator	No.
Research outputs	683.0
Research income	\$14,198,254
FTEs	100.7
Esteem count	12.0
Patents	-
Research commercialisation income	\$5,642



#### **RESEARCH OUTPUTS BY TYPE**



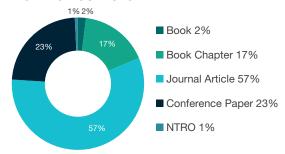


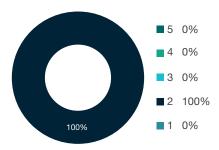
## 1499 Other Economics

Indicator	No.
Research outputs	638.2
Research income	\$2,809,144
FTEs	127.3
Esteem count	0.4
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	1
1	0
Total	1

#### **RESEARCH OUTPUTS BY TYPE**





# 15 COMMERCE, MANAGEMENT, TOURISM AND SERVICES

Commerce, Management, Tourism and Services is comprised of the following four-digit codes:

1501 Accounting, Auditing and Accountability

1502 Banking, Finance and Investment

**1503 Business and Management** 

**1504 Commercial Services** 

1505 Marketing

1506 Tourism

**1507 Transportation and Freight Services** 

1599 Other Commerce, Management, Tourism and Services

8 out of 37 two-digit UoEs and 40 out of 120 four-digit UoEs assessed were rated above world standard

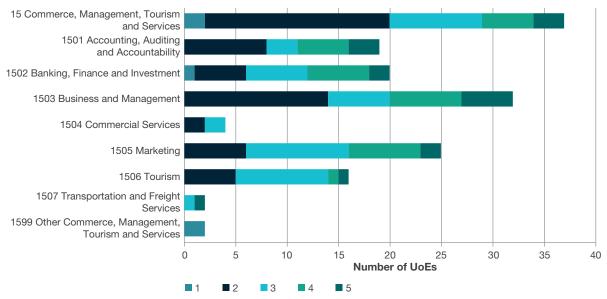
## FoR Overview

Commerce, Management, Tourism and Services (15) contributed approximately five per cent of the research outputs to ERA 2015. Journal articles were the most common research output type (62 per cent), though a moderately high proportion of conference papers were submitted (24 per cent). Business and Management (1503) was the largest discipline sub–grouping in terms of research outputs, research income and staffing profile. Commercial Services (1504) had the highest research commercialisation income.

Indicator	No.
Research outputs	23,384.0
Research income	\$153,344,580
FTEs	3,175.4
Esteem count	46.9
Patents	_
Research commercialisation income	\$148,065

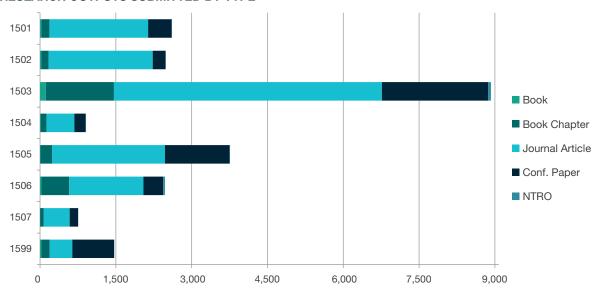
	Distribution				
Rating	Two-digit	Four-digit			
5	3	14			
4	5	26			
3	9	37			
2	18	40			
1	2	3			
Total	37	120			

#### NUMBER OF UOES PER RATING SCALE SCORE



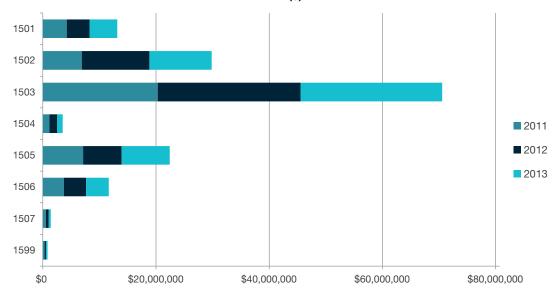
Note: 15 Commerce, Management, Tourism and Services shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



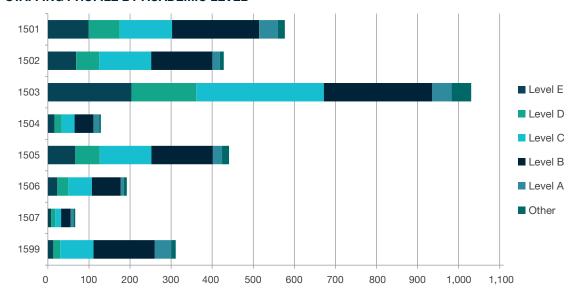
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1501 Accounting, Auditing and Accountability	24.6	160.6	1,953.1	466.5	8.0	2,612.7
1502 Banking, Finance and Investment	22.0	147.0	2,060.1	252.6	4.9	2,486.6
1503 Business and Management	112.4	1,350.2	5,302.1	2,100.8	55.3	8,920.8
1504 Commercial Services	11.0	115.4	551.4	224.6	6.5	908.9
1505 Marketing	8.4	228.4	2,235.2	1,279.4	7.8	3,759.2
1506 Tourism	28.7	548.8	1,468.8	392.0	33.3	2,471.6
1507 Transportation and Freight Services	2.0	73.0	512.0	166.5	3.0	756.6
1599 Other Commerce, Management, Tourism and Services	28.4	164.3	445.1	828.7	1.0	1,467.5
Total	237.5	2,787.7	14,527.8	5,711.2	119.8	23,384.0

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



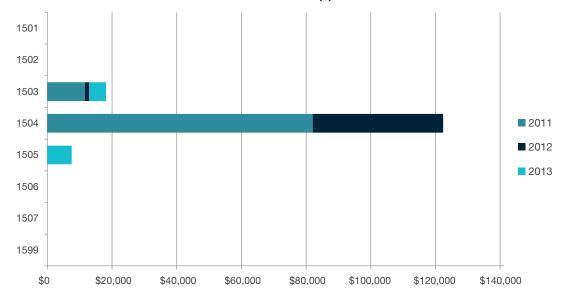
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1501 Accounting, Auditing and Accountability	4,222,976	4,025,253	4,903,593	13,151,821
1502 Banking, Finance and Investment	6,869,136	11,961,364	10,993,627	29,824,126
1503 Business and Management	20,300,218	25,241,759	25,018,735	70,560,712
1504 Commercial Services	1,157,818	1,394,349	955,817	3,507,985
1505 Marketing	7,115,266	6,803,645	8,498,254	22,417,165
1506 Tourism	3,719,891	3,929,805	3,994,752	11,644,448
1507 Transportation and Freight Services	534,454	512,752	351,528	1,398,734
1599 Other Commerce, Management, Tourism and Services	305,893	249,144	284,552	839,589
Total	44,225,651	54,118,071	55,000,858	153,344,580

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1501 Accounting, Auditing and Accountability	99.3	75.6	127.4	212.2	45.6	16.8	576.9
1502 Banking, Finance and Investment	68.8	56.1	126.5	149.1	18.3	9.3	428.1
1503 Business and Management	203.4	158.0	310.3	264.2	46.8	47.8	1,030.6
1504 Commercial Services	16.0	17.5	31.3	46.1	13.9	4.1	129.0
1505 Marketing	66.8	59.5	125.7	149.7	22.3	16.9	441.0
1506 Tourism	22.9	26.9	57.4	70.2	7.2	7.6	192.2
1507 Transportation and Freight Services	7.8	10.4	14.2	23.3	6.9	4.1	66.6
1599 Other Commerce, Management, Tourism and Services	13.2	16.5	81.4	149.1	40.1	10.8	311.2
Total	498.3	420.6	874.2	1,063.8	201.1	117.4	3,175.4

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



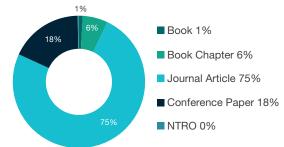
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1501 Accounting, Auditing and Accountability	0	0	0	0
1502 Banking, Finance and Investment	0	0	0	0
1503 Business and Management	11,606	1,350	5,184	18,139
1504 Commercial Services	82,045	40,342	0	122,387
1505 Marketing	0	0	7,539	7,539
1506 Tourism	0	0	0	0
1507 Transportation and Freight Services	0	0	0	0
1599 Other Commerce, Management, Tourism and Services	0	0	0	0
Total	93,650	41,692	12,723	148,065

## 1501 Accounting, Auditing and Accountability

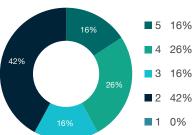
Indicator	No.	
Research outputs	2,612.7	
Research income	\$13,151,821	
FTEs	576.9	
Esteem count	7.2	
Patents	_	
Research commercialisation income	\$0	

Rating	Distribution
5	3
4	5
3	3
2	8
1	0
Total	19

#### **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

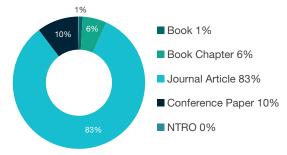


### 1502 Banking, Finance and Investment

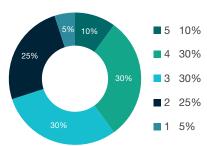
Indicator	No.
Research outputs	2,486.6
Research income	\$29,824,126
FTEs	428.1
Esteem count	4.2
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	2
4	6
3	6
2	5
1	1
Total	20

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

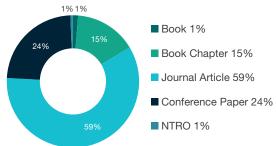


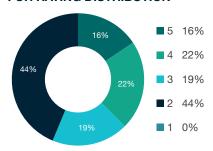
## 1503 Business and Management

Indicator	No.
Research outputs	8,920.8
Research income	\$70,560,712
FTEs	1,030.6
Esteem count	29.6
Patents	_
Research commercialisation income	\$18,139



#### **RESEARCH OUTPUTS BY TYPE**



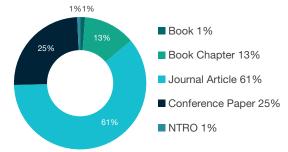


#### **1504 Commercial Services**

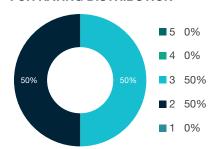
Indicator	No.
Research outputs	908.9
Research income	\$3,507,985
FTEs	129.0
Esteem count	0.0
Patents	-
Research commercialisation income	\$122,387

Rating	Distribution
5	0
4	0
3	2
2	2
1	0
Total	4

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

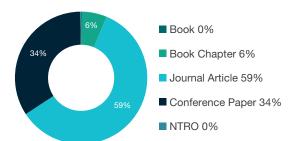


## 1505 Marketing

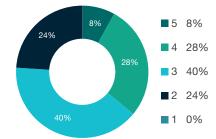
<b>3</b>		
Indicator	No.	
Research outputs	3,759.2	
Research income	\$22,417,165	
FTEs	441.0	
Esteem count	2.1	
Patents	-	
Research commercialisation income	\$7,539	

Rating	Distribution
5	2
4	7
3	10
2	6
1	0
Total	25

#### **RESEARCH OUTPUTS BY TYPE**

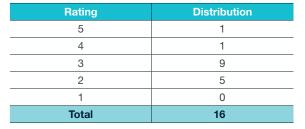


#### FOR RATING DISTRIBUTION

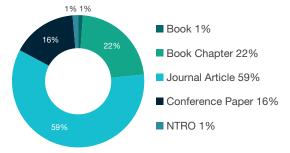


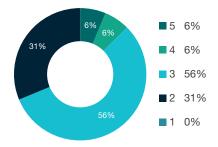
#### 1506 Tourism

Indicator	No.
Research outputs	2,471.6
Research income	\$11,644,448
FTEs	192.2
Esteem count	2.7
Patents	_
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



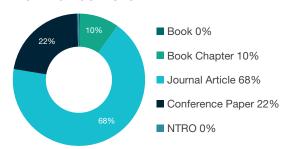


## 1507 Transportation and Freight Services

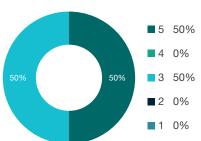
Indicator	No.
Research outputs	756.6
Research income	\$1,398,734
FTEs	66.6
Esteem count	1.1
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	1
4	0
3	1
2	0
1	0
Total	2

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

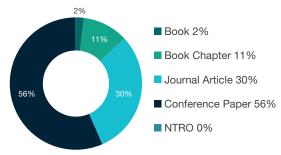


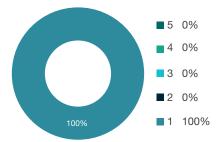
## 1599 Other Commerce, Management, Tourism and Services

Indicator	No.
Research outputs	1,467.5
Research income	\$839,589
FTEs	311.2
Esteem count	0.0
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	2
Total	2

#### **RESEARCH OUTPUTS BY TYPE**





## 16 STUDIES IN HUMAN SOCIETY

Studies in Human Society is comprised of the following four-digit codes:

**1601 Anthropology** 

**1602 Criminology** 

1603 Demography

**1604 Human Geography** 

**1605 Policy and Administration** 

**1606 Political Science** 

1607 Social Work

1608 Sociology

1699 Other Studies in Human Society

10 out of 39 two-digit UoEs and 43 out of 121 four-digit UoEs assessed were rated above world standard

## FoR Overview

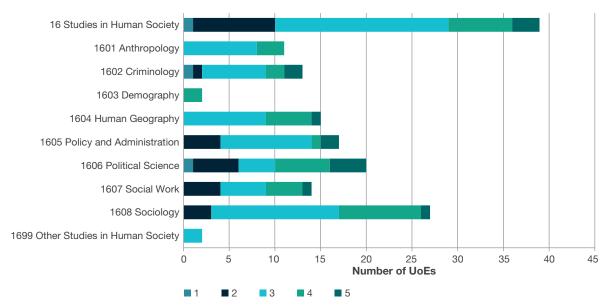
Studies in Human Society (16) contributed approximately five per cent of the research outputs to ERA 2015.

Journal articles were the most common research output type (58 per cent), followed by book chapters (29 per cent). The three largest sub–disciplines in terms of research outputs, research income and staff FTE were Policy and Adminstration (1605), Political Science (1606) and Sociology (1608). No research commercialisation income was submitted to ERA 2015 for Studies in Human Society (16).

Indicator	No.
Research outputs	22,976.7
Research income	\$392,138,498
FTEs	2,411.9
Esteem count	294.2
Patents	_
Research commercialisation income	\$0

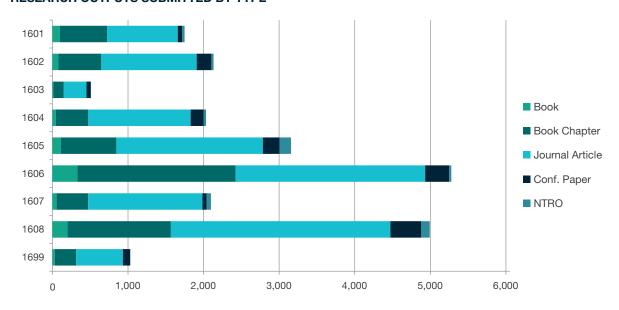
	Distribution		
Rating	Two-digit	Four-digit	
5	3	11	
4	7	32	
3	19	59	
2	9	17	
1	1	2	
Total	39	121	

#### NUMBER OF UOES PER RATING SCALE SCORE



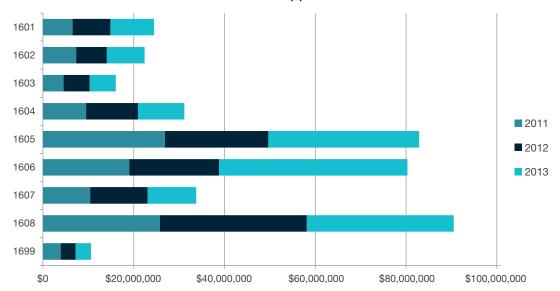
Note: 16 Studies in Human Society shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



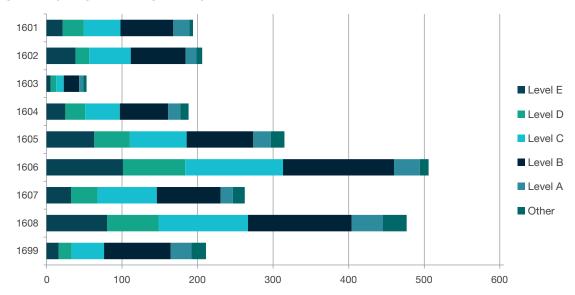
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1601 Anthropology	99.2	623.8	934.5	60.1	30.5	1,748.2
1602 Criminology	79.8	567.7	1,260.8	195.1	28.3	2,131.6
1603 Demography	13.4	136.8	300.8	57.0	0.7	508.6
1604 Human Geography	47.2	427.5	1,354.4	171.3	32.0	2,032.3
1605 Policy and Administration	110.1	736.7	1,937.4	219.6	152.8	3,156.5
1606 Political Science	330.9	2,094.1	2,507.4	315.3	29.6	5,277.3
1607 Social Work	56.0	417.2	1,512.8	53.2	58.1	2,097.4
1608 Sociology	200.3	1,367.8	2,904.4	408.8	111.3	4,992.6
1699 Other Studies in Human Society	31.4	283.9	617.5	95.2	4.3	1,032.3
Total	968.1	6,655.5	13,329.9	1,575.6	447.6	22,976.7

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1601 Anthropology	6,523,781	8,343,077	9,594,166	24,461,024
1602 Criminology	7,308,613	6,777,671	8,313,583	22,399,866
1603 Demography	4,554,351	5,760,699	5,739,380	16,054,430
1604 Human Geography	9,492,754	11,431,980	10,236,972	31,161,707
1605 Policy and Administration	26,881,926	22,789,748	33,207,261	82,878,935
1606 Political Science	19,030,160	19,776,275	41,505,782	80,312,217
1607 Social Work	10,408,564	12,631,136	10,737,202	33,776,902
1608 Sociology	25,777,621	32,354,734	32,370,445	90,502,800
1699 Other Studies in Human Society	3,915,607	3,277,767	3,397,242	10,590,617
Total	113,893,377	123,143,087	155,102,033	392,138,498

#### STAFFING PROFILE BY ACADEMIC LEVEL



Continued

FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1601 Anthropology	21.6	27.8	48.6	69.9	21.3	4.8	193.9
1602 Criminology	38.5	18.0	54.9	72.7	14.3	7.6	206.1
1603 Demography	5.3	7.5	10.1	20.3	5.7	4.1	53.0
1604 Human Geography	25.1	26.2	45.8	63.9	16.2	10.9	188.1
1605 Policy and Administration	63.4	47.0	75.1	88.3	23.0	18.2	314.9
1606 Political Science	101.2	82.4	129.5	146.8	34.3	11.5	505.7
1607 Social Work	32.4	35.2	78.4	84.5	16.2	15.8	262.5
1608 Sociology	80.5	67.7	118.5	137.4	41.3	31.3	476.7
1699 Other Studies in Human Society	16.3	17.0	42.9	88.3	27.3	19.2	211.1
Total	384.5	328.7	603.9	772.0	199.4	123.4	2,411.9

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**

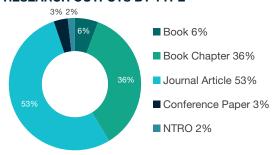
Note: There was no research commercialisation income reported by UoEs in this FoR.

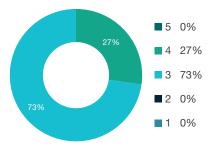
## 1601 Anthropology

Indicator	No.
Research outputs	1,748.2
Research income	\$24,461,024
FTEs	193.9
Esteem count	66.7
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	0
4	3
3	8
2	0
1	0
Total	11

#### **RESEARCH OUTPUTS BY TYPE**



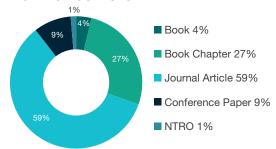


## **1602 Criminology**

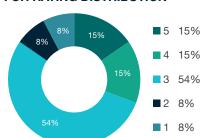
Indicator	No.
Research outputs	2,131.6
Research income	\$22,399,866
FTEs	206.1
Esteem count	11.6
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	2
4	2
3	7
2	1
1	1
Total	13

#### RESEARCH OUTPUTS BY TYPE



#### FOR RATING DISTRIBUTION

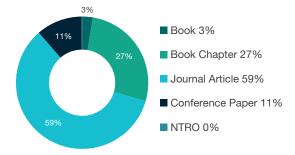


### 1603 Demography

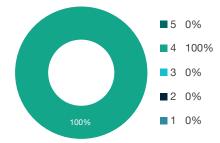
Indicator	No.
Research outputs	508.6
Research income	\$16,054,430
FTEs	53.0
Esteem count	8.3
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	0
4	2
3	0
2	0
1	0
Total	2

#### RESEARCH OUTPUTS BY TYPE

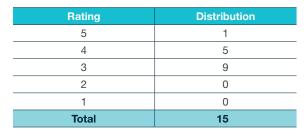


#### FOR RATING DISTRIBUTION

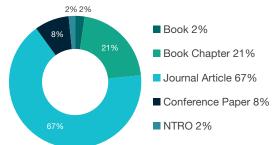


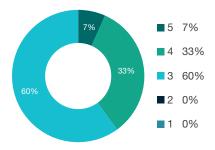
#### 1604 Human Geography

Indicator	No.
Research outputs	2,032.3
Research income	\$31,161,707
FTEs	188.1
Esteem count	29.4
Patents	-
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



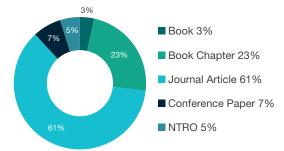


#### 1605 Policy and Administration

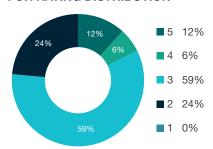
Indicator	No.
Research outputs	3,156.5
Research income	\$82,878,935
FTEs	314.9
Esteem count	30.1
Patents	_
Research commercialisation income	\$0

# Rating Distribution 5 2 4 1 3 10 2 4 1 0 Total 17

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

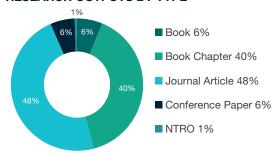


#### 1606 Political Science

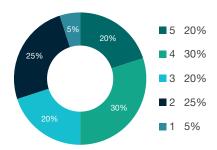
Indicator	No.
Research outputs	5,277.3
Research income	\$80,312,217
FTEs	505.7
Esteem count	82.3
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	4
4	6
3	4
2	5
1	1
Total	20

#### **RESEARCH OUTPUTS BY TYPE**

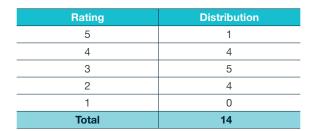


#### FOR RATING DISTRIBUTION

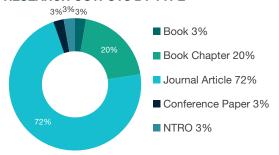


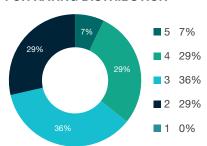
#### 1607 Social Work

Indicator	No.
Research outputs	2,097.4
Research income	\$33,776,902
FTEs	262.5
Esteem count	1.7
Patents	_
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



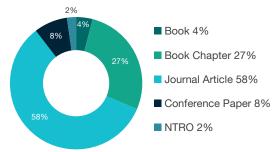


#### 1608 Sociology

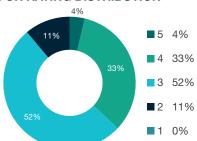
Indicator	No.
Research outputs	4,992.6
Research income	\$90,502,800
FTEs	476.7
Esteem count	54.6
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	1
4	9
3	14
2	3
1	0
Total	27

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

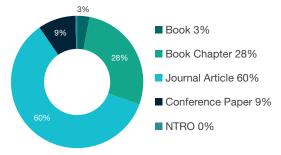


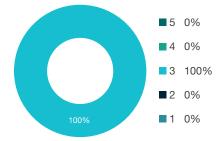
## 1699 Other Studies in Human Society\_\_\_\_

Indicator	No.
Research outputs	1,032.3
Research income	\$10,590,617
FTEs	211.1
Esteem count	9.4
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	2
2	0
1	0
Total	2

#### **RESEARCH OUTPUTS BY TYPE**





# 17 PSYCHOLOGY AND COGNITIVE SCIENCES

Psychology and Cognitive Sciences is comprised of the following four-digit codes:

1701 Psychology

**1702 Cognitive Sciences** 

1799 Other Psychology and Cognitive Sciences

13 out of 33 two-digit UoEs and 22 out of 33 four-digit UoEs assessed were rated above world standard

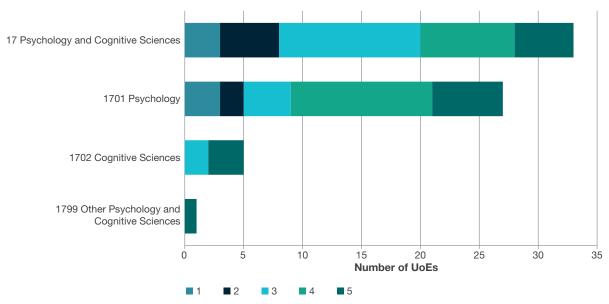
## **FoR Overview**

Psychology and Cognitive Sciences (17) contributed approximately three per cent of the research outputs to ERA 2015. Journal articles were the main research output (83 per cent). Psychology (1701) was the largest sub–discipline in terms of research outputs, research income, staffing profile and research commercialisation income.

Indicator	No.
Research outputs	14,377.1
Research income	\$265,456,454
FTEs	1,421.5
Esteem count	203.7
Patents	_
Research commercialisation income	\$3,236,394

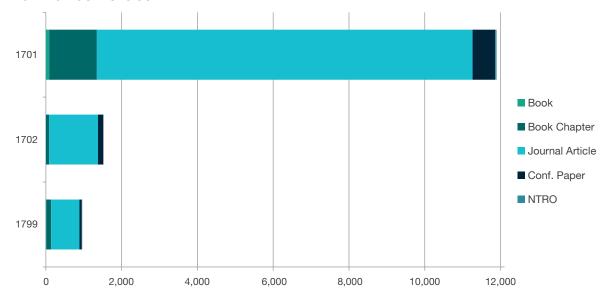
	Distribution		
Rating	Two-digit	Four-digit	
5	5	10	
4	8	12	
3	12	6	
2	5	2	
1	3	3	
Total	33	33	

#### NUMBER OF UOES PER RATING SCALE SCORE



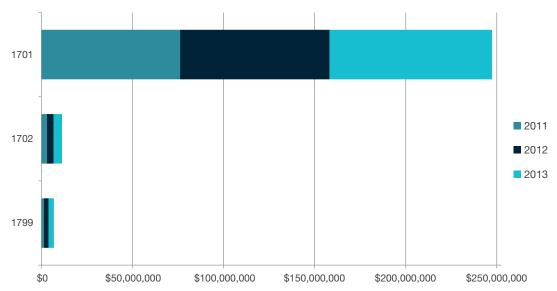
Note: 17 Psychology and Cognitive Sciences shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



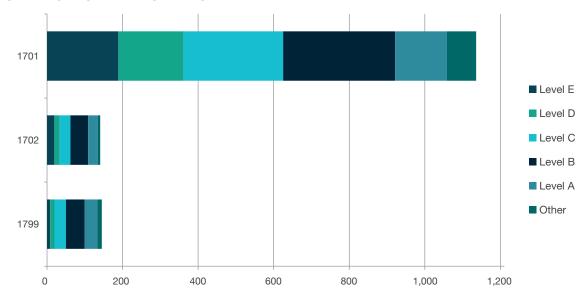
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1701 Psychology	87.7	1,258.4	9,917.1	594.0	39.6	11,896.6
1702 Cognitive Sciences	4.0	79.3	1,292.5	142.3	2.0	1,520.0
1799 Other Psychology and Cognitive Sciences	12.6	126.8	747.6	60.2	13.3	960.5
Total	104.3	1,464.5	11,957.1	796.4	54.9	14,377.1

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



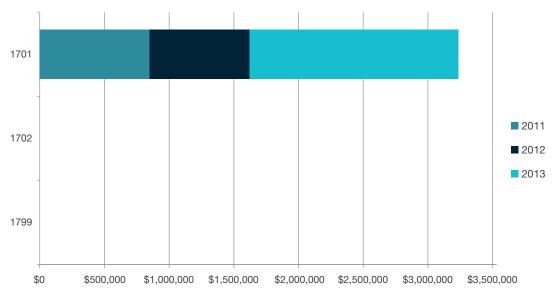
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1701 Psychology	76,072,059	82,141,854	89,178,787	247,392,700
1702 Cognitive Sciences	3,003,073	3,593,827	4,674,320	11,271,220
1799 Other Psychology and Cognitive Sciences	1,326,717	2,586,516	2,879,300	6,792,533
Total	80,401,849	88,322,198	96,732,407	265,456,454

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1701 Psychology	188.7	172.2	264.1	296.5	137.2	77.2	1,135.9
1702 Cognitive Sciences	19.5	13.9	28.8	46.7	25.9	5.9	140.6
1799 Other Psychology and Cognitive Sciences	8.1	11.5	30.2	50.0	33.3	11.8	145.0
Total	216.3	197.6	323.1	393.2	196.4	94.9	1,421.5

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



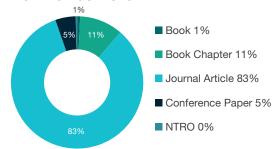
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1701 Psychology	849,757	772,511	1,614,125	3,236,394
1702 Cognitive Sciences	0	0	0	0
1799 Other Psychology and Cognitive Sciences	0	0	0	0
Total	849,757	772,511	1,614,125	3,236,394

#### 1701 Psychology

Indicator	No.
Research outputs	11,896.6
Research income	\$247,392,700
FTEs	1,135.9
Esteem count	195.5
Patents	_
Research commercialisation income	\$3,236,394

Rating	Distribution
5	6
4	12
3	4
2	2
1	3
Total	27

#### **RESEARCH OUTPUTS BY TYPE**





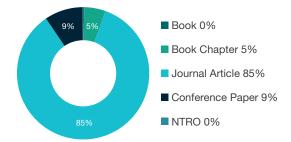
## 1702 Cognitive Sciences

Indicator	No.
Research outputs	1,520.0
Research income	\$11,271,220
FTEs	140.6
Esteem count	7.9
Patents	_
Research commercialisation income	\$0

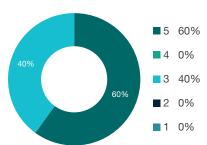
Rating	Distribution
5	3
4	0
3	2
2	0
1	0
Total	5

■2 7% ■1 11%

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

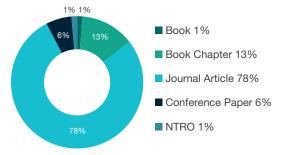


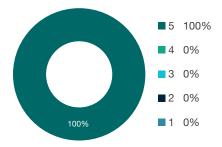
## 1799 Other Psychology and Cognitive Sciences

	,
Indicator	No.
Research outputs	960.5
Research income	\$6,792,533
FTEs	145.0
Esteem count	0.3
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	1
4	0
3	0
2	0
1	0
Total	1

#### **RESEARCH OUTPUTS BY TYPE**





## 18 LAW AND LEGAL STUDIES

Law and Legal Studies is comprised of the following four-digit codes:

1801 Law

1802 Maori Law

1899 Other Law and Legal Studies

13 out of 30 two-digit UoEs and 14 out of 30 four-digit UoEs assessed were rated above world standard

## **FoR Overview**

Law and Legal Studies (18) contributed approximately two per cent of the research outputs to ERA 2015.

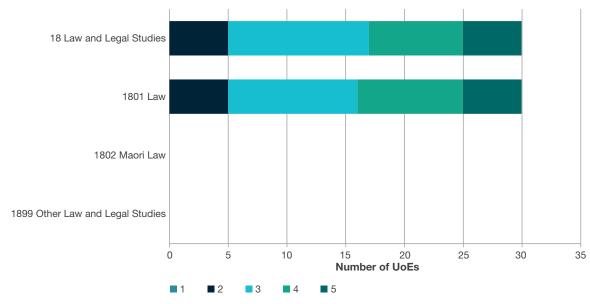
Journal articles were the main research output type (64 per cent) followed by book chapters (29 per cent).

Law (1801) accounted for the majority of all research outputs, research income and staff FTE in the discipline.

Indicator	No.
Research outputs	10,252.5
Research income	\$75,699,347
FTEs	1,339.2
Esteem count	65.4
Patents	_
Research commercialisation income	_

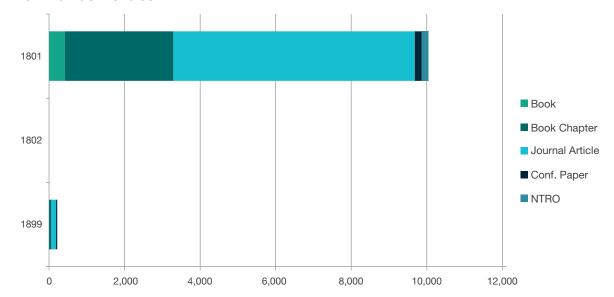
	Distribution				
Rating	Two-digit	Four-digit			
5	5	5			
4	8	9			
3	12	11			
2	5	5			
1	0	0			
Total	30	30			

#### NUMBER OF UOES PER RATING SCALE SCORE



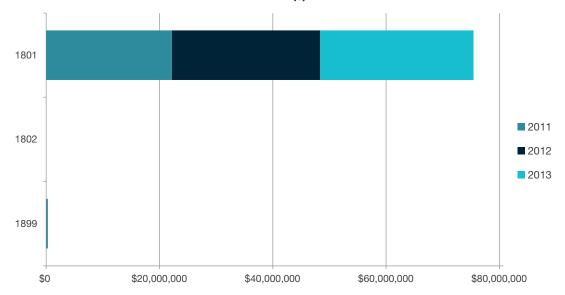
Note: 18 Law and Legal Studies shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



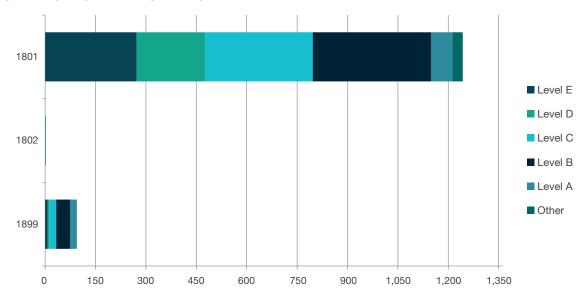
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1801 Law	423.6	2,867.0	6,393.4	176.0	175.0	10,035.1
1802 Maori Law	0.0	0.0	0.0	0.0	0.0	0.0
1899 Other Law and Legal Studies	2.0	58.7	126.2	30.5	0.0	217.4
Total	425.6	2,925.7	6,519.7	206.5	175.0	10,252.5

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1801 Law	22,176,731	26,202,097	27,054,020	75,432,849
1802 Maori Law	0	0	0	0
1899 Other Law and Legal Studies	161,549	74,141	30,808	266,498
Total	22,338,280	26,276,239	27,084,829	75,699,347

#### STAFFING PROFILE BY ACADEMIC LEVEL



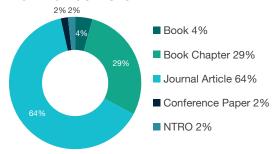
FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1801 Law	272.1	204.1	320.5	352.1	63.4	31.1	1,243.2
1802 Maori Law	0.0	0.0	0.2	0.0	1.0	1.0	2.2
1899 Other Law and Legal Studies	7.7	4.0	21.0	41.1	18.3	1.7	93.8
Total	279.8	208.1	341.6	393.2	82.6	33.8	1,339.2

#### 1801 Law

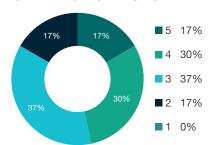
Indicator	No.
Research outputs	10,035.1
Research income	\$75,432,849
FTEs	1,243.2
Esteem count	65.4
Patents	-
Research commercialisation income	-

# Rating Distribution 5 5 4 9 3 11 2 5 1 0 Total 30

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION



#### 1802 Maori Law

Indicator	No.
Research outputs	0.0
Research income	\$0
FTEs	2.2
Esteem count	0.0
Patents	-
Research commercialisation income	_

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**

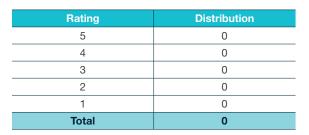
There are no research outputs coded to 1802.

#### FOR RATING DISTRIBUTION

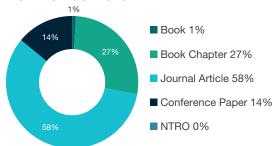
Note: There is no FoR rating distribution for 1802.

## 1899 Other Law and Legal Studies

Indicator	No.
Research outputs	217.4
Research income	\$266,498
FTEs	93.8
Esteem count	0.0
Patents	_
Research commercialisation income	_



#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 1899.

## 19 STUDIES IN CREATIVE ARTS AND WRITING

Studies in Creative Arts and Writing is comprised of the following four-digit codes:

1901 Art Theory and Criticism

1902 Film, Television and Digital Media

1903 Journalism and Professional Writing

1904 Performing Arts and Creative Writing

1905 Visual Arts and Crafts

1999 Other Studies in Creative Arts and Writing

7 out of 36 two-digit UoEs and 20 out of 70 four-digit UoEs assessed were rated above world standard

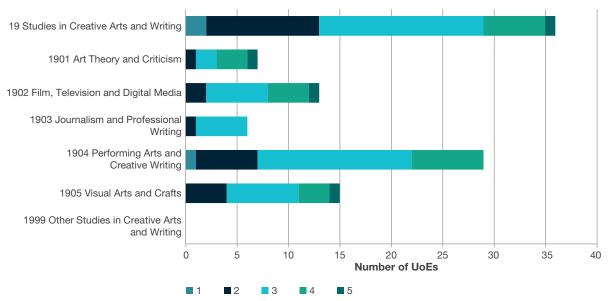
## FoR Overview

Studies in Creative Arts and Writing (19) contributed approximately three per cent of the research outputs to ERA 2015. Non-traditional research outputs were the main research output type (52 per cent), followed by journal articles (23 per cent). Performing Arts and Creative Writing (1904) was the largest sub-discipline in terms of research outputs, research income and staff FTE. Film, Television and Digital Media (1902) had the largest amount of research commercialisation income.

Indicator	No.
Research outputs	12,939.7
Research income	\$38,443,728
FTEs	1,557.1
Esteem count	162.7
Patents	0
Research commercialisation income	\$255,837

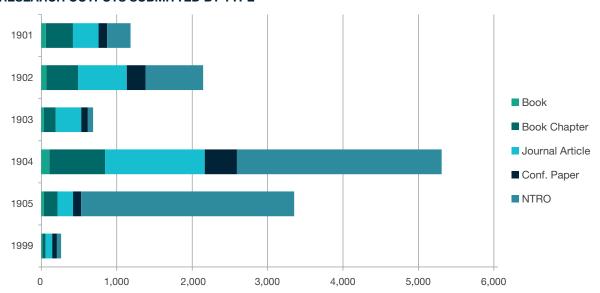
	Distribution				
Rating	Two-digit	Four-digit			
5	1	3			
4	6	17			
3	16	35			
2	11	14			
1	2	1			
Total	36	70			

#### NUMBER OF UOES PER RATING SCALE SCORE



Note: 19 Studies in Creative Arts and Writing shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



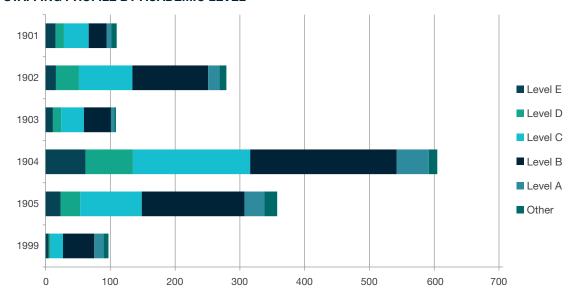
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
1901 Art Theory and Criticism	58.7	361.0	339.7	114.6	309.4	1,183.5
1902 Film, Television and Digital Media	68.1	418.7	646.7	248.2	764.1	2,145.7
1903 Journalism and Professional Writing	34.4	156.6	338.2	87.6	70.0	686.8
1904 Performing Arts and Creative Writing	105.1	739.7	1,321.8	427.7	2,714.4	5,308.6
1905 Visual Arts and Crafts	31.6	182.8	206.6	106.9	2,824.8	3,352.7
1999 Other Studies in Creative Arts and Writing	11.5	45.5	87.3	63.0	55.2	262.5
Total	309.4	1,904.3	2,940.2	1,048.0	6,737.8	12,939.7

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1901 Art Theory and Criticism	1,580,781	1,923,358	1,791,377	5,295,516
1902 Film, Television and Digital Media	2,384,489	2,113,564	2,296,919	6,794,972
1903 Journalism and Professional Writing	544,928	384,007	492,179	1,421,114
1904 Performing Arts and Creative Writing	5,158,776	5,412,394	7,084,733	17,655,903
1905 Visual Arts and Crafts	2,081,786	2,400,022	2,461,266	6,943,075
1999 Other Studies in Creative Arts and Writing	81,135	101,782	150,231	333,149
Total	11,831,895	12,335,127	14,276,706	38,443,728

#### STAFFING PROFILE BY ACADEMIC LEVEL

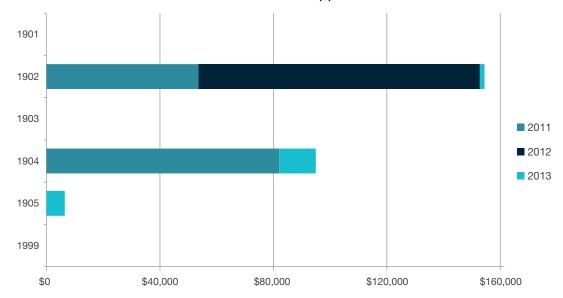


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
1901 Art Theory and Criticism	15.5	12.9	38.1	27.6	7.1	8.6	109.9
1902 Film, Television and Digital Media	16.0	35.4	82.5	116.9	17.7	10.5	279.2
1903 Journalism and Professional Writing	11.2	12.8	35.2	41.6	5.1	2.7	108.6
1904 Performing Arts and Creative Writing	61.6	73.3	181.0	226.3	49.7	13.0	604.8
1905 Visual Arts and Crafts	23.2	30.4	94.9	158.5	31.1	19.4	357.5
1999 Other Studies in Creative Arts and Writing	5.0	2.9	18.9	48.4	14.4	7.5	97.1
Total	132.6	167.6	450.7	619.3	125.1	61.8	1,557.1

#### PATENT PROFILE

Note: There were no patents submitted by UoEs in this FoR.

#### **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



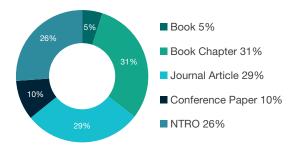
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
1901 Art Theory and Criticism	0	0	0	0
1902 Film, Television and Digital Media	53,628	99,117	1,713	154,457
1903 Journalism and Professional Writing	0	0	0	0
1904 Performing Arts and Creative Writing	82,045	0	12,908	94,953
1905 Visual Arts and Crafts	0	0	6,427	6,427
1999 Other Studies in Creative Arts and Writing	0	0	0	0
Total	135,672	99,117	21,048	255,837

## 1901 Art Theory and Criticism

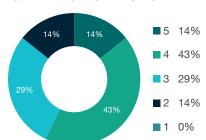
Indicator	No.
Research outputs	1,183.5
Research income	\$5,295,516
FTEs	109.9
Esteem count	16.2
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	1
4	3
3	2
2	1
1	0
Total	7

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

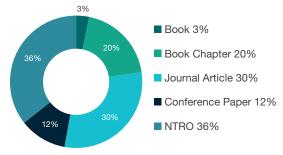


#### 1902 Film, Television and Digital Media

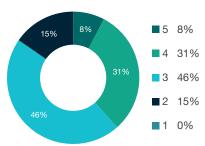
	9
Indicator	No.
Research outputs	2,145.7
Research income	\$6,794,972
FTEs	279.2
Esteem count	25.8
Patents	0.0
Research commercialisation income	\$154,457

Rating	Distribution
5	1
4	4
3	6
2	2
1	0
Total	13

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

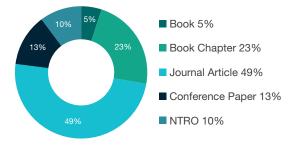


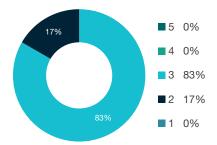
## 1903 Journalism and Professional Writing

Indicator	No.
Research outputs	686.8
Research income	\$1,421,114
FTEs	108.6
Esteem count	2.0
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	5
2	1
1	0
Total	6

#### **RESEARCH OUTPUTS BY TYPE**



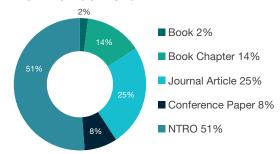


## 1904 Performing Arts and Creative Writing

<b>9</b>	
Indicator	No.
Research outputs	5,308.6
Research income	\$17,655,903
FTEs	604.8
Esteem count	65.7
Patents	0.0
Research commercialisation income	\$94 953

Rating	Distribution
5	0
4	7
3	15
2	6
1	1
Total	29

#### RESEARCH OUTPUTS BY TYPE



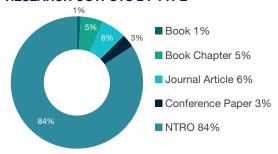


#### 1905 Visual Arts and Crafts

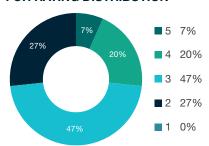
Indicator	No.
Research outputs	3,352.7
Research income	\$6,943,075
FTEs	357.5
Esteem count	52.0
Patents	0.0
Research commercialisation income	\$6,427

Rating	Distribution
5	1
4	3
3	7
2	4
1	0
Total	15

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

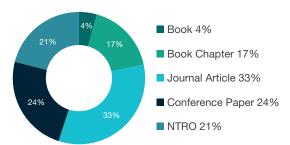


#### 1999 Other Studies in Creative Arts and Writing

Indicator	No.				
Research outputs	262.5				
Research income	\$333,149				
FTEs	97.1				
Esteem count	1.0				
Patents	0.0				
Research commercialisation income	\$0				

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 1999.

# 20 LANGUAGE, COMMUNICATION AND CULTURE

Language, Communication and Culture is comprised of the following four-digit codes:

**2001 Communication and Media Studies** 

2002 Cultural Studies

**2003 Language Studies** 

**2004 Linguistics** 

**2005 Literary Studies** 

2099 Other Language, Communication and Culture

15 out of 33 two-digit UoEs and 43 out of 77 four-digit UoEs assessed were rated above world standard

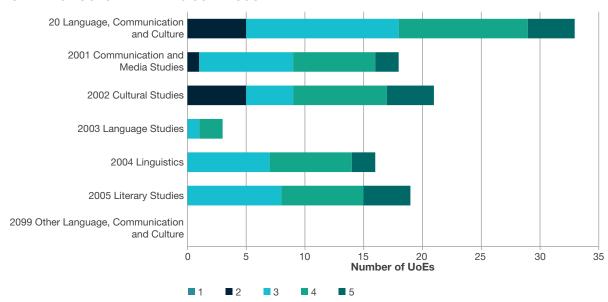
## FoR Overview

Language, Communication and Culture (20) contributed approximately three per cent of the research outputs to ERA 2015. While journal articles were the most common research output type (48 per cent), a significant proportion were book chapters (36 per cent). Cultural Studies (2002) and Literary Studies (2005) were the two largest disciplines in terms of research outputs and staff FTE. Linguistics (2004) had the largest amount of research income, whereas Communication and Media Studies (2001) had the largest amount of research commercialisation income.

Indicator	No.
Research outputs	13,409.7
Research income	\$96,737,219
FTEs	1,574.9
Esteem count	224.0
Patents	_
Research commercialisation income	\$12,963

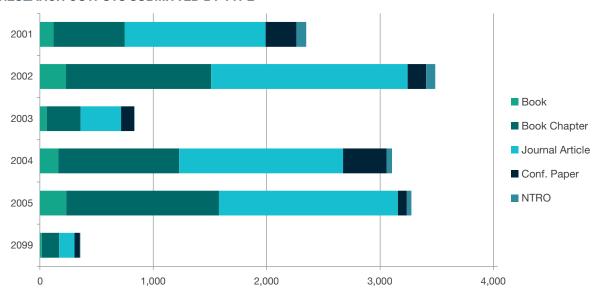
	Distribution				
Rating	Two-digit	Four-digit			
5	4	12			
4	11	31			
3	13	28			
2	5	6			
1	0	0			
Total	33	77			

#### NUMBER OF UOES PER RATING SCALE SCORE



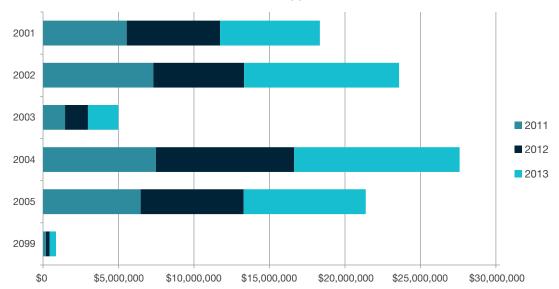
Note: 20 Language, Communication and Culture shows assessed two-digit UoEs only.

#### **RESEARCH OUTPUTS SUBMITTED BY TYPE**



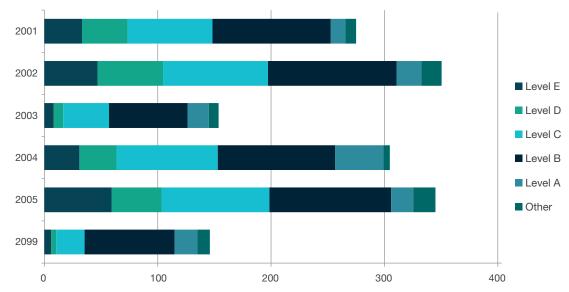
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
2001 Communication and Media Studies	120.3	629.5	1,240.5	271.9	87.0	2,349.1
2002 Cultural Studies	230.5	1,279.1	1,733.5	162.7	80.8	3,486.7
2003 Language Studies	60.8	299.4	355.7	114.9	5.5	836.2
2004 Linguistics	162.3	1,065.9	1,445.2	383.5	47.8	3,104.7
2005 Literary Studies	232.3	1,347.3	1,578.3	77.8	40.3	3,275.9
2099 Other Language, Communication and Culture	16.8	153.6	135.9	47.0	3.8	357.0
Total	822.9	4,774.8	6,489.1	1,057.7	265.2	13,409.7

#### **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



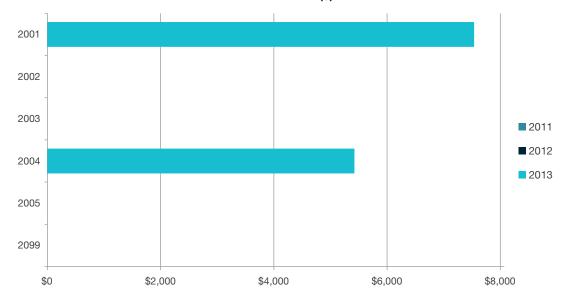
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2001 Communication and Media Studies	5,539,117	6,184,345	6,613,315	18,336,776
2002 Cultural Studies	7,305,859	6,012,426	10,268,798	23,587,083
2003 Language Studies	1,457,381	1,519,725	2,003,742	4,980,847
2004 Linguistics	7,481,569	9,157,277	10,958,845	27,597,691
2005 Literary Studies	6,461,314	6,819,737	8,096,725	21,377,776
2099 Other Language, Communication and Culture	193,308	231,886	431,853	857,046
Total	28,438,547	29,925,395	38,373,277	96,737,219

#### STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
2001 Communication and Media Studies	33.2	40.3	74.8	104.4	12.7	9.6	275.0
2002 Cultural Studies	46.9	57.7	92.7	113.4	21.8	17.9	350.4
2003 Language Studies	8.2	8.4	40.4	69.2	18.8	8.7	153.7
2004 Linguistics	30.9	32.7	89.4	103.5	42.6	5.7	304.8
2005 Literary Studies	59.2	44.1	95.2	107.5	19.3	19.6	345.0
2099 Other Language, Communication and Culture	6.1	4.4	25.0	79.4	20.1	11.0	146.0
Total	184.5	187.5	417.5	577.4	135.5	72.5	1,574.9

## **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



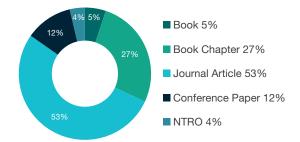
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2001 Communication and Media Studies	0	0	7,539	7,539
2002 Cultural Studies	0	0	0	0
2003 Language Studies	0	0	0	0
2004 Linguistics	0	0	5,424	5,424
2005 Literary Studies	0	0	0	0
2099 Other Language, Communication and Culture	0	0	0	0
Total	0	0	12,963	12,963

## 2001 Communication and Media Studies

Indicator	No.
Research outputs	2,349.1
Research income	\$18,336,776
FTEs	275.0
Esteem count	17.8
Patents	-
Research commercialisation income	\$7.539

Rating	Distribution
5	2
4	7
3	8
2	1
1	0
Total	18

## **RESEARCH OUTPUTS BY TYPE**



# 

## 2002 Cultural Studies

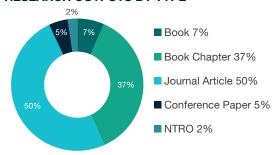
Indicator	No.
Research outputs	3,486.7
Research income	\$23,587,083
FTEs	350.4
Esteem count	48.1
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	4
4	8
3	4
2	5
1	0
Total	21

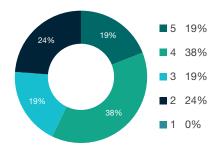
2 6%

1 0%

## **RESEARCH OUTPUTS BY TYPE**

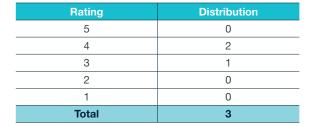


## FOR RATING DISTRIBUTION



# 2003 Language Studies

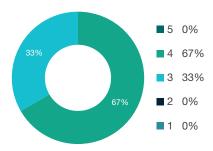
Indicator	No.
Research outputs	836.2
Research income	\$4,980,847
FTEs	153.7
Esteem count	15.6
Patents	_
Research commercialisation income	\$0



#### **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

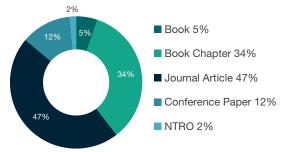


# 2004 Linguistics

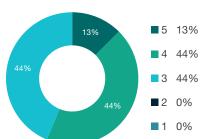
Indicator	No.
Research outputs	3,104.7
Research income	\$27,597,691
FTEs	304.8
Esteem count	60.2
Patents	-
Research commercialisation income	\$5,424

Rating	Distribution
5	2
4	7
3	7
2	0
1	0
Total	16

#### **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

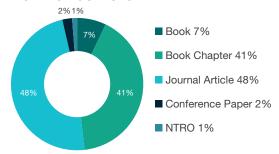


# 2005 Literary Studies

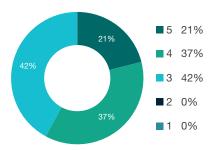
Indicator	No.
Research outputs	3,275.9
Research income	\$21,377,776
FTEs	345.0
Esteem count	81.9
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	4
4	7
3	8
2	0
1	0
Total	19

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION



# 2099 Other Language, Communication and Culture

Indicator	No.
Research outputs	357.0
Research income	\$857,046
FTEs	146.0
Esteem count	0.3
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

#### **RESEARCH OUTPUTS BY TYPE**



#### FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 2099.

# 21 HISTORY AND ARCHAEOLOGY

History and Archaeology is comprised of the following four-digit codes:

2101 Archaeology

2102 Curatorial and Related Studies

2103 Historical Studies

2199 Other History and Archaeology

17 out of 28 two-digit UoEs and 26 out of 44 four-digit UoEs assessed were rated above world standard

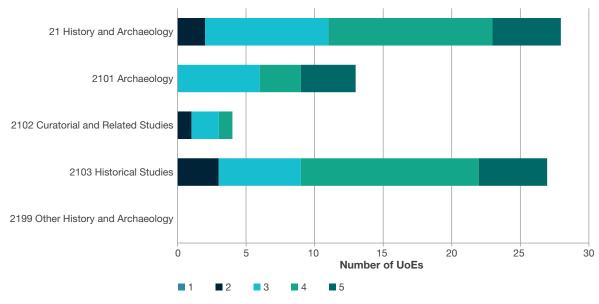
# **FoR Overview**

History and Archaeology (21) contributed approximately two per cent of the research outputs to ERA 2015. It also contributed approximately six per cent of the esteem measures submitted to ERA 2015. While journal articles were the most common research output type (49 per cent), book chapters also comprised a significant proportion (38 per cent). Historical Studies (2103) was the largest sub–discipline in terms of research outputs, research income and staffing. Archaeology (2101) had the largest amount of research commercialisation income.

Indicator	No.
Research outputs	7,934.1
Research income	\$116,037,147
FTEs	773.6
Esteem count	303.6
Patents	0
Research commercialisation income	\$24,871

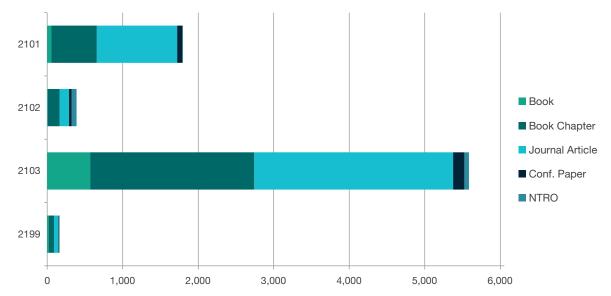
	Distribution			
Rating	Two-digit	Four-digit		
5	5	9		
4	12	17		
3	9	14		
2	2	4		
1	0	0		
Total	28	44		

## NUMBER OF UOES PER RATING SCALE SCORE



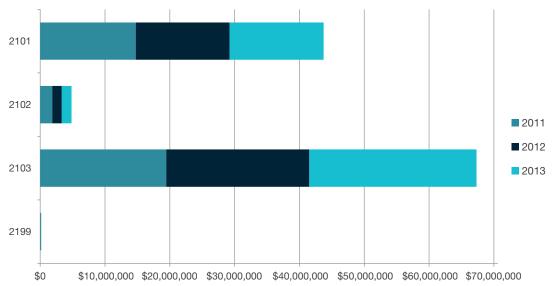
Note: 21 History and Archaeology shows assessed two-digit UoEs only.

## **RESEARCH OUTPUTS SUBMITTED BY TYPE**



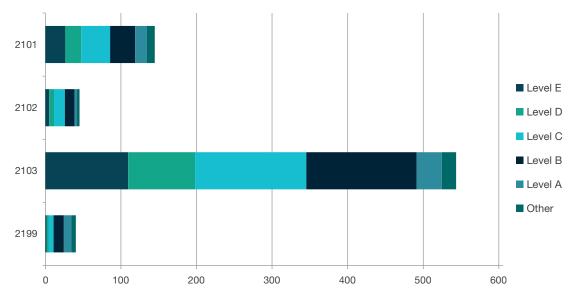
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
2101 Archaeology	57.6	600.3	1,063.4	70.1	6.1	1,797.4
2102 Curatorial and Related Studies	9.2	153.2	126.5	36.5	63.8	389.2
2103 Historical Studies	568.5	2,174.8	2,632.9	148.8	61.4	5,586.3
2199 Other History and Archaeology	19.5	71.3	59.3	11.0	0.0	161.2
Total	654.8	2,999.7	3,882.1	266.3	131.2	7,934.1

## **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2101 Archaeology	14,733,432	14,478,161	14,519,462	43,731,055
2102 Curatorial and Related Studies	1,847,741	1,480,971	1,498,464	4,827,176
2103 Historical Studies	19,441,896	22,078,296	25,806,802	67,326,993
2199 Other History and Archaeology	98,229	28,683	25,011	151,923
Total	36,121,298	38,066,111	41,849,739	116,037,147

## STAFFING PROFILE BY ACADEMIC LEVEL

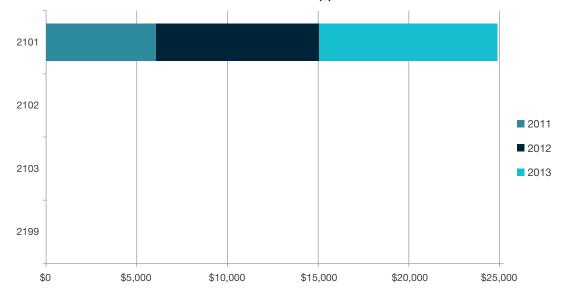


FoR code	Level E	Level D	Level C	Level B	Level A	Other FTE	Total
2101 Archaeology	26.5	21.0	38.2	33.2	15.6	10.3	144.7
2102 Curatorial and Related Studies	5.0	6.3	14.3	12.8	3.4	3.3	45.2
2103 Historical Studies	109.5	88.5	147.2	146.1	33.1	19.1	543.5
2199 Other History and Archaeology	1.5	2.5	6.7	13.6	10.2	5.7	40.3
Total	142.5	118.4	206.4	205.7	62.3	38.4	773.6

## **PATENT PROFILE**

Note: There were no patents submitted by UoEs in this FoR.

## **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



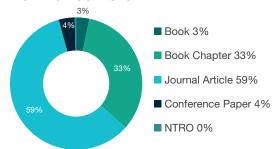
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2101 Archaeology	6,065	8,989	9,818	24,871
2102 Curatorial and Related Studies	0	0	0	0
2103 Historical Studies	0	0	0	0
2199 Other History and Archaeology	0	0	0	0
Total	6,065	8,989	9,818	24,871

## 2101 Archaeology

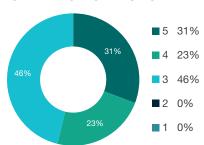
Indicator	No.			
Research outputs	1,797.4			
Research income	\$43,731,055			
FTEs	144.7			
Esteem count	71.7			
Patents	_			
Research commercialisation income	\$24,871			

Rating	Distribution
5	4
4	3
3	6
2	0
1	0
Total	13

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

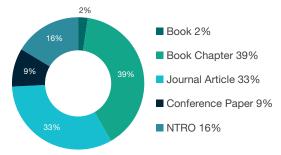


## 2102 Curatorial and Related Studies

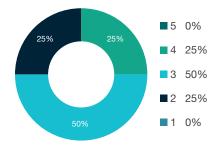
Indicator	No.
Research outputs	389.2
Research income	\$4,827,176
FTEs	45.2
Esteem count	6.6
Patents	0.0
Research commercialisation income	\$0

Rating	Distribution
5	0
4	1
3	2
2	1
1	0
Total	4

#### **RESEARCH OUTPUTS BY TYPE**

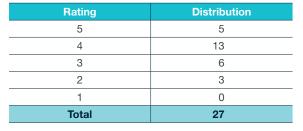


## FOR RATING DISTRIBUTION

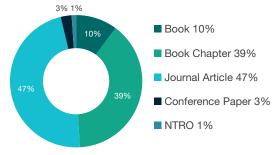


## 2103 Historical Studies

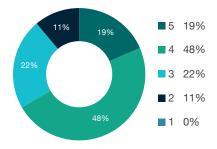
Indicator	No.
Research outputs	5,586.3
Research income	\$67,326,993
FTEs	543.5
Esteem count	225.4
Patents	-
Research commercialisation income	\$0



## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

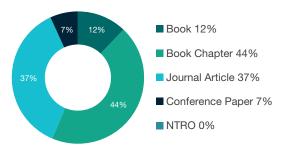


# 2199 Other History and Archaeology

Indicator	No.
Research outputs	161.2
Research income	\$151,923
FTEs	40.3
Esteem count	0.0
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 2199.

# 22 PHILOSOPHY AND RELIGIOUS STUDIES

Philosophy and Religious Studies is comprised of the following four-digit codes:

**2201 Applied Ethics** 

2202 History and Philosophy of Specific Fields

2203 Philosophy

2204 Religion and Religious Studies

2299 Other Philosophy and Religious Studies

9 out of 24 two-digit UoEs and 27 out of 43 four-digit UoEs assessed were rated above world standard

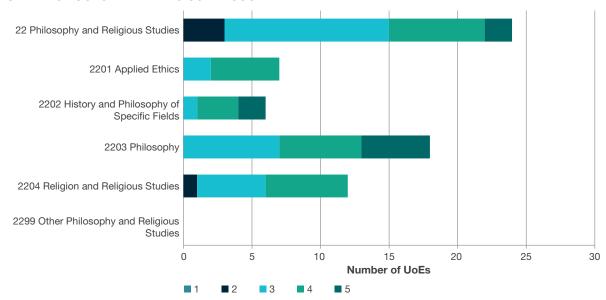
# **FoR Overview**

Philosophy and Religious Studies (22) contributed approximately two per cent of the research outputs to ERA 2015. Journal articles were the most common research output type (53 per cent) followed by book chapters (38 per cent). Philosophy (2203) and Religion and Religious Studies (2204) were the two largest sub–disciplines in terms of research outputs, research income and staffing levels. Applied Ethics (2201) was the only code that reported research commercialisation income.

Indicator	No.
Research outputs	6,619.1
Research income	\$47,552,105
FTEs	616.8
Esteem count	118.1
Patents	_
Research commercialisation income	\$40,895

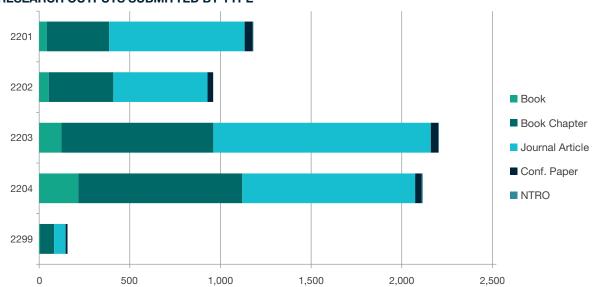
	Distribution		
Rating	Two-digit	Four-digit	
5	2	7	
4	7	20	
3	12	15	
2	3	1	
1	0	0	
Total	24	43	

## NUMBER OF UOES PER RATING SCALE SCORE



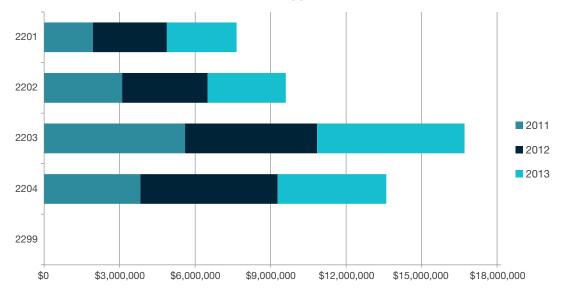
Note: 22 Philosophy and Religious Studies shows assessed two-digit UoEs only.

#### RESEARCH OUTPUTS SUBMITTED BY TYPE



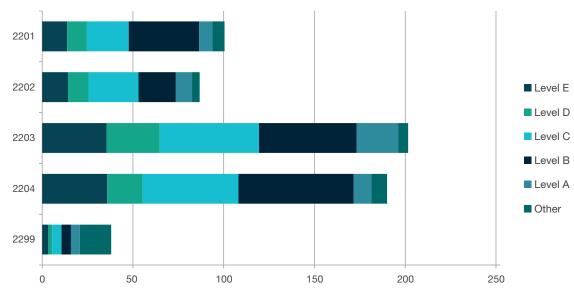
FoR code	Book	Book Chapter	Journal Article	Conference Paper	NTRO	Total
2201 Applied Ethics	42.9	343.7	746.6	45.3	3.3	1,181.8
2202 History and Philosophy of Specific Fields	53.0	356.2	519.7	30.5	1.0	960.5
2203 Philosophy	122.7	837.9	1,199.8	41.9	2.5	2,204.8
2204 Religion and Religious Studies	215.6	904.7	953.7	36.8	5.0	2,115.8
2299 Other Philosophy and Religious Studies	5.0	77.6	63.1	10.5	0.0	156.2
Total	439.2	2,520.1	3,483.0	164.9	11.8	6,619.1

## **RESEARCH INCOME BY YEAR-ALL CATEGORIES (\$)**



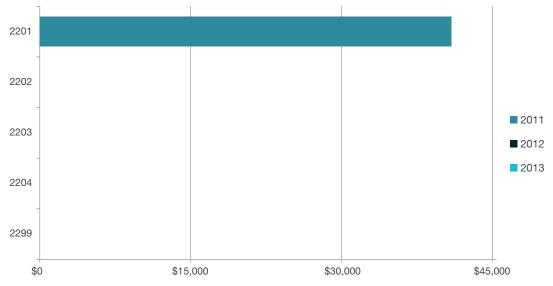
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2201 Applied Ethics	1,937,079	2,940,949	2,770,546	7,648,574
2202 History and Philosophy of Specific Fields	3,099,607	3,398,581	3,102,999	9,601,187
2203 Philosophy	5,597,902	5,245,259	5,861,916	16,705,077
2204 Religion and Religious Studies	3,822,490	5,456,622	4,318,154	13,597,267
2299 Other Philosophy and Religious Studies	0	0	0	0
Total	14,457,078	17,041,411	16,053,615	47,552,105

## STAFFING PROFILE BY ACADEMIC LEVEL



FoR code	Level E	Level D	Level C	Level B	Level A	Other	Total
2201 Applied Ethics	13.8	10.9	23.0	38.8	7.4	6.7	100.5
2202 History and Philosophy of Specific Fields	14.2	11.2	27.6	20.6	8.9	4.3	86.8
2203 Philosophy	35.5	29.2	54.8	53.9	22.8	5.5	201.6
2204 Religion and Religious Studies	35.8	19.5	52.7	63.6	9.7	8.6	190.0
2299 Other Philosophy and Religious Studies	3.4	2.1	5.1	5.2	4.9	17.2	38.0
Total	102.7	73.0	163.2	182.0	53.6	42.3	616.8

## **RESEARCH COMMERCIALISATION INCOME BY YEAR (\$)**



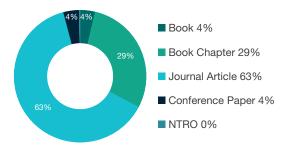
FoR code	2011 (\$)	2012 (\$)	2013 (\$)	Total (\$)
2201 Applied Ethics	40,895	0	0	40,895
2202 History and Philosophy of Specific Fields	0	0	0	0
2203 Philosophy	0	0	0	0
2204 Religion and Religious Studies	0	0	0	0
2299 Other Philosophy and Religious Studies	0	0	0	0
Total	40,895	0	0	40,895

# 2201 Applied Ethics

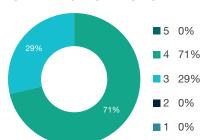
Indicator	No.
Research outputs	1,181.8
Research income	\$7,648,574
FTEs	100.5
Esteem count	12.1
Patents	_
Research commercialisation income	\$40,895

Rating	Distribution
5	0
4	5
3	2
2	0
1	0
Total	7

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

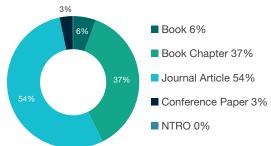


# 2202 History and Philosophy of Specific Fields

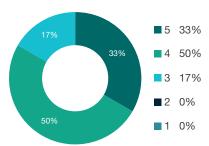
Indicator	No.
Research outputs	960.5
Research income	\$9,601,187
FTEs	86.8
Esteem count	24.1
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	2
4	3
3	1
2	0
1	0
Total	6

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

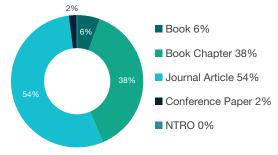


# 2203 Philosophy

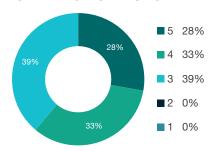
Indicator	No.
Research outputs	2,204.8
Research income	\$16,705,077
FTEs	201.6
Esteem count	64.3
Patents	-
Research commercialisation income	\$0

Rating	Distribution
5	5
4	6
3	7
2	0
1	0
Total	18

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

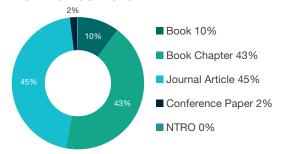


# 2204 Religion and Religious Studies

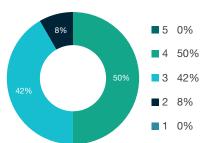
Indicator	No.	
Research outputs	2,115.8	
Research income	\$13,597,267	
FTEs	190.0	
Esteem count	17.2	
Patents	-	
Research commercialisation income	\$0	

Rating	Distribution
5	0
4	6
3	5
2	1
1	0
Total	12

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

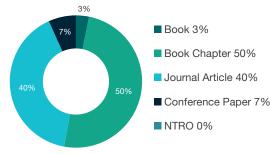


# 2299 Other Philosophy and Religious Studies

Indicator	No.
Research outputs	156.2
Research income	\$0
FTEs	38.0
Esteem count	0.3
Patents	_
Research commercialisation income	\$0

Rating	Distribution
5	0
4	0
3	0
2	0
1	0
Total	0

## **RESEARCH OUTPUTS BY TYPE**



## FOR RATING DISTRIBUTION

Note: There is no FoR rating distribution for 2299.