

The FIFO workforce practice for resource development

- 2.1 Australia has a long history of remote mining operations, dating back to the mid-nineteenth century. The workforce for these operations resided in small towns of varying size which were generally developed near the mine sites by resource companies.
- 2.2 The prosperity of these towns relied upon the combined efforts of communities, resource companies, workers and their families. The mine could not survive without workers and the town could not survive without the mine. The success of the community and the success of the mine were inextricably intertwined. A resource company was able to grow the economic value of the mine by increasing the social and economic value of the town and its businesses.
- 2.3 This chapter discusses the history of staffing in the resources industry, the current workforce profile and the emergence of FIFO as a workforce practice.

Purpose-built company towns

- 2.4 Early housing for resource sector workforces usually consisted of short-term accommodation such as tents, which were both inexpensive and portable.¹ The building of more permanent forms of accommodation was costly, as most of the building materials needed to be imported into Australia and then transported to site.

1 P Bell, 'Fabric and structure of Australian mining settlements', in A B Knapp, V C Pigott, E W Herbert, eds., *Social Approaches to an Industrial Past: The Archaeology and Anthropology of Mining*, Psychology Press, London, 1998, p. 30.

- 2.5 Mines which were large and prosperous enough to warrant long-term investment in accommodation, soon began to attract permanent housing and form small towns. As these towns grew, businesses servicing both the mine and its workers developed.
- 2.6 Resource communities grew or diminished in response to the availability of the resource being mined, the labour required to extract it and market returns in the operations. This cycle of settlement and abandonment of towns can be seen in the 1900s goldfields towns such as Kanowna, Niagara, Kurrajong and Lawlers.²
- 2.7 Some of Australia's first purpose-built housing for mine workers was constructed in the 'company town' of Kooringa, which was surveyed and established by the South Australian Mining Association in 1845. By 1849, the company was building cottages for its employees from materials they had imported from Europe and the Atlantic seaboard of North America.³
- 2.8 Efforts were made to invest in the development of accommodation in the town, however, approximately 2 000 people – nearly half the town's population – lived in dugouts or burrows. The South Australian census in 1851 reported that in some parts of the town, '[t]here are no houses, the dwellings being excavated in the banks of the Burra Creek.'⁴
- 2.9 This and other early attempts by resource companies to artificially develop towns were generally seen as unsuccessful. At Moonta in the 1860s, a neat government grid plan was laid out for the town, which was largely ignored by the mine workers. They chose instead to build their own cottages along their own streets, resulting in a spontaneous settlement built alongside the government-planned town.⁵
- 2.10 The lack of high-speed and reliable transportation and communication meant that remote towns were often very isolated. Travel to and from regional centres and cities was expensive and time-consuming. Inputs and outputs could only be made in short stages and many towns could only be accessed via a narrow-gauge railway system and a very poor road network.⁶
- 2.11 Apart from a few experiments in company housing, such as those in Kooringa, Australian resource companies did not provide housing to employees on a significant scale. It was not until the 1920s, with companies such as Mt Isa Mines in north Queensland and the Electrolytic

2 Chamber of Minerals and Energy of Western Australia (CMEWA), *Submission 99*, p. 7.

3 Bell, p. 31.

4 Bell, p. 31.

5 Bell, p. 34.

6 Western Australian Local Government Association (WALGA), *Submission 156*, p. 14.

Zinc Company in Hobart, that resource companies began investing significantly in the construction of company towns and the provision of company-built accommodation for their employees.⁷

- 2.12 From the 1960s to the mid-1980s, the resources industry development primarily relied on residential workforces, with twenty five new resource communities established by resource companies in Australia between 1960 and 1975 in Western Australia alone. Towns such as Tom Price, Karratha, Newman and Paraburdoo were established to accommodate mine employees and their families; whilst existing towns such as Port Hedland were developed and expanded for the same purpose. Similar development took place in Queensland in towns such as Moranbah, Dysart and Middlemount. Resource companies were assisted in this development through benefits from government in the form of lower rates and taxes.⁸
- 2.13 Large numbers of workers were needed to drive the resources industry expansion. The investment and development of towns was not motivated by philanthropy, but rather economic necessity. The success and prosperity of the mine and the community that serviced it were linked and the resource companies recognised the value in building a local labour supply chain.
- 2.14 In many cases, these purpose-built towns were classified as ‘closed towns’.⁹ The resource company, which had constructed the town, had full control and responsibility over all aspects of town management, maintenance and development.¹⁰
- 2.15 During the 1980s many of these closed towns were ‘normalised’ with resource companies relinquishing responsibility for the town’s standard functions, accountability and assets to local and state governments. Resource companies retained varying degrees of responsibility for these towns and, in most cases, continued to provide a level of support and funding for the ongoing development of community infrastructure and services.¹¹

7 Bell, p. 32.

8 WALGA, *Submission 156*, pp. 20-21; K Storey, ‘Fly-in/Fly-out and Fly-over: mining and regional development in Western Australia’, *Australian Geographer*, Vol. 32, No. 2, 2001, pp. 135-6.

9 WALGA, *Submission 156*, pp. 17-18.

10 WALGA, *Submission 156*, pp. 17-18.

11 WALGA, *Submission 156*, pp. 17-18.

- 2.16 The degree to which this occurred during this period was dependent on the level of economic diversification a town had achieved, with some towns, which were not able to achieve adequate diversification remaining partially closed.¹²

Long distance commuting

- 2.17 Due to the expense of building in remote locations, Australia has a long history of utilising mobile non-resident workforces. Many industries, such as cattle, sheep, cotton and fruit, rely on seasonal workers travelling to remote locations, staying for the season, and returning home or to a new work site after the season is completed.
- 2.18 Long distance commuting, in which workers travel long distances to work and then return to their permanent place of residence at regular intervals, only became possible with the development of reliable, affordable and rapid transportation.

The emergence of fly-in, fly-out workforce practices

- 2.19 Fly-in, fly-out (FIFO) workforce practices in the resource sector are operations in which workers, but not their families, are provided with food and accommodation at or near the mine site. Employee work patterns consist of a rostered number of days on the site, followed by a rostered number of days at their home. This regular rostered 'on' and 'off' work pattern, together with the provision of transportation and accommodation, is what differentiates FIFO from other work involving periodic absences from home.¹³
- 2.20 FIFO workforce practices commenced in Australia in the 1960s¹⁴ as a means of conveying employees to and from onshore and offshore oil rigs. As air-travel became progressively more common and cost-effective, so too did FIFO workforce practices. By the 1980s, a significant proportion of the remote resource sector workforce was FIFO and the use of these workforce arrangements was becoming increasingly common.¹⁵ The Western Australian Local Government Association (WALGA) described the level of increase: 'in the last 20 years, the number of WA FIFO employees had increased 400 per cent.'¹⁶

12 CMEWA, *Submission 99*, p. 7.

13 Storey, p. 135.

14 Australian Mines and Metals Association (AMMA), *Submission 77*, p. 6.

15 WALGA, *Submission 156*, p. 13.

16 WALGA, *Submission 156*, pp. 13-14.

- 2.21 A number of factors have been put forward to suggest the rationale behind the shift away from the construction of purpose-built company towns including:
- increasing costs associated with building and operating towns in remote locations;
 - increasing costs and difficulties of providing social overhead capital;
 - industrial disputes;
 - short project lives due to market considerations or small resource deposits;
 - long and complex approval processes associated with planning, operating and building towns in remote locations;
 - the costs associated with the closure of towns once a resource is exhausted or no longer economically viable;
 - workers' preferences for the opportunities offered by larger metropolitan areas;
 - the introduction of the *Fringe Benefits Tax Assessment Act 1986*, that categorised company housing as a 'fringe benefit', which would be taxed;
 - a tight labour market; and,
 - skilled labour shortages.¹⁷

Current profile of the resource industry

- 2.22 In 2009/10, the resource industry contributed \$121.5 billion dollars to the Australian economy; 8.4 per cent of Australia's gross domestic product (GDP).¹⁸
- 2.23 In the period 2006/07 to 2010/11, the value of exports from the resource industry more than doubled, with the resource sector's contribution to

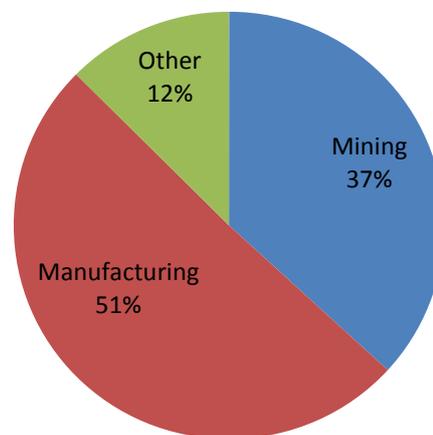
17 CMEWA, *Submission 99*, p. 12; Western Australian Regional Cities Alliance (WARCA), *Submission 89*, p. 2; Queensland Government, *Submission 109*, p. 21; City of Greater Geraldton, *Submission 111*, p. 11; Hyden Progress Association, *Submission 7*, p. 4; Bob Katter MP, *Submission 168*, p. 2; Melinda Bastow, *Submission 90*, pp. 2-3; Camille Oddy, *Submission 182*, p. 2; Jaime Yallup Farrant, *Submission 188*, p. 2; David Smith, *Submission 183*, p. 1; Shely Ourana, *Submission 187*, p. 5; Melinda Wilson, *Submission 184*, p. 2; Ron Mosby, *Submission 175*, pp. 3-4; Storey, p. 136; CMEWA, *Submission 99*, p. 12; Skills Australia, *Submission 102*, p. 7.

18 Australian Bureau of Statistics (ABS), *'Mining' Year Book Australia, 2012*, cat. no. 1301.0, ABS Canberra, 2012.

total goods exported from Australia climbing from 37 per cent in 2006/07 (see figure 2.1) to 55 per cent in 2010/11 (see figure 2.2).¹⁹

- 2.24 As of 2008, Australia boasts the world's largest economic resources of brown coal, mineral sands (rutile and zircon), nickel, silver, uranium, zinc and lead. The country also ranks amongst the top six worldwide for resources of bauxite, black coal, copper, gold, industrial diamond, iron ore, limonite, lithium, manganese ore, niobium, vanadium and antimony.²⁰

Figure 2.1 Share of Exports, by industry of origin, 2006/07



Source ABS, 'Mining', *Year Book Australia, 2012*, cat. no. 1301.0, ABS, Canberra, 2012.

- 2.25 Over the last few decades, the Australian resource industry has diversified through its exploration, mining and processing activities, as well as through the supply and development of information technology, engineering, construction and other services. The increasing globalisation of the industry and the growth of multi-national resource companies have seen an increase in Australian companies investing in overseas mines, as well as overseas investment coming into Australia for exploration and the development or expansion of mining and processing facilities.²¹
- 2.26 According to the Bureau of Resources and Energy Economics (BREE), as of the end of October 2011, there were 102 projects at an advanced stage of development, with a capital expenditure of \$231.8 billion in Australia. This

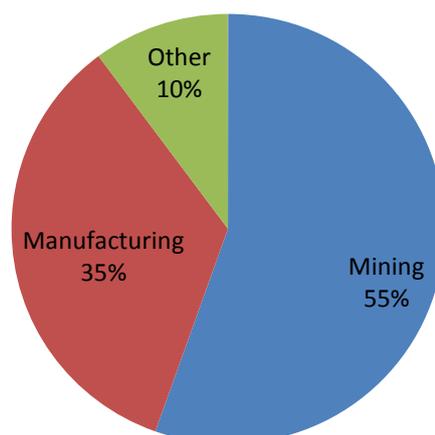
¹⁹ ABS, 'Mining', *Year Book Australia, 2012*.

²⁰ Geoscience Australia, 'Australia's Identified Mineral Resources', <ga.gov.au/minerals/mineral-resources/aimr.html>, viewed 9 August 2012.

²¹ ABS, 'The Australian Mining Industry: From Settlement to 2000', *Australian Mining Industry 1998-99*, cat. no. 8414.0, ABS, Canberra, October 2000.

is an increase of 34 per cent from April 2011, and a 74 per cent increase from October 2010.²²

Figure 2.2 Share of Exports, by industry of origin, 2010/11



Source ABS, 'Mining', *Year Book Australia*, 2012, cat. no. 1301.0, ABS, Canberra, 2012.

- 2.27 There is also significant investment being made into minerals exploration, with Australia recording its second-highest annual mineral exploration expenditure in 2010/11, totalling \$6.2 billion, 9 per cent higher than 2009/10.²³
- 2.28 Although sources disagree on the exact number of mines currently operating in Australia, according to Geoscience Australia, as of August 2011, there were 365 mines in operation.²⁴

22 Bureau of Resources and Energy Economics (BREE), *Mining Industry Major Projects*, October 2011, p. 1.

23 BREE, *Mining Industry Major Projects*, October 2011, p. 1.

24 Geoscience Australia, 'Operating Mines', <australianminesatlas.gov.au/mapping/downloads.html#spreadsheets>, viewed 9 August 2012.

Workforce profile

- 2.29 The resource sector's workforce is characterised as a high income, predominantly male workforce. According to the Australian Bureau of Statistics (ABS), as of May 2012, the resource industry employs approximately 269 300 people.²⁵
- 2.30 The workforce is predominantly full-time, with 97 per cent of workers engaged in full-time employment. The workforce is also older than the national average, with a median age of 40 years, compared to the average 37 years for the national workforce.²⁶
- 2.31 There is very little authoritative national data available on the use of FIFO workforce arrangements therefore it is difficult to establish the extent of the use of FIFO arrangements in the resource industry.
- 2.32 However, despite the lack of national data, a number of private organisations have gathered and compiled information in an attempt to define the FIFO presence in the resource industry. One such survey, of over 100 mine operators and over 18 000 resource industry personnel, was conducted by the Chamber of Commerce and Industry Western Australia in 2005 and found that in Western Australia:
- 76.5 per cent of all personnel were employed directly by mining companies;
 - 23.5 per cent of all personnel were employed by contractors;
 - 53 per cent of all mining employees (contractors and direct employees) were employed on a residential basis;
 - 47 per cent of all mining employees were employed on a FIFO basis, including 4.7 per cent utilising DIDO arrangements;
 - 62.5 per cent of directly employed personnel are residential and 37.5 per cent are FIFO; and
 - 22.3 per cent of contractor personnel are residential and 77.7 per cent are FIFO.²⁷

25 ABS, *Labour Force, Australia, Detailed, Quarterly*, cat. no. 6291.0.55.003, ABS, Canberra, May 2012.

26 Minerals Council of Australia (MCA), *Submission 118*, p. 6

27 Skills Australia, *Submission 102*, p. 9.

- 2.33 The Queensland Office of Economic and Statistical Research (QOESR) regularly produces population reports regarding the presence of FIFO workers for the resource regions of the Bowen Basin and Surat Basin. The most recent reports found that:
- approximately 6 445 FIFO workers on-shift were counted in the Surat Basin in late June 2012;
 - approximately 25 035 FIFO workers on-shift were counted in the Bowen Basin in late June 2012;
 - the Surat Basin's FIFO worker population nearly doubled in 2011/12, growing by 97 per cent;
 - the Bowen Basin's FIFO worker population increased by 22 per cent in 2011/12.²⁸
- 2.34 However, other than privately conducted or state-based reports, and a few others like them,²⁹ the only data available regarding the presence of FIFO on a national scale is the population reports extrapolated by the ABS from the analysis of 2006 census data.³⁰
- 2.35 A common theme, threaded through most of the evidence received by the Committee, highlights the inaccuracy of the census data when measuring the use of FIFO workforce arrangements and the presence of FIFO workers in regional and remote towns.
- 2.36 Andrew Henderson, the Executive Director of the 2011 census stated that:
- We would argue very strongly that the census was never designed to measure a number of the things that people are trying to measure in relation to fly-in, fly-out in the resource communities and we seriously doubt whether it could be redesigned at purpose.³¹
- 2.37 As the available data is inconclusive, a wide range of parties each makes use of their own estimates of FIFO worker presence to support their claims.

28 Queensland Office of Economic and Statistical Research (QOESR), *Bowen Basin Population Report, 2012*, June 2012, p. 1; QOESR, *Surat Basin Population Report, 2012*, June 2012, p. 1.

29 Surveys of varying focus and scope have been conducted or commissioned by, among others, the Pilbara Industry's Community Council (PICC), the Queensland Treasury, the Queensland Resources Council (QRC) and the MCA.

30 ABS, 'Towns of the mineral boom', *Australian Social Trends 2008*, cat. no. 4102.0, ABS, Canberra, 2008.

31 Andrew Henderson, Executive Director, 2011 Census, ABS, *Transcript of Evidence*, Canberra, 15 August 2012, p. 8.

- 2.38 The lack of comprehensive nation-wide data, as well as the impact that this lack of data is having on planning, funding and the formulation of policy, will be explored throughout this report.

Labour shortages and conditions

- 2.39 The resource industry is often characterised by its high wages. Labour shortages and high profitability has led to companies offering very attractive wages to entice workers, skilled and unskilled, to be employed by their operations.
- 2.40 As of February 2012, an employee in the resource industry earns, on average, \$2 269 per week; the highest average weekly earnings in any industry. This is more than double the Australian average of \$1 056 per week; and more than four times the amount that an average employee in the Accommodation and Food Services industry earns each week (\$504 per week).³²

Gender

- 2.41 The resource sector's workforce is predominantly male with only a small percentage of women employed by the industry. However, the proportion of women working in the resource sector has increased in recent years, growing from 11 per cent in 2001 to 15 per cent in 2011.³³
- 2.42 Many resource companies express a desire to increase the proportion of women in their workforces and are attempting to combat the perception that the resource industry is not suitable for female workers. Some resource companies have introduced a range of policies to make work arrangements more flexible and more attractive to women, including: compressed work hours, maternity leave and family rooms.³⁴
- 2.43 Not only are there fewer women than men employed in the resource industry, but those who are, earn considerably less. As of February 2012, a male employee in the resource industry earns, on average, \$2 405 per week. However, a female employee in the resource industry earns, on average, \$1 692 per week, 70 per cent of the average male weekly earnings.³⁵
- 2.44 The National Council of Women identified a number of challenges for women working in the resource industry. Interpersonal relationship stress

32 ABS, *Average Weekly Earnings, Australia*, cat. no. 6302.0, ABS, Canberra, February 2012, p. 13.

33 Equal Opportunity for Women in the Workplace Agency (EOWA) *Labour Force Participation*, February 2012, p. 2.

34 AMMA, *Submission 77*, p. 8.

35 ABS, *Average Weekly Earnings, Australia* cat. no. 6302.0, ABS, Canberra, February 2012, p. 13.

and family commitments are key inhibitors to working in the industry, and in particular working under FIFO arrangements.³⁶ Skills Australia concurred, stating that:

working FIFO is considered generally incompatible with starting a family and caring for young children and most women leave the industry when they start a family.³⁷

- 2.45 These inhibitors and barriers are reflected in the types of positions in which women are generally employed, with the majority of women working in support roles in metropolitan and regional centres. Skills Australia stated that women constitute only seven per cent of technical professionals and three per cent of site-based workers.³⁸
- 2.46 Some of the larger resource companies are endeavouring to address this by working with local government to try and facilitate childcare arrangements.³⁹ However, for many female workers, the difficulties and challenges remain a significant barrier to working in the resource industry and utilising FIFO workforce arrangements.

Indigenous Australians

- 2.47 The resource industry prides itself on the engagement, training and employment of Indigenous Australians, with most resource companies having some form of Indigenous employment program. The Minerals Council of Australia (MCA) stated that, in most instances, resource companies will employ any local Indigenous person with 'job readiness attributes'.⁴⁰
- 2.48 According to the ABS, as of 2006, there are 2 491 Indigenous Australians employed by the resource industry, 2.1 per cent of all employed Indigenous Australians. This constitutes 2 per cent of the 2006 resource workforce – double the average national per centage across all industries.⁴¹
- 2.49 Although there is a higher per centage of Indigenous Australians working in the resource industry than the national average, Indigenous employees earn, on average, less than their non-Indigenous co-workers. According to the ABS, in 2001, Indigenous employees earned, on average, \$993 per

36 National Council of Women (NCW), *Submission 113*, p. 2.

37 Skills Australia, *Submission 102*, p. 7.

38 Skills Australia, *Submission 102*, p. 7.

39 Skills Australia, *Submission 102*, p. 7.

40 MCA, *Submission 118*, p. 11.

41 ABS, *Population Characteristics, Aboriginal and Torres Strait Islander Australians*, cat. no. 4713.0, ABS, Canberra, 2006.

week, compared to the average of \$1 261 per week earned by non-Indigenous employees.⁴²

2.50 Some resource companies conduct pre-employment training for local Indigenous jobseekers. This training equips workers with the necessary skills for an entry level position in the resource industry, developing: English language skills, literacy, numeracy, basic mining skills and time management skills. Once jobseekers have attained the necessary level of skills they are considered 'job ready' and are offered an entry-level position.⁴³

2.51 The success of training and employment programs for local Indigenous jobseekers was noted by the NSW Government:

Many of the mines in Western NSW are located in communities with relatively high levels of Indigenous unemployment and have demonstrated positive effects. Cowal gold mine (West Wyalong), for example, has demonstrated success in creating employment opportunities for local Aboriginal communities, while in Cobar a job compact has been established for the local Aboriginal community.⁴⁴

2.52 However, the resource industry is not only employing Indigenous Australians who live near mine sites; many Indigenous employees are working under FIFO arrangements. The Northern Territory Government stated that:

The use of FIFO/DIDO work practices in mining operations provides significant opportunities for the employment of Indigenous people in remote communities in the NT.⁴⁵

2.53 Rio Tinto is the largest private-sector employer of Indigenous Australians.⁴⁶ Its workforce contains approximately 800 Indigenous employees, a number which they intend to grow.⁴⁷ Rio Tinto employs Indigenous Australians under both locally-based and FIFO arrangements. Many of the Indigenous employees who FIFO are sourced from regional centres, as shown by Table 2.1.

42 ABS, *Australian Social Trends*, cat. no. 4102.0, ABS, Canberra, 2004.

43 MCA, *Submission 118*, p. 11.

44 New South Wales Government, *Submission 145*, p. 4.

45 Northern Territory Government, *Submission 131*, p. 5.

46 MCA, *Submission 118*, p. 5.

47 Rio Tinto, *Submission 149*, p. 14.

Table 2.1 Origin and workplace of Rio Tinto's regional Indigenous FIFO employees in Western Australia

Origin	No. of Indigenous workers	Rio Tinto mines
Broome	50	West Angelas; Hope Downs
Beagle Bay/Djarandin/One Arm Point	20	West Angelas; Hope Downs
Derby	21	Yandi
Meekatharra	10	Hope Downs
Geraldton	60	Brockman; Paraburdoo; Marandoo; Tom Price
Carnarvon	7	Paraburdoo; Marandoo, Tom Price.

Source Rio Tinto, *Submission 149*, p. 17.

2.54 However, whilst FIFO arrangements may benefit some Indigenous jobseekers, the Centre for Social Responsibility in Mining (CSRSM) highlighted some key factors that can limit Indigenous participation in the resource sector workforce, including:

- Indigenous communities' distance from primary FIFO hubs;
- inflexible employment practices;
- camp accommodation taking people away from country, support networks and family groups; and,
- social isolation.⁴⁸

2.55 CSRSM also acknowledged the efforts made by some resource companies to address these issues including:

- on-site and in-camp mentor programs;
- flexible recruitment and retention practices;
- culturally sensitive leave allocations; and,
- all-of-operation cultural training.⁴⁹

2.56 Despite efforts currently being made to encourage and support Indigenous FIFO employment in the resource industry, debate continues regarding the extent to which FIFO workforce practices inhibits or supports Indigenous take-up of employment and training opportunities in the resource sector.

48 Centre for Social Responsibility in Mining (CSRSM), *Submission 73*, p. 7.

49 CSRSM, *Submission 73*, p. 7.

- 2.57 A number of Indigenous communities in Canada have successfully engaged with the resources industry by supplying camp management and staff and negotiating seasonal employment rosters that also allow for cultural obligations.⁵⁰

Locally-based employees

- 2.58 As noted earlier, neither the exact number of employees who operate under FIFO arrangements nor the number of locally-based employees are currently available. Despite this lack of data, the AusIMM asserted that those workers who live locally are earning, on average, considerably less than their FIFO co-workers.
- 2.59 AusIMM conducted a survey in 2010 on Employment and Remuneration which showed that there is a significant difference in the average income of those employees working under FIFO arrangements compared to those employees who live near regional and remote mines. AusIMM found that across all responsibility levels, FIFO employees earn, on average, \$8 600 more in salary alone (maximum \$15 000 and minimum \$4 000).⁵¹
- 2.60 The survey found that those employees living and working in capital city-based offices were earning, on average, \$13 000 more in salary (maximum \$45 000 and minimum \$8 000)⁵² than those living and working in regional centre offices.
- 2.61 No analysis or commentary was provided on these findings. However, one possibility, which might account for the degree of disparity in wages between local and FIFO workers, could be a result of AusIMM's calculation of the average wages. For example, if high level administrators and executives were included in the calculation it might have skewed the results towards capital cities where such positions are usually based.

Shift length

- 2.62 A wide range of roster arrangements are utilised by the resources industry. Rosters typically consist of a set number of days on-site and a set number of days off-site, with an on-site day typically consisting of a twelve-hour shift. Rosters, both shift-length and on/off cycles, are a key issue which was repeatedly raised throughout the inquiry.
- 2.63 Shift patterns, or cycles as they are often called, can range from short, nine days on five days off, cycles to the much longer, twenty-eight days on

50 Meetings held 27 and 28 August 2012, St John's, Newfoundland, and 30 August 2012, Edmonton, Alberta, Canada.

51 AusIMM, *Submission 58*, p. 15.

52 AusIMM, *Submission 58*, p. 15.

seven days off, cycles.⁵³ The typical length of a roster cycle is usually linked to the distance that is needed to be travelled to the mine-site, with DIDO arrangements generally using shorter roster patterns than FIFO arrangements.⁵⁴

- 2.64 A survey conducted by the Australian Minerals and Mines Association (AMMA) found that respondents were generally happy with their roster cycles, which included: two weeks on two weeks off, eight days on six days off, six weeks on six weeks off and five weeks on five weeks off.⁵⁵
- 2.65 Based on employee retention rates, the AusIMM observed that the roster pattern with the lowest level of employee turnover is nine days on, five days off. AusIMM also suggested that this might be due to this roster cycle granting employees every second weekend off, providing them with greater opportunity to engage with their family.⁵⁶ Industry employers Ensham and Vale, who both use a seven days on seven days off roster, stated that their rosters were developed to prevent workforce fatigue and to grant their employees time with their family.⁵⁷
- 2.66 The impact of 12-hour shifts will be explored in the following chapter.

Workforce outlook

- 2.67 As the construction phase and higher level of investment and production in the resources sector continues, so too does the high demand for labour. The resource industry's need for labour, which is already greater than the labour market is able to easily provide, is expected to continue to grow. Many resource companies are utilising FIFO arrangements to source workers, especially skilled workers, in the increasingly tight labour market.
- 2.68 A survey conducted by the AMMA found that, when asked if they expected their FIFO workforces to grow:
- 74 per cent of respondents expected growth in the next two years;
 - 51 per cent of respondents expected growth in the next five years;
 - 42 per cent of respondents expected growth in the next seven years;
 - 43 per cent of respondents expected growth in the next ten years;

53 Skills Australia, *Submission 102*, p. 8.

54 AMMA, *Submission 77*, p. 13.

55 AMMA, *Submission 77*, p. 12.

56 AusIMM, *Submission 58*, p. 15.

57 Ensham Resources, *Submission 66*, p. 5; Vale, *Submission 87*, p. 4.

- 22 per cent of respondents expected no growth over the next ten years; and that,
- some companies responded that they were unsure whether growth would occur.⁵⁸

2.69 When discussing workforce requirements, it is important to differentiate between the requirements of the two main phases of resource projects: construction and operational.

Construction workforces

2.70 Construction workforces are, generally, large workforces which focus heavily on one project in one area for a short period of time. The first three to five years of a mine constitutes what is known as the construction or start-up phase of the project. At the onset of a project, approximately two-thirds of positions created will be temporary, with the remaining third continuing once the mine site becomes operational.⁵⁹

2.71 Due to the short-term nature of these positions, construction workforces are usually employed under FIFO arrangements. The MCA highlighted this as a regular practice for all construction projects, both resource and infrastructure-related, in regional, remote, and non-metropolitan areas of Australia.⁶⁰ Skills Australia also supported the use of FIFO in these circumstances:

The lack of available services and infrastructure, particularly in remote locations, prohibits the extended residence of construction workers. As the construction phase ends, maintaining a population of construction workers at one mine-site becomes redundant. A better use of this workforce is to move it to a new location where construction is being undertaken. FIFO, therefore, is the most practical option for this sector of the workforce.⁶¹

2.72 This view was also supported by proponents of resident-based workforces. In Karratha, Regional Development Australia Pilbara stated that 'during the construction phase FIFO clearly has a logic to it'.⁶²

58 AMMA, *Submission 77*, p. 11.

59 Chandler MacLeod, *Submission 68*, p. 1.

60 MCA, *Submission 118*, p. 8.

61 Skills Australia, *Submission 102*, p.6.

62 Ian Hill, Consultant, Regional Development Australia Pilbara (RDA Pilbara), *Transcript of Evidence*, Karratha, 28 March 2012, p. 9.

2.73 The Australian Pipeline Industry Association (APIA) highlighted the practical and essential use of a FIFO construction workforce in its industry:

The location of the work on the project moves, and so does the location of the accommodation. It is generally impractical for companies to relocate project workers to a specific region or town and it is standard practice for a pipeline project to transport stand-alone camps to service the workers for the life of a project. This minimises the 'on-site' transport requirements of the workforce, and also limits the impact a pipeline project workforce has on local community infrastructure.⁶³

2.74 Whilst there is little contention regarding the use of FIFO workforce arrangements during the construction phase of a project, the operational workforce is a very different matter.

Operational workforces

2.75 Operational workforces are, generally, smaller than construction workforces and have a long-term involvement in a resource operation. This workforce is usually employed by the project owner or a service contractor. The operational phase, compared to the relatively short construction phase, stretches out over the life of the mine and provides on-going employment opportunities.

2.76 The use of FIFO arrangements for positions in operational workforces has drawn criticism from local communities. As Fiona White-Hartig, the President of the Shire of Roebourne stated, 'We want the operational workforce in our towns.'⁶⁴

2.77 However, recruitment agencies are finding it difficult to source local labour. Chandler McLeod, a workforce advisory and recruitment agency:

noted that, in the first instance, mining and resource companies prefer to engage with local workers where possible. However, this pool is very quickly exhausted particularly in regard to skilled workers.⁶⁵

2.78 Skills Australia (Figure 2.3), predicted a steady increase in the proportion of operational workforces utilising FIFO workforce practices.

2.79 This is not necessarily supported by figures provided by Rio Tinto Iron Ore, which currently has 46 per cent of its Western Australian workforce

63 Australian Pipeline Industry Association (APIA), *Submission 37*, p. 1.

64 Fiona White Hartig, Shire President, Shire of Roebourne, *Transcript of Evidence*, Karratha, 28 March 2012, p. 28.

65 Chandler Macleod, *Submission 68*, p. 5.

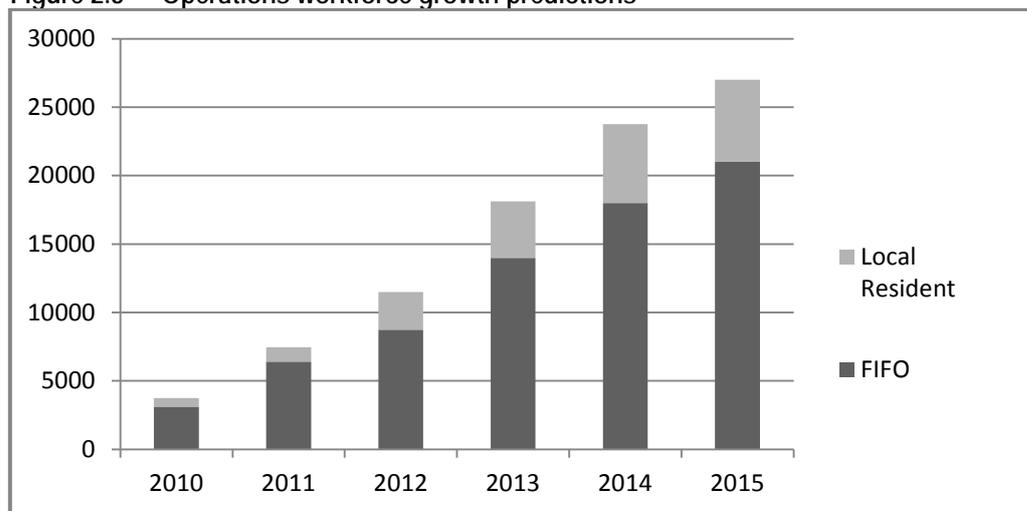
on FIFO arrangements and predicted this percentage to remain at this level as the workforce increases.⁶⁶

- 2.80 The shortage of labour, particularly skilled and experienced labour, is a common justification for the use of FIFO workforce arrangements. The Chamber of Minerals and Energy of Western Australia (CMEWA) stated that, 'FIFO is a critical element of maintaining a viable resources sector as the industry is challenged by significant tightening of the labour market,'⁶⁷ a sentiment echoed by Rio Tinto and Skills Australia.⁶⁸

Workforce projections

- 2.81 Any projections regarding the growth of FIFO workforce practices are compromised by the lack of data regarding the current extent of the use of FIFO workforce practices. Nonetheless, many submissions referred to projections of increasing FIFO use in the resources sector,⁶⁹ alongside an increase in residential labour, albeit to a lesser extent, as noted in Figure 2.3.

Figure 2.3 Operations workforce growth predictions



Source Skills Australia, *Submission 102*, p. 12.

⁶⁶ Rio Tinto, *Submission 149*, p. 10

⁶⁷ CMEWA, *Submission 99*, p. 13.

⁶⁸ Rio Tinto, *Submission 149*, p. 7; Robin Shreeve, Chief Executive Officer, Skills Australia, *Transcript of Evidence*, Canberra, 15 February 2012, p. 7.

⁶⁹ For examples see: Skills Australia, *Submission 102*, pp. 4-6, 8-10, 11; Department of Regional Australia, Local Government, Arts and Sport (DRALGAS) *Submission 153*, pp. 2, 8; WALGA, *Submission 156*, pp. 18-19, 23-24, 27, 30, 34; Australian Manufacturing Workers' Union (AMWU), *Submission 32*, pp. 4-5; MCA, *Submission 118*, pp. 8, 10; RDA Pilbara, *Submission 98*, pp. 3, 5; Pilbara Regional Council, *Supplementary Submission 43.1*, pp. 2, 5. Australian Services Union (ASU), *Submission 211*, p. 7; AusIMM, *Submission 58*, p. 8; CMEWA, *Submission 99*, p. 13.

- 2.82 In the absence of definitive national data regarding the current use of FIFO workforce practices and projections, many submissions, including those submitted by Skills Australia (see figure 2.3), referred to the CMEWA's annual State Growth Outlooks.⁷⁰
- 2.83 Despite the frequency of citation, the CMEWA's 2011 State Growth Outlook does not provide much insight into the growth of FIFO workforce practices. The report forecasts state labour requirements, predicting that the highest growth regions are the Pilbara, Mid-West, and Perth/Peel regions, with the majority of the additional workforce requirements being driven by projects in the Pilbara.⁷¹
- 2.84 The report predicts that currently planned projects in the Pilbara will require an additional 34 000 workers in 2012 in the region, reducing to 21 000 above the 2009 workforce by 2015 and that the Mid West region will require an additional 7 500 workers by 2012. The report predicts that incremental FIFO demand sourced from the Perth/Peel region will peak at approximately 30 000 in 2012, remaining at 15 500 by 2015.⁷²
- 2.85 In addition to the State Growth Outlook, the CMEWA released the Pilbara Population and Employment Study in November 2012.⁷³ The report utilised surveys to capture data at the level of individual projects and used the results, in combination with ABS census data, to develop an incremental growth profile for population and housing demand in the Pilbara.
- 2.86 In the absence of other data sources, almost any statistical information and workforce predictions are valuable; however, the lack of accurate nationwide data regarding the current and projected use of FIFO workforce practices should be of great concern to government and impact communities.

70 For examples see: Skills Australia, *Submission 102*, pp. 4-6, 8-10, 11; DRALGAS, *Submission 153*, pp. 2, 8; WALGA, *Submission 156*, pp. 18-19, 23-24, 27, 30, 34; AMWU, *Submission 32*, pp. 4-5; MCA, *Submission 118*, pp. 8, 10; RDA Pilbara, *Submission 98*, pp. 3, 5; Pilbara Regional Council, *Supplementary Submission 43.1*, pp. 2, 5.

71 CMEWA, *State Growth Outlook*, 2011, p. 4.

72 CMEWA, *State Growth Outlook*, 2011, p. 4.

73 CMEWA, *Pilbara Population and Employment Study*, November 2012.

Workforce and population data

- 2.87 There is very little firm nation-wide data available on the use of FIFO workforce arrangements in the resource industry. This lack of data makes it difficult to properly establish the extent of the use of FIFO arrangements in the resource industry and future workforce projections as well as the full impact on communities in terms of consumption of town services (for example, infrastructure such as roads, sewerage and water consumption).
- 2.88 The FIFO workforce is, in effect, a 'shadow population' – serviced by a regional community without an equitable contribution to the local government's finances, either in terms of rate payments nor state or federal government grants based on head of population.
- 2.89 The lack of data was raised consistently by stakeholders ranging from local government to resource companies.⁷⁴ All agreed that without access to accurate, up-to-date information on the numbers of FIFO workers, the impacts of the workforce cannot be adequately assessed or addressed.
- 2.90 Available data consists primarily of surveys conducted by private organisations, state and local governments.⁷⁵ This data does not provide the necessary scope and national overview, instead, usually focusing on a particular region or aspect of FIFO employment arrangements.
- 2.91 Local governments expressed concern that the estimation of FIFO workforce numbers is deliberately and unrealistically low. The Pilbara Shire Council stated that:

State and resource industry FIFO workforce projections for the Pilbara, for up until 2020 are unrealistically low and fail to reflect the existing level of FIFO activity in the region.⁷⁶

74 For examples see: ARC Research Team, *Submission 95*, p. 5; Minister for Tertiary Education, Skills, Jobs and Workplace Relations, *Submission 151*, p. 1; Skills Australia, *Submission 102*, p. 3; Pilbara Regional Council, *Submission 43*, p. 1; Shire of Ashburton, *Submission 60*, p. 4; Northern Territory Government, *Submission 131*, p. 2; MCA, *Submission 118*, p. 3; Construction Forestry Mining and Energy Union (CFMEU), *Submission 133*, p. 8; Commissioner for Children and Young People Western Australia (CCYPWA), *Supplementary Submission 88.1*, p. 1.

75 Surveys of varying focus and scope have been conducted/ commissioned by, among others, the PICC, the Queensland Treasury, the QRC and the MCA.

76 Pilbara Regional Council, *Submission 43*, p. 1.

- 2.92 The Shire of Ashburton raised similar concerns, stating that:
- Existing planning, for the impact of FIFO workforces, by the State Government and the resource industry is severely compromised by grossly inaccurate Australia Bureau of Statistics population data, which underestimates the permanent population in the region by approximately 20 per cent.⁷⁷
- 2.93 The concerns of local governments were shared by the resource industry. The MCA stated:
- One of the greatest unknowns related to FIFO is accurate data on the quantum of workers involved nationally across all industries where they originate from and where they work. Until we have this data it is not possible for any sensible policy response to be developed.⁷⁸
- 2.94 The Queensland Government produced perhaps the most comprehensive data on the use of FIFO workforce.⁷⁹ However, the data does not seem to be widely known or utilised. Community organisations suggested that data was non-existent or inaccurate:
- I think it has a lot to do with the funding from the state and getting the figures right. They say, 'We did a census and there are 1 500 people in Dysart.' That is not an accurate number, because, at any given time, there could be 4 000 or 5 000 people there. The cost to our local government and to the community, with our infrastructure failing, means it is not worth arguing over a few numbers. If they could acknowledge that, yes, this itinerant population does exist and they do use the roads and infrastructure, and give the funding accordingly, then I think it could be a whole lot better.⁸⁰
- 2.95 The lack of available data has been a significant challenge to this inquiry. Given the mobility of the FIFO workforce, comprehensive, national, data on the extent of the FIFO workforce is essential if any policy initiatives are to be developed to address the issue.

77 Shire of Ashburton, *Submission 60*, p. 4.

78 MCA, *Submission 118*, p. 3.

79 For examples see: QOESR, *Bowen Basins Population Report, 2012*, June 2012 and QOESR, *Surat Basin Population Report, 2012*, June 2012.

80 Elizabeth Fox, Dysart Community Action Association, *Transcript of Evidence*, Moranbah, 22 February 2012, p. 18. See also concerns raised by: Moranbah Medical Centre, *Submission 2.2*, p. 2 and Isaac Regional Council, *Submission 81*, p. 8.

Population-based funding for services

- 2.96 Population estimates published by the ABS are used as a basis for the allocation of resources and funding. Thus, inaccurate population data, which underestimates the number of people using services, can result in the underfunding of services in resource communities.
- 2.97 The importance of accurate population estimates to ensure adequate funding for services in resource communities was raised by local government and community organisations.⁸¹ The Regional Social Development Centre (RSDC) stated that:
- [There] is not a fair measure of the population of mining communities, the actual burden on their services and infrastructure, and the increased government funding required to support influxes of FIFO workers.⁸²
- 2.98 The Queensland Government also highlighted the difficulty that a lack of data presents when planning for the provision of government services and infrastructure:
- The lack of nationally consistent data to enable accurate quantification of the FIFO population makes it difficult to plan for government services (e.g. health), the establishment of which can have a long lead in time. In addition, the fluctuation in workforce size associated with different project stages (e.g. construction versus operation) requires the development of a flexible model of service provision that can accommodate peaks but do not invest in services and infrastructure that are not required in the long term.⁸³
- 2.99 Funding for services and infrastructure is commonly allocated, by state and federal governments to local governments based on the residential population of a local government area. This practice, whilst suitable for communities with largely static residential populations, does not take into account the large non-resident population of many resource communities.

81 For examples see: Moranbah Medical Centre, *Submission 2.2*, p. 2; Narrabri and District Community Aid Service (NDCAS), *Submission 206*, p. 3-4; Isaac Regional Council, *Submission 81*, p. 8; Pilbara Regional Council, *Submission 43*, p. 1; Shire of Ashburton, *Submission 60*, p. 5; ARC Research Team, *Submission 95*, p. 28.

82 Regional Social Development Centre (RSDC), *Submission 78*, p. 5.

83 Queensland Government, *Submission 109*, p. 10.

Financial Assistance Grants and the Regional and Local Community Infrastructure Program

- 2.100 Financial Assistance Grants are provided to local governments under the *Local Government (Financial Assistance) Act 1995*. The grant consists of a general purpose component which is distributed on a per capita basis between the states and territories as well as an identified local road component which is distributed between states and territories according to fixed historical shares. The grants are paid in quarterly instalments to state and territory governments for immediate distribution to local governments.⁸⁴
- 2.101 The Regional and Local Community Infrastructure program is an initiative under the Nation Building Economic Stimulus Plan,⁸⁵ which provides funding for local government authorities to build and modernise community infrastructure. Under round three of the initiative (June 2010):
- all councils received a base grant of \$30 000;
 - councils classified as ‘urban fringe’ or ‘urban regional’ and who have at least 30 000 residents received an additional growth component of \$150 000; and
 - all councils with at least 5 000 residents shared in the distribution of the remaining funds in proportion to their 2009/10 general purpose Financial Assistance Grant.⁸⁶
- 2.102 Many resource communities received more than the base grant of \$30 000 under round three of the program. For example, the Shire of East Pilbara was granted \$217 000, the Town of Port Hedland was granted \$150 000. In Queensland, the Isaac Regional Council was granted \$314 000 and the Mackay Regional Council was granted \$434 000 and in New South Wales, the Narrabri Shire Council was granted \$226 000.⁸⁷
- 2.103 The allocation of funding for both of these programs is directly connected to the residential population of a local government area. Resource communities, whose residential populations are dwindling whilst their non-resident populations continue to increase, are placed at a significant disadvantage under these funding structures.

84 DRALGAS, *Financial Assistance Grants to Local Governments* <regional.gov.au/local/assistance/index.aspx>, viewed 15 November 2012.

85 The Nation Building Economic Stimulus was a Commonwealth Government initiative to respond to the global financial crisis. For more information on this program please see: <economicstimulusplan.gov.au/pages/default.aspx>, viewed 15 November 2012.

86 DRALGAS, *Community Infrastructure Program: Round Three - \$100 million allocated component*, <regional.gov.au/local/cip/cip100.aspx>, viewed 15 November 2012.

87 DRALGAS, *2010 RLCIP Allocations*, <regional.gov.au/local/cip/cip100.aspx>, viewed 17 December 2012.

2.104 Troy Pickard, President of the WALGA, stated:

The primary objective of FAGs [Financial Assistance Grants] are to improve the capacity of local government to provide their residents with an equitable level of service, improve the financial capacity of local government to provide certainty of funding, and improve the efficiency and effectiveness of local government. At present the Australia government annually adjusts the quantum of [Financial Assistance Grants] using an escalation factor based on inflation and population growth. While important, these factors do not accommodate the quantum of growth generated in many of Western Australia's local governments by the resources boom in the past decade.⁸⁸

2.105 In order to equitably allocate funding, both the residential and service populations of communities need to be considered. However, without accurate population estimates, the equitable distribution of any population-based funding is compromised.

Population data projects

2.106 Because there is such variation in the reliability of population data, some local governments in resource regions, such as those in the Pilbara, have undertaken detailed research to inform their planning, as evidenced by the Pilbara Regional Planning Committee's planning and infrastructure framework.⁸⁹

2.107 Work is being undertaken in Queensland by the QOESR which has established the Resource Communities Research Program to investigate and quantify the population, workforce and accommodation impacts of resource development in Queensland. The program focuses on population data collection, population projections and the monitoring of resident and non-resident (FIFO) populations as well as the subsequent impacts on resource communities. QOESR has recently published population reports on the Bowen Basin and the Surat Basin.⁹⁰

88 Troy Pickard, President, WALGA, *Transcript of Evidence*, Perth, 18 April 2012, p. 27.

89 Pilbara Regional Planning Committee, Western Australia Planning Commission, *Pilbara: planning and infrastructure framework*, January 2012.

90 QOESR, *Surat Basin Population Report, 2012*, June 2012; QOESR, *Bowen Basin Population Report, 2012*, June 2012.

- 2.108 The comprehensive 2011 report on the Bowen and Galilee Basins found that:
- one in five people living in the Bowen Basin in July 2011 was a FIFO worker;
 - the Bowen Basin's full-time equivalent population grew by 7 220 (or seven per cent) between 2010 and 2011;
 - the Isaac region contained around two-thirds of the Bowen Basin's non-resident population in July 2011;
 - the full time equivalent (FTE) population of the Isaac region is now approaching that for the Central Highlands region and is expected to outgrow the Central Highlands in 2012 due to the strong growth in its non-resident population;
 - over 29 310 workers (54 per cent were contractors and 46 per cent were company employees) were engaged in mining operations across the Bowen Basin in July 2011;
 - fewer than half (43 per cent) of all mining operations workers in the Bowen Basin were residents of the same local government area where they worked in July 2011;
 - the capacity of worker accommodation villages in the Bowen Basin expanded rapidly (by 28 per cent) in 2010/11;
 - worker accommodation villages housed 86 per cent of all non-resident workers in the Bowen Basin in 2011; and
 - the FTE population of the Bowen Basin is projected to reach 128 550 by 2018, comprising 101 790 residents (79 per cent) and 26 760 non-resident workers on-shift (21 per cent).⁹¹
- 2.109 Despite the detailed work being undertaken by this state government agency, anecdotal evidence to this inquiry indicated that resource regions are completely unaware of this data, with a number of local governments reporting that they have also been conducting population data projects, in some cases resorting to going door to door to collect accurate population data.
- 2.110 In the Pilbara, the AECgroup was commissioned by the Pilbara Regional Council to prepare an economic impact assessment of the Pilbara FIFO workforce. The report estimated that 56.1 per cent of the workforce is accommodated at remote sites. Table 2.2 outlines the population data gathered by the report showing the overwhelming FIFO workforce in some areas.

91 QOESR, *Bowen and Galilee Basins Population Report, 2011*, April 2012, pp. v-vi.

Table 2.2 Workforce accommodation in the Pilbara region

Local Government Area	Workforce located at remote sites (site camps)	Workforce located in communities (town camps, town accommodation and residential)	Total workforce in resource sector
Shire of Roebourne	5 539	6 174	11 713
Town of Port Hedland	0	5 296	5 296
Shire of Ashburton	9 473	4 984	14 460
Shire of East Pilbara	10 732	3 663	14 395

Source Pilbara Regional Council, Supplementary Submission 43.1, p. 6.

2.111 The data projects undertaken by QOESR and the AECgroup provide valuable insights into FIFO workforce practices in their respective regions. However, there remains no nation-wide empirical data regarding the FIFO workforce.

ABS definitions

2.112 Other than private surveys and research projects, the only Australia-wide data available regarding the presence of FIFO workers in a community is extrapolated by the ABS from the national census. However, the ABS is not able to accurately pinpoint the FIFO versus local resident workforce population because the census is not designed to accurately collect FIFO workforce data.

2.113 When analysing the data obtained from the national census to determine the population of a town or region, the ABS considers three forms of population: resident population, working population and service population.

Resident population

2.114 A resident population is the population usually living in a particular town, city, region or state. There are three questions on the census used to determine the resident population, which ask:

- where the person usually lives;
- where the person usually lived one year ago; and
- where the person usually lived five years ago.⁹²

2.115 The 2011 census form defined questions relating to where a person usually lives as, 'that address at which the person has lived or intends to live for a total of six months or more in 2011'.⁹³ Most Australians have one home

92 ABS, *Submission 223*, p. 2.

93 ABS, *Submission 223*, p. 2.

and are easily able to answer questions about where they usually live. However, for a FIFO worker the answer is not as simple.

- 2.116 The ABS is currently exploring the feasibility of a question relating to a second residence for the next census in order to attempt to capture this lost data, however, at present there is no incentive, nor obligation, for FIFO workers to give any indication on the census form that they may reside in resource communities for significant proportions of the year.⁹⁴
- 2.117 The estimated resident population is used to decide electoral distribution for local, state and federal elections as well as being used to measure funding for essential services such as health, public housing, education and infrastructure.
- 2.118 Funding allocations that are based on the estimated residential population, which does not take into full account the number of people working in a town and utilising its services, will result in underfunded services for both the residents of resource communities and the visiting FIFO workers.

Working population

- 2.119 In addition to resident population, the census gathers information about the working population of a region. The working population is determined by the workplace address for the main job held in the week prior to the census night.⁹⁵
- 2.120 Working population data, when analysed in conjunction with resident population, can be used to estimate the number of people who work in a resource community, but who do not live there.
- 2.121 However, as with residential population data, the accuracy of this data is reliant on the location that FIFO workers choose to list as their workplace address. Contractors and workers, who travel from site to site, may choose to list the contracting company's headquarters. Similarly, FIFO workers, even those based at a single mine site, may choose to list their employer's head office address instead of the address of the mine itself.⁹⁶

Service population

- 2.122 Official population estimates prepared by the ABS distinguish between a region's resident population and service population. Many Australian communities host large non-residential populations, such as tourist destinations, agricultural areas at harvest time, and resource regions. The

94 ABS, *Submission 223*, p. 2.

95 ABS, *Submission 223*, p. 3.

96 ABS, *Submission 223*, pp. 3-4.

service population takes both the residential and non-residential populations into account.

- 2.123 The service population is the number of people who use services (that is, water, roads, medical services, garbage collection, etc.) in a region. FIFO workers, therefore, would be considered part of a resource community's service population, even if they are not counted as part of the residential population.⁹⁷
- 2.124 The Pilbara Regional Council highlighted the importance of this data by, outlining the strain placed on services accessed by both residential and FIFO populations:
- Community services such as GPs, emergency rooms, ambulances, hospitals, pharmacies, nursing services, dentists and police confront significantly increased levels of demand as FIFO workers are as likely to use their services as local residents.⁹⁸
- 2.125 However, the service population, especially in areas such as resource regions, can be difficult to accurately estimate. The ABS has investigated a number of ways to provide better estimates of service populations, including: testing new census questions, using supermarket sales data and extrapolations based on the number of community resources such as ATMs.⁹⁹
- 2.126 In 1999, the ABS conducted a pilot study to assess the feasibility of producing service population estimates for selected local government areas, which incorporated a case study of FIFO workers in the Shire of Wiluna, Western Australia. The case study found that:
- The fairly low propensity of fly-in/fly-out workers to report the LGA in which they work as their usual residence means that Census counts based on place of enumeration [where the form was completed], rather than place of usual residence, are probably a better basis on which to estimate the total service population of the LGA.¹⁰⁰
- 2.127 The case study also suggested the use of other sources of information on FIFO presence, such as accident reporting data, to establish accurate estimates of service population in resource regions. The ABS stated that:

97 ABS, *Submission 223*, p. 4.

98 Pilbara Regional Council, *Submission 43.1*, p. 8. For other examples see: NDCAS, *Submission 206*, pp. 3-4; RSDC, *Submission 78*, p.5; Isaac Regional Council, *Submission 81*, p. 8; Shire of Ashburton, *Submission 60*, p. 5; and Queensland Government, *Submission 109*, p. 10.

99 ABS, *Submission 223*, pp. 4-5.

100 ABS, *Demography Working Paper 99/3: Service Population Pilot Study: An Investigation to Assess the Feasibility of Producing Service Population Estimates for Selected LGAs*, ABS, Canberra, 1999, p. 27.

Viable methods of estimating the fly-in fly-out mining workforce have been produced using a variety of ABS data, such as building approvals, tourist accommodation and labour force estimates and other administrative data with the census.¹⁰¹

- 2.128 However, despite the efforts of the ABS, accurate data regarding the use of FIFO workforce arrangements, as well as data regarding the presence of FIFO workers in regional communities is not widely available, and where available, is not well communicated.
- 2.129 This lack of data impacts on the ability of all levels of government to plan and fund services in regional communities.

Challenges in data collection

- 2.130 The ABS acknowledged the importance of accurate population data:

Regions need information about resident and service populations to plan for the opportunities and demands of industries using FIFO practices, and to monitor the impacts of these practices on communities and workers in the region. Without adequate data, regions will be unable to anticipate demand for infrastructure and amenities (such as housing, health and emergency services).¹⁰²

- 2.131 The ABS identified three key challenges in regards to measuring FIFO populations:

- the complexity of measuring different population groups;
- the breadth of subjects about which information is required; and
- the geographic concentration of communities affected by FIFO work practices.¹⁰³

- 2.132 Patrick Corr, Director of Demography at the ABS also noted the inherent difficulty in recording FIFO worker numbers:

The challenge we have had is that very few people who are in a fly-in fly-out place leave a breadcrumb behind of their address. They do not change their Medicare address; they do not update their driver's license; and they do not change their electoral enrolment, so you do not see them on your electoral roll. So there is no place – other than going back and recounting people every time – where there is a record.¹⁰⁴

101 ABS, *Submission 223*, p. 4.

102 ABS, *Supplementary Submission 223.1*, p. 1.

103 ABS, *Supplementary Submission 223.1*, p. 1.

104 Patrick Corr, Director Demography, ABS, *Transcript of Evidence*, Canberra, 15 August 2012, p. 11.

- 2.133 The ABS noted that, due to the complexities involved in measuring transient service populations in resource regions, they are not able to produce comprehensive service population estimates for resource regions with their current resources.¹⁰⁵

Australian Bureau of Statistics proposed scope of data development

- 2.134 The ABS identified four crucial statistical developments that are needed to enable the accurate collection of FIFO-related data:

1. Expand the concept of residence to include 'second residence' and improve the quality of resident population counts.
2. Develop service population estimates for host regions (counts of FIFO workers and other service populations in the regions).
3. Improve estimates of internal migration (resident population flows between regions).
4. Estimated projections of resident and service population for regions.¹⁰⁶

- 2.135 The ABS asserted that there is significant, but unexploited, potential in data collections which provide data at a regional level. If appropriately resourced, regional data experts could work together with government and other analysts to support robust regional analysis. The ABS stated that it:

could provide additional analysis on the social, economic, and demographic characteristic of regions impacted by FIFO and, in turn, guidance for other data users to more effectively report on the outcomes of FIFO work at both the personal and community level. For example, the ABS is able to produce small area data for educational qualifications and rates of volunteering, to list some of the potential indicators of community wellbeing.¹⁰⁷

- 2.136 ABS stated that providing the necessary measurement and analysis required to develop and publish accurate population data in FIFO communities is beyond the capacity of their current work program. However, the ABS expressed its confidence that:

With appropriate resources, the ABS, with its data collection infrastructure and ability to integrate new data and methods with existing economic and social datasets, is well positioned to meet this need.¹⁰⁸

105 ABS, *Submission 223*, pp. 4-5.

106 ABS, *Supplementary Submission 223.1*, p. 3.

107 ABS, *Supplementary Submission 223.1*, p. 5.

108 ABS, *Supplementary Submission 223.1*, p. 5.

Committee comment

- 2.137 There are significant difficulties associated with collecting data in remote and regional communities, as well as challenges to capturing accurate and up-to-date information on FIFO workers. However, this information is essential to addressing any impacts that FIFO is having on regional and remote communities.
- 2.138 The lack of publicly available, accurate, nationally consistent information on a FIFO workforce, both across the resource sector and in individual communities and towns, is unacceptable and must be remedied. Governments at all levels and industry must share responsibility for the failure to grasp the scope of the use of FIFO and its impact on communities.
- 2.139 The Committee acknowledges that, during the conduct of this inquiry, the Minerals Council of Australia commissioned a study on the changing demographic profile of resource communities and commends it for finally meeting the sector's responsibility in this regard. Unfortunately this data was not available to the Committee in time for an adequate analysis to be utilised in this report.
- 2.140 The states are responsible for mine approvals and therefore should have a reasonably accurate picture of the intended use of FIFO workforce practices. However, given the movement of people across the country, both resource and feeder communities need an accurate picture of population movements in order to plan essential services, there is a need to collect this data at a national level.
- 2.141 The Committee considers that the ABS, in consultation with the states, is best suited to collect, collate and publish information regarding FIFO workforce.

- 2.142 In addition, the allocation of funding for services and infrastructure should also take into consideration both the resident and service populations of a region so as to ensure that resource communities are allocated sufficient funding to service both local residents and FIFO workers.

Recommendation 1

The Committee recommends that the Commonwealth Government fund the Australian Bureau of Statistics to establish a cross-jurisdictional working group to develop and implement a method for the accurate measurement of:

- **the extent of fly-in, fly-out/drive-in, drive-out workforce practices in the resource sector; and**
- **service populations of resource communities.**

Recommendation 2

The Committee recommends that the Commonwealth Government, in consultation with state and territory governments, review allocation of funding for communities that receive fly-in, fly-out/drive-in, drive-out workforces so that funding is based on both resident and service populations.