

# BOSSI Statistical Review 2015-2016

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## Introduction

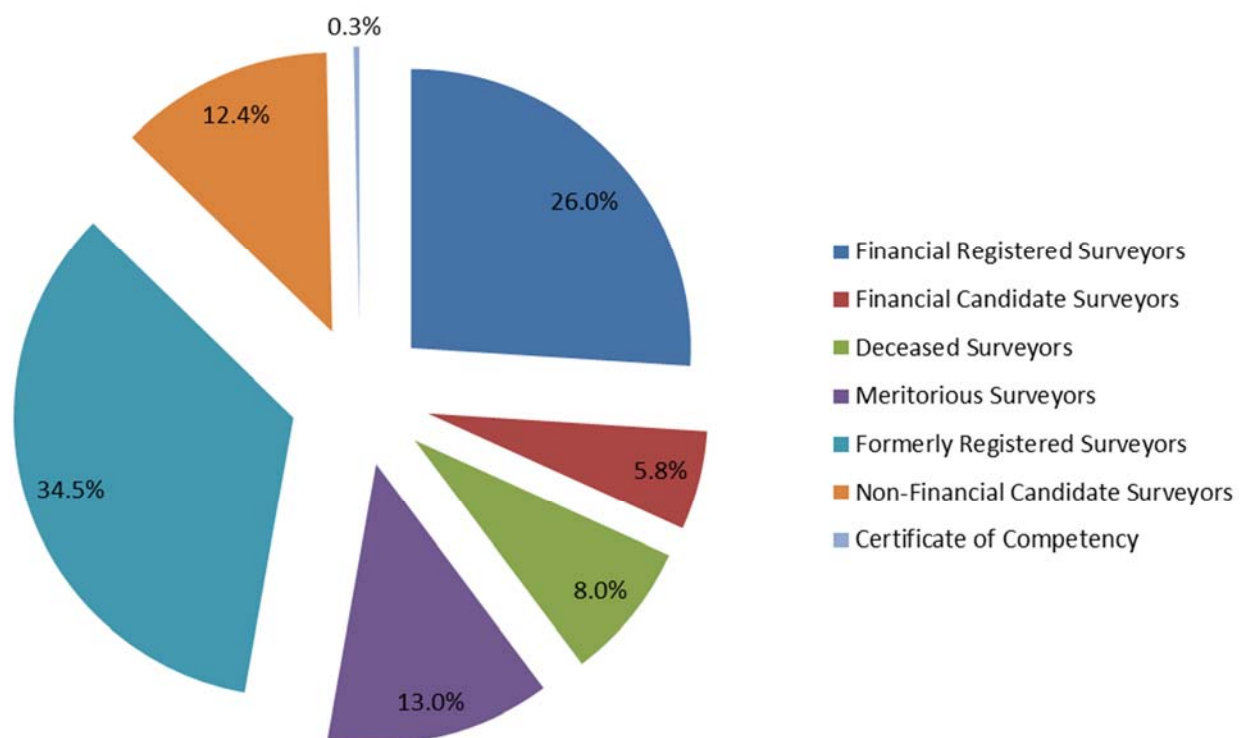
The Board of Surveying and Spatial Information (BOSSI) is a statutory board constituted under the *Surveying and Spatial Information Act 2002*. Its principal functions are:

- 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.

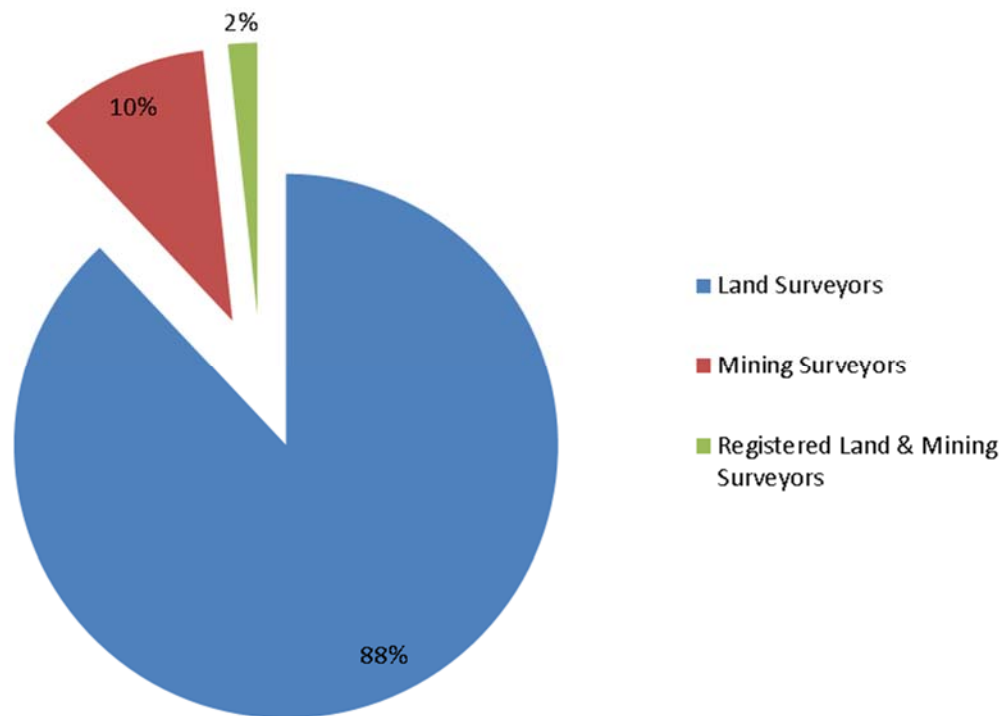
Currently the Register contains 3993 surveyor entries. Of these 1037 are financial registered surveyors, 232 are financial candidate surveyors, 319 are deceased, 519 are meritorious surveyors, 1380 are formerly registered surveyors, 494 are non-financial candidate surveyors, and 13 surveyors have received their certificate of competency but have not applied for registration.



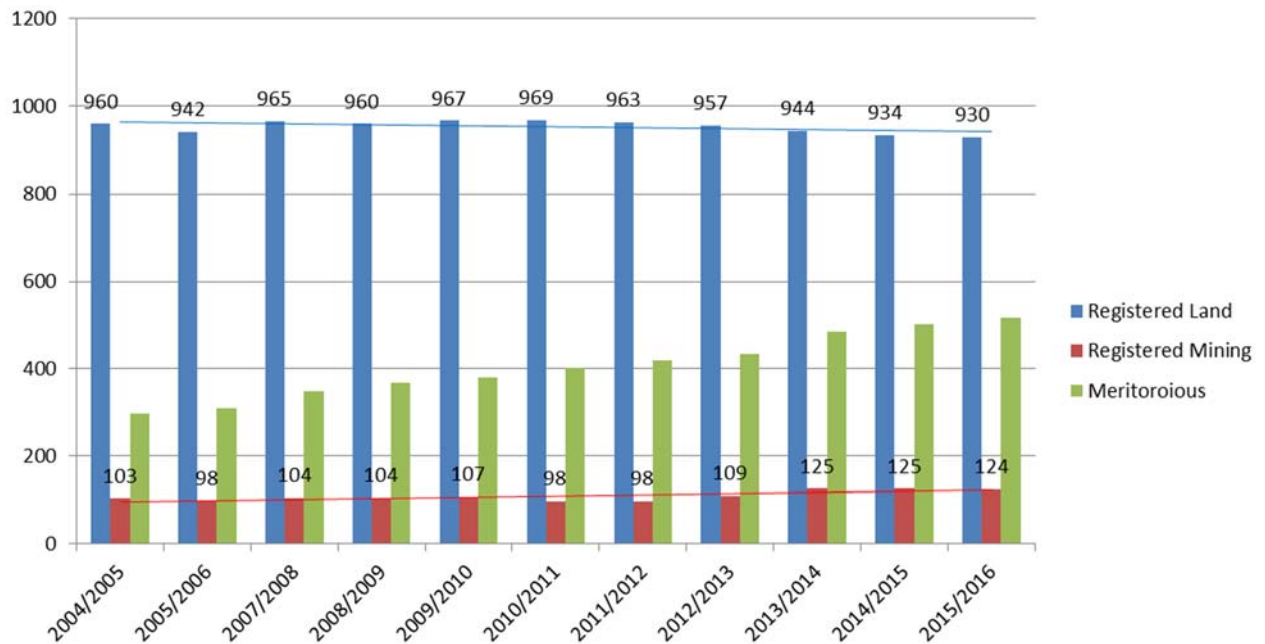
## Financial Registered Surveyors

BOSSI registers surveyors in two disciplines being land surveying and mining surveying. Current number of financial registered surveyors as of June 2016 is as follows:

Registered Land Surveyors	913
Registered Mining Surveyors	107
Registered Land & Mining Surveyors	17
Total	1037



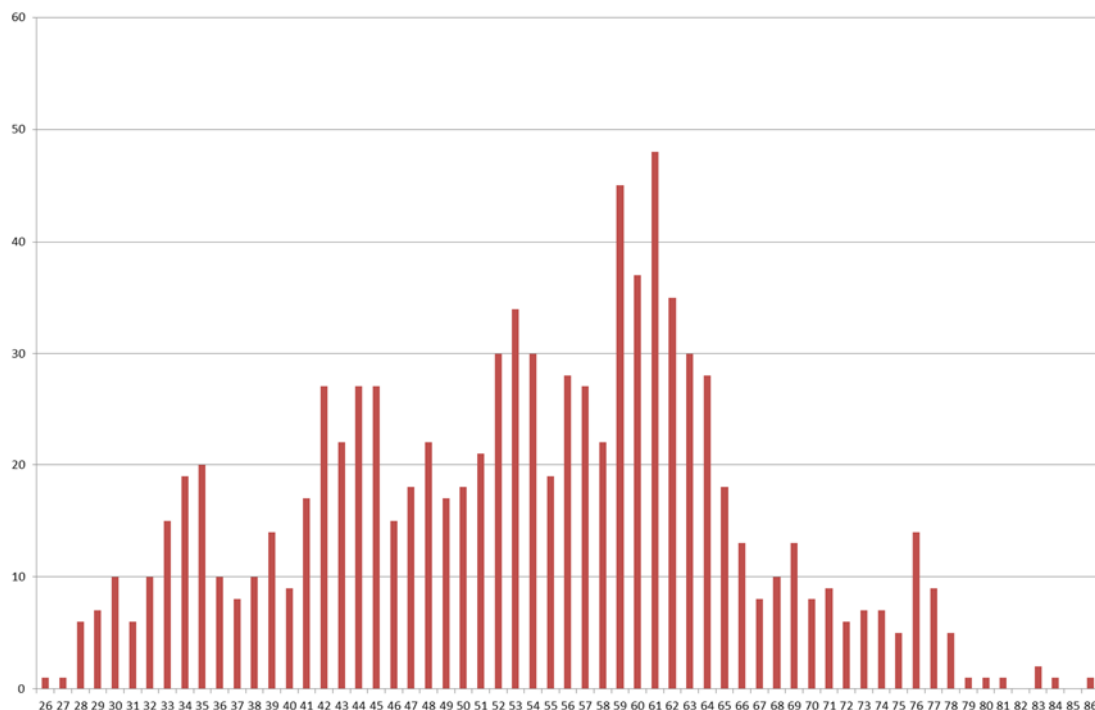
The trend in registered surveyor numbers since 2004 is show below. This trend shows a slight dip in registered land surveyors and a slight increase for registered mining surveyors but overall the general trend is quite flat indicating that enough candidate surveyors are becoming registered each year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



## Registered Land Surveyors

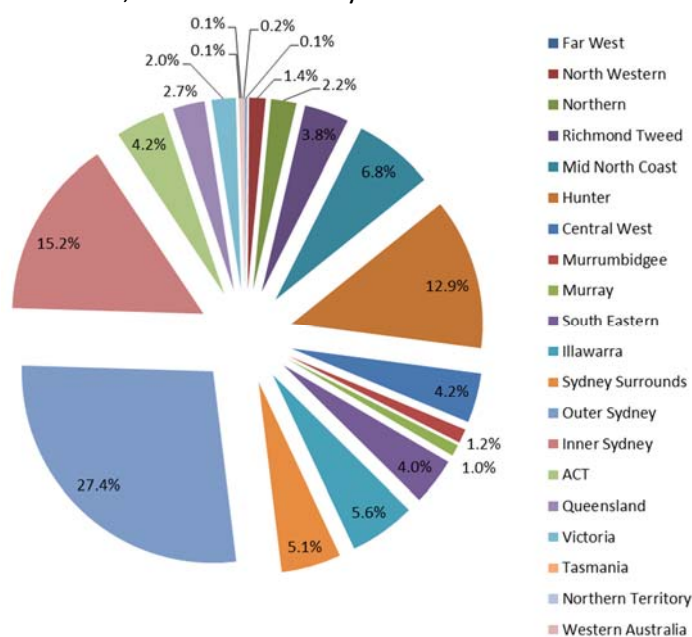
### Age

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 61 year age group. The oldest financial registered surveyor is 86 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.



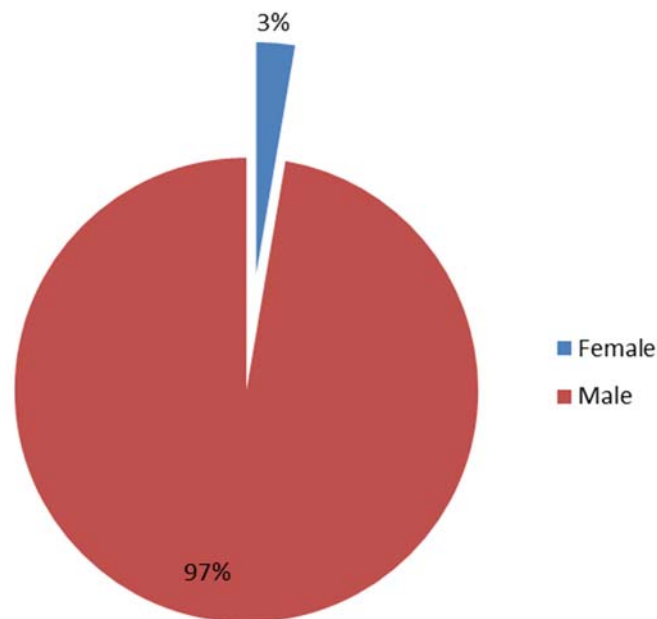
## Degree

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:

<b>University of NSW</b>	<b>495</b>
<b>University of Newcastle</b>	<b>189</b>
<b>Articles</b>	<b>56</b>
<b>Queensland University of Technology</b>	<b>37</b>
<b>University of Southern Queensland</b>	<b>28</b>
<b>Western Australian Institute of Technology</b>	<b>22</b>
<b>Royal Melbourne Institute of Technology</b>	<b>21</b>
<b>Otago University</b>	<b>15</b>
<b>University of Tasmania</b>	<b>9</b>
<b>University of Melbourne</b>	<b>9</b>
<b>Curtin University</b>	<b>6</b>
<b>Canberra University</b>	<b>5</b>
<b>University of South Australia</b>	<b>4</b>
<b>University of Warsaw</b>	<b>2</b>
<b>Moscow Engineering Institute of Geodesy, Aerial Photography and Cartography</b>	<b>2</b>
<b>University of Belgrade</b>	<b>1</b>
<b>National University of La Plata</b>	<b>1</b>
<b>University of Queensland</b>	<b>1</b>
<b>University of Calgary</b>	<b>1</b>
<b>Northern Territory Qualifications</b>	<b>1</b>
<b>Coal Mines Surveyor's Certificate of Competency</b>	<b>1</b>
<b>University of Cape Town</b>	<b>1</b>
<b>SA Institute Technology</b>	<b>1</b>
<b>AGH University of Science &amp; Tech Poland</b>	<b>1</b>
<b>Wuhan Technical University</b>	<b>1</b>
<b>Not Specified</b>	<b>20</b>
<b>Total</b>	<b>930</b>

## Gender

The majority of financial registered land surveyors are male. Currently there are 25 female registered land surveyors.



## Sector

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

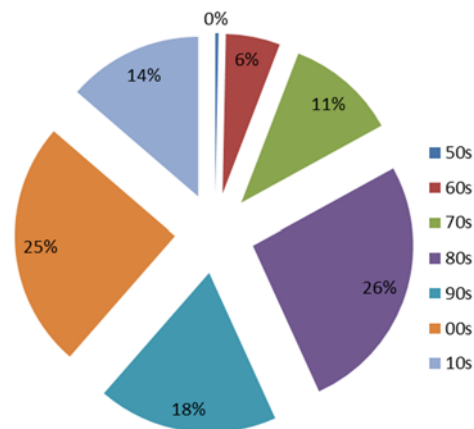
Private	813
NSW Local Govt	26
NSW State Govt	84
ACT Govt	4
Federal Govt	1
University	2
Total	930

The number of private companies employing registered land surveyors is 413. Of these 413 companies, 281 companies have only the 1 registered land surveyor. There are currently 16 companies that employ more than 5 registered land surveyors.

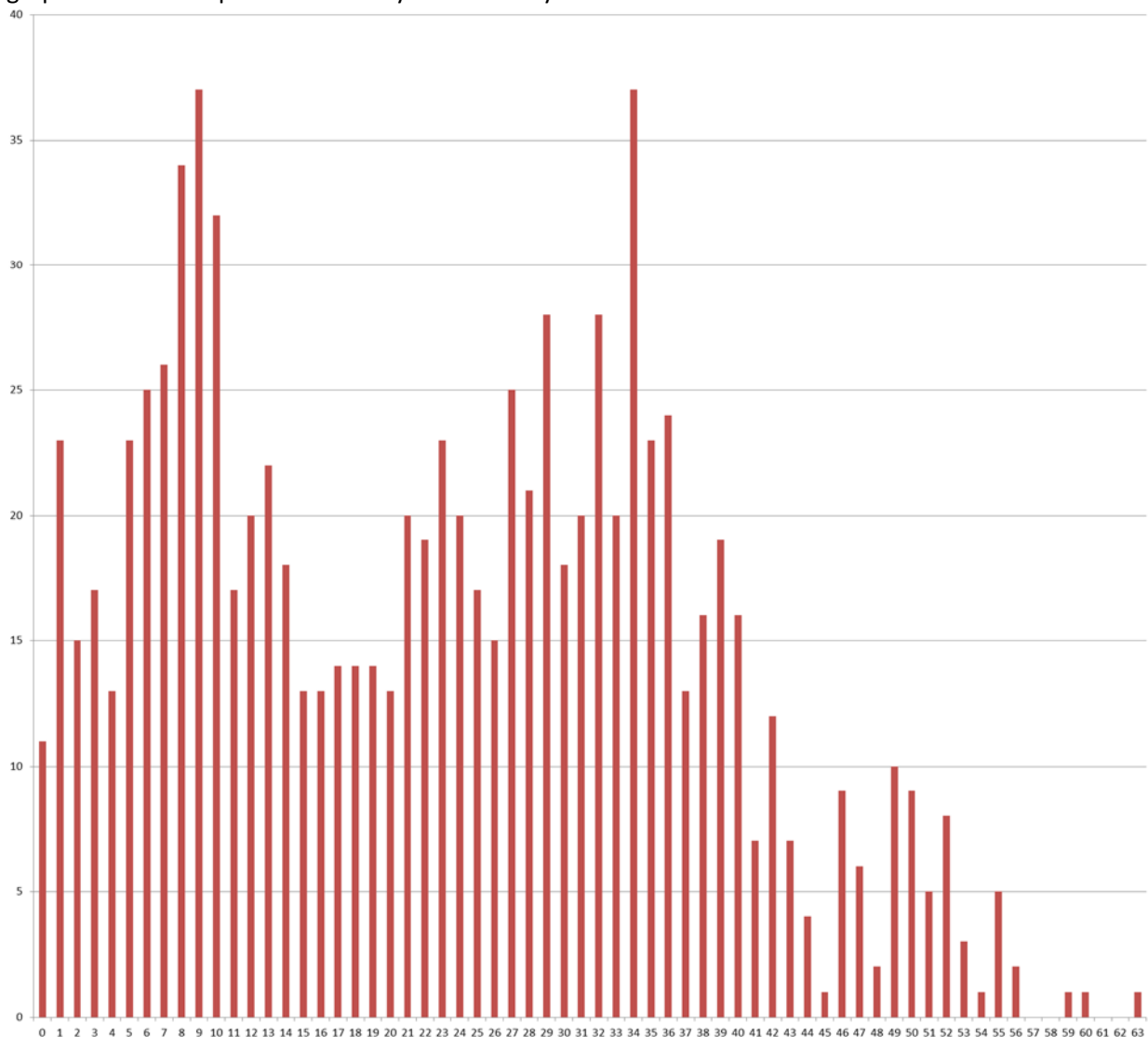
Registered land surveyors employed in the NSW State Government sector are primarily located at Roads & Maritime Services, Land & Property Information, and RailCorp.

## Registration

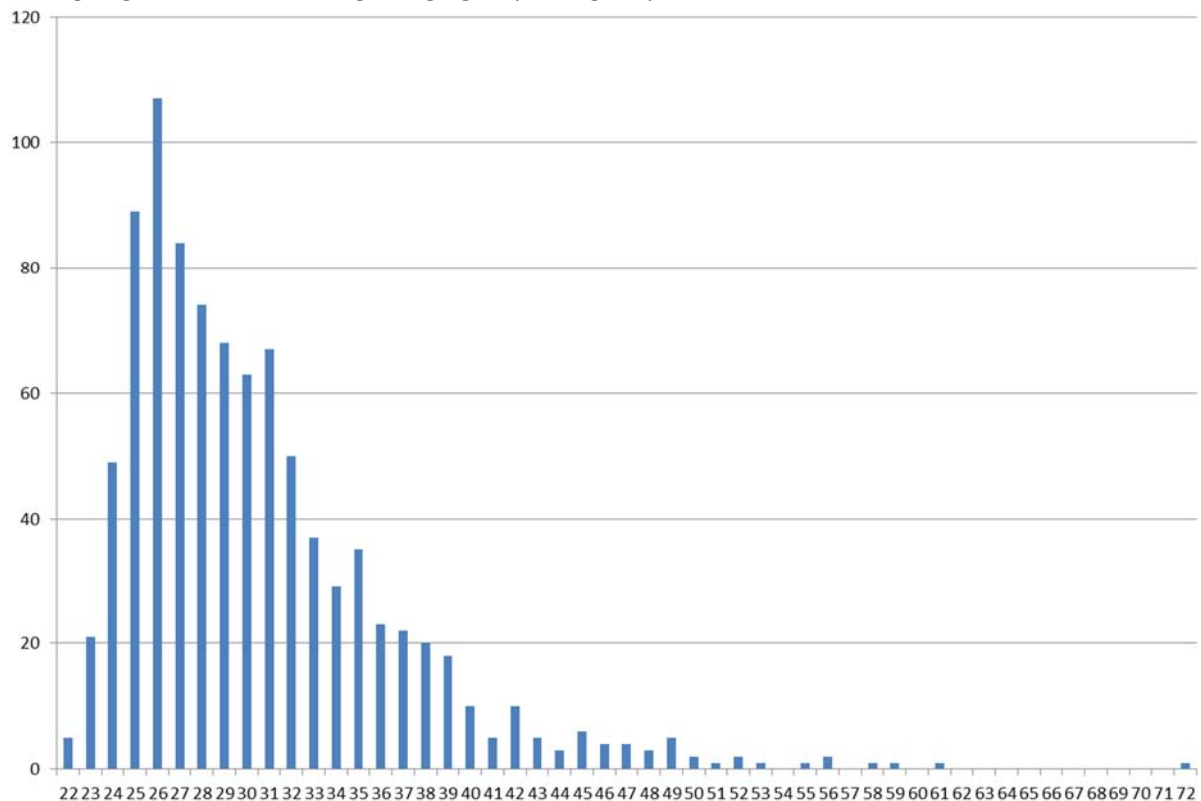
The initial registration of the current financial registered land surveyors spans from the 50s to the present date. The biggest group are surveyors who gained registration are in the 80s followed by the 00s and the 90s.



The following graph shows the length of time current financial registered land surveyors have been registered. The longest span of registration is 63 years, with the average being 23 years and the graph exhibits two peaks around 9 years and 34 years.

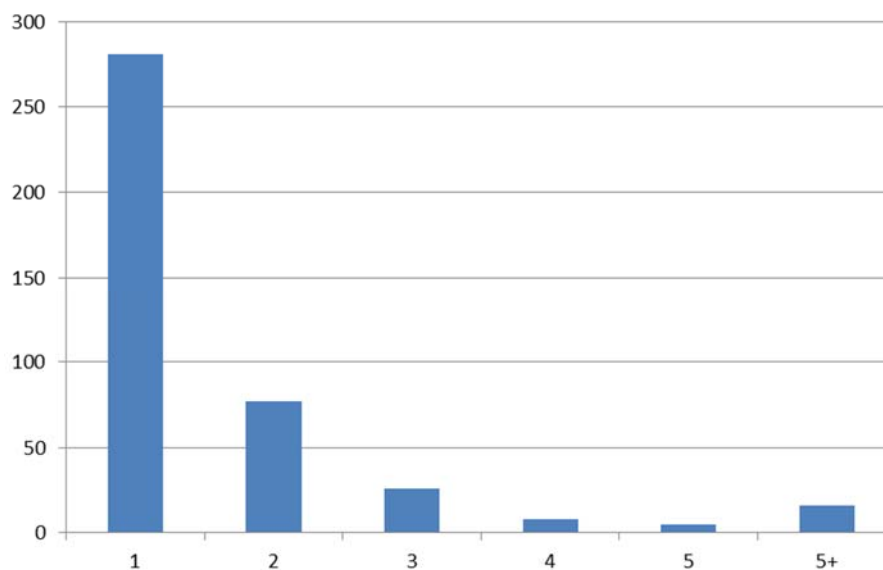


The age of land surveyors when they have gained registration is displayed below. Most surveyors gained their initial registration in their 20s, with the youngest being 22 and the oldest being 72. The average age is 30 with the largest age group being 26 years.

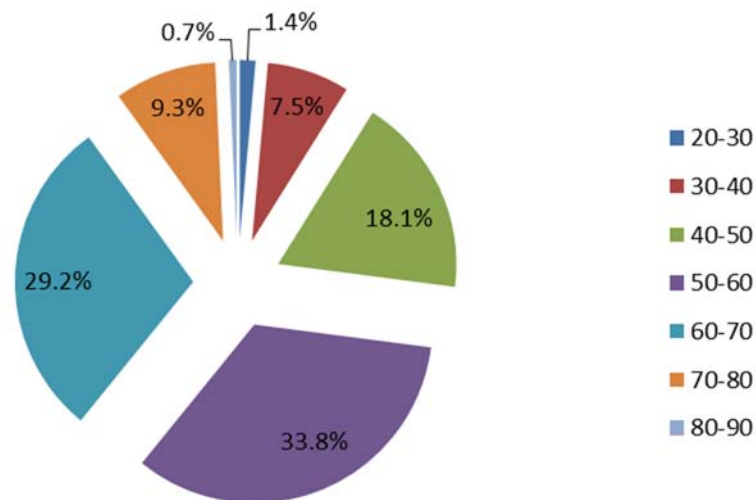


### Land Surveying Firms

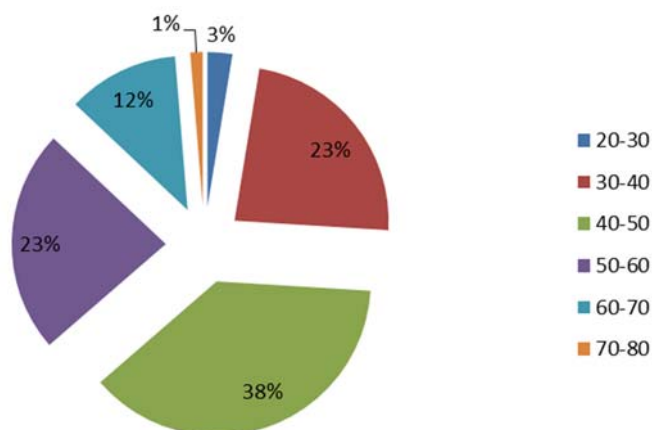
There are currently 413 Land Surveying firms who are employing Registered Land Surveyors. The majority of these employ only the one Registered Land Surveyor with 16 firms having more than 5 registered surveyors employed at their firm.



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.



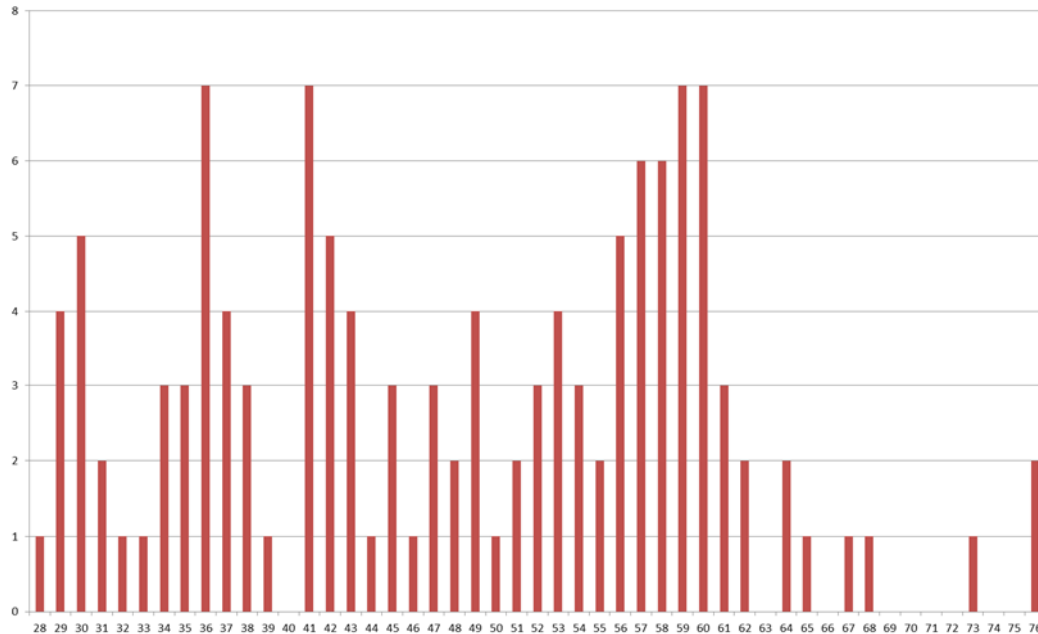
Of the firms who employ two Registered Land Surveyors, the majority of these surveyors are in the 40-50 age group.



## Registered Mining Surveyors

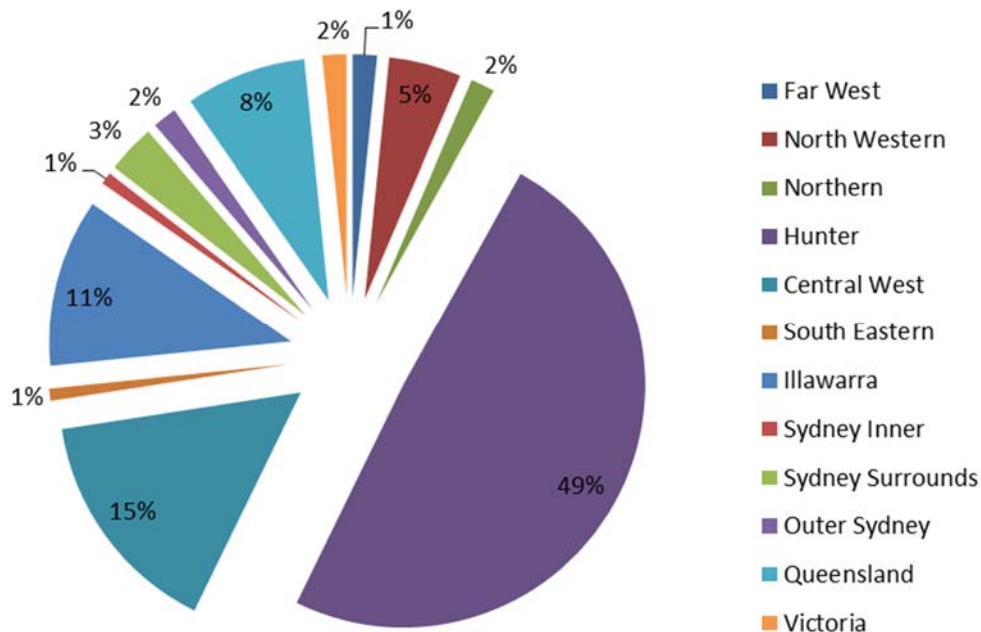
### Age

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 & 60 year age groups. The oldest financial registered mining surveyor is 76 and the youngest is 28.



### 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 Queensland and Victoria.



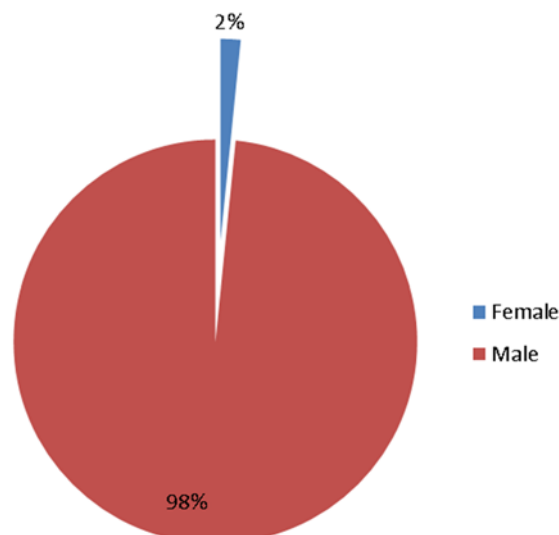
## Degree

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:

<b>Mining Surveyor Certificate of Competency</b>	<b>48</b>
<b>University of Southern Queensland</b>	<b>16</b>
<b>TAFE</b>	<b>16</b>
<b>University of Newcastle</b>	<b>15</b>
<b>University of NSW</b>	<b>10</b>
<b>Royal Melbourne Institute of Technology</b>	<b>2</b>
<b>University of South Australia</b>	<b>2</b>
<b>Curtin University</b>	<b>2</b>
<b>Queensland University of Technology</b>	<b>1</b>
<b>Moscow Engineering Institute of Geodesy, Aerial Photography and Cartography</b>	<b>1</b>
<b>University of Exeter</b>	<b>1</b>
<b>University of Zimbabwe</b>	<b>2</b>
<b>Not Specified</b>	<b>8</b>
<b>Total</b>	<b>124</b>

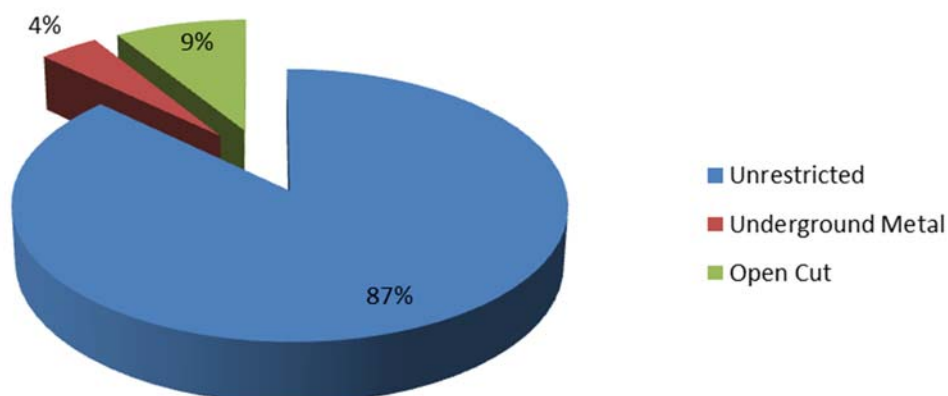
## Gender

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

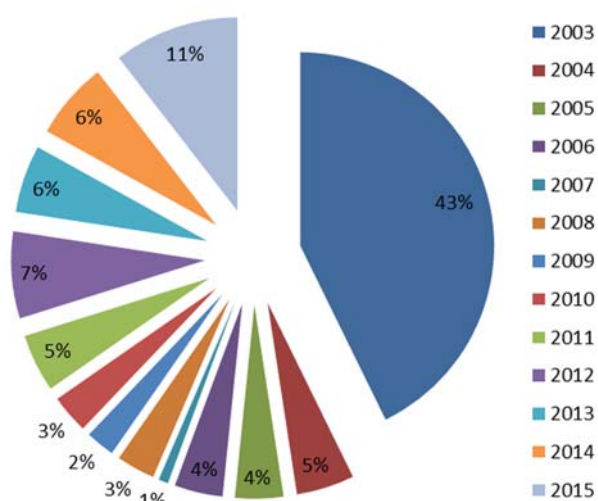


## Registration

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 5 surveyors having an underground metalliferous registration and 11 having an open cut registration.

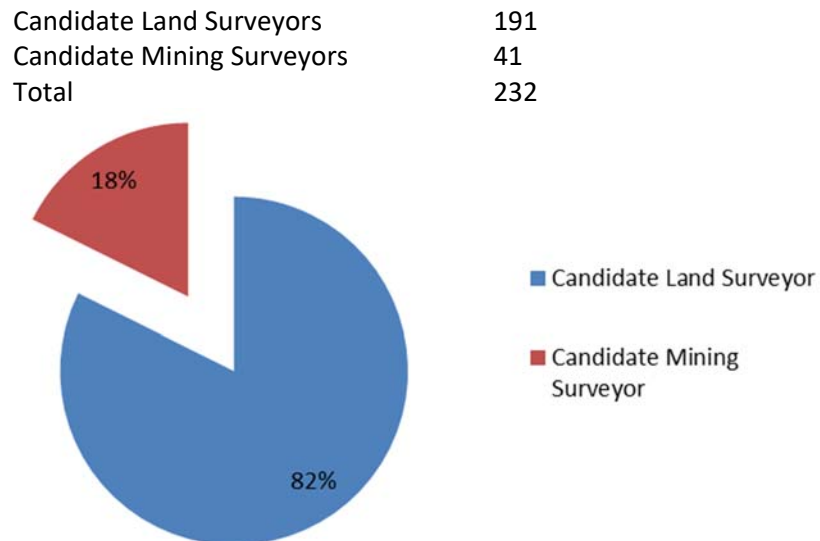


As mining surveying registration under the Surveying and Spatial Information Act 2002 was only introduced when the Act commenced, the initial date of registration for financially registered mining surveyors in the Board's register spans from 2003 to present and the majority of these being in 2003. Since 2003 there have been on average of 5 mining surveyors become registered with 2015 having the biggest year of 13 and 2007 having the smallest year of 1.

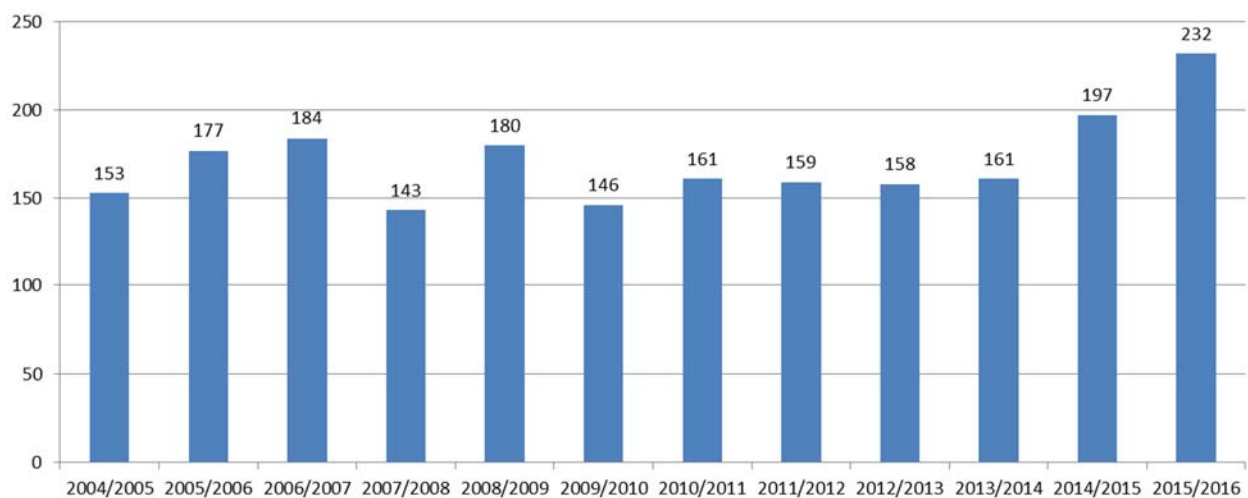


## Financial Candidate Surveyors

BOSSI enrolls candidate surveyors in two disciplines being land surveying and mining surveying. Current number of financial candidate surveyors as of June 2016 is as follows:



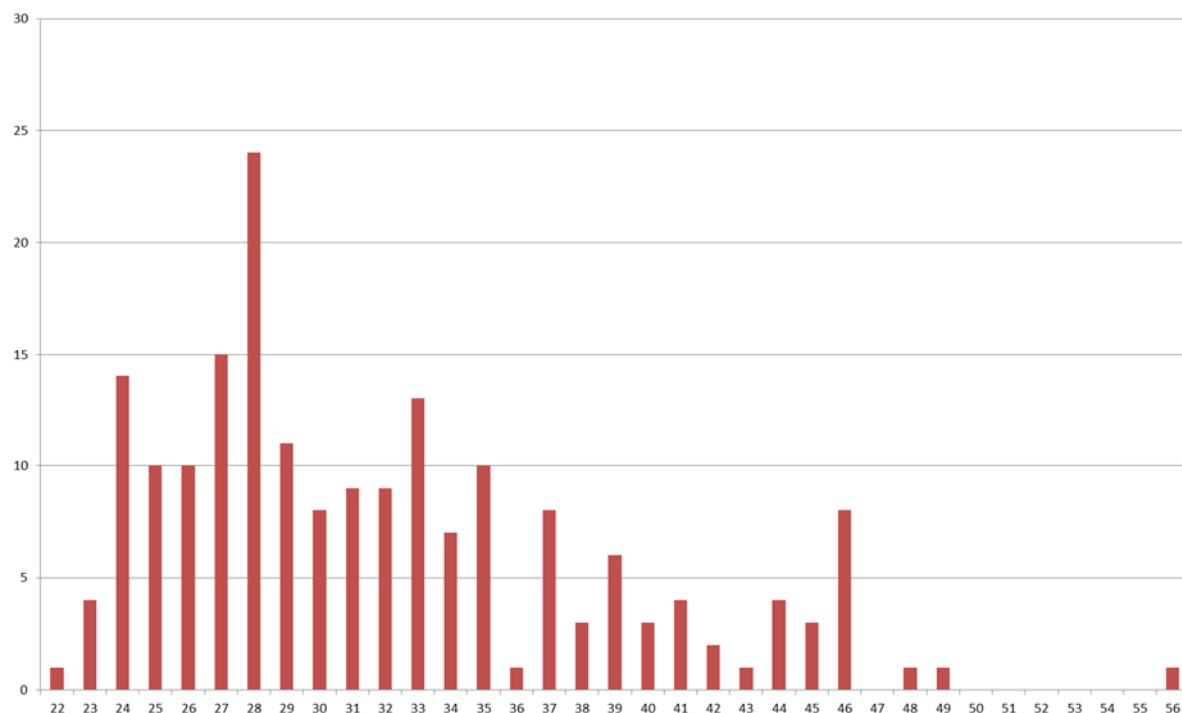
The trend in candidate surveyor numbers since 2004 is shown below. The trend has an increase in the last few years, with a high of 232 in 2015/2016.



## Candidate Land Surveyors

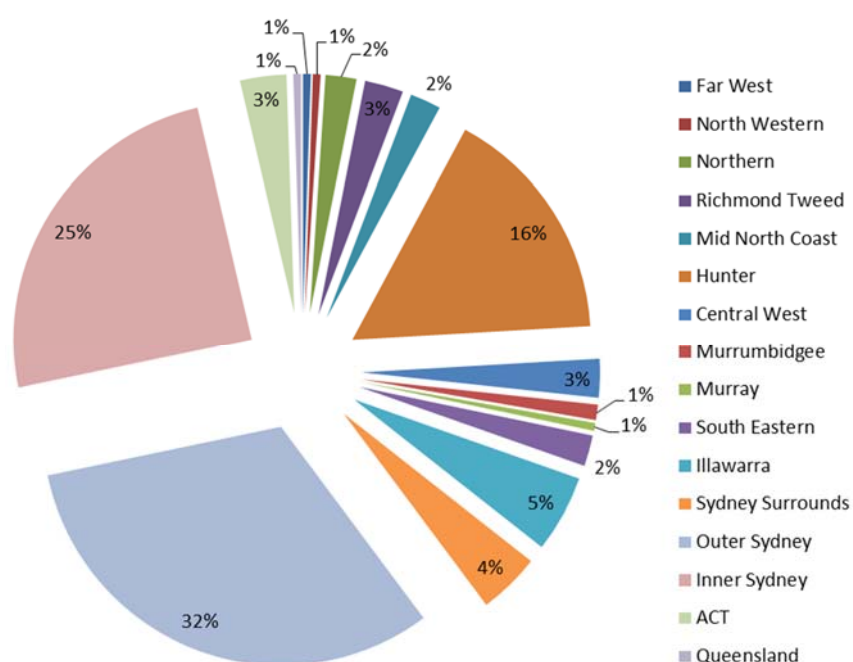
### Age

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 22.



### 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.



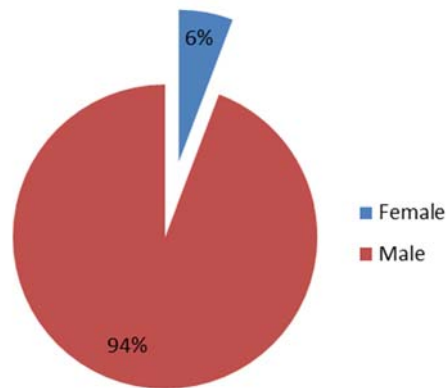
## Degree

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

<b>University of Newcastle</b>	<b>52</b>
<b>University of NSW</b>	<b>48</b>
<b>University of Southern Queensland</b>	<b>41</b>
<b>Otago University</b>	<b>9</b>
<b>Queensland University of Technology</b>	<b>5</b>
<b>Curtin University</b>	<b>5</b>
<b>Royal Melbourne Institute of Technology</b>	<b>4</b>
<b>University of Philippines</b>	<b>4</b>
<b>University of Tasmania</b>	<b>3</b>
<b>Kwame Nkrumah University</b>	<b>2</b>
<b>University of Isfahan</b>	<b>1</b>
<b>Esfaha University</b>	<b>1</b>
<b>University of Belgrade</b>	<b>1</b>
<b>University of Cape Town</b>	<b>1</b>
<b>High Technical Industrial Institute Dekwaneh</b>	<b>1</b>
<b>University of Nottingham</b>	<b>1</b>
<b>Oregon State University</b>	<b>1</b>
<b>Anir Kabir University of Technology</b>	<b>1</b>
<b>University College London</b>	<b>1</b>
<b>University of Plymouth</b>	<b>1</b>
<b>University of Zimbabwe</b>	<b>1</b>
<b>Midlands State University</b>	<b>1</b>
<b>Wroclaw University</b>	<b>1</b>
<b>Dublin Institute of Technology</b>	<b>1</b>
<b>Not Specified</b>	<b>4</b>
<b>Total</b>	<b>191</b>

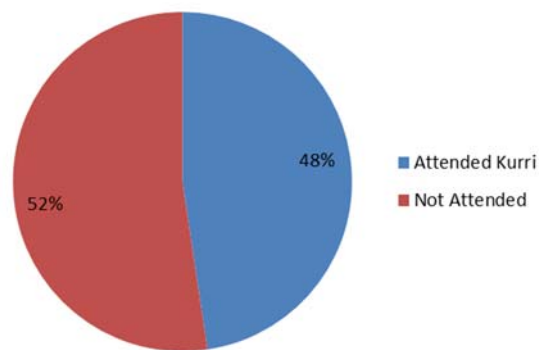
## Gender

The majority of financial candidate land surveyors are male. Currently there are 11 female candidate land surveyors.

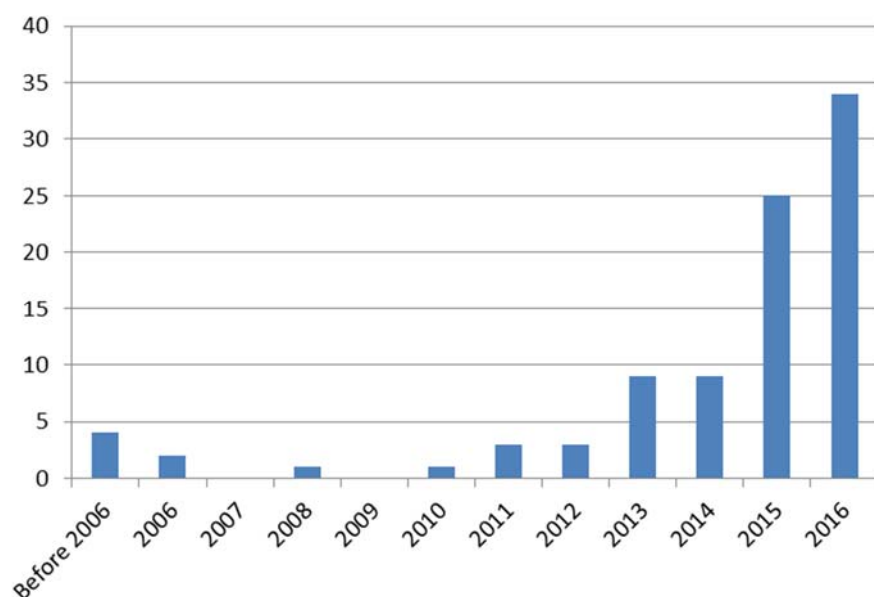


## Kurri Kurri Workshop

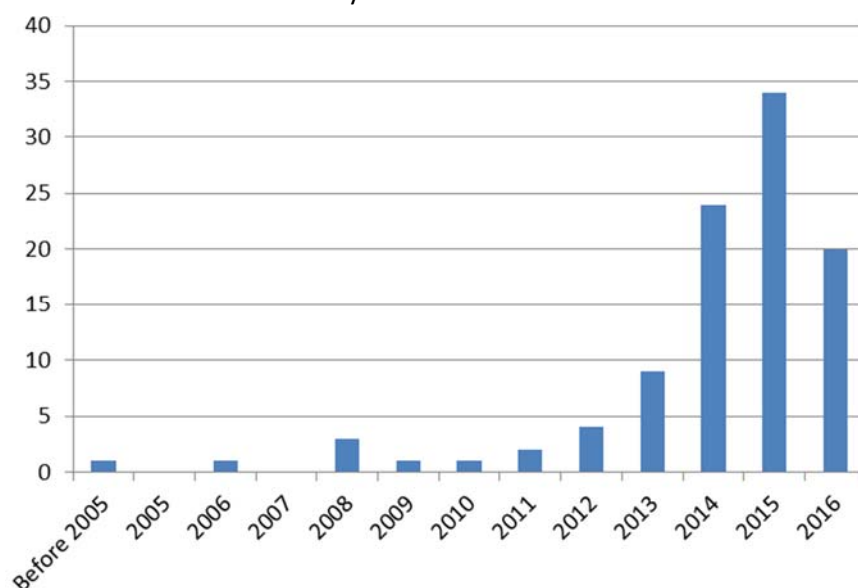
Just under a half of the financial candidate land surveyors have attended the Kurri Kurri Workshop.



Of the financial candidate land surveyors who have attended, the majority of these have attended in the last two 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:

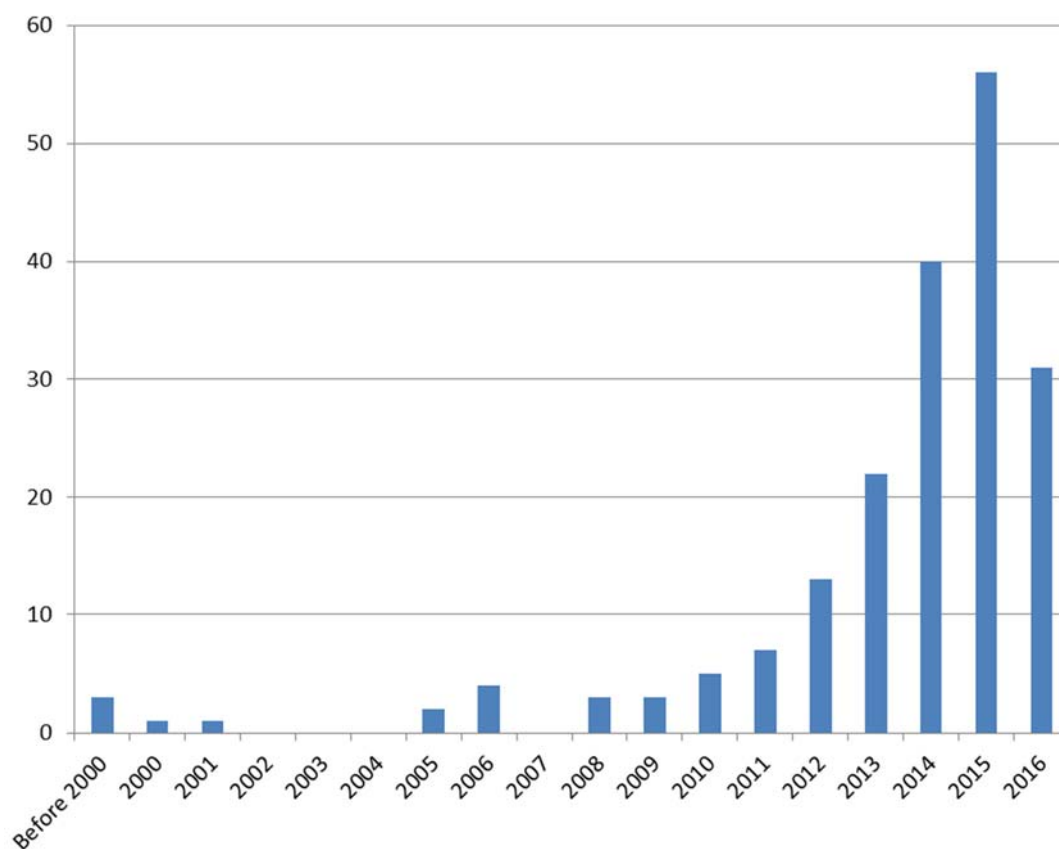
<b>Private</b>	<b>174</b>
<b>NSW Local Govt</b>	<b>5</b>
<b>NSW State Govt</b>	<b>11</b>
<b>ACT Govt</b>	<b>1</b>
<b>Total</b>	<b>191</b>

The number of private companies employing candidate land surveyors is 91. Of these 91 companies, 68 companies have only the 1 candidate land surveyor. There are currently 6 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.

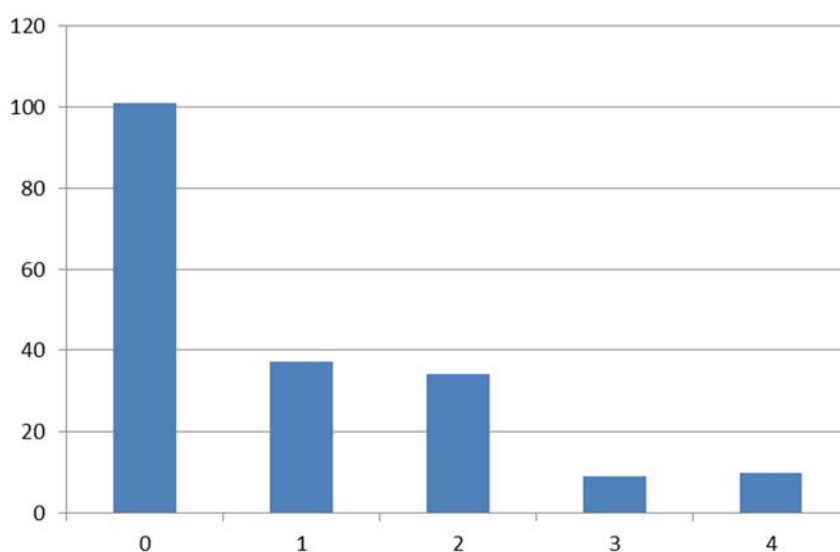
## Enrolment

The majority of financial candidate land surveyors have only been recently enrolled, with 31 enrolled in 2016, 56 in 2015, 40 in 2014 and 22 in 2013. There are currently 3 financial candidate land surveyors who have been enrolled since before 2000.

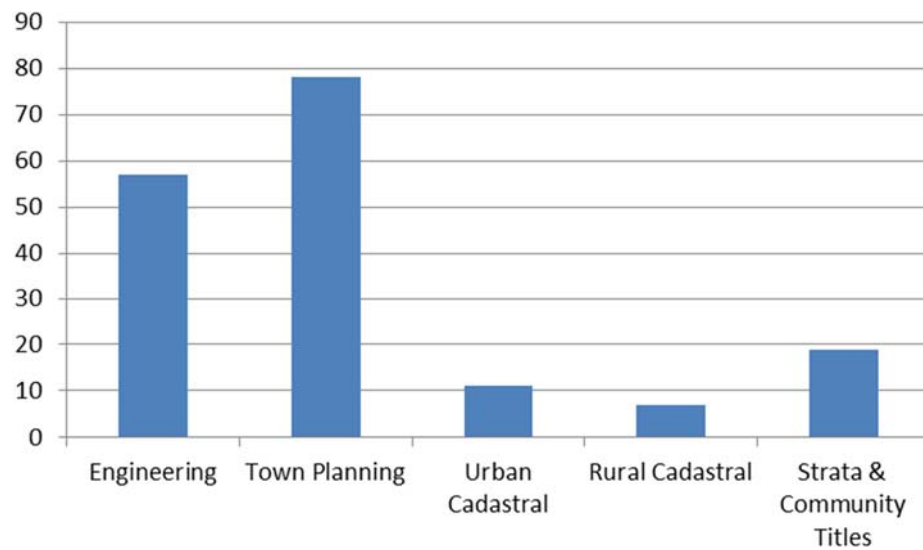


## Exams

The majority of financial candidate land surveyors have not passed any of the Board's assessments with 10 financial candidate land surveyors who have only 1 assessment to go.

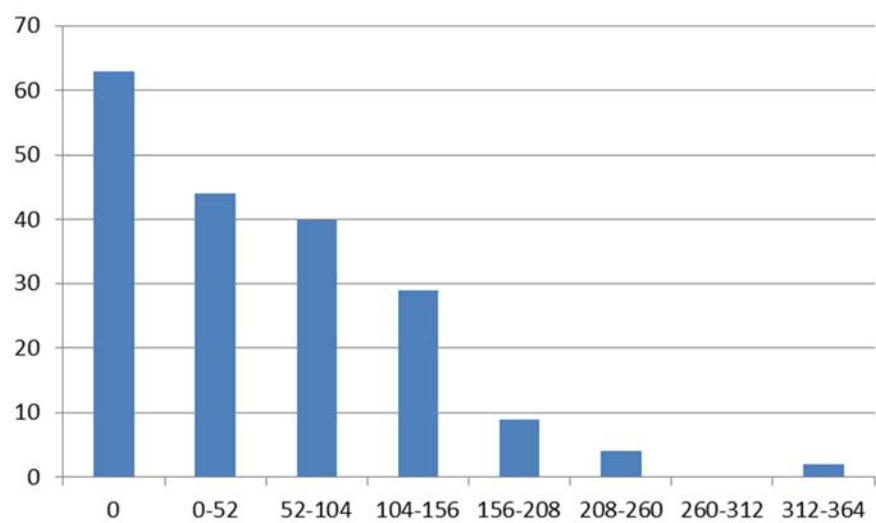


Of the examinations that have been passed, the majority have been in Town Planning and Engineering with 78 passes in Town Planning and 57 in Engineering.



### Experience

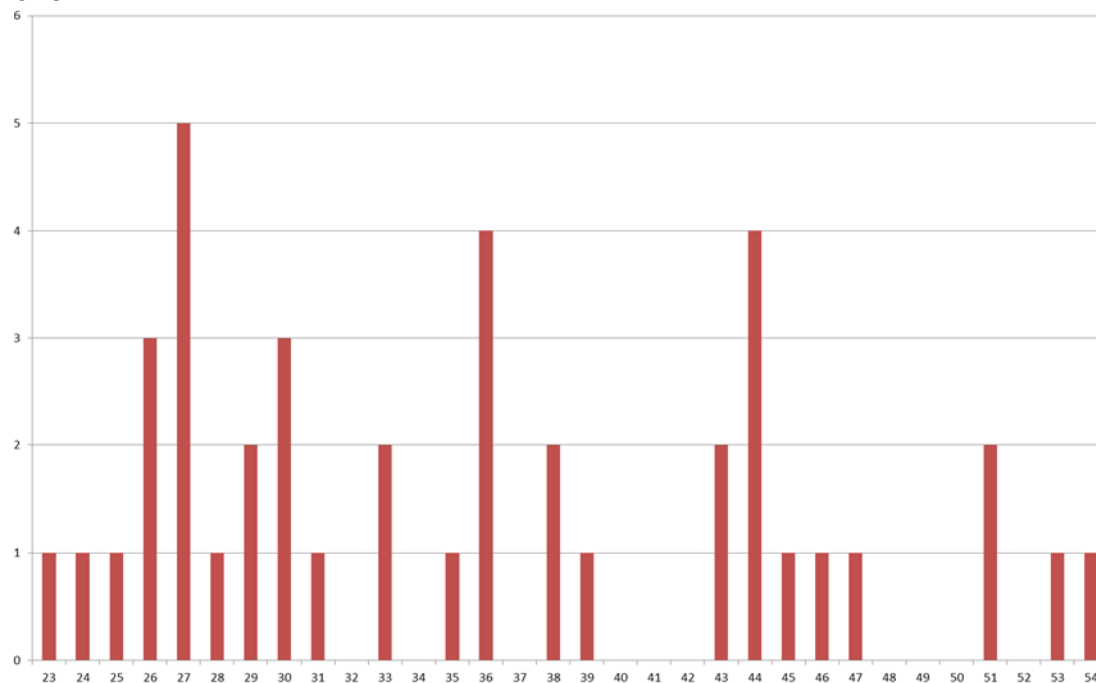
The majority of financial candidate land surveyors have not submitted any practical experience.



## Candidate Mining Surveyors

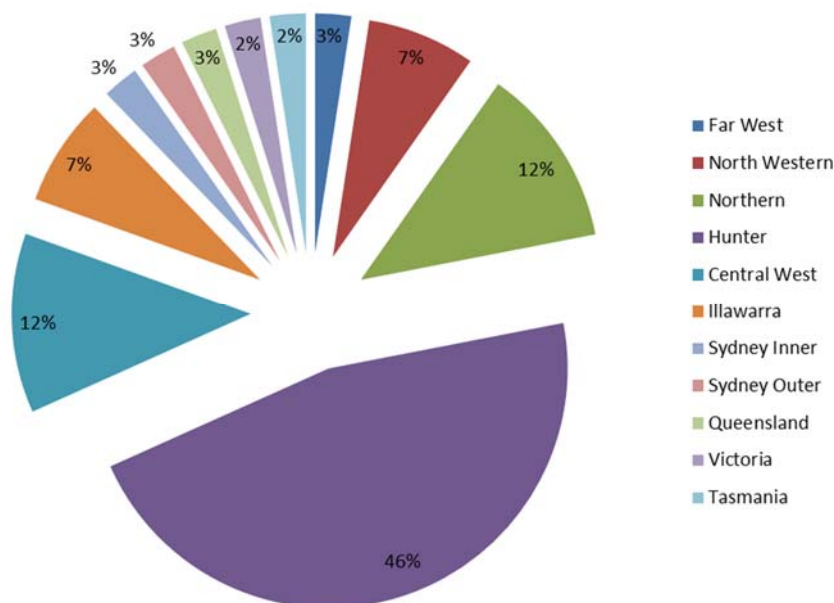
### Age

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 27 year age group. The oldest financial candidate surveyor is 54 and the youngest is 23.



### 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 Central West and Northern having the next largest grouping. There are also 1 candidate from Queensland, Victoria, and Tasmania.



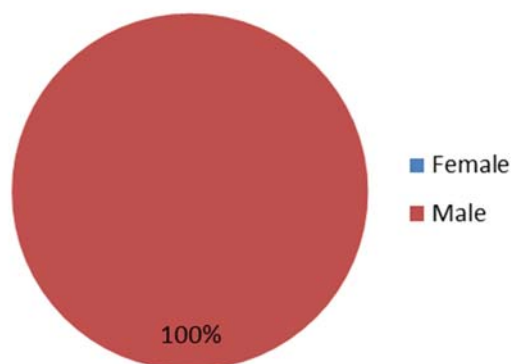
## Degree

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.

<b>University of Southern Queensland</b>	<b>13</b>
<b>TAFE</b>	<b>9</b>
<b>University of Newcastle</b>	<b>7</b>
<b>University of NSW</b>	<b>3</b>
<b>Institute of Technology Bandung</b>	<b>1</b>
<b>Kwame Nkrumah Uni Science &amp; Technology</b>	<b>1</b>
<b>St Marys University – Philippines</b>	<b>1</b>
<b>Technikon Pretoria</b>	<b>1</b>
<b>Tshwane University of Technology</b>	<b>1</b>
<b>University of South Australia</b>	<b>1</b>
<b>University of Exeter</b>	<b>1</b>
<b>University of Dar Es Salaam</b>	<b>1</b>
<b>Old Clause 13</b>	<b>1</b>
<b>Total</b>	<b>41</b>

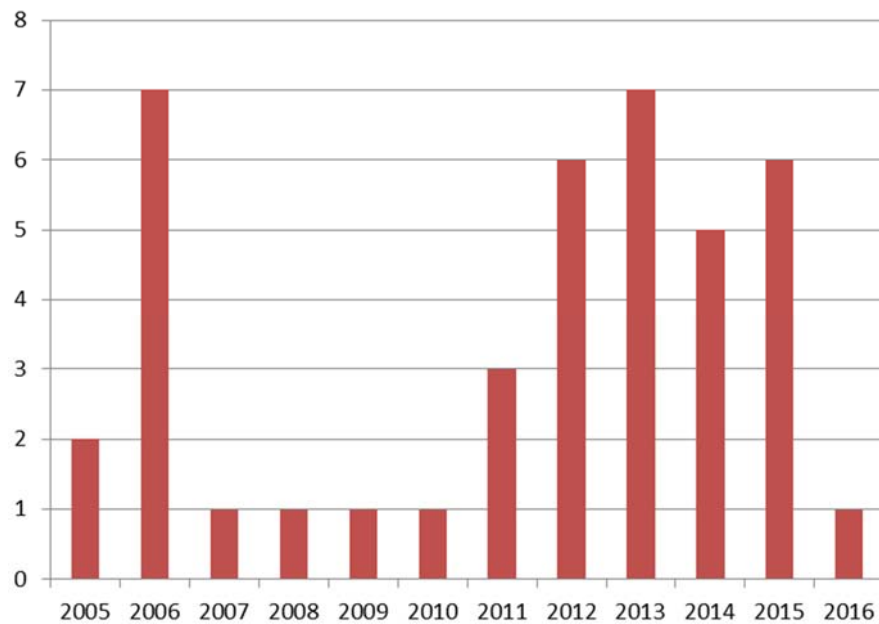
## Gender

Currently there no female candidate mining surveyors.



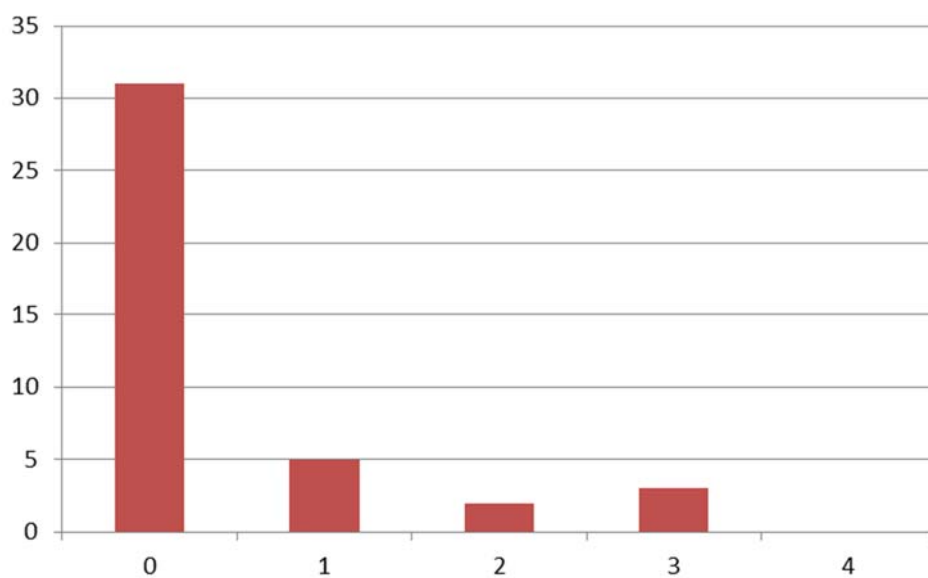
## Enrolment

The majority of financial candidate mining surveyors have only been recently enrolled, with 7 enrolled in 2006, 6 enrolled in 2012, 7 enrolled in 2013, 5 enrolled in 2014, and 6 enrolled in 2015. There are currently 2 financial candidate mining surveyors who have been enrolled since 2005.

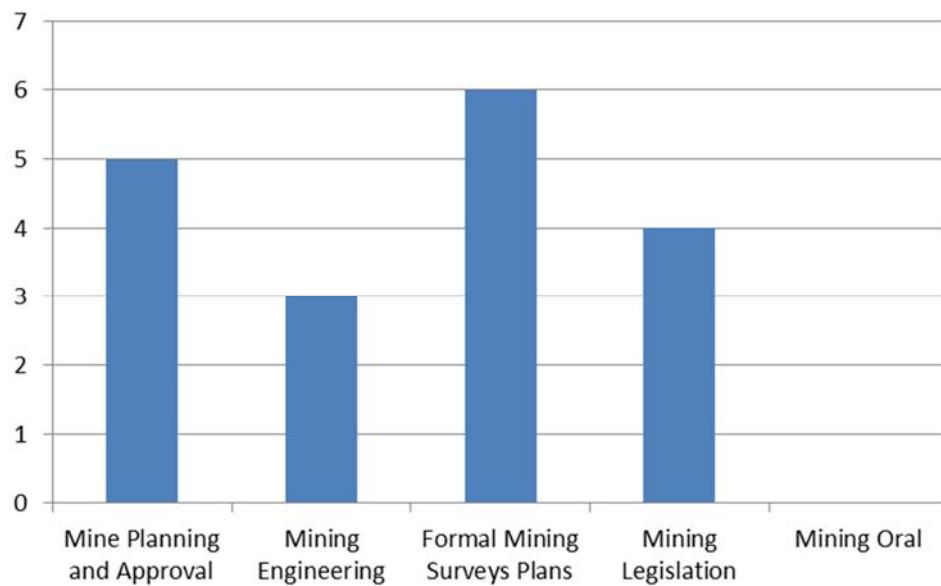


## Exams

The majority of financial candidate mining surveyors have not passed any of the Board's assessments with no financial candidate mining surveyors who have only 1 assessment to go.

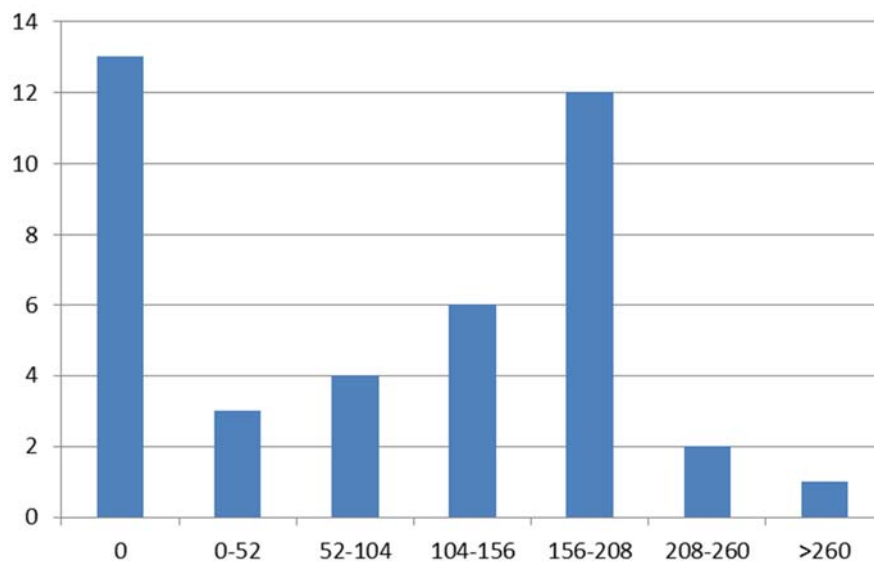


Of the examinations that have been passed, the majority have been in Mine Planning and Approval, Mining Engineering, Formal Mining Survey Plans and Mining Legislation.



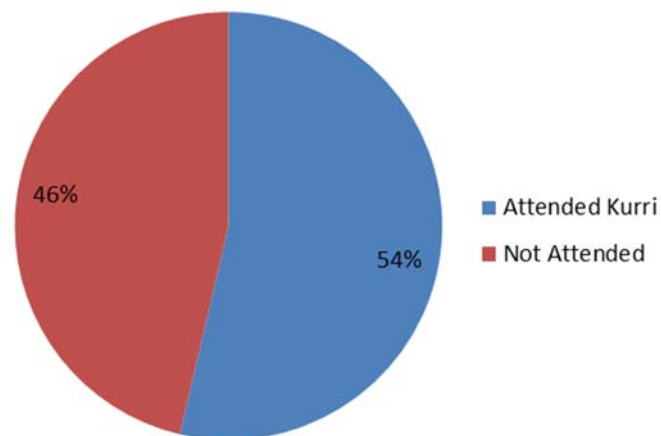
### Experience

The majority of financial candidate mining surveyors have not submitted any practical experience or have between 156 and 208 weeks of practical experience.

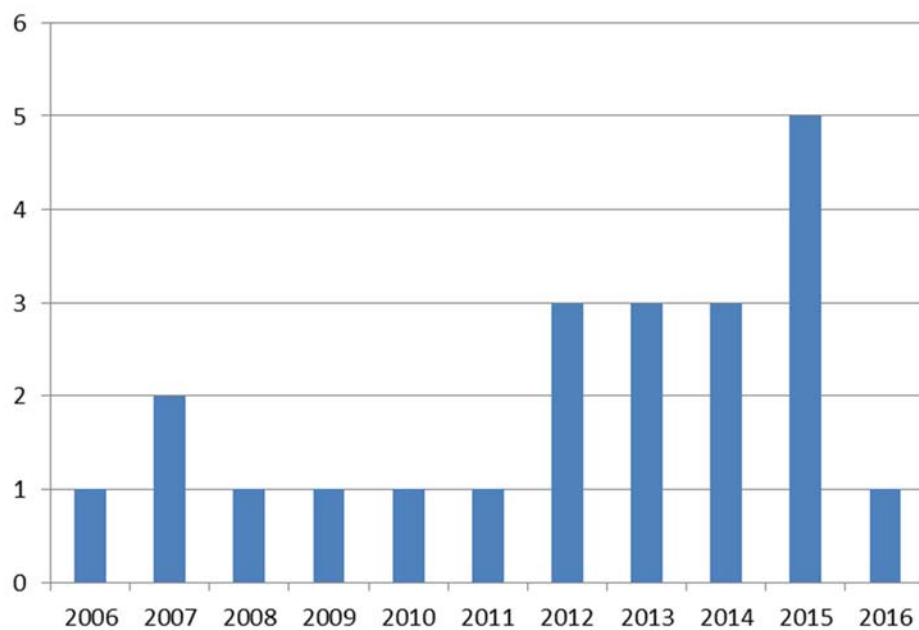


### Kurri Kurri Workshop

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 2013-2015.

