BOSSI Statistical Review 2016-2017

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30 June 2017

Table of Contents

Introduction 3

BOSSI Register 3

Financial Registered Surveyors 4

Registered Land Surveyors 6

Age 6
Area 6
Degree 7
Gender 8
Sector 8
Registration 9
Land Surveying Firms 10

Registered Mining Surveyors 12

Age 12
Area 12
Degree 13
Gender 13
Registration 14

Financial Candidate Surveyors 15

Candidate Land Surveyors 16

Age 16
Area 16
Degree 17
Gender 18
Kurri Kurri Workshop 18
Sector 19
Enrolment 20
Exams 20
Experience 21

Candidate Mining Surveyors 22

Age 22
Area 22
Degree 23
Gender 23
Enrolment 24
Exams 24
Experience 25
Kurri Kurri Workshop 26

Introduction

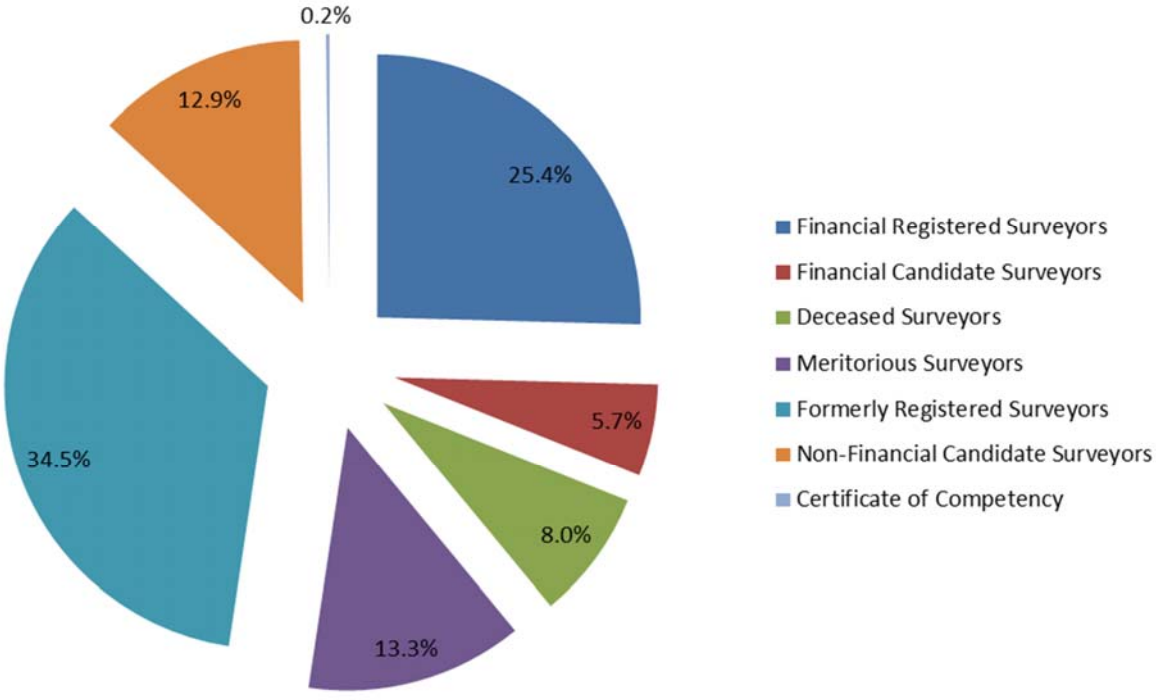
The Board of Surveying and Spatial Information (BOSSI) is a statutory board constituted under the *Surveying and Spatial Information Act 2002*. Its principal functions are:

- The registration of surveyors.
- The investigation of complaints against registered surveyors.
- The taking of disciplinary action against registered surveyors.
- The investigation of matters referred to it by the Minister for advice or report in relation to surveying or any other aspect of the spatial information industry.
- The investigation of, and the provision of advice to the Minister with respect to, the practice to be followed in the conduct of surveys or in the collection, collation and dissemination of any other kinds of spatial information.
- The provision of advice to the Minister on the maintenance of the integrity of the State cadastre.
- The provision of advice to the Minister with respect to any other matter in connection with the administration of the *Surveying and Spatial Information Act 2002*.

BOSSI Register

The BOSSI Register contains details for all registered surveyors and candidate surveyors since 1929 when the first Surveyors Act was enacted in NSW and the Board of Surveyors (BOS) was formed under that Act. In 2002 the Board of Surveyors was renamed the Board of Surveying and Spatial Information (BOSSI) when the Surveying and Spatial Information Act was enacted.

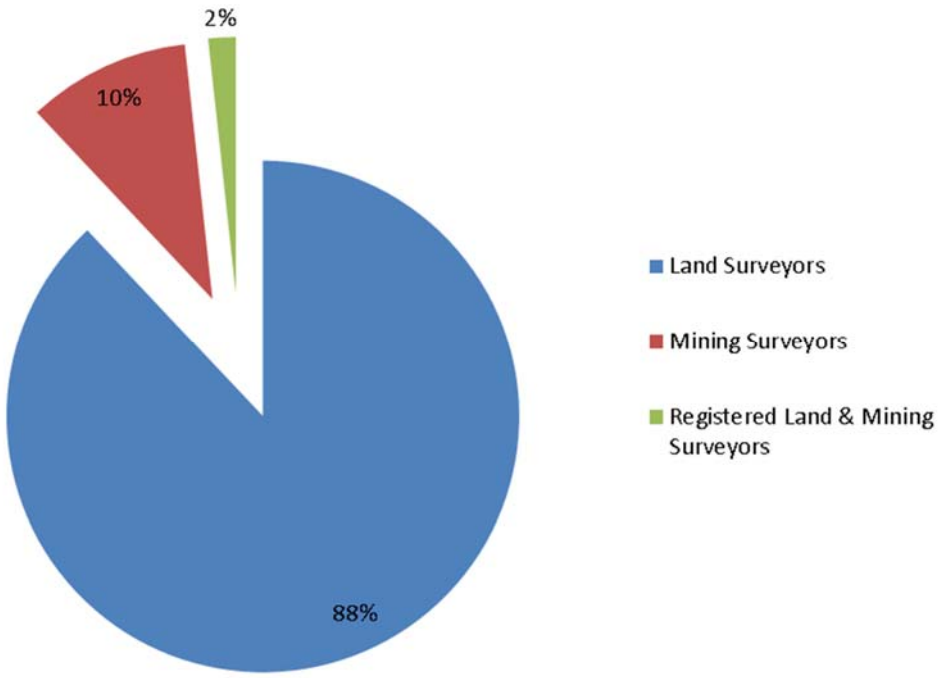
Currently the Register contains 4053 surveyor entries. Of these 1029 are financial registered surveyors, 229 are financial candidate surveyors, 323 are deceased, 540 are meritorious surveyors, 1398 are formerly registered surveyors, 524 are non-financial candidate surveyors, and 9 surveyors have received their certificate of competency but have not applied for registration.



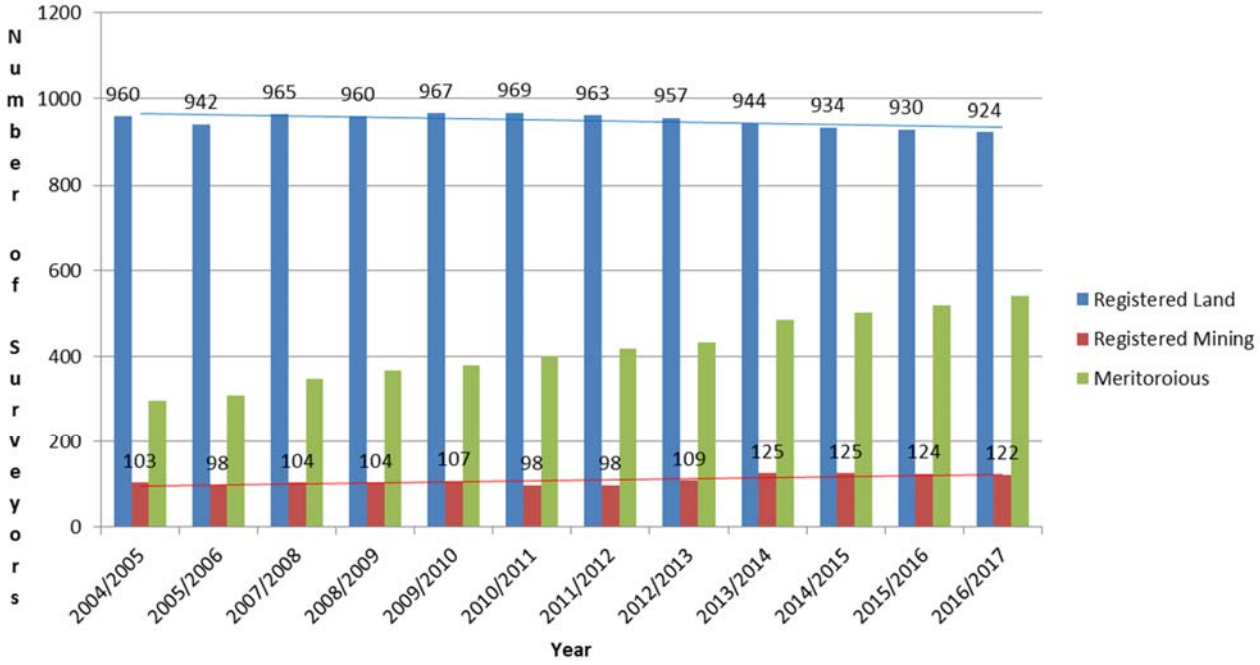
Financial Registered Surveyors

BOSSI registers surveyors in two disciplines being land surveying and mining surveying. Current number of financial registered surveyors as of June 2017 is as follows:

Registered Land Surveyors	907
Registered Mining Surveyors	105
Registered Land & Mining Surveyors	17
Total	1029



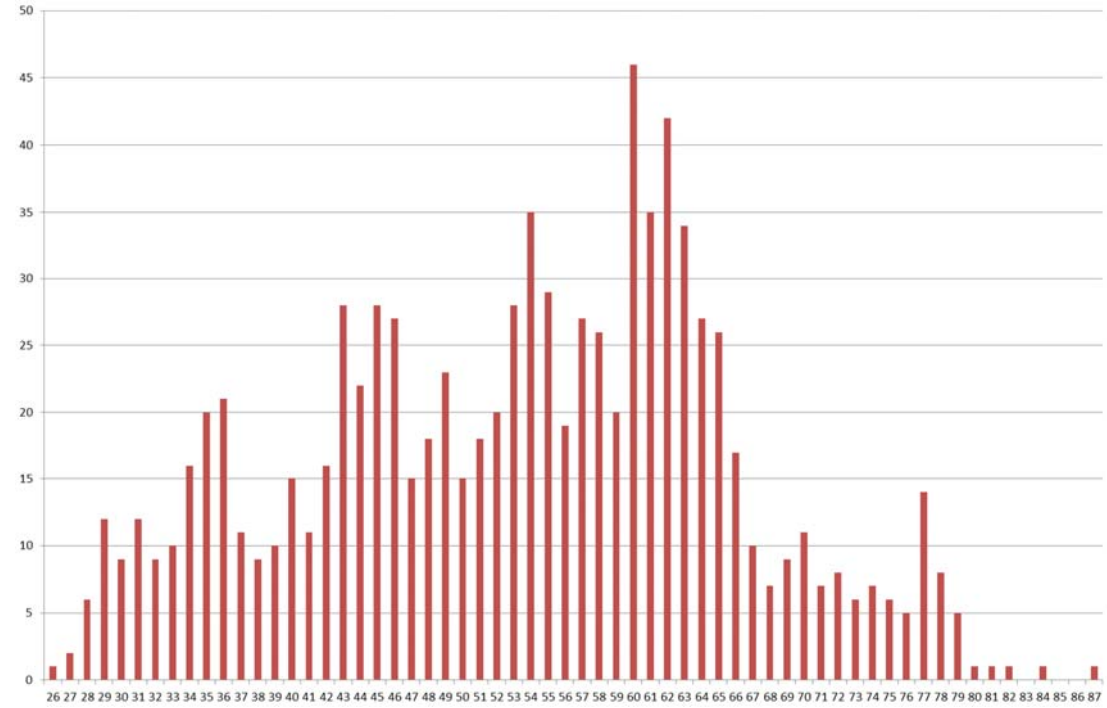
The trend in registered surveyor numbers since 2004 is show below. This trend shows a slight dip in registered land surveyors and a slight increase for registered mining surveyors but overall the general trend is quite flat indicating that enough candidate surveyors are becoming registered each year to counter the number of registered surveyors who are retiring or leaving the profession.



Registered Land Surveyors

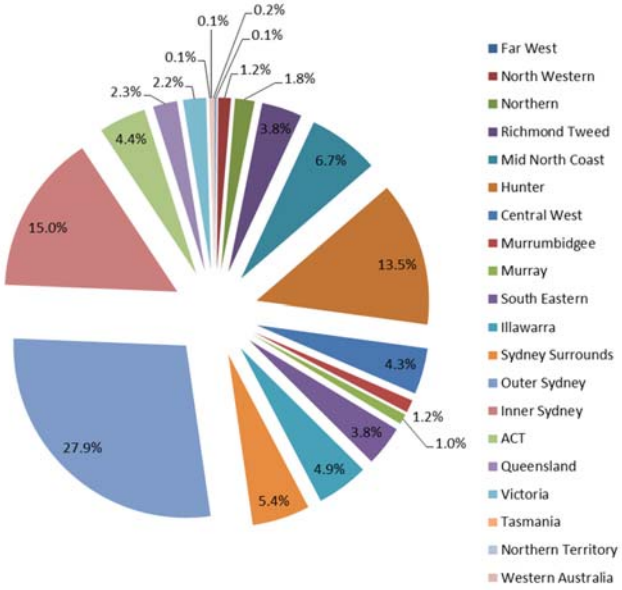
Age

The age range of financial registered land surveyors is shown below. The average age of financial registered land surveyors on the Board's register is 53 and the age group with the largest number of surveyors is the 60 year age group. The oldest financial registered surveyor is 87 and the youngest is 26.



Area

The areas which financial registered land surveyors on the Board's register are located are shown in the following graph. The largest grouping is the Outer Sydney area, with the Inner Sydney area coming second and the Hunter are third. There are also a number of interstate surveyors in ACT, Queensland, Victoria, Tasmania, Northern Territory and Western Australia.



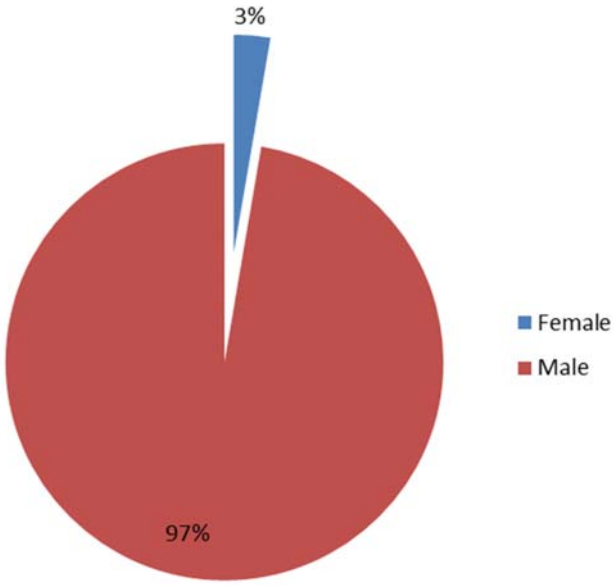
Degree

The majority of financial registered land surveyors have graduated from the University of NSW. The second highest group being the University of Newcastle and the third via the old Articles system. There are also a number of interstate and overseas qualified surveyors as detailed in the table below:

University of NSW	**481**
University of Newcastle	191
Articles	52
Queensland University of Technology	36
University of Southern Queensland	35
Royal Melbourne Institute of Technology	21
West Australian Institute of Technology	20
Otago University	16
University of Tasmania	9
University of Melbourne	8
Curtin University	7
Canberra University	5
University of South Australia	4
University of Warsaw	2
Moscow Engineering Institute of Geodesy, Aerial Photography and Cartography	2
University of Belgrade	1
National University of La Plata	1
University of Queensland	1
University of Calgary	1
Northern Territory Qualifications	1
Coal Mines Surveyor's Certificate of Competency	1
University of Cape Town	1
SA Institute Technology	1
AGH University of Science & Tech Poland	1
Bochum Technical College	1
University of Zimbabwe	1
Wuhan Technical University	1
Not Specified	23
Total	924

Gender

The majority of financial registered land surveyors are male. Currently there are 26 female registered land surveyors.



Sector

The majority of financial registered land surveyors are employed in the private sector as indicated in the table below:

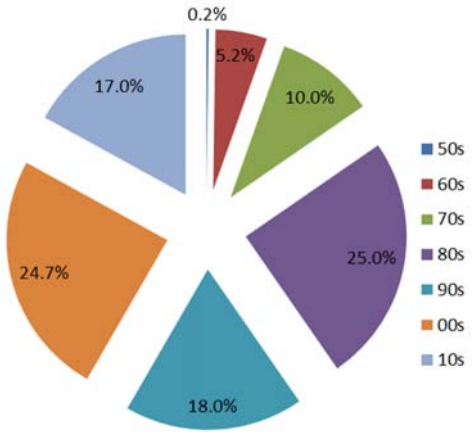
Private	**822**
NSW Local Govt	25
NSW State Govt	71
ACT Govt	3
Federal Govt	1
University	2
Total	924

The number of private companies employing registered land surveyors is 424. Of these 424 companies, 296 companies have only the 1 registered land surveyor. There are currently 15 companies that employ more than 5 registered land surveyors.

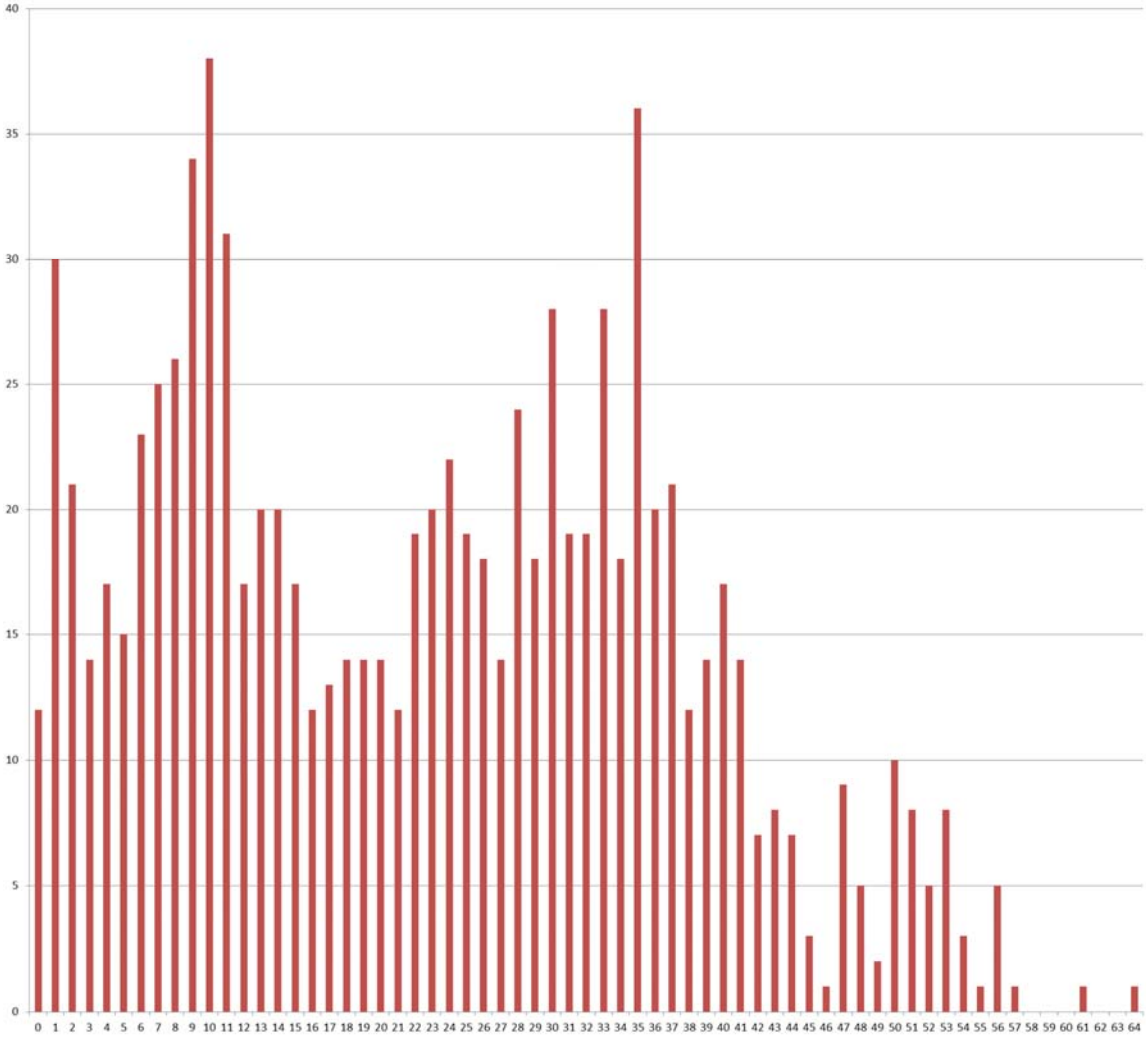
Registered land surveyors employed in the NSW State Government sector are primarily located at Roads & Maritime Services, RailCorp, Sydney Trains, Spatial Services, and Department of Industry-Lands & Forestry.

Registration

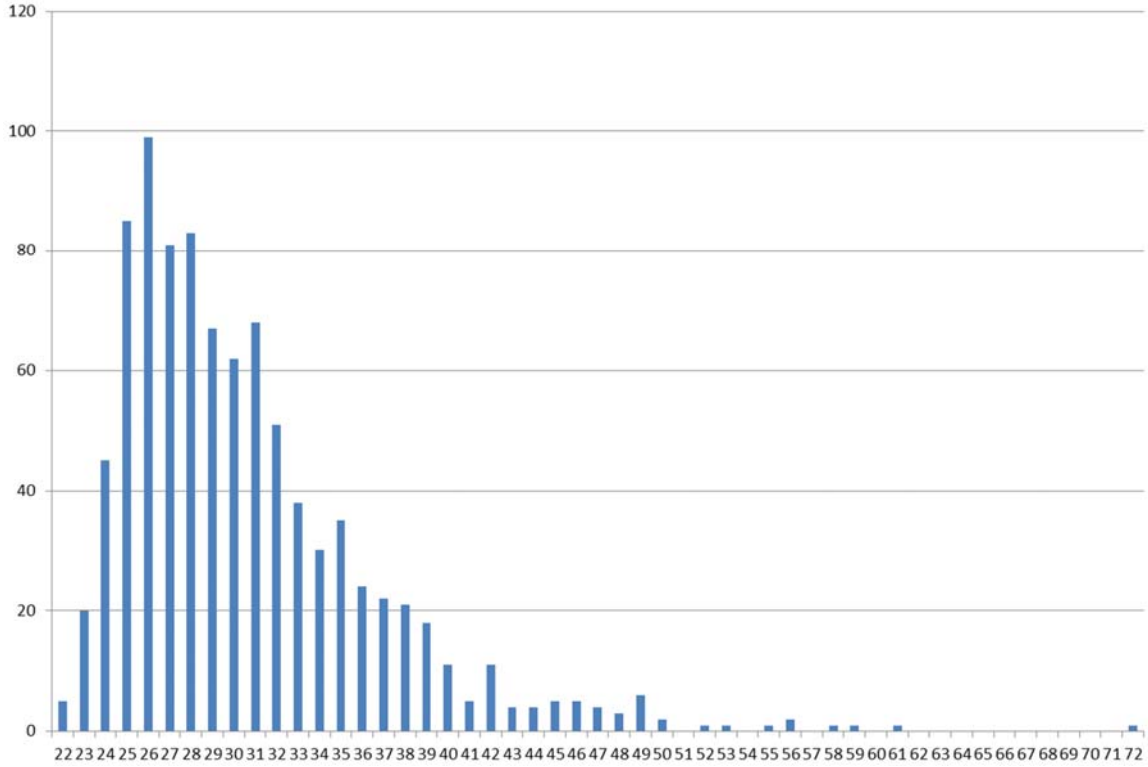
The initial registration of the current financial registered land surveyors spans from the 50s to the present date. The biggest group are surveyors who gained registration are in the 80s followed by the 00s and the 90s.



The following graph shows the length of time current financial registered land surveyors have been registered. The longest span of registration is 64 years, with the average being 23 years and the graph exhibits two peaks around 10 years and 35 years with a smaller peak at 1 year.

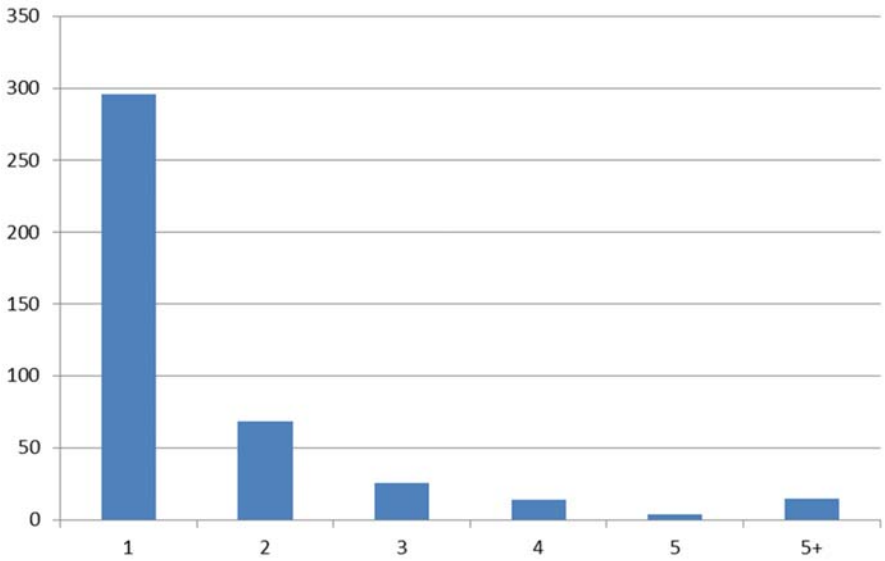


The age of land surveyors when they have gained registration is displayed below. Most surveyors gained their initial registration in their 20s, with the youngest being 22 and the oldest being 72. The average age is 31 with the largest age group being 26 years.

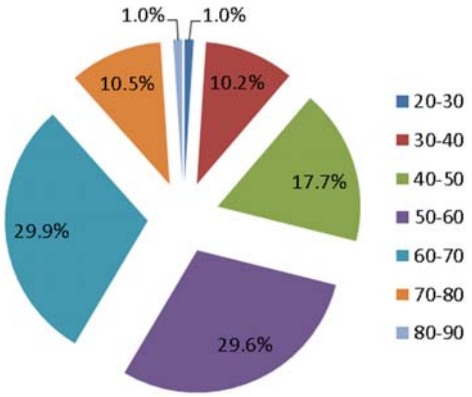


Land Surveying Firms

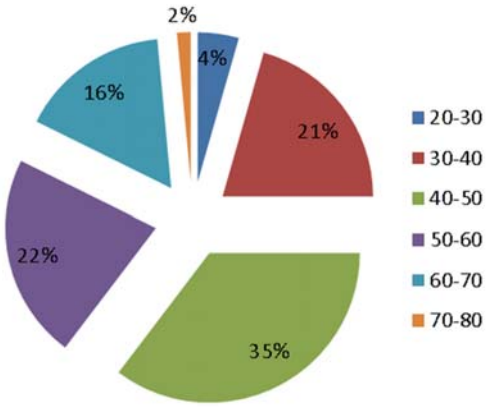
There are currently 424 Land Surveying firms who are employing Registered Land Surveyors. The majority of these employ only the one Registered Land Surveyor with 15 firms having more than 5 registered surveyors employed at their firm.



Of the firms who employ the one Registered Land Surveyor, the majority of these surveyors are in the 50-60 age group and the 60-70 age group.



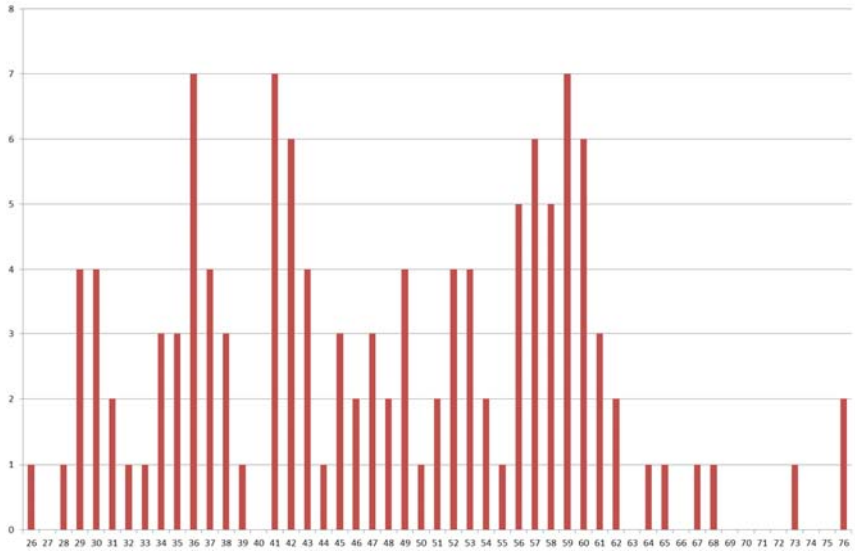
Of the firms who employ two Registered Land Surveyors, the majority of these surveyors are in the 40-50 age group.



Registered Mining Surveyors

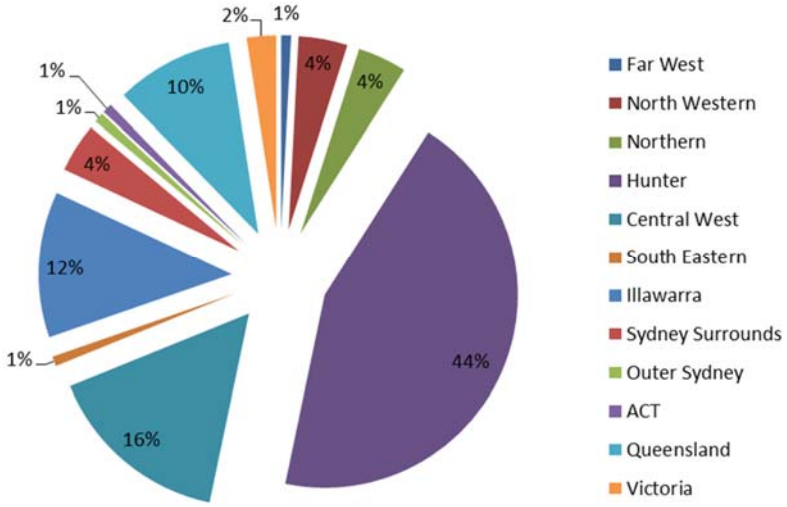
Age

The age range of financial registered mining surveyors is shown below. The average age of financial registered mining surveyors on the Board's register is 48 and the age group with the largest number of surveyors is the 36, 41, & 59 year age groups. The oldest financial registered mining surveyor is 76 and the youngest is 26.



Area

The areas which financial registered mining surveyors on the Board's register are located are shown in the following graph. The largest grouping is the Hunter, with the Central West coming second and the Illawarra are third. There are also a number of interstate surveyors in ACT, Queensland and Victoria.



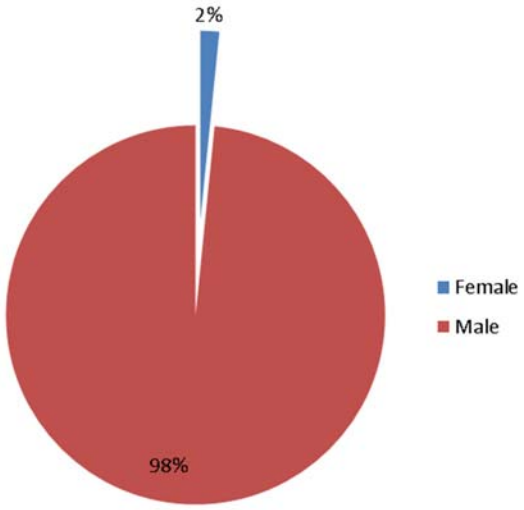
Degree

The majority of financial registered mining surveyors have come through the previous mining surveyor certificate of competency, with the next grouping coming from the University of Southern Queensland, TAFE and University of Newcastle. There are also a number of interstate and overseas qualified surveyors as detailed in the table below:

Mining Surveyor Certificate of Competency	**46**
TAFE	16
University of South Queensland	15
University of Newcastle	14
University of NSW	10
Royal Melbourne Institute of Technology	2
University of South Australia	2
Curtin University	2
University of Zimbabwe	2
Queensland University of Technology	1
Moscow Engineering Institute of Geodesy, Aerial Photography and Cartography	1
University of Exeter	1
Tshwane University of Technology	1
Not Specified	9
Total	122

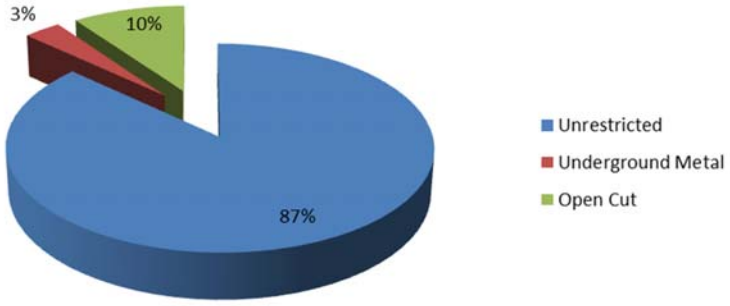
Gender

The majority of financial registered mining surveyors are male. Currently there are 3 female registered mining surveyors.

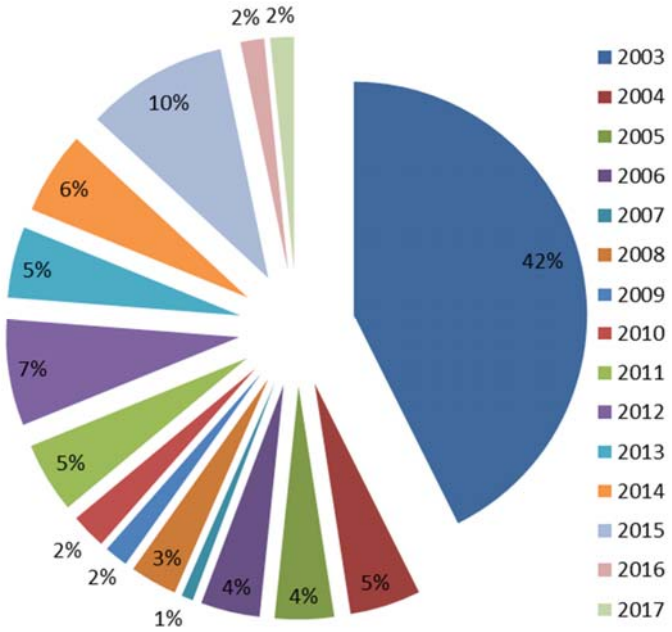


Registration

Currently the Board has three categories of mining surveying registration, being unrestricted, underground metalliferous mines, and open cut mines. Of the current financial registered mining surveyors the majority have an unrestricted registration with 4 surveyors having an underground metalliferous registration and 12 having an open cut registration.



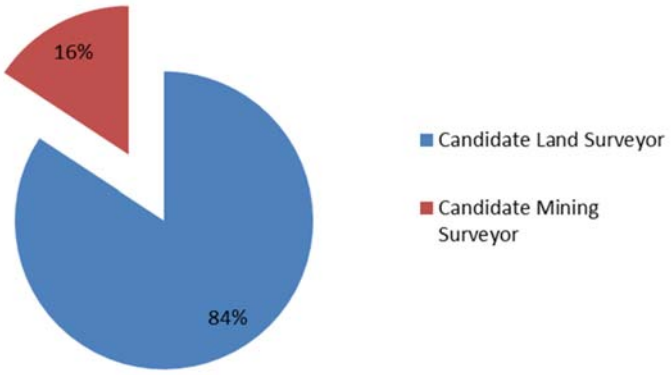
As mining surveying registration under the Surveying and Spatial Information Act 2002 was only introduced when the Act commenced, the initial date of registration for financially registered mining surveyors in the Board's register spans from 2003 to present and the majority of these being in 2003. Since 2003 there have been on average of 5 mining surveyors become registered with 2015 having the biggest year of 12 and 2007 having the smallest year of 1.



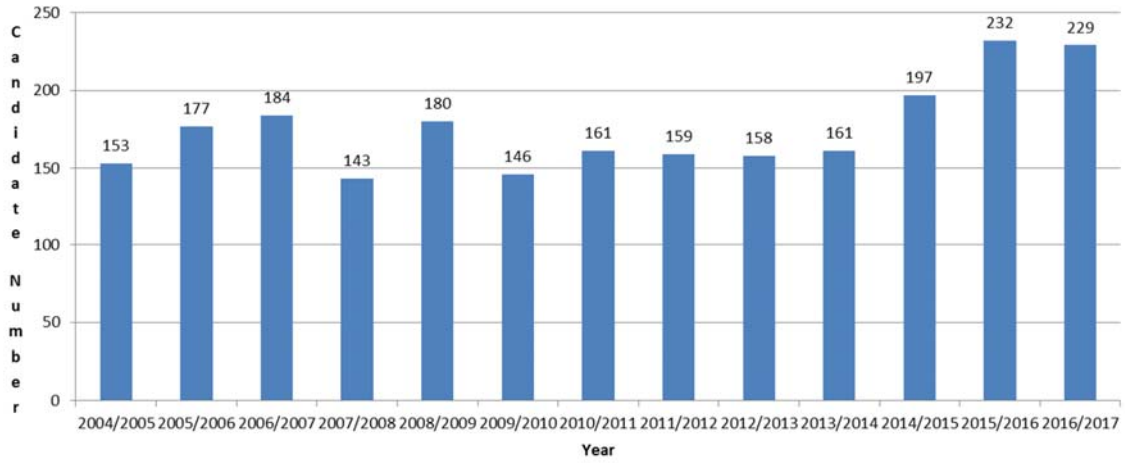
Financial Candidate Surveyors

BOSSI enrols candidate surveyors in two disciplines being land surveying and mining surveying. Current number of financial candidate surveyors as of June 2017 is as follows:

Candidate Land Surveyors	193
Candidate Mining Surveyors	36
Total	229



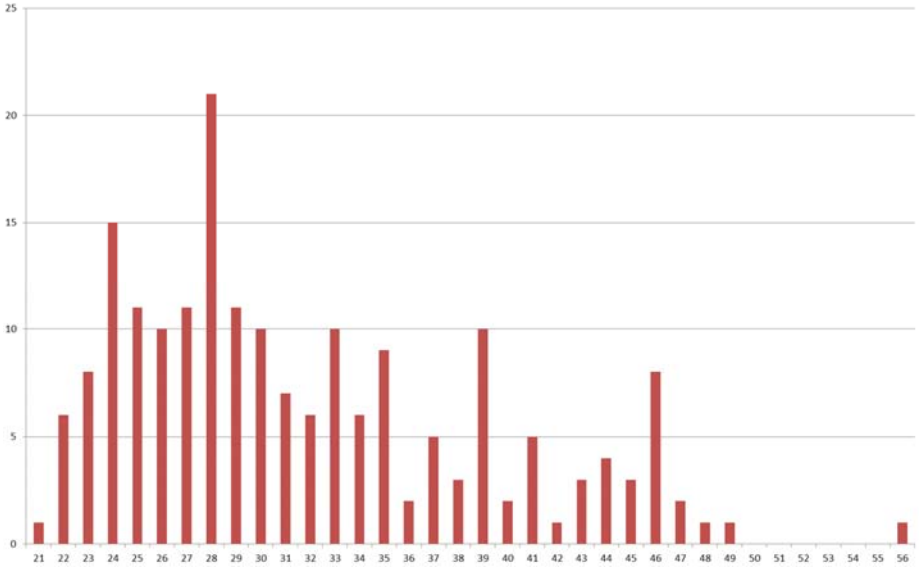
The trend in candidate surveyor numbers since 2004 is show below. The trend has an increase in the last few years, with a high of 232 in 2015/2016.



Candidate Land Surveyors

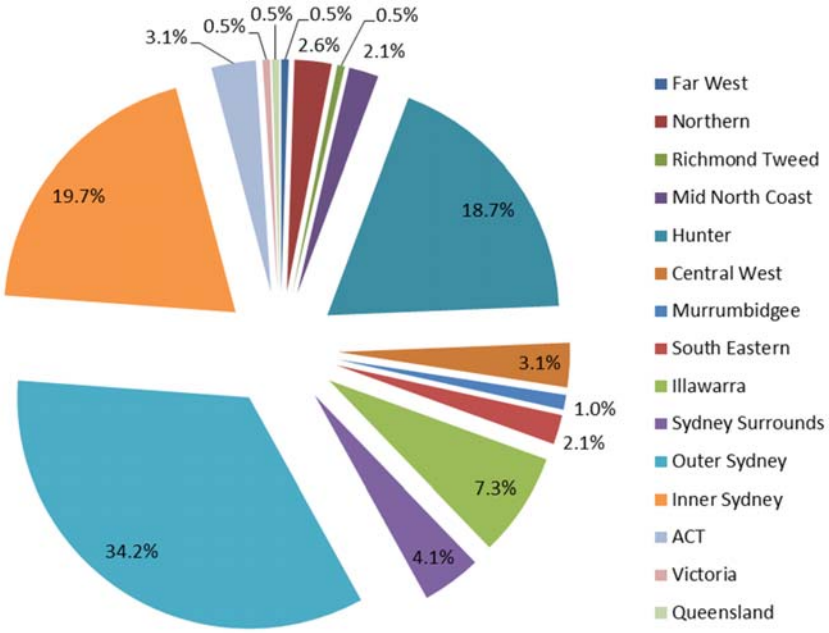
Age

The age range of financial candidate land surveyors is shown below. The average age of financial candidate land surveyors on the Board's register is 32 and the age group with the largest number of surveyors is the 28 year age group. The oldest financial candidate surveyor is 56 and the youngest is 21.



Area

The areas which financial candidate land surveyors on the Board's register are located are shown in the following graph. The largest grouping is the Outer Sydney area, with the Inner Sydney area coming second and the Hunter are third. There are also 6 candidates from the ACT and 1 from Queensland and 1 from Victoria.



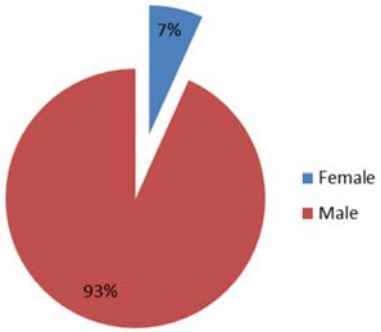
Degree

The three main universities that current financial candidate land surveyors have graduated from are the University of Newcastle, the University of Southern Queensland, and the University of NSW. There are also a number of candidates who have graduated from interstate and overseas as listed in the below table.

University of Newcastle	**55**
University of Southern Queensland	47
University of NSW	45
Otago University	6
Curtin University	5
University of Tasmania	4
Royal Melbourne Institute of Technology	3
University of Philippines	3
Esfaha University	2
Kwame Nkrumah University	2
Anir Kabir University of Technology	1
Dublin Institute of Technology	1
Heilongjian Institute of Technology	1
High Technical Industrial Institute Dekwaneh	1
Midlands State University	1
Oregon State University	1
Queensland University of Technology	1
Sabaragamuwa University	1
University College London	1
University of Algarve Portugal	1
University of Belgrade	1
University of Cape Town	1
University of Isfahan	1
University of Nottingham	1
University of Plymouth	1
University of Pretoria	1
University of Zimbabwe	1
Wroclaw University	1
Not Specified	3
Total	193

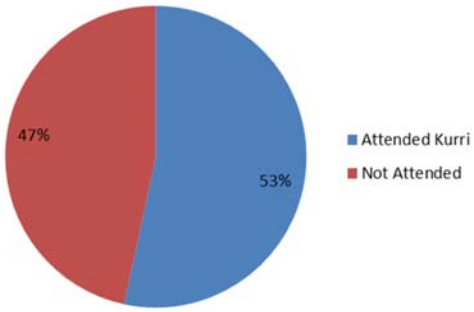
Gender

The majority of financial candidate land surveyors are male. Currently there are 13 female candidate land surveyors.

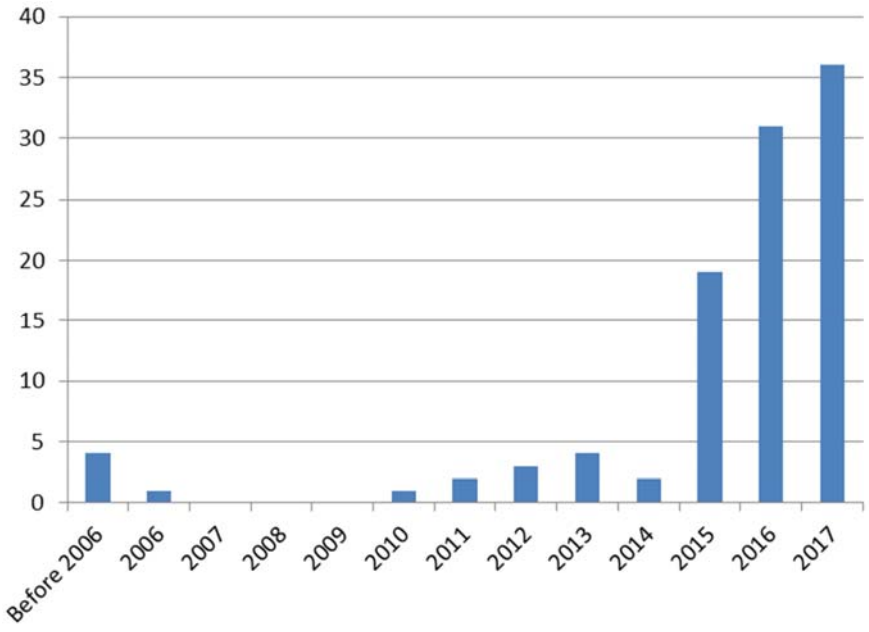


Kurri Kurri Workshop

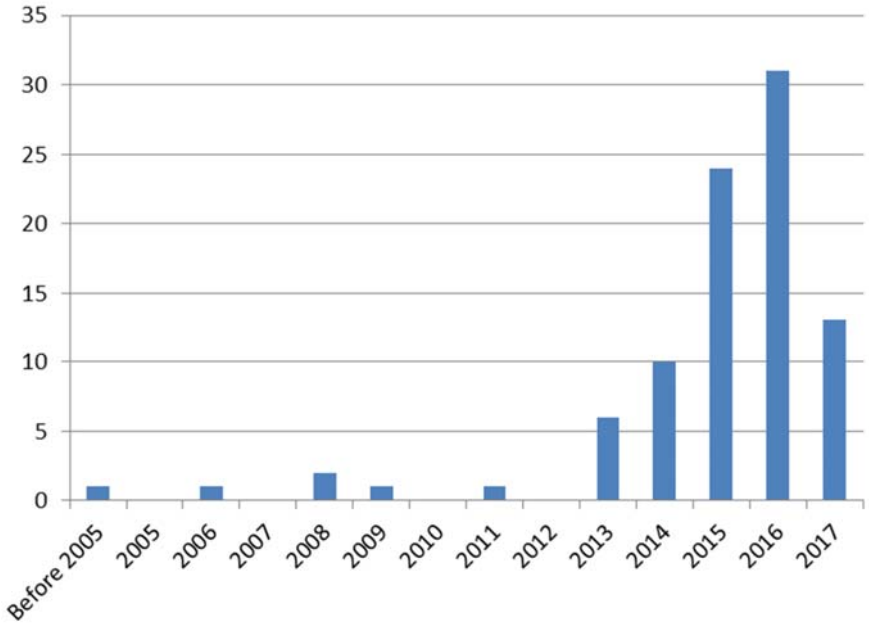
Just over a half of the financial candidate land surveyors have attended the Kurri Kurri Workshop.



Of the financial candidate land surveyors who have attended, the majority of these have attended in the last three years.



Of the financial candidate land surveyors who have not attended, the majority of these have only been enrolled as candidates the last three years.



Sector

The majority of financial candidate land surveyors are employed in the private sector as indicated in the table below:

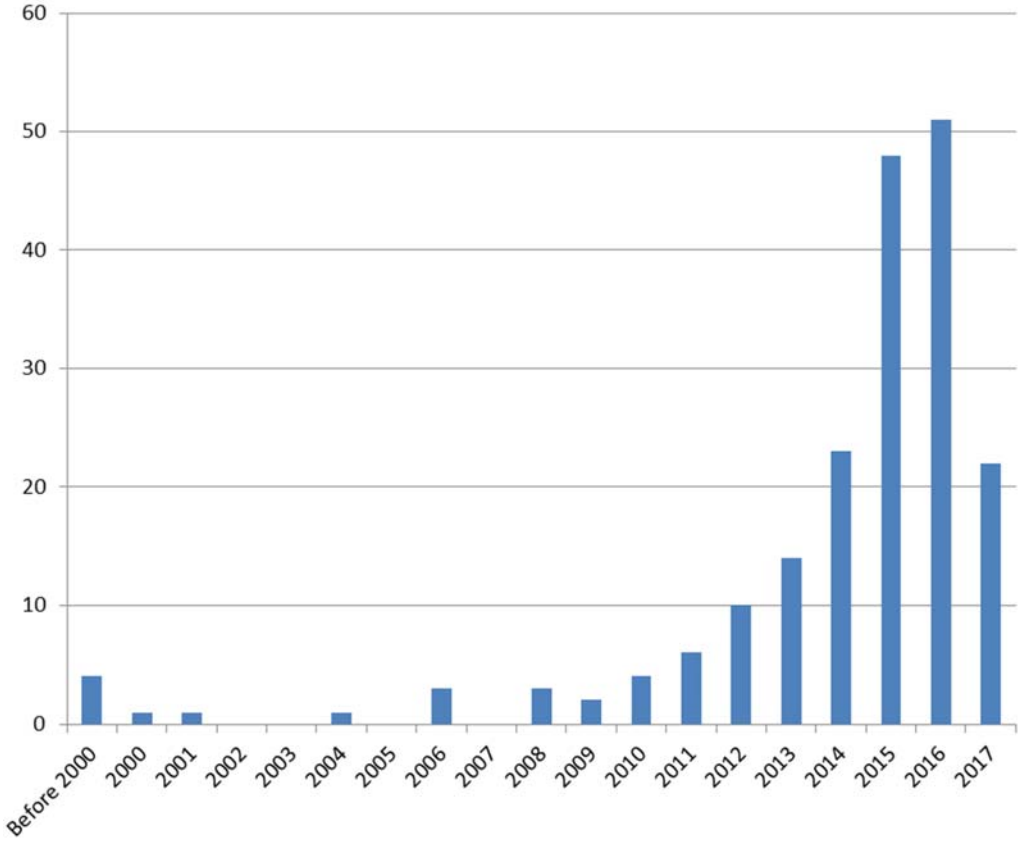
Private	**170**
NSW Local Govt	9
NSW State Govt	14
Total	193

The number of private companies employing candidate land surveyors is 88. Of these 88 companies, 66 companies have only the 1 candidate land surveyor. There are currently 4 companies that employ 5 or more candidate land surveyors.

Candidate land surveyors employed in the NSW State Government sector are primarily located at Roads & Maritime Services and Sydney Trains.

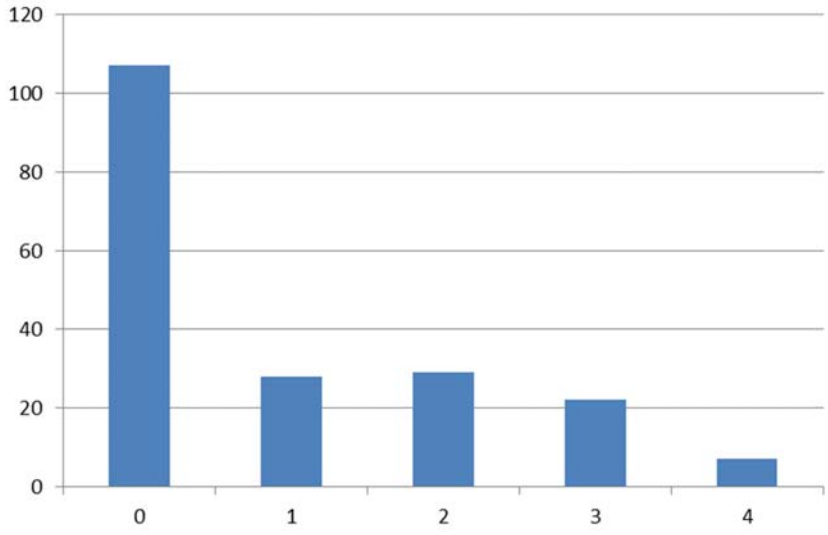
Enrolment

The majority of financial candidate land surveyors have only been recently enrolled, with 22 enrolled in 2017, 51 in 2016, 48 in 2015 and 23 in 2014. There are currently 4 financial candidate land surveyors who have been enrolled since before 2000.

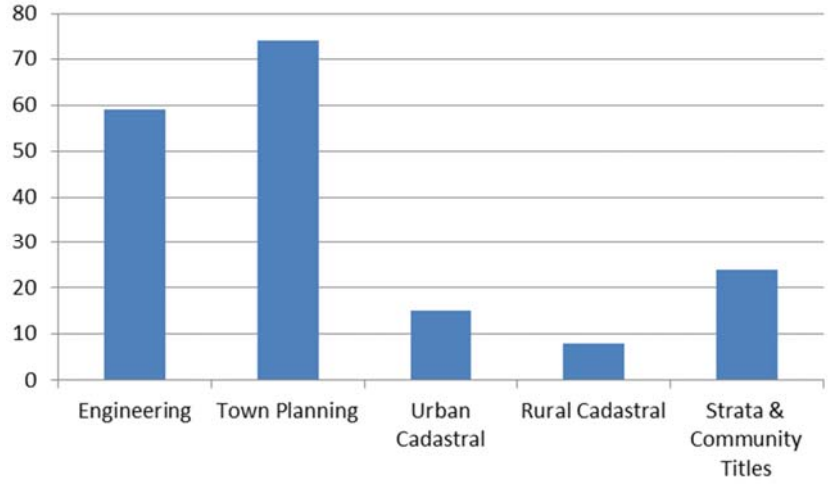


Exams

The majority of financial candidate land surveyors have not passed any of the Board's assessments with 7 financial candidate land surveyors who have only 1 assessment to go.

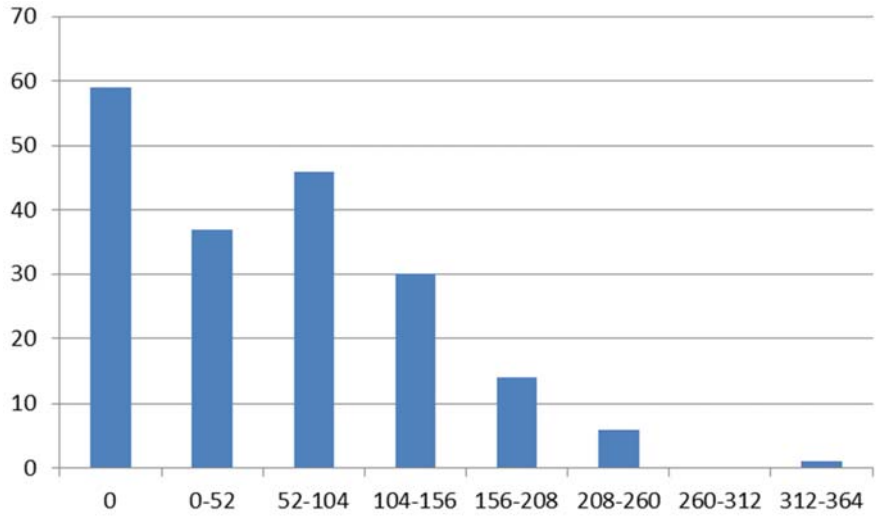


Of the examinations that have been passed, the majority have been in Town Planning and Engineering with 74 passes in Town Planning and 59 in Engineering.



Experience

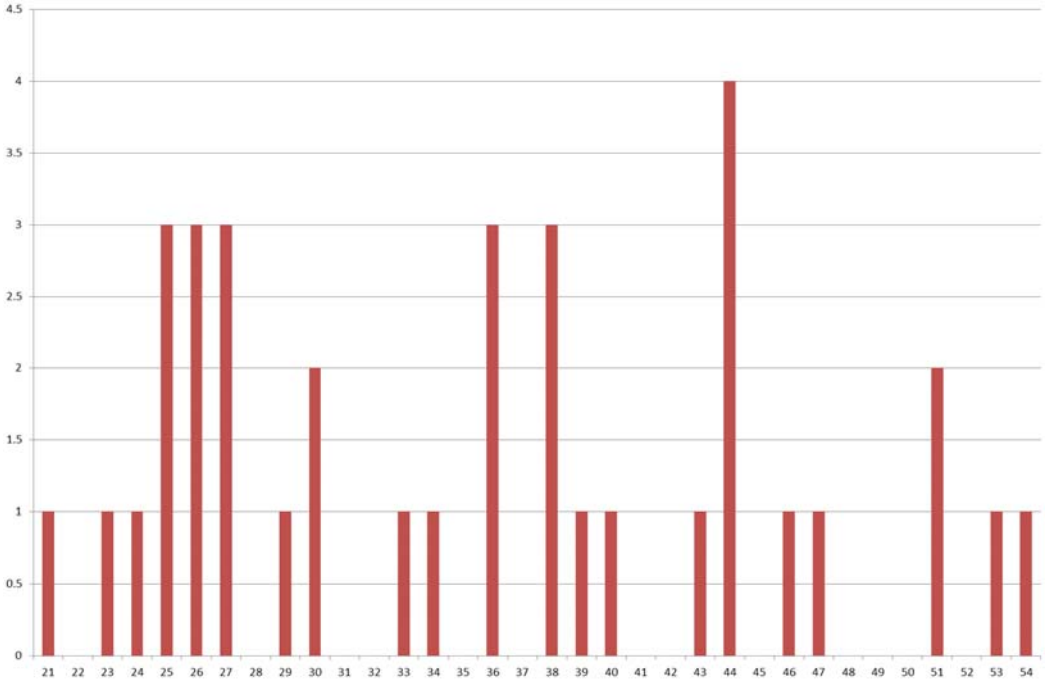
The majority of financial candidate land surveyors have not submitted any practical experience.



Candidate Mining Surveyors

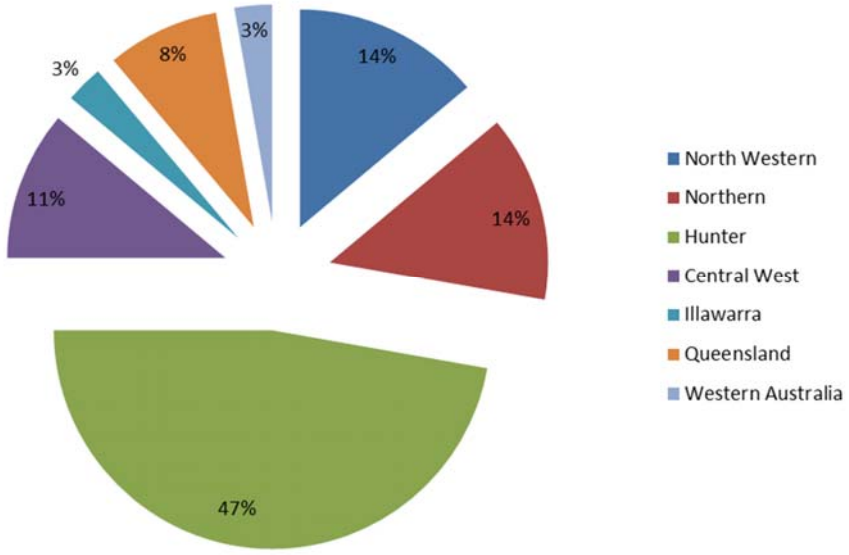
Age

The age range of financial candidate mining surveyors is shown below. The average age of financial candidate mining surveyors on the Board's register is 36 and the age group with the largest number of surveyors is the 44 year age group. The oldest financial candidate surveyor is 54 and the youngest is 21.



Area

The areas which financial candidate mining surveyors on the Board's register are located are shown in the following graph. The largest grouping is the Hunter, with the North Western and Northern having the next largest grouping. There are also 3 candidates from Queensland and 1 from Western Australia.



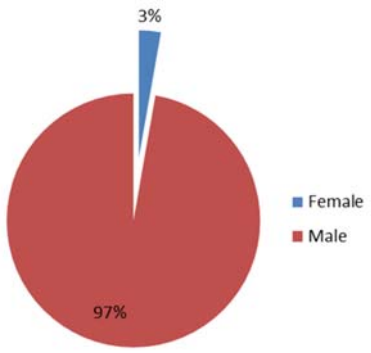
Degree

The majority of candidate mining surveyors have graduated from the University of Southern Queensland, University of Newcastle and TAFE. There are also a number of candidates who have graduated from interstate and overseas as listed in the below table.

University of Southern Queensland	**13**
TAFE	6
University of Newcastle	5
University of NSW	3
Papua New Guinea University Technology	2
Curtin University of Technology	1
Kwame Nkrimah University of Science and Technology	1
Royal Melbourne Institute of Technology	1
Technikon Pretoria	1
University of Dar Es Salaam	1
University of Exeter	1
Total	36

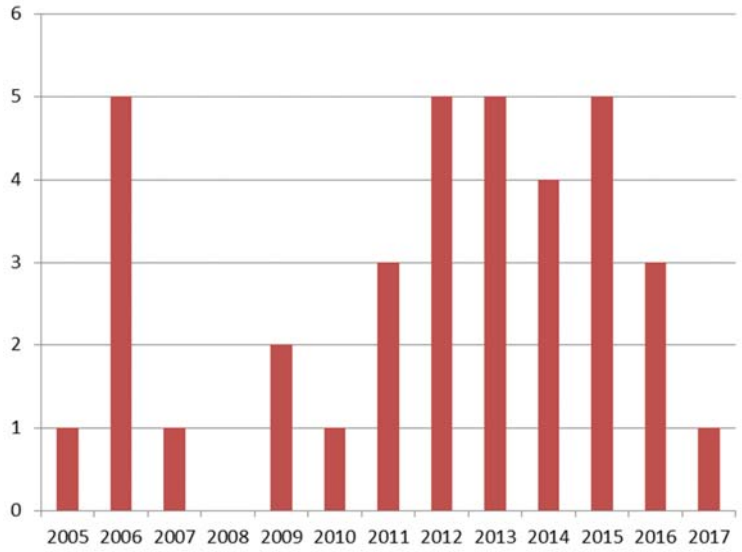
Gender

Currently there is 1 female candidate mining surveyors.



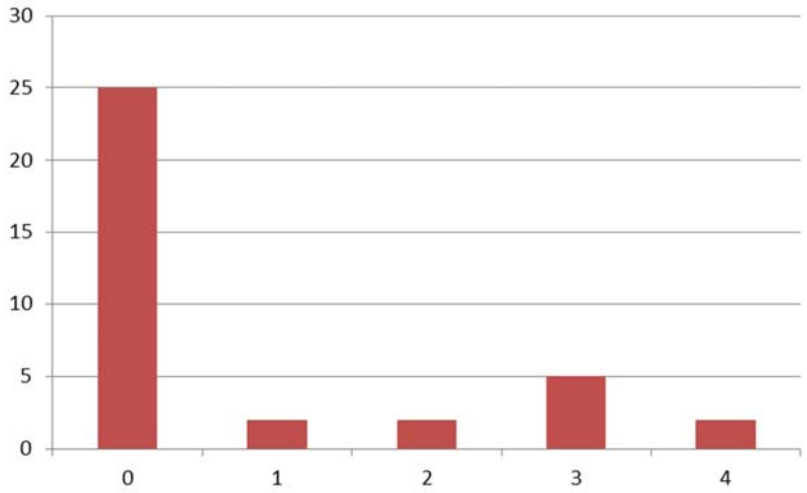
Enrolment

The majority of financial candidate mining surveyors have only been recently enrolled, with 5 enrolled in 2006, 2012, 2013 & 2015. There is currently 1 financial candidate mining surveyor who has been enrolled since 2005.

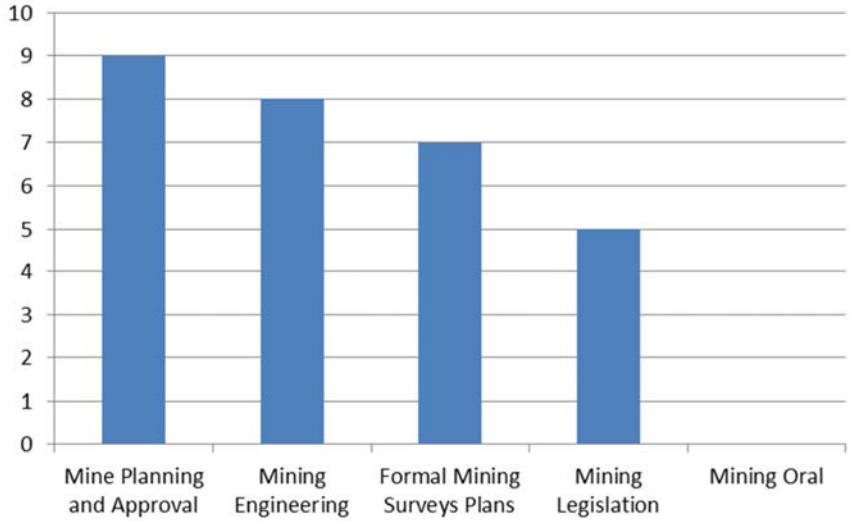


Exams

The majority of financial candidate mining surveyors have not passed any of the Board's assessments with 2 financial candidate mining surveyors who have only 1 assessment to go.

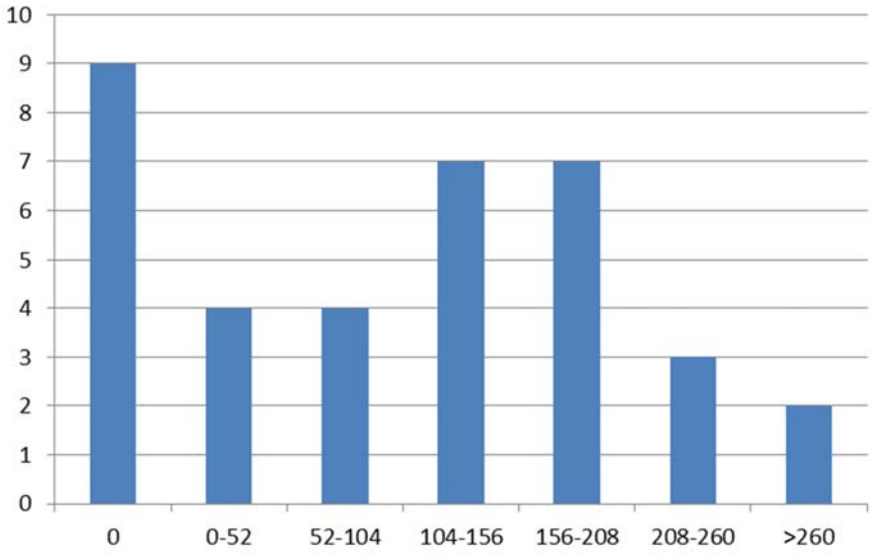


Of the examinations that have been passed, the majority have been in Mine Planning and Approval, Mining Engineering, Formal Mining Survey Plans and Mining Legislation.



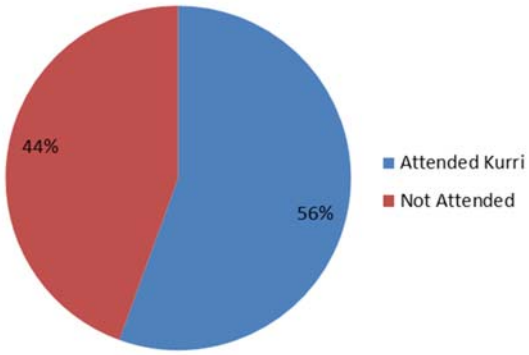
Experience

The majority of financial candidate mining surveyors have not submitted any practical experience or have between 104 and 208 weeks of practical experience.

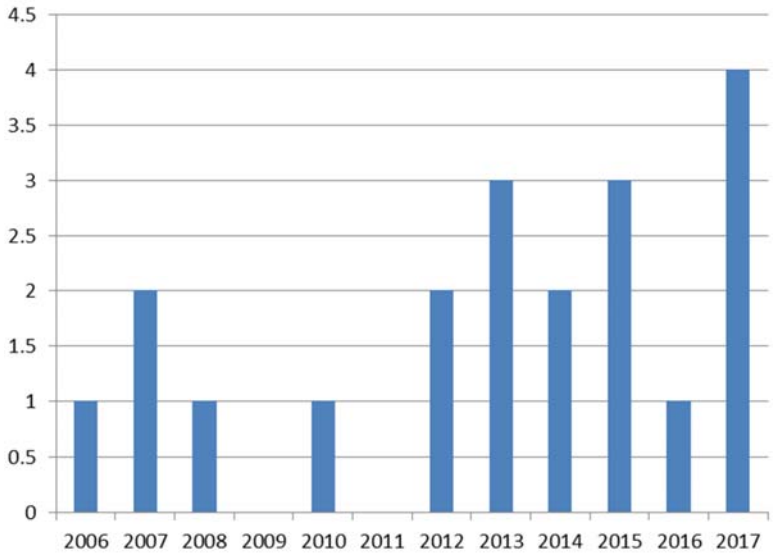
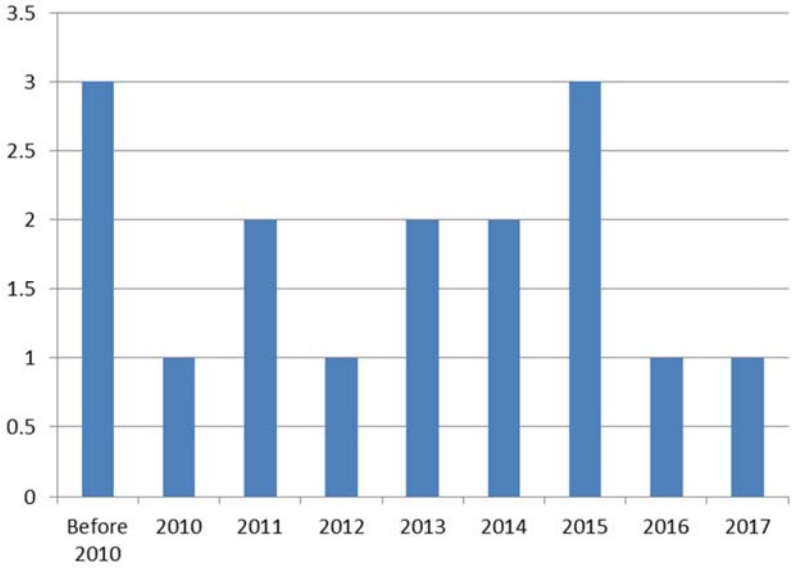


Kurri Kurri Workshop

Just over half of the financial candidate mining surveyors have attended the Kurri Kurri Workshop.



Of the financial candidate mining surveyors who have attended, the majority of these have attended in 2012-2015.



Of the financial candidate mining surveyors who have not attended, the majority of these have only been enrolled as candidates before 2010 or during 2015.