



Australian Government  
Department of Employment

# Industry Outlook

## Mining

# Table of Contents

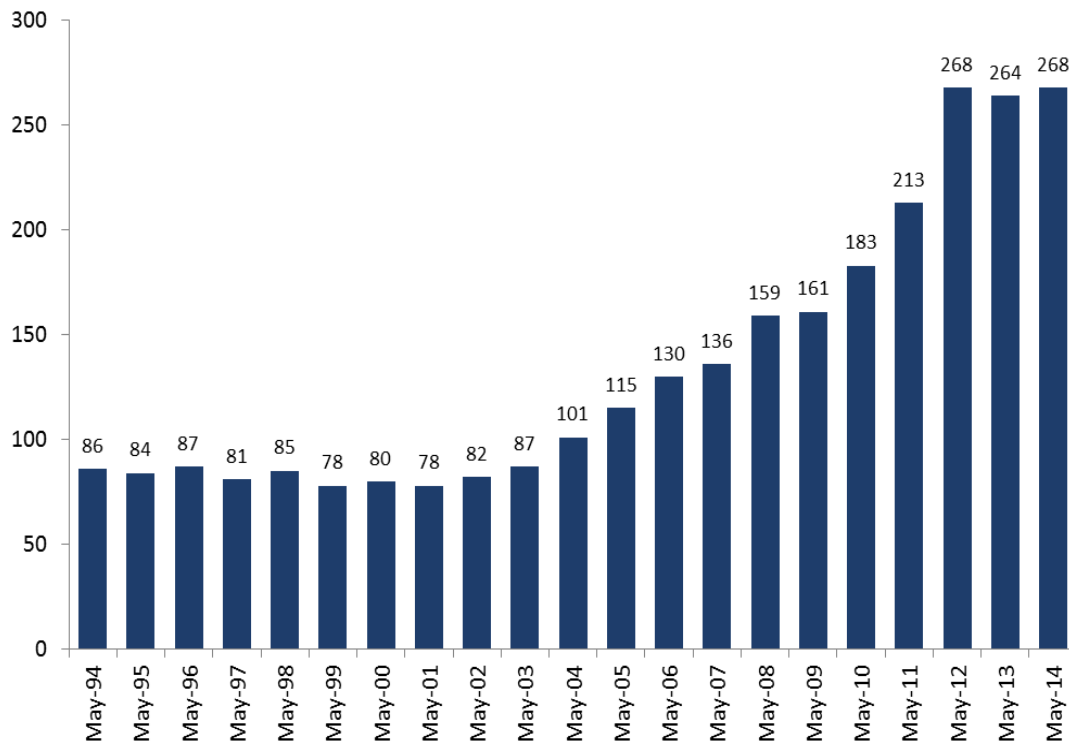
<b>Employment .....</b>	<b>1</b>
Sectoral Employment.....	2
Geographic Distribution.....	3
<b>Workforce Characteristics .....</b>	<b>5</b>
Workforce Age Profile.....	5
Gender and Full Time/Part Time Status.....	6
Educational Qualifications .....	7
Main Employing Occupations .....	8
Earnings .....	9
<b>Future Employment Prospects .....</b>	<b>10</b>

## Employment

Mining value added accounts for 10.2 per cent of Australia’s Gross Domestic Product, making the Mining industry one of the most important in Australia. The high capital intensity of the industry means that the Mining industry directly employs only 267,700 workers, or 2.3 per cent of the total workforce. Mining, however, contributes to employment in other industries, such as Construction (development of mine sites and infrastructure), Transport, Postal and Warehousing (materials handling and transport), Manufacturing (downstream processing) and Professional, Scientific and Technical Services (engineering and technical support services). Employment growth in the industry may reflect construction of projects as well as operational jobs, as many mining companies manage on-site construction of new capacity and infrastructure.

Mining has experienced the fastest rate of job growth of all 19 broad industries over the past decade, reflecting strong demand for commodities from Australia’s trading partners. Over the 10 years to May 2014, employment in Mining increased by 166,900, which is equivalent to an annual growth rate of 10.3 per cent. Mining employment almost doubled over the five years to May 2012, rising from 135,500 to 267,900 as the industry responded to historically high mineral prices by expanding output quickly and constructing new capacity. Since May 2012, employment growth has stalled, growing by only 4000, or 1.5 per cent over the 12 months to May 2014 as mineral prices have fallen, construction activity has plateaued and operating costs are being scrutinised intensely. Weaker confidence and the deferral of a number of major resource projects have also been caused by slower growth in demand from China and lower commodity prices.

**Figure 1: Mining industry employment level ('000), May 1994 to May 2014**

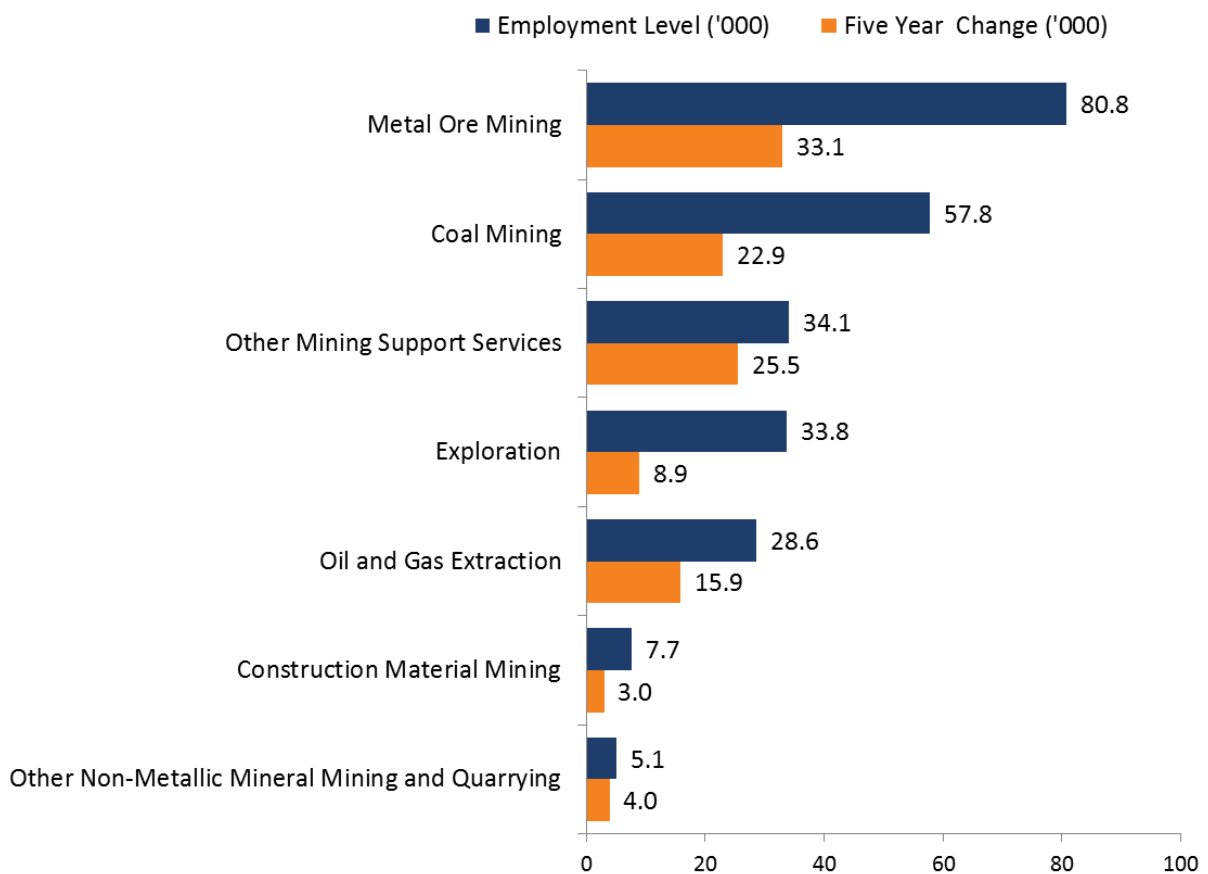


Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, trend.

## Sectoral Employment

The industry is divided into seven sectors. The largest contributor to employment in the Mining industry is the Metal Ore Mining sector, employing 80,800 people (or 32.6 per cent of industry employment). Within the Metal Ore Mining sector, Iron Ore Mining accounts for the largest share (37.4 per cent) of employment, followed by Gold Ore Mining (26.7 per cent) and Copper Ore Mining (11.8 per cent). The second largest contributor to employment in the Mining industry is the Coal Mining sector, employing 57,800 people (or 23.3 per cent of industry employment) and the third largest is Other Mining Support Services<sup>1</sup> (34,100 or 13.7 per cent). Figure 2 shows that the largest sectoral contributors to growth in employment over the past five years have been Metal Ore Mining (which grew by 33,100), Other Mining Support Services (25,500) and Coal Mining (22,900). The fastest **rate** of employment growth over the five year period was in the Oil and Gas Extraction sector in which employment increased by 15,900, or by 125.3 per cent, with almost 85 per cent of this employment growth having occurred over the past two years.

**Figure 2: Employment level and five year change to May 2014, by Mining industry sector ('000)**



Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, Department of Employment trend.

<sup>1</sup> Other Mining Support Services includes directional drilling and re-drilling; mining draining and pumping services; and oil and gas field support services.

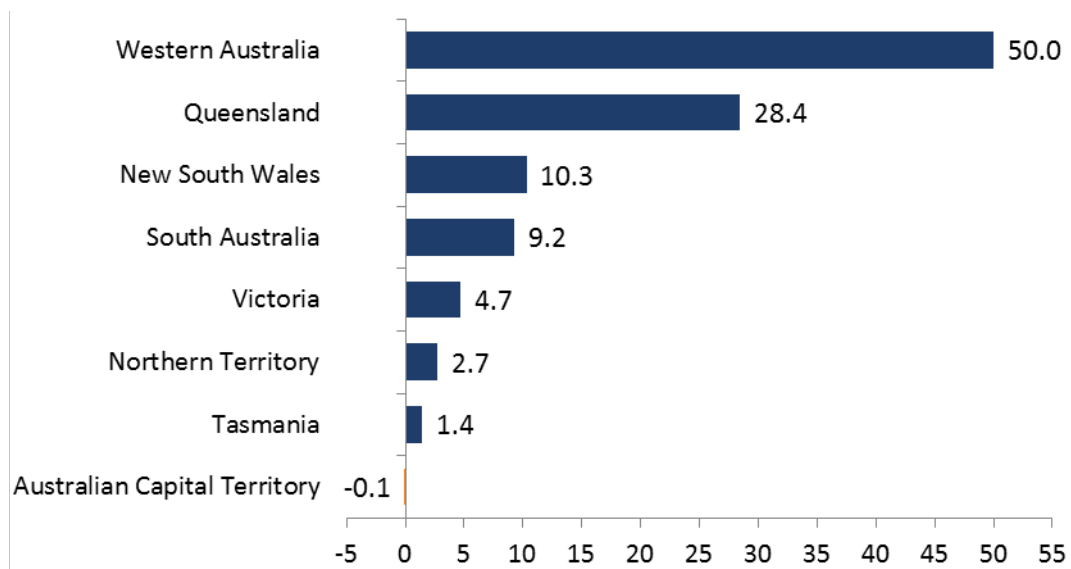
### Geographic Distribution

The Mining industry is an important source of employment in Western Australia, Queensland and New South Wales. Together these states account for 87.6 per cent of Mining employment.

Nationally, Mining employment increased by 106,700 (or 66.2 per cent) over the five years to May 2014, with growth concentrated in Western Australia (up by 50,000), Queensland (28,400) and New South Wales (10,300).

Over the past two years, while Mining employment across Australia has been steady (falling by a mere 200), it has fallen by 13,300 in Western Australia and by 7300 in New South Wales and risen by 9900 in Queensland. The rise in Queensland over the past two years has been driven by an increase of 8300 in employment in the Oil and Gas Extraction sector due to the development of coal seam gas fields to feed the Curtis Island Liquefied Natural Gas export terminals that are under construction.

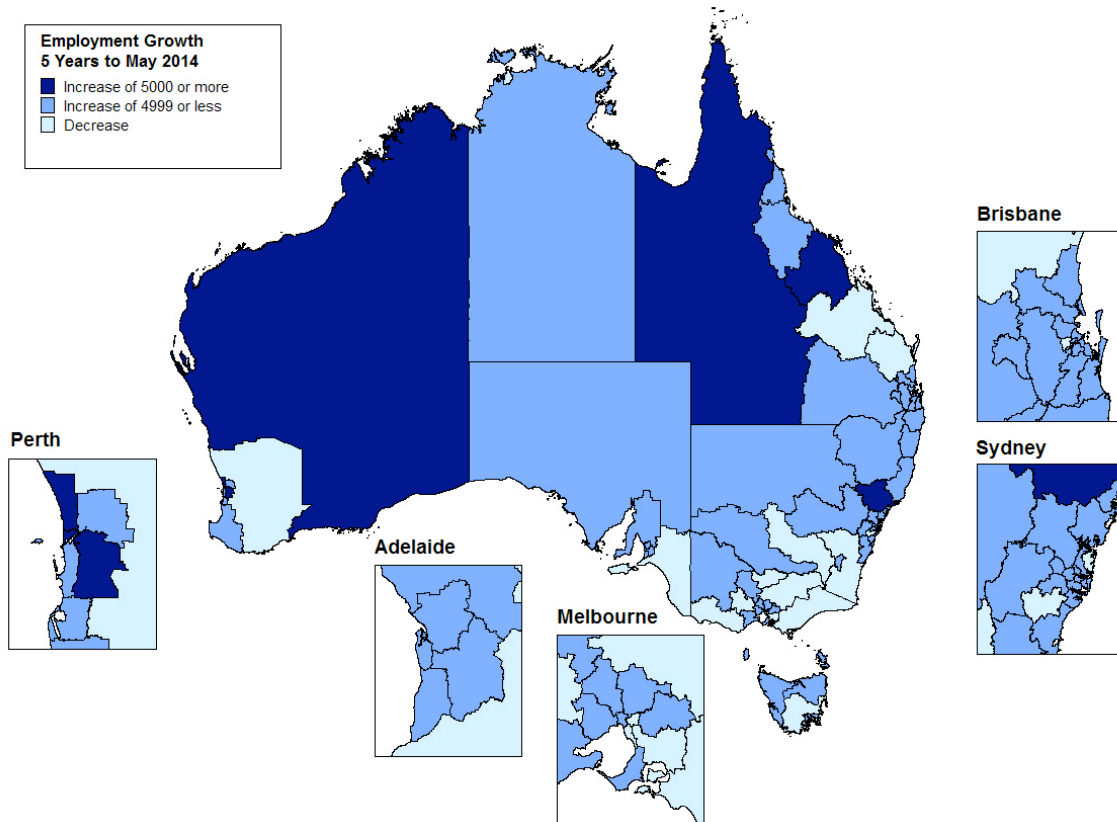
**Figure 3: Five year Mining industry employment change by State ('000)**



Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, Department of Employment trend.

At a more detailed regional level<sup>2</sup>, the largest increases in Mining employment over the five years to May 2014 were recorded in Western Australia – Outback (up by 13,300) followed by Queensland – Outback (9300) and Mackay (7700). Decreases in employment were recorded in the three Queensland regions of Fitzroy (down by 2400), Brisbane – West (1500) and Wide Bay (1400), although it should be noted that these smaller estimated changes should be treated with caution due to volatility in the regional data.

**Figure 4: Five year Mining industry employment growth by region ('000)**



Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, four quarter average of original data.

<sup>2</sup> Employment at the regional level is in four quarter average terms.

## Workforce Characteristics

### Workforce Age Profile

The age profile of the Mining industry is quite different to that of employment as a whole. The Mining industry employs a higher proportion of workers aged 25 to 44 years than all industries combined, with more than half the workers in Mining (58.6 per cent) falling within this age group, compared with 45.4 per cent for all industries. By contrast, the proportion aged 15 to 19 years is lower than across all industries (0.8 per cent compared with 5.5 per cent), reflecting the industry’s need for qualified and experienced workers.

**Figure 5: Employed persons by age, May 2014 (% share of employment)**

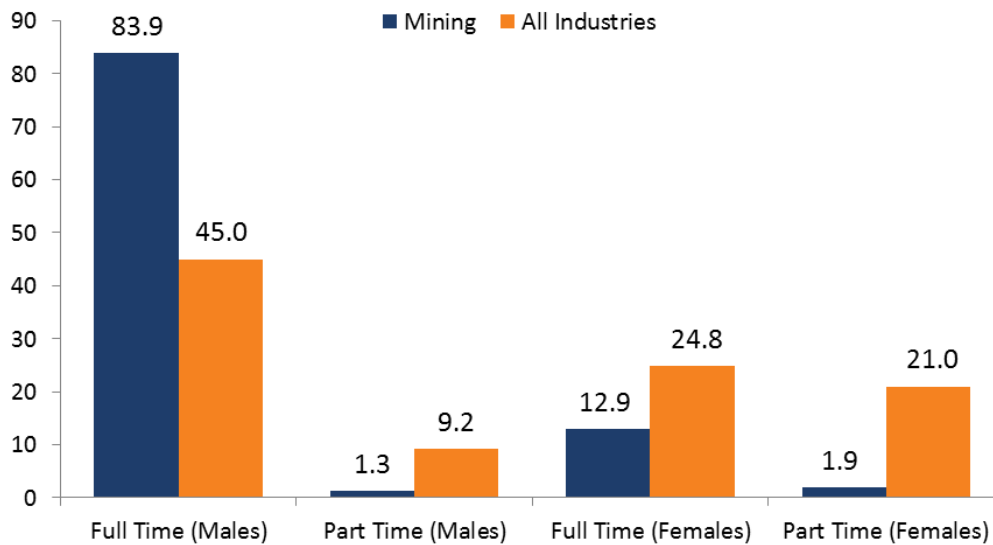


Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, four quarter average of original data.

### Gender and Full Time/Part Time Status

Almost all jobs in the Mining industry (96.8 per cent) are full time, the largest proportion of all the 19 broad industries. Males account for the vast majority of employment in the industry (85.2 per cent), compared with 54.2 per cent across all industries. While females only account for a small proportion of employment, the share has increased slightly over the past 10 years, up from 12.2 per cent in May 2004, to 14.8 per cent in May 2014.

**Figure 6: Full time workers as % of employed total, by gender, May 2014**



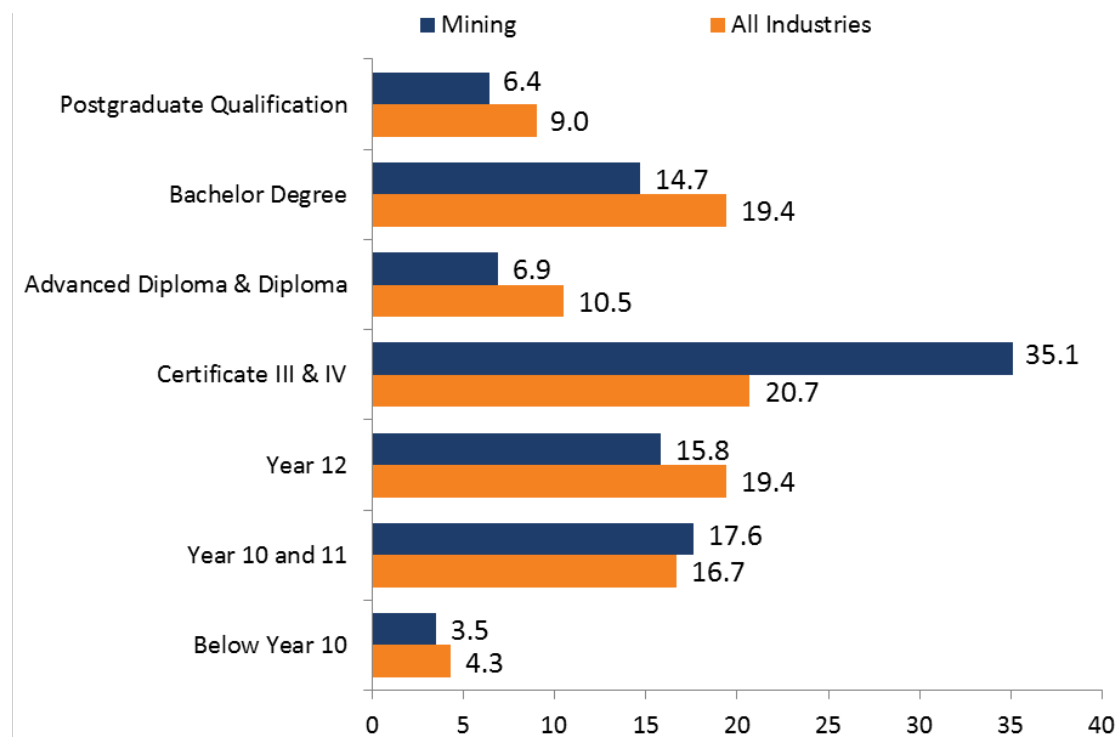
Source: ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, four quarter average of original data.



## Educational Qualifications

Overall, a high proportion of Mining workers are higher skilled, with 63.1 per cent of workers having attained a Certificate III level qualification or higher, compared with 59.6 per cent for employment as a whole. Nonetheless, 36.9 per cent of workers employed in the industry have a formal educational attainment level of Year 12 or below, indicating employment opportunities at all skill levels. Just over one third (35.1 per cent) of workers in the Mining industry hold a Certificate III or IV qualification (compared with 20.7 per cent of workers across all industries), reflecting the importance of Trades occupations to the Mining industry.

**Figure 7: Highest educational attainment - share of employment (%)**

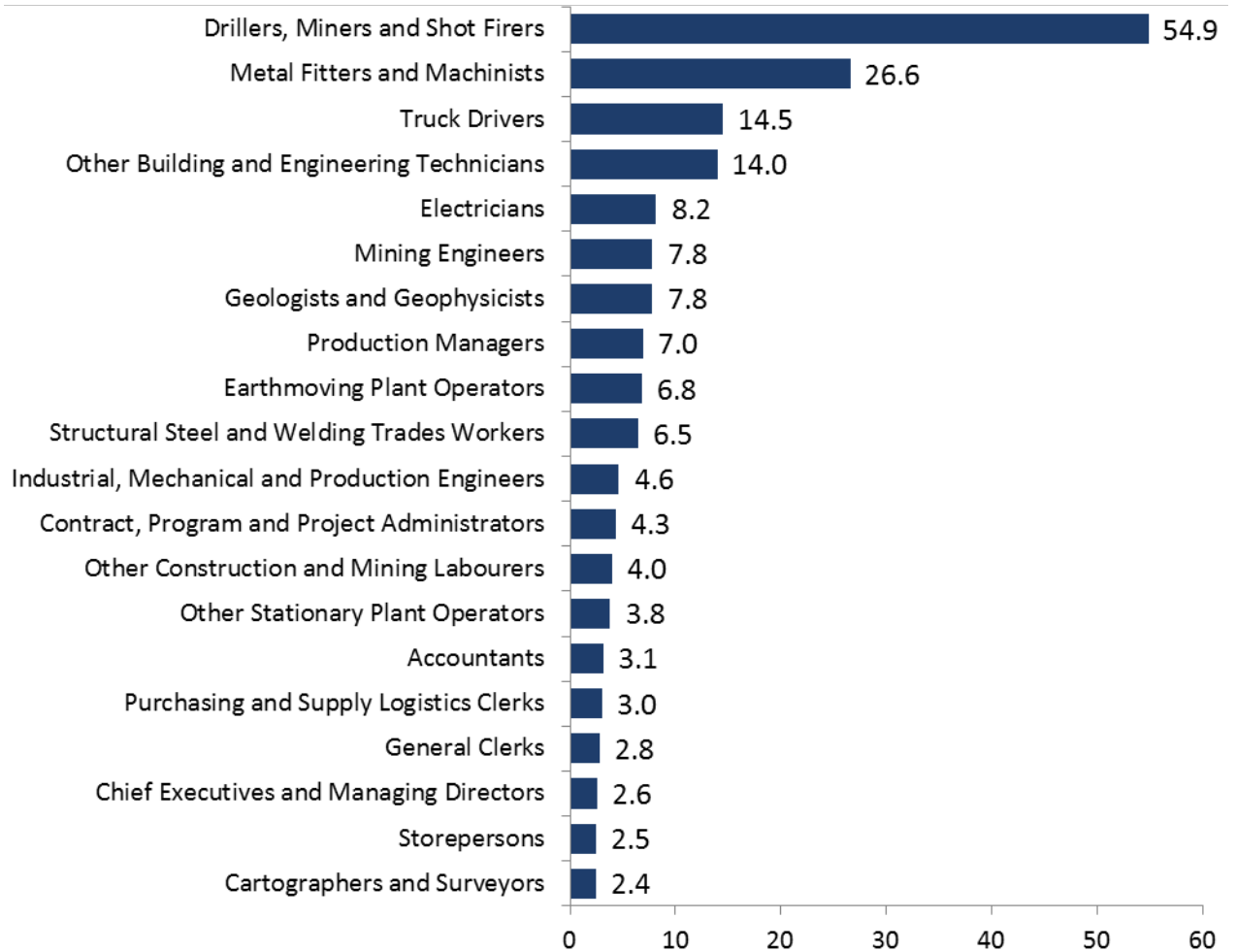


Source: ABS Survey of Education and Work, 2013.

### Main Employing Occupations

Reflecting the large proportion of workers with a Certificate III or IV qualification, many of the main employing occupations within the industry are Trades, for example, Metal Fitters and Machinists (26,600), Electricians (8200) and Structural Steel and Welding Trades Workers (6500). The variety of occupations shown in Figure 8 indicates that the industry provides employment opportunities at a range of skill levels.

**Figure 8: Main employing occupations in the Mining industry ('000)**

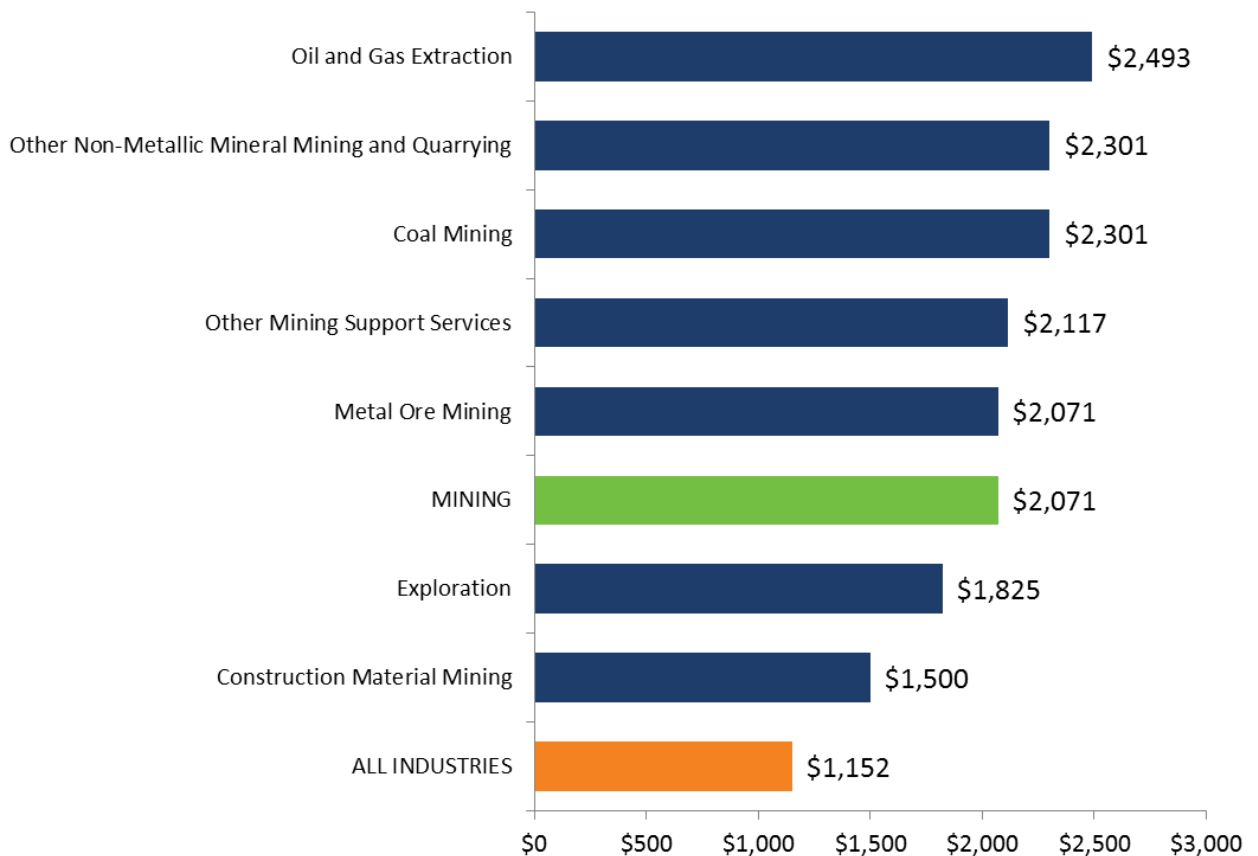


Source: ABS Labour Force Survey, four quarter average, custom data request, 2013.

## Earnings

In 2013, median weekly earnings of full time employees in Mining were higher than for any other industry and 79.8 per cent higher than the all industries median (\$2071 compared with \$1152 across all industries). All of the sectors within the industry have median full time weekly earnings above the all industries median, with earnings ranging from \$2493 for Oil and Gas Extraction down to \$1500 for Construction Material Mining.

**Figure 9: Mining industry sectors - median weekly earnings (full time and before tax)**

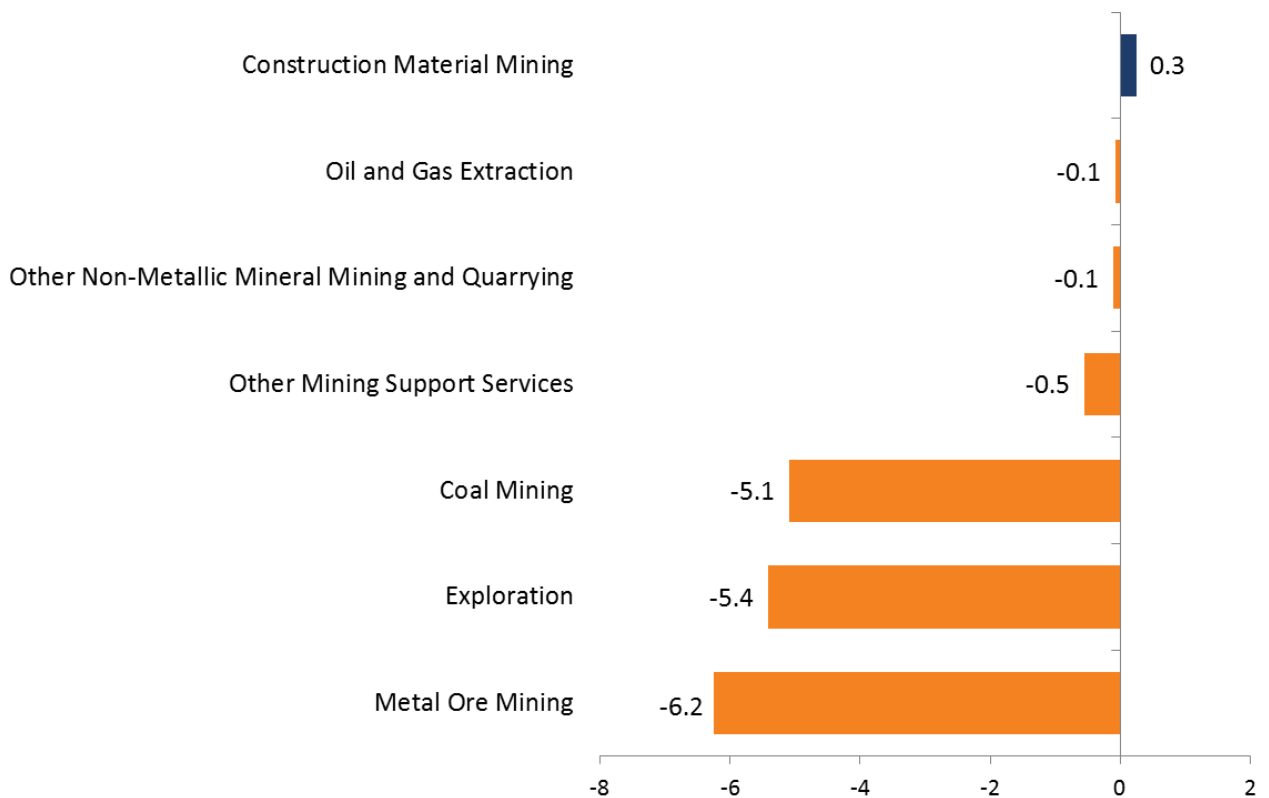


Source: ABS Employee Earnings, Benefits and Trade Union Membership, custom data request, August 2013.

## Future Employment Prospects

Over the five years to November 2018, employment in the Mining industry is projected to decrease by 4.5 per cent (compared with growth of 7.2 per cent for employment as a whole), equating to a fall in employment of around 12,300. This represents a significant slowdown compared with growth recorded over the five years to May 2014 (up by 106,700 or 66.2 per cent). At a sectoral level, the projected decrease is expected to be concentrated in Metal Ore Mining (projected to decrease by 6200), Exploration (5400) and Coal Mining (5100). By contrast, employment in Construction Material Mining is projected to increase slightly by 300 over the five years to November 2018.

**Figure 10: Projected employment growth ('000) by Mining industry sector - five years to November 2018**



Sources: Department of Employment, 2014 Employment Projections to November 2018.

Labour Market Research and Analysis Branch

Department of Employment

August 2014